

Setting the right course now for the Decade of Action ahead

I. Decade of Action

2030 Agenda

The 2030 Agenda for Sustainable Development was formally adopted by the heads of state and government of the 193 member states of the United Nations in New York on 25 September 2015. With its **17 Sustainable Development Goals (SDGs)**, the 2030 Agenda provides the basis for the German Government's sustainable development policy. In September 2019, the heads of state and government attending the SDG Summit in New York determined that the SDGs would not be achieved by 2030 if the current trends continue. Climate change, species loss and rising resource consumption are pushing up against the Earth's boundaries, and there is an equally urgent need to resolve questions of intergenerational and interregional equity.

This prompted the United Nations to call at the SDG Summit for the **coming decade** to be the **Decade of Action** or, strictly speaking the "Decade of Action and Delivery for Sustainable Development".

The only chance of still achieving the SDGs lies in a concerted effort by the international community and each individual state to move much more quickly and ambitiously in implementing the 2030 Agenda.

The task is clear: we must set the right course now for the Decade of Action ahead.

COVID-19

Even more so than the financial crisis of 2008, the COVID-19 pandemic has demonstrated just how vulnerable every aspect of our societies are to shock. This is true regardless of level of development.

In just a short time, the coronavirus has impacted hugely on the lives of people not just in Germany, but around the world. Fighting it has forced us to accept restrictions to public life, business and personal freedoms that were previously unthinkable.

Political action in response to the COVID-19 crisis must be aligned with the 2030 Agenda and its SDGs at the national, European and international levels, and guided at all times by the Agenda's maxim of "leave no one behind".

The updated German Sustainable Development Strategy (GSDS) therefore also contains the measures that the German Government has instituted in response to the pandemic, that at the same time provide a stronger framework for a sustainable future in Germany, Europe and worldwide.

II. Setting course for sustainability – at all levels

1. International level

It is now more than five years since the 2030 Agenda was adopted, at the end of the first cycle of the United Nations High-level Political Forum on Sustainable Development (HLPF). Bearing this and the findings of the first Global Sustainable Development Report (GSDR) in mind, current progress is worrying. Quite apart from the COVID-19 pandemic and its implications, the global challenges facing our economic, social and ecosystems are more present than they have ever been. **Action to date falls far short of what is needed to be on course for sustainable development.**

The German Government is committed to multilateral action and to multilateral approaches to implement the 2030 Agenda in its entirety alongside international partners. This covers the different areas of the 2030 Agenda, binding agreements under international law, and other forms of international cooperation, in addition to efforts to reinforce international organisations, strategic alliances, and topic-based partnerships.

High-level Political Forum (HLPF)

Since 2016, the High-level Political Forum on Sustainable Development has served as the central forum for exchange and debate on global progress with the implementation of the 2030 Agenda. Its work centres on the Voluntary National Reviews (VNR) published by each state on their action to implement the 2030 Agenda.

Germany campaigns for transparent reporting on the implementation of the 2030 Agenda and its 17 SDGs. In July 2016, it was one of the first countries to report as part of a VNR on the development of its Sustainable Development Strategy. It has notified the UN of its intention to submit a second VNR to the HLPF in July 2021. The report will build on the present update to the Sustainable Development Strategy, and present Germany's national efforts and plans towards implementation.

A foreign policy task

German foreign policy plays a significant role in implementing the 2030 Agenda and in promoting sustainability at the international level.

In line with the doctrine of "preventing crises, resolving conflicts, building peace", the principle that peace, security and development are mutually dependent is at the heart of German foreign policy. With this in mind, it believes in lasting solutions to conflict that involve all of the parties concerned, and addresses global aspects of sustainability through bilateral initiatives and projects on peace and stability, inequality, and climate and water diplomacy, to give just a few examples. It is also important that individual contributions to implementing the SDGs are rooted in respect for human rights – in other words that they are integrated with existing fundamental human rights obligations. Achieving human rights for all is, after all, a key element of sustainable development globally.

International organisations and multilateralism as an overall approach (cf. the Alliance for Multilateralism), as well as close exchange with partners in a shared community of values and interests, play an important part in global progress towards sustainability. German foreign policy has advanced sustainability at the multilateral level, and its membership of the UN Security Council in 2019/2020 was a further extension of this. In its work on climate change and security, for example, Germany addressed the risk to human and state security posed by climate change, and also put forward a resolution on sexual violence in conflict (Resolution 2467). Advocacy for human rights and for greater participation by women are also elements of an overarching understanding of security. Young people are also to be involved more closely in crisis prevention and peace processes in the future. Resolution 2535, adopted under the German presidency of the Security Council, underscored the Youth, Peace and Security Agenda and emphasised the role of young peace activists.

A development cooperation task

The 2030 Agenda with its 17 SDGs, as well as the foremost principles of People, Planet, Prosperity, Peace and Partnership – the 5 Ps – form the **common thread for the German Government's development cooperation work**.

As the world's second-largest public donor to development cooperation, Germany is fundamental to the achievement of the SDGs in its partner countries. In 2019, development support from German public-sector institutions totalled EUR 21.6 billion, corresponding to 0.61 % of the country's gross national income.

However, the COVID-19 is jeopardising the progress that has been made in many areas towards the SDGs. In 2021, the German Government will therefore be providing partner countries with a wide range of targeted assistance to overcome the effects of the virus. The aim of the various

programmes is to facilitate an economic recovery that is geared to sustainability (“Recover Better”).

Action against the COVID-19 pandemic

Alongside other international partners, Germany plays a significant part at the multilateral level in the global platform for the development and global distribution of vaccines, therapeutics and tests for COVID-19, known as the ACT Accelerator. The initiative has its origins in a commitment made by the G20 on 26 March 2020. Within this framework, there will be strategic increases to Germany's contributions to organisations such as the WHO, as well as to multilateral instruments such as Gavi, The Vaccine Alliance, and the Global Fund to fight AIDS, Tuberculosis and Malaria.

The Federal Ministry for Economic Cooperation and Development set up an Emergency COVID-19 Support Programme as early as April 2020, and reallocated more than EUR 1 billion from the current budget for an immediate crisis response. The second amendment to the 2020 federal budget then released an additional EUR 1.55 billion to the Ministry. The funds are being used to support partner countries with testing, training, water and sanitation programmes, and supplies. Furthermore, the German Government aids partner countries with high levels of poverty with social security and cash transfer programmes, to mitigate the economic impact of the pandemic.

The Federal Foreign Office responded to the UN Secretary-General's Global Humanitarian Response Plan by approving a further EUR 450 million in funding.

In addition, via the Federal Ministry for the Environment's International Climate Initiative (ICI), in July 2020 the German Government announced a COVID-19 response package worth an initial total of EUR 68 million. It is intended to help partner countries cushion the direct impacts of the pandemic and also link the restarting of the economy and social stabilisation with action on climate and biodiversity. Assistance includes first aid for nature conservation areas and biodiversity hotspots, as well as economic advisors in many ICI partner countries.

2. European level

European cooperation is more crucial than ever in the age of a fundamental shift in the global paradigm, brought about by developments such as climate change, the digital transformation, geopolitical instability, and now the COVID-19 pandemic. By consistently implementing the 2030 Agenda, the EU can make an important contribution

to the successful long-term management of global challenges. Europe should be regarded internationally as an advocate of an order of justice, of innovation and of sustainability (Federal Chancellor Merkel in a speech to the European Parliament on 8 July 2020 in Brussels).

The European Commission made sustainable development a clear priority at the start of the new 2019–2024 legislative term. It announced that it would place the 2030 Agenda at the heart of EU policy and would make it a measure of its actions both internally and externally.

European Green Deal

With its European Green Deal proposal, the Commission also put forward a **new European model of the future** in which, by 2050, Europe is to become a climate-neutral, resource-conserving continent with a fair and prosperous society as well as a modern, resource-efficient and competitive economy. The social acceptability of change – achieved via the Just Transition Mechanism – will be a further determining factor.

Implementation of the 2030 Agenda

Sustainable development is already laid down as an objective in the **Treaty on European Union**. The EU must therefore determine what the 2030 Agenda actually means at the policy level. In November 2020, the European Commission presented its plan to oversee and achieve the SDGs: “Delivering on the UN's Sustainable Development Goals – A comprehensive approach”.

Germany structured its **presidency of the Council of the European Union** along sustainable lines, and used it to advance as far as possible dossiers that make a difference to sustainable development. In connection with the European Green Deal in particular, these included the Climate Law (Klimagesetz), the Biodiversity and Forests Strategy, the Circular Economy Action Plan, the Chemicals Strategy for Sustainability, and in the food sector the Farm-to-Fork Strategy, as well as initiatives concerning the digital transformation and sustainability. Spending under the multiannual financial framework and the Next Generation EU recovery plan should contribute at least 30% of the total amount allocated to achieving the EU's climate targets.

The German Government is working closely with the administrations of other European states on sustainable development. It is a member of the **European Sustainable Development Network ESDN**.

3. National level

In Germany as in other countries, existing pressure to achieve the global Sustainable Development Goals by 2030 has been

overlaid by the extensive effects of the COVID-19 pandemic and thus increased in many areas.

The declared aim of the German Government is not only to respond to the pandemic, but also swiftly to lead Germany onto a sustainable growth path. This should then trigger a push for modernisation through innovation, so that the country can emerge strengthened from the crisis.

Economic Stimulus and Future Technologies Package

Adopted on 12 June 2020, the German Government's **Economic Stimulus Package** provides EUR 130 billion in financing for 2020 and 2021. It comprises an Economic Stimulus and Crisis Management Package, a Future Technologies Package, and measures geared to the fulfilment of international responsibilities.

Fast-acting economic measures were taken as quickly as possible to ensure the survival of businesses and social services, preserve jobs and prevent social hardship and crisis situations.

The measures contained in the **Future Technologies Package** have a long time horizon. With EUR 50 billion in funding, this package is intended to support Germany's modernisation and its role as a global exporter of leading technologies, in particular by investing in the digital future and in climate technologies.

Measures under the Future Technologies Package

The measures of the Future Technologies Package fall into the following categories: (1) promoting the mobility transition, (2) the energy transition and climate targets, (3) investments in the digital transformation, promotion of education/training and research, and more resilient healthcare/avoiding pandemics.

Other important elements such as the National Hydrogen Strategy, the Hospital Future Programme and the EU's SURE short-time work scheme got off the ground in 2020. By encouraging German vaccine research, the German Government is supporting the development of safe and effective inoculations.

Work is still ongoing on a raft of measures such as the expansion of the charging station infrastructure, promoting R&D in e-mobility and battery cell manufacture, an additional capital injection from the German Government for Deutsche Bahn AG, and investment to support digitalisation.

III. The German Sustainable Development Strategy

1. Sustainability as a guiding principle

For the German Government, following the guiding principle of sustainable development means working towards its policies **meeting the needs of today's and future generations** – in Germany and in all parts of the world – and allowing them fulfilled lives of dignity. This requires **economically efficient, socially equitable and environmentally sustainable development**, its **absolute outer boundaries** set by the **limits of our planet**, combined with the objective of a **life of dignity for all** (meaning a life without poverty and hunger, and a life in which all people can fulfil their potential in dignity and equality).

The 17 Global Sustainable Development Goals (SDGs)

The German Sustainable Development Strategy (GSDS) is **founded on the 2030 Agenda**. Building on the concept of the three dimensions of sustainability – economic, social and environmental – established at the UN Earth Summit in Rio de Janeiro in 1992, since 2015 the 2030 Agenda has defined a total of 17 Sustainable Development Goals (SDGs). These goals concern such different issues as combating poverty and hunger, decent work and economic growth, and climate action. The 17 goals with their 169 associated targets illustrate the breadth of what is understood under "sustainable development".

The GSDS sustainability principles

In 2018, the German Government determined **six Principles for Sustainable Development** as a practicable guide to making sustainable development the touchstone for its actions. The Ministries must observe these principles when formulating measures in the various areas of policy. They describe how sustainable policy looks and what it contains, and are used by the Ministries for a number of purposes including sustainability-related regulatory impact assessments.

The GSDS sustainability principles

- (1) Apply sustainable development as a guiding principle at all times and in all decisions
- (2) Assume global responsibility
- (3) Strengthen the natural resource base on which life depends
- (4) Strengthen sustainable economic activity

- (5) *Preserve and enhance social cohesion in an open society*
- (6) *Use education, science and innovation as drivers of sustainable development*

(See below in the overview of the sustainability management system)

Vision

The German Government pursues a positive, comprehensive vision of Germany's sustainable future.

Vision

A "sustainable" Germany must be a progressive, innovative, open and liveable country. It is characterised by a high quality of life and effective environmental protection. It is integrated, inclusive and excludes no one, creates opportunities for the equal participation of everyone in all areas and at all levels. It fulfils its international responsibility.

(German Sustainable Development Strategy, new edition 2016)

2. Origin and evolution of the Strategy

Germany has had a national Sustainable Development Strategy **since 2002**, when it was presented at the United Nations World Summit on Sustainable Development in Johannesburg. Since 2004 the Strategy has been updated every four years, with progress reports from the German Government published in 2004, 2008 and 2012.

Since 2015 the German Government's sustainability policy has been **founded upon the 2030 Agenda with its 17 SDGs**. The German Government therefore overhauled the GSDS in the light of the 2030 Agenda, adopting a new version on 11 January 2017. This was then itself updated.

3. Update – the 2021 Sustainable Development Strategy

In this 2021 update to the GSDS, the German Government sets out what action has been taken since the beginning of the 19th legislative term to **implement the Strategy**, and what further measures are planned.

The update provides the basis for the reinforcement of sustainability policy that is required for the Decade of Action (2020–2030) called for by the UN Secretary-General. The updated Strategy emphasises the need to set high ambitions

when tackling key **areas of transformation**, in particular. This also includes **more coherent political action**. At the same time, special attention will be paid to the central role of social stakeholders from the worlds of politics, science, business, trades unions and civic associations, in the sense of a **Joint effort for Sustainability**.

4. Process of dialogue

Preparations for the Strategy update took the form of a broad-based dialogue process involving mainly the interested professional public, but also the general population.

A **series of dialogue events** began as early as 29 October 2019 in Berlin, followed by regional conferences that took place up to February 2020 in Stuttgart, Norderstedt and Bonn and attracted some 1,400 people. In the first phase, around 400 verbal and written contributions were received both during and after these events. The draft Strategy update was published on 1 October 2020. On 15 October 2020, the German Government held a hearing with a broad range of stakeholders – the 2020 Sustainability Forum.

By the end of October 2020, approximately 360 institutions, associations, organisations and individuals had submitted responses to the draft, some of which were very comprehensive and made well-founded points. The draft GSDS update was then revised on the basis of these inputs.

*Responses that were cleared for publication appeared on the www.dialog-nachhaltigkeit.de website. The German Government does not regard the German Sustainable Development Strategy as a finished product that will not be amended in the foreseeable future, but rather as a **work in progress**. In that sense, the GSDS is a living document that the Government will continually review, update, and adjust in line with changing conditions*

Sustainable development is not just a government matter, however. In addition to **action at all political levels**, implementing the 2030 Agenda demands commitment on the part of social **stakeholders** and the public alike.

5. Content of the Strategy

a) Indicators and targets

As a management framework, the Strategy now contains **75 indicators, and targets in 39 areas**. Together, they show where we stand on sustainable development, and provide the basis for future action within the bounds of the Strategy.

The indicators were brought into line with the 17 SDGs and given a more international outlook when the 2017 edition of the Sustainable Development Strategy was published. They represent issues of particular relevance to Germany when implementing the 2030 Agenda. For every SDG, at least one indicator-backed political target is listed which identifies relevant need for action in the area in question, although it does not aim to describe that action in detail.

The indicators set out in the Strategy should therefore be regarded as key indicators. They denote a particularly important topic or outstanding activity connected with an SDG. Some of them also serve as gateways to more comprehensive indicator systems and statistics that already exist. Examples here include the GSDS indicators for poverty and inequality, biodiversity, and crime statistics.

As an independent body, every two years the **Federal Statistical Office** reports extensively on the trend in national sustainability indicators in its indicator report. This remit derives from the Sustainable Development Strategy. The degree to which targets are likely to be achieved is scored using weather symbols.

The current update includes a **series of new indicators**.

New GSDS indicators

The following indicators are included in the Strategy for the first time: global pandemic prevention – indicator 3.3, women in management positions in the federal civil service – indicator 5.1. c, proportion of fathers receiving parental allowance – indicator 5.1.d, rollout of broadband – indicator 9.1. b, cultural heritage/ improving access to cultural heritage – indicator 11.4, soil protection world-wide – indicator 15.3.b. By strengthening the global dimension of the GSDS indicators, the German Government has responded to the German Government has responded to input received during the dialogue process.

Compared with 2018, there has been a series of changes to the **off-track indicators**, i.e. those for which it is unlikely that the corresponding targets will be achieved.

Significant improvements have been made with indicators 7.2. a (share of renewable energies in gross final energy consumption), 8.2.c (debt) and 11.1.c (density of settlements). By contrast, the performance of indicators 12.1.bc (global environmental impact from by private household consumption) and 11.2.a (final energy consumption in goods transport) has deteriorated, and they are now described as “off track”. The scores of six of the off-track indicators has changed, with three better, and three worse.

b) Areas of Transformation

Participants in the dialogue process advocated the greater inclusion in the German Sustainable Development Strategy of Areas of Transformation. These areas are linked to a number of the 2030 Agenda goals, and emphasise how change in one affects the others. Having studied these recommendations, the German Government believe progress in the following areas to be particularly relevant to the implementation of the 2030 Agenda.

- (1) The human well-being and capabilities; social justice areas of transformation links SDGs 1, 3, 4, 5, 8, 9 and 10.

To facilitate human well-being around the world, human rights must be upheld, work paid appropriately, social security created, gender-specific inequalities combated and social structures that prevent marginalised sections of society and minorities living a self-determined life changed. The objective is for global value chains to respect these aspects from start to finish.

We did not need the COVID-19 pandemic to demonstrate how good health and well-being are crucial to survival. Interdisciplinary perspectives that place human health in the broader context of animal and environmental health are becoming increasingly important. That is why the German Government promotes the One Health approach, protecting the health of farm and wild animals, as well as biodiversity and natural habitats, as part of its development cooperation work.

Here, education, science and research form the basis of a self-determined, responsible life, and pave the way for the achievement of all SDGs.

- (2) The energy transition and climate action area of transformation (SDGs 7 and 13) demands an integrated approach based on climate action.

The adoption of the 2030 Climate Action Programme and the Federal Climate Change Act (Bundes-Klimaschutzgesetz) provided important waymarkers for the implementation of the Climate Action Plan 2050 and

the binding European climate targets for 2030. Sustainable transformation requires energy consumption to be halved by 2050. Greenhouse gas emissions and economic growth must be decoupled. As a contribution to the goal of greenhouse gas neutrality by 2050, energy must increasingly be produced from renewable sources. This can also create new value generation potential for Germany as a location for business and industry.

- (3) A further area of transformation, the circular economy (SDGs 8, 9 and 12) responds to the need to decouple growth from resource consumption. Consumption and production must remain within the boundaries of our planet.

This involves both consumption by the individual, and reworking the models of value creation that underlie our output. Resource efficiency, the circular economy and sustainable supply chains are equally as essential as preventing waste where possible, and its responsible disposal where not. In their management role, politicians and lawmakers must incentivise the sustainable use of resources.

- (4) Construction and buildings, as well as the transport sector, are addressed as part of the sustainable building and the transformation of transportation area of transformation. It links with SDGs 7, 8, 9, 11, 12 and 13.

Here, too, there are synergies with other sustainability factors. Given its upstream and downstream processes, the construction and buildings sector is closely interwoven with other areas of transformation.

Sustainable construction requirements cover energy efficiency and climate neutrality, biodiversity safeguards, resource conservation and the use of renewable raw materials, a reduction in land area used, the sustainable procurement of products and services, including respect for human rights in supply chains, and measures to ensure the health and comfort of users.

All of these requirements demand an approach involving different ministries and sectors. Taking all of the aspects into account, buildings are responsible for around 40 % of greenhouse gas emissions. The German Government will therefore put even more effort into promoting sustainable, climate-neutral construction, and in 2021 will draw up an interministerial action plan. The transformation of transportation can succeed only if mobility is recognised as an essential element of life in society that must continue to be accessible to all. At the same time, mobility must be increasingly responsive to environment and climate-related concerns. To guide this process towards sustainability, in September 2018 the German Government launched the National Platform

Future of Mobility (NPM). Since the beginning of 2021, further powerful leverage has come from the introduction of carbon pricing in the transport sector. There must be a particular effort to bring factors such as technological innovations and developments in alternative drive technologies and fuels to market quickly, to take account of changing mobility needs and the role of the transport section in climate action.

- (5) An holistic perspective is required to achieve progress in the sustainable agricultural and food systems transformation area, which ties into SDGs 2, 3, 12 and 15). "Food systems" describes the complex interrelationships and interdependencies between the way in which agricultural commodities are produced, processed and transported, and how foodstuffs are consumed and handled. The German Government supports the integrated approach that is also followed by the UN Food and Agriculture Organization (FAO), and is working to enhance food systems in Germany and the EU to reflect the SDGs more closely.

In practice, this means jointly formulating national, European and international agricultural, food, health, and environment and climate policy, and designing strategies and measures in the same way. The aim here is to ensure a sufficient supply of a variety of safe, affordable foodstuffs, as well as a healthy diet for everyone, worldwide. At the same time, action on the environment and climate must be guaranteed, the welfare of farm animals improved, producers' rights respected and their working and living conditions upgraded, and rural areas preserved as attractive places to live and work.

- (6) A pollutant-free environment provides the basis for health and well-being, including both physical and mental health. In addition to all of the environment-related SDGs (6, 13, 14, and 15), this area of transformation also affects some of the social goals (SDGs 3 and 11), and impacts indirectly on the economic ones, especially SDG 8.

The German Government regards the Assessment System for Sustainable Building (BNB), as well as environmental law in its interplay with requirements under chemicals law, water and emissions protections and legislation on waste as the main jumping-off points from which to achieve a pollutant-free environment. Consumer awareness about the implications of their decisions should also be raised by a targeted information campaign.

The German Government has identified the primary transformative measures for these areas that will be used to achieve measurable progress.

c) Systematically connecting SDGs, measures, indicators and targets

The German Sustainable Development Strategy is the principal **framework for the implementation of the 2030 Agenda in, by and with Germany**.

Chapter C. of this full version, which is structured according to the 17 SDGs, contains a compact presentation of the political priorities in each case, as well as examples of action to implement that SDG.

Measures in, by and with Germany

The measures that are presented here are divided into three levels:

- The first level concerns measures with effects **in Germany**;
- The second level concerns measures implemented **by Germany** with global effects, in particular activities for the benefit of public goods around the world, i.e. global well-being, and
- The third level concerns specific support for other countries, in other words measures taken jointly **with Germany**, in particular in the context of bilateral international cooperation.

This structure is based on the logic that, to achieve the goals of the 2030 Agenda, the German Government must play its part both nationally and internationally. This affects the ministries and the full spectrum of their actions, including their strategies, programmes, projects, related legislation, promotion efforts, etc.

Indicators and targets

For each measure described, there follows an outline of the indicators specified as part of the Sustainable Development Strategy, with their targets (see above). Each indicator is then followed by information on what the German Government is doing to achieve the targets set for that indicator. The guiding effect of the Strategy is thus clear.

In accordance with recommendations, particularly those arising from the international peer review of the 2018 GSDS, the German Government is focusing particular attention on measures relating to those indicators where achievement of the targets is not yet assured. These outlines reflect the way in which “off-track” indicators were treated at the meeting of the State Secretaries’ Committee on Sustainable Development in December 2019.

The 75 individual **Strategy targets form an entity**. Although they are presented individually in the Sustainable Development Strategy, they are interrelated and interdependent in

multiple respects. Progression in the six areas of transformation is therefore hugely relevant to their achievement. Improvements affect several SDGs or indicators in the German Strategy at once, and they also have the potential to resolve conflicting objectives that have hitherto hampered progress.

4. Institutions and responsibilities

a) Role of the Federal Chancellery and of the ministries

Sustainability encompasses all areas of policy.

In view of its overarching, cross-cutting nature and particular significance, responsibility for the German Sustainable Development Strategy lies with the **Federal Chancellery**. In Germany, sustainable development goes right to the top.

At the practical level, this does not change the responsibility of the **ministries** for implementing the Sustainable Development Strategy and the 2030 Agenda in their respective policy fields. Irrespective of where lead roles and responsibilities are actually allocated, all ministries have a shared responsibility for achieving the GSDS’s targets.

b) State Secretaries’ Committee on Sustainable Development

The State Secretaries’ Committee on Sustainable Development (StA NHK) is chaired by the Head of the Federal Chancellery and serves as **central coordinator** for the Sustainable Development Strategy.

The Committee continually updates the content of the national Sustainable Development Strategy, ensuring that it is incorporated as a common theme into all areas of policy. Its meetings are attended at permanent state secretary level by representatives of all ministries.

Depending on the topic, **external experts** may also be invited to attend. The chairs of the Council for Sustainable Development and the Parliamentary Advisory Council are also present.

The meetings of the State Secretaries’ Committee on Sustainable Development are prepared by a working group led by the Federal Chancellery. This group is also responsible for supporting the implementation of the German Sustainable Development Strategy, and for its continuing evolution. Additionally, in each legislative term each ministry reports on progress on putting the Strategy into effect.

c) Council for Sustainable Development

The Council for Sustainable Development has advised the German Government on all sustainability matters since 2001, and continues to draft submissions for the ongoing development of the Sustainable Development Strategy. The Council publishes statements on relevant sustainability-related issues, and helps to create public awareness and social dialogue surrounding sustainability. The professional and personal backgrounds of its **15 members**, last appointed on 1 January 2020 for a term of three years, reflect the three dimensions of sustainability. The Council is professionally independent.

Its many activities include Regional Networks of Sustainability Strategies (**RENN**), its own German Sustainability Code (**DNK**), which currently has more than 600 participating companies, and the organisation of German participation in the European Sustainable Development Week (**ESDW**), plus at present the conceptual framework and implementation of the Joint Effort for Sustainability (see below).

d) Parliamentary Advisory Council on Sustainable Development

The Parliamentary Advisory Council on Sustainable Development has provided support for the national and European Sustainable Development Strategy since **2004**.

In 2009, it began conducting assessments of the impact of legislation on sustainability. Its statements are used by the relevant lead committees in their own reviews.

The Council's first **plenary sustainability week** was held in September 2020.

e) Ministry Coordinators

To ensure that the ministries within the German Government coordinate between themselves and act together, since the first half of 2017 each has appointed a Ministry Coordinator for Sustainable Development.

They are the **central points of contact** for questions concerning sustainable development. They are involved across the various departmental entities in the incorporation of the Sustainable Development Strategy and the 2030 Agenda in departmental policy, for example by factoring aspects of sustainability into legislative and regulatory procedures.

5. Instruments, procedures and levers

The German Government uses a series of strategic instruments and procedures to speed up the implementation of the 2030 Agenda. Achieving the SDGs not only demands ac-

tion at policy level, but also operating conditions that make sustainable development possible in the first place.

a) Sustainable development regulatory impact assessment

§ 44 (1) sentence 4 of the Joint Rules of Procedures of the Federal Ministries (Gemeinsame Geschäftsordnung der Bundesministerien) requires a **sustainability impact assessment** to be conducted for every draft law or ordinance before it goes to the vote. The targets and indicators of the Sustainable Development Strategy, the Principles for Sustainable Development, and other references to the individual SDGs provide the frame of reference for this assessment.

A computer-assisted tool – the **electronic sustainability impact assessment, eNAP** – was developed to improve the quality of regulatory impact assessments, while making them easier to perform. Users are guided systematically through the principal content of the GSDS that is relevant to the assessment. eNAP was launched on 1 March 2018 and is now used by the ministries as standard procedure for their sustainability impact assessments.

b) Communications

Communications on the implementation of the German Sustainable Development Strategy are one of the **primary elements of German sustainability policy**. They are of great importance in the public relations work of the Press and Information Office of the Federal Government and the individual ministries.

c) Funding as leverage

The German Government has defined five levers for the implementation of the 2030 Agenda: governance, social mobilisation and participation, funding, research, and international responsibility and cooperation.

Public finances can exert considerable leverage towards the achievement of the Sustainable Development Goals, and towards progress in areas of transformation. This is true not only of the federal budget itself, but also of the subsidies and financial investments that come from it, and the **sustainable procurement** of products and services.

Based on the guidelines on subsidy policy, **subsidies** must undergo both a sustainability impact assessment and regular evaluations that are aligned with the targets of the German Sustainable Development Strategy and focused on long-term economic, environmental and social effects.

In the interests of putting fiscal and budgetary policy leverage to even better effect to promote sustainable development, the German Government will conduct a pilot project to investigate what options exist for linking the SDGs and the targets and indicators of the GSDS with the **federal budget**.

By regularly **issuing green federal securities** (the first issue in H2 2020 had a total volume of EUR 11.5 billion), the German Government does much to grow the market for sustainable financial products.

d) Sustainable administration/continuing education

To ensure that its own administration acts sustainably, since 2010 the German Government has set specific targets under as the **Programme of Sustainability Measures**. Progress with the implementation of those measures is determined annually and published in a monitoring report.

The programme of measures of 30 March 2015 is geared to all agencies and institutions of the direct federal administration, and contains 11 areas for action: the federal government's function as a role model for sustainable construction, climate action as a contribution towards a climate-neutral federal administration, the use of renewable energies in the heating of federal buildings, energy-efficient modernisation plan for federal properties, energy/environmental management systems, public procurement, sustainability criteria for cafeteria services, reduction and offsetting of CO₂ emissions caused by transport, event organisation, compatibility of work with family life/care, including equal participation in management positions, and cultural diversification within the administration.

An update to the programme of measures is planned by the summer of 2021.

The year 2030 was set as the target year for a climate-neutral federal government in the autumn of 2019, with the Government's 2030 Climate Action Programme and the Federal Climate Change Act. To support the various aspects of this work, further to a decision by the State Secretaries' Committee on Sustainable Development the Federal Ministry for the Environment set up a **Climate-Neutral Federal Government Coordination Unit (KKB)**. The Federal Ministry for Economic Cooperation and Development and the Environment Ministry have already set their administration on a climate-neutral path, in 2019 and 2020 respectively. They both adopt the hierarchical principle of "first avoid – then, reduce – only then, offset".

A further aim of the programme of measures is steadily to improve the incorporation of aspects of sustainability in **public procurement award procedures**. The role of the **Centre of Excellence for Sustainable Procurement (KNB)**, which forms part of the Procurement Office of the Federal Ministry of the Interior, is particularly important here.

The sustainability training office has formed part of the **Federal Academy of Public Administration (BAköV)** since January 2020. It offers needs-based continuing education and support on sustainability for managers and staff of the German Government.

V. Joint effort for sustainability

The multi-stakeholder approach is an important principle behind the 2030 Agenda. Sustainable development requires all governmental and non-governmental actors to work together.

1. Involvement of social stakeholders in the work of the Strategy

In the new version of the GSDS, the German Government has created new formats for including social stakeholders:

a) Sustainability Forum

The annual Sustainability Forum is where the German Government consults with social stakeholders on progress with the implementation of the 2030 Agenda, as well as the continued development of the GSDS.

b) Dialogue Group

Since June 2018, a group consisting of **15 institutions and organisations**, known as the Dialogue Group, has helped to prepare the priority areas for the individual meetings of the State Secretaries' Committee on Sustainable Development. These institutions and organisations represent the fields of business, environment, society and development/international affairs. The ministry responsible for preparing each meeting topic also invites five other organisations/institutions with a particular connection to the topic to a Dialogue Group meeting in preparation for the State Secretaries' Meeting.

c) Scientific Platform for Sustainability 2030

The Scientific Platform for Sustainability 2030 (wpn 2030) was launched in 2017 as hub for science, society and policy. It provides scientific expertise to support the implementation of the German Sustainable Development Strategy and the 2030 Agenda.

2. Länder/local authority level

a) Länder

Within the federal structure of the Federal Republic of Germany, legislative and administrative authority over key aspects of sustainable development rests with the individual Länder. The Länder therefore play a decisive role in the implementation of the GSDS and the 2030 Agenda.

Meeting twice a year, the **Federation-Länder Exchange on Sustainable Development (BLE NE)** was established as a format for regular exchange on current sustainability-related issues at both federal and Land level. Meetings are prepared and led by the Land currently holding the chair of the Conference of Minister Presidents, together with the Federal Chancellery. In 2018, a set of common indicators for the Federal Government and the Länder was determined on the basis of the indicators in the Sustainable Development Strategy.

The political will to adopt a shared approach is also expressed in the declaration entitled "**Working together to promote sustainable development – assuming responsibility for a bright future in Germany, Europe and around the world**" that was made by the Federal Chancellor and the heads of government of the Länder on 6 June 2019. In the declaration, the Länder announced that they would align their political activities with the principles of sustainable development set out in the Sustainable Development Strategy, as a common compass. The Federal Government and the Länder have further stated that they regard sustainable development as a joint effort.

b) Local authorities

In a multi-level federal system, each level of government bears a joint responsibility for achieving the goals of the 2030 Agenda in and with Germany. The development and implementation of integrated **local government sustainability strategies** are an important instrument of which even greater use should be made in the future. To highlight the local authorities' contribution to the 2030 Agenda, municipal umbrella organisations cooperated with other stakeholders to develop SDG indicators for local authorities (www.sdg-portal.de).

3. Social stakeholders

In the latest update to the German Sustainable Development Strategy of 2016, the German Government has defined **strengthening cooperation with social stakeholders** as one of the update's areas of focus. The German Government will continue to involve civil society closely in the continued evolution of the GSDS, and in other sustainability-related processes. These include the production of the voluntary national review for submission to the United Nations in 2021, which is intended to incorporate input from civil society.

Scientific community

The social, environmental and economic challenges associated with the 2030 Agenda **cannot be overcome without science**. A free scientific community is one of the main drivers of innovation for a sustainable future in the sense of the 17 SDGs.

Germany has a powerful scientific system. For many years it has been doing sterling work both nationally and internationally to ensure preparedness for the future. Examples here include the German Government's Scientific Advisory Council on Global Environmental Change (WBGU), and the Intergovernmental Panel on Climate Change (IPCC). These and other activities involve identifying long-term trends and risks, as well as specific potential solutions for social and political processes.

With its innovative capacity, the German research community is helping to develop new solutions and products to achieve the SDGs in Germany and world-wide. Decisive here are participatory interdisciplinary and transdisciplinary approaches to research that encourage exchange between science and politics, and society and business. The Research for Sustainability (FONA) framework promoted by the Federal Ministry of Education and Research has a particular part to play here.

Business

Many of the SDGs are **directly linked to business**. This is particularly visible with SDGs 8 Decent Work and Economic Growth, 9 Industry, Innovation and Infrastructure, and 12 Responsible Consumption and Production. Economic growth also has an indirect effect on other areas of the 2030 Agenda, however. Without growth that is broad and inclusive, it will be impossible to make significant progress in the fight against poverty and hunger (SDGs 1 and 2), or "Good Health and Well-Being" (SDG 3).

There are various frameworks and activities that call for and support corporate social responsibility and duties of due diligence. At the international level, these include the UN Guiding Principles on Business and Human Rights, and the UN Global Compact. The central reference framework at the national level is the National Action Plan on Business and Human Rights. Alongside them stand a whole raft of business initiatives such as ecosense and Chemie hoch drei, as well as multi-stakeholder programmes such as the fora for sustainable cocoa and sustainable palm oil, the Partnership for Sustainable Textiles, and the German Sustainability Award Foundation. They can provide stimulus for further activities to ensure increased sustainability in business. Furthermore, business representatives have participated with trades unions, non-governmental organisations and the scientific and political spheres within the German Government's CSR forum.

In addition to the manufacturing and service sectors, the **financial sector** wields special influence here. Its primary function remains the provision of investment capital for productive commercial projects. That said, ESG (Environment, Social and Governance) criteria must be factored more systematically into investment decisions. Sustainable investments have a long time horizon, and achieve above-average returns while respecting environmental boundaries and social considerations.

4. Towards a Joint Effort for Sustainability

Realistically, the 2030 Agenda and the German Sustainable Development Strategy can be implemented successfully only if they are broadly supported and actively furthered by society as a whole. Putting the 2030 Agenda into a practice is a community project.

Many people are already engaged in countless organisations and initiatives for sustainable development, in Germany and around the world. In Germany, some 30 million people have volunteered their time and are doing their bit to improve social cohesion. Each and every individual can also make a real difference with their day-to-day actions.

The aim is to make this social engagement visible, to expand it still further, and to create networks between those involved.

Building on the 12 November 2020 decision of the Federal Government and the Länder, the **Joint Effort for Sustainability** initiative is intended to help do just that. It is scheduled for launch in the summer of 2021. The Länder welcomed the news that the Federal Government has entrusted the concept and implementation of the initiative to the **Council for Sustainable Development**.

VI. Outlook

Sustainability policy is a process that must be driven steadily forwards, independently of election periods. It is an ongoing task, involving the continual review and updating of the German Sustainable Development Strategy in collaboration with social stakeholders.

The German Government will thus forge ahead with the Strategy.

This applies to the work of the State Secretaries' Committee on Sustainable Development and, equally, the implementation of GSDS targets at ministry level. Priority here will be given to policy areas in which the indicators are currently off track. Particular attention will be paid to the areas of transformation identified for the first time in this Strategy update.

The GSDS should be expanded to cover the establishment of the Joint Effort for Sustainability. In the future as now, an ambitious policy on sustainability relies on the support of all social stakeholders.

The path to sustainable development, be it globally or nationally, has been made even more arduous by the COVID-19 pandemic, yet tread it we must. We must **set the right course now**, in all areas, to achieve the profound change that is so needed.

Together, we can do it. Success is in our own hands.



Introduction

Germany has had a national Sustainable Development Strategy since 2002, when it was presented at the United Nations World Summit on Sustainable Development in Johannesburg. Since 2004 the Strategy has been updated every four years, with progress reports from the German Government published in 2004, 2008 and 2012.

Since 2015, the German Government's Sustainable Development Strategy has been founded upon the 2030 Agenda, with its 17 Sustainable Development Goals (SDGs). The 2030 Agenda was formally adopted by the heads of state and government of the 193 member states of the United Nations in New York on 25 September 2015.

The German Government overhauled the GSDS in the light of the 2030 Agenda, 11. adopting a new edition on 11 January 2017 as a framework and first step toward the implementation of the 2030 Agenda for Sustainable Development in, by and with Germany. The Federal Cabinet adopted an update to the German Sustainable Development Strategy less than two years later, on 7 November 2018. This resulted in the extension or amendment of individual indicators and targets, and further development in institutional structures.

Update – the 2021 Sustainable Development Strategy

In this 2021 update to the German Sustainable Development Strategy, the German Government sets out what action has been taken since the beginning of the current legislative term to implement the Strategy, and what further measures are planned. It therefore represents an up-

to-date, transparent report on the period up to the end of 2020. This work is linked to changes to individual parts of the GSDS, as well as references to areas in which further action is required.

With that in mind, this update also provides a basis for fundamental reflection on, and the ambitious reinforcement of, sustainable development policy for the Decade of Action (2020–2030) called for by the UN Secretary-General.

The updated Strategy emphasises the need for more effort towards its implementation and its targets, especially in the key areas of transformation. It aims to achieve greater coherence on policy, while at the same time focusing on the central role of social stakeholders in the sense of a Joint Effort for Sustainability.

Structure of the Strategy update

Chapter A. below sets out the central, long-term challenges facing sustainable development in Germany, in Europe, and globally.

Chapter B. explains how and within which institutions the Strategy works, and which challenges have already been tackled in this update – or which must be addressed in future iterations of the GSDS.

With Chapter C. the reader arrives at the core of the Strategy. Structured according to the 17 Sustainable Development Goals (SDGs), in addition to presenting the action that the German Government has taken on the individual SDGs,

using an analysis provided by the Federal Statistical Office, it looks at the specific, indicator-based targets of the GSDS. It shows what activities the German Government has undertaken – or is planning to undertake – to achieve each target.

Social dialogue 2019/2020

Preparations for the Strategy update took the form of a broad-based dialogue process involving mainly the interested professional public. The draft Strategy update was published on 1 October 2020. On 15 October 2020, the German Government held a hearing with a broad range of stakeholders – the 2020 Sustainability Forum. A series of dialogue events began as early as 29 October 2019 in Berlin, followed up to February 2020 by regional conferences in Stuttgart, Norderstedt and Bonn that attracted some 1,400 people.

By the end of October, approximately 360 institutions, associations, organisations and individuals had submitted responses to the draft, some of which were very comprehensive and made well-founded points. The draft GSDS update was then revised on the basis of these inputs.

Effects of the COVID-19 pandemic

Even more so than the financial crisis of 2008, the COVID-19 pandemic has demonstrated just how vulnerable every aspect of our societies are to shock. This is true regardless of level of development.

In just a short time, COVID-19 has brought enormous change to the lives of people not just in Germany, but around the world. It has demanded measures that have restricted public life, business and personal freedoms in ways that were previously unthinkable.

Many people are worried about the future: about the health of family members, the financial impact of the pandemic, and possible changes in society. However, these fears in the face of uncertainty are often coupled with a growing understanding that managing the crisis necessitates long-term change in the direction of sustainable development. The updated German Sustainable Development Strategy (GSDS) therefore also contains the measures that the German Government has instituted in response to the pandemic, that at the same time provide a stronger framework for a sustainable future in Germany, Europe and worldwide.

Next steps

The German Government does not regard the German **Sustainable Development Strategy** as a finished product that will not be amended in the foreseeable future, but rather as a **work in progress**.

In that sense, the GSDS is a living document that the Government will continually review, update, and adjust in line with changing conditions.

Of particular importance to the achievement of the SDGs by 2030 will be what progress is made in the areas of transformation such as energy, sustainable construction, and mobility. As is the case with sustainability in general, action is required not just from the German Government, but from all levels of the political system, from social stakeholders, and from the general public.



Chapter A.

Decade of Action

*“If you want to go fast, go alone.
If you want to go far, go together.“*

(Proverb)

I. Setting the right course now

The heads of state and government attending the SDG Summit in New York on 24/25 September 2019 determined that the SDGs would not be achieved by 2030 if the current trends continue. Climate change, species loss and rising resource consumption are pushing up against the Earth's boundaries, and there is an equally urgent need to resolve questions of intergenerational and interregional equity.

This prompted the United Nations to call at the SDG Summit for the coming decade to be the Decade of Action or, strictly speaking the “Decade of Action and Delivery for Sustainable Development”.

The only chance of still achieving the SDGs lies in a concerted effort by the international community and each individual state to move much more quickly and ambitiously in implementing the 2030 Agenda.

The task is clear: we must set the right course now for the Decade of Action ahead.

The 2030 Agenda – a shared journey

The title of the 2030 Agenda, “Transforming our world” indicates the level of ambition needed to tackle the current challenges facing sustainable development. Whether we are in a time of crisis or not, the 2030 Agenda opens up the path to a future worth living in for ourselves and for coming generations, providing we tackle the task ahead with resolve. This is true in Germany and equally in our cooperation work with partner countries around the world.

One thing is clear: sustainable development can only be achieved together. The aim must be to bring people from all sectors of society onside, to strengthen cohesion and participation, and to make the necessary processes of change a priority for everyone.

All stakeholders must play their part in taking this transformation forward:

- The state and its institutions
- Business
- The scientific community and
- Civil society

One possible approach would be formats such as the Commission on Growth, Structural Change and Employment. They can help to arrive at a social understanding in areas of transformation – a sort of social contract as a basis for bringing about the necessary changes, bearing in mind the prevailing complexities and the interests of all. This is especially true with regard to the concerns of those people who will (initially) feel the effects of the necessary transformation most strongly. The 2030 Agenda maxim of “leave no one behind” applies especially to these people.

Our society in 2020

In our society we are increasingly seeing broad social engagement towards sustainable development. Young people especially, are mobilising themselves for climate action in Germany and around the globe. Many cities, companies and scientists have also become advocates of forward-looking sustainable solutions. During the 2019 European Sustainable Development Week there were 3,248 events held in Germany alone. Despite the difficult situation, in 2020 2,150 events were registered as part of the German Sustainability Action Days. If this is combined with the action programmes of other partners and virtual formats are included, there were 10,726 actions in total. We must continue to encourage this civic engagement and to support new activities and ideas.

At the same time, however, movements surfaced in Germany, the EU and internationally that are inhuman, nationalistic, racist and antidemocratic. These movements oppose multilateralism and cooperation between governments to resolve political, social and technical issues. They also deny the need to transition towards a sustainable world. They push simple solutions to difficult problems, instead of offering considered responses that factor in scientific findings. With their attitudes, they not only obstruct the necessary transformation of our world, but in many cases also attack the fundamental values on which our society is built.

Our vision for a sustainable Germany

Despite these developments, our image of a sustainable future for Germany and the world is a positive one. It is a vision worth mobilising ourselves for, especially in this current time of crisis.

Vision

A “sustainable” Germany must be a progressive, innovative, open and liveable country.

It is characterised by a high quality of life and effective environmental protection. It is integrated, inclusive and excludes no one, creates opportunities for the equal participation of everyone in all areas and at all levels. It fulfils its international responsibility.

(German Sustainable Development Strategy, new edition 2016)

To achieve this, we want a society

- that is rooted in a culture of sustainability – a culture geared to the 17 SDGs and thus to a better quality of life, to fitness for the future, to intergenerational equity and to social cohesion. In other words, one that also keeps a constant eye on its own resilience; and
- in which the necessary transformation is developed and implemented constructively and transparently as a community project that includes all of the relevant stakeholders.

The principle of “leave no one behind” that is enshrined in the 2030 Agenda is central here. It describes the obligation that we have as a society to carry everyone with us on the way to sustainable development. Putting this principle into practice and reaching the poorest and most disadvantaged first is one of the primary tasks that governments and international cooperation must fulfil.

This vision is put into practical terms in the principles of sustainability that are laid down in the Strategy (see Chapter B. IV. 1.).

The COVID-19 pandemic and sustainability

As if there weren’t already enough pressure to act to achieve the global Sustainable Development Goals, the massive impact of the COVID-19 pandemic has increased it considerably in many areas both at home and abroad.

The breathtaking speed at which the virus spread underlined once again the degree to which our world is connected and interdependent. Whether pandemic, political dispute, armed conflict, migration or climate change, they all demonstrate that our future is inseparable from the growth of the other countries of our world. That is why the 2030 Agenda has the principle of universality at its heart. The SDGs apply to all states equally without exception, and with close solidarity between the “developed” and “developing” world.

The COVID-19 pandemic has also shown how closely the global SDGs are intermeshed in our globalised world. None of the SDGs can be viewed in isolation. The pandemic impacts on the implementation of the entire 2030 Agenda.

With this in mind, the COVID-19 pandemic presents a very real risk to the health of each and every one of us, not to mention an extraordinary challenge to the entire health-care system. With its economic, social, cultural and political implications, it also extends far beyond it, however. It also mirrors and exacerbates other systemic crisis such as

- the way in which humans are exceeding the ecological limits of our planet and interfering with natural environments;
- many countries' neglect of their public infrastructures, in part as a consequence of the 2008/2009 financial crisis;
- precarious employment conditions and growing social inequality in many societies;
- populist challenges to our pluralist democracies.

Viewed from the opposite perspective, however, implementing the 2030 Agenda will do a great deal to help overcome global crises together, not just in healthcare, but in other policy areas, too. Sustainability strengthens resilience, in other words the capacity of systems and infrastructures to withstand pandemics, climate change, and the many other challenges we face.

Resilience

The COVID-19 pandemic has pushed calls for resilience to be a key objective of healthcare, economic and social policy to the forefront. At its heart, resilience is the characteristic of a given system that allows it to remain undamaged and stable in response to external disruption, or to show (crisis) resistance. The areas most discussed in the context of resilience are anticipation, shock management and recovery, and the protection and preservation of human development gains. Alongside the precautionary principle, democratic participation, and respect for ecological boundaries and human rights, resilience is thus often regarded as an important element of the guiding principle of sustainable development, and one that has become more prominent in recent years.

In part as a response to the COVID-19 pandemic, it is time to place sustainability front and centre as a guiding principle of policymaking in general. It must be embedded in forward-looking political, economic and social action that looks beyond short-term (efficiency) gains. In the global discourse and at United Nations level, these precepts and their implementation are already being referred to as “better recovery” (see box, right: “The connection between COVID-19 and planetary boundaries”).

The 2030 Agenda and its global Sustainable Development Goals are our compass as we set a sustainable course into the future. Political action in response to the COVID-19 crisis must be aligned with the 2030 Agenda and its SDGs at the national, European and international levels, and guided at all times by the Agenda’s maxim of “leave no one behind”.

We must work within planetary boundaries to build societies that are more equal and integrated, with levels of prosperity that are sustainable in the long term.

We have our work cut out in fighting to curb the spread of the virus and in overcoming its economic and social impact. However, as we know, every crisis is also an opportunity; this is also true of this crisis. The COVID-19 pandemic has the potential to sharpen our awareness of the need for greater sustainability, particularly in terms of general resilience to crises. This isn't just about returning to pre-crisis levels as quickly as possible, but is also about emerging from this crisis in a more sustainable and therefore more robust way, thus being better prepared for future crises. Short-term crisis management and long-term investments in the future – we must think of these as two sides of the same coin and bring these two aspects together.

Speech by Federal Chancellor Dr. Angela Merkel on the occasion of the annual conference of the European Sustainable Development Network (ESDN), 13 October 2020

The concept of sustainable development regards the conservation of the natural foundations for life in a global perspective as the absolute limit. It is therefore based on the key idea of planetary boundaries that must be respected. That ethos is more current now than ever.

The connection between COVID-19 and planetary boundaries

The planetary boundaries or “safe space for action” approach also relates to the systemic connections between ecological systems and human health. For example the link between the pandemic, threats from climate change, and the need to conserve both the natural world and vanishing species. The risk of passing on pathogens, for instance, is vastly higher where natural habitats are being destroyed and previously undisturbed ecosystems used instead. In the sense of a “one health” approach, human health depends on the protection of the animal and plant world, in addition to the fight against climate change. It is with this in mind that UN Secretary-General Antonio Guterres also talks about a better recovery, as reflective of the Sustainable Development Goals that were set out in the 2030 Agenda and adopted in the Paris Climate Agreement, and that serve as the guiding vision for sustainable development around the world.

COVID-19 measures nationally and globally

With the Economic Stimulus Package and the Future Technologies Package it contains, at the national level the German Government has linked short-term, sustainability-led crisis management with a long-focus on the long-term future. It put together a bundle of measures designed not only to soften the impact of the pandemic but also to invest heavily in sustainable development (see A. 3.). At the same time, the Government acknowledged its international responsibility.

The dramatic heightening of global challenges caused by the pandemic required a concerted response from the international community and from international institutions, especially the United Nations. The Government is therefore emphatically committed to achieving stronger multilateralism.

International cooperation under the aegis of multilateral organisations can pave the way for cohesive, effective solutions. To honour the goals of the 2030 Agenda and, specifically to centre our policies around the most vulnerable sections of the global population, we must reinforce health-care systems – including social security systems – around the world. We must also ensure that the international community, and multilateral institutions and the United Nations in particular, retain their ability to act.

Furthermore, bilateral cooperation in general challenges that with developing nations specifically must be adapted in line with the changing circumstances and challenges that the pandemic has brought. Now more than ever before, our programmes and investments in our partner countries must further the implementation of the 2030 Agenda in all of its dimensions: economic, environmental and social. This is vital to counter the risk of growth that is simply not viable long term, and to strengthen the resilience to crises of societies around the world.

II. Action is needed at all levels

Efforts to achieve greater sustainability are at a crucial phase. If we are to succeed in achieving the Global Sustainable Development Goals (SDGs) laid down in 2015, a more ambitious course of action is required at every level – globally, in Europe and in Germany.

1. Sustainability at the international level

It is now more than five years since the 2030 Agenda was adopted with its 17 SDGs, at the end of the first cycle of the United Nations High-level Political Forum on Sustainable Development (HLPF). Bearing this and the findings of

the first Global Sustainable Development Report (GSDR) in mind, current progress is worrying. Quite apart from the COVID-19 pandemic and its implications, the global challenges facing our economic, social and ecosystems are more present than they have ever been. Efforts to date fall far short of what is needed to take an holistic path towards sustainable development, and to achieve the SDGs by 2030.

Milestones of international sustainability policy

1987: Brundtland Commission report: "Our Common Future"

1992: United Nations Conference on Environment and Development in Rio de Janeiro

2000: United Nations Millennium Summit as a basis for the subsequent drafting of the eight Millennium Development Goals

2002: United Nations World Summit on Sustainable Development in Johannesburg

2012: United Nations Conference on Sustainable Development in Rio de Janeiro

2015: Conference on Financing for Development in Addis Ababa, United Nations Sustainable Development Summit in New York (adoption of "2030 Agenda for Sustainable Development" with 17 Sustainable Development Goals), Climate Change Conference in Paris

2019: SDG Summit: political declaration with a mandate for the UN Secretary-General to draw up programmes of action; call for a "Decade of Action and Delivery"

As a guiding principle, sustainable development must be at the heart of government policy everywhere. It should also serve in all its aspects as a touchstone for both social and individual action. The contours of the necessary transformation are emerging. It is now time for targeted measures that make use of all available fora and instruments.

The German Government is committed to multilateral action and to multilateral approaches to implement the 2030 Agenda in its entirety alongside international partners. Examples include multilateral environment agreements (e.g. SDGs 13 and 15), or health (SDG 3) in the context of the WHO or the Global Compact on Migration (SDG 10.7). International cooperation processes may be further supported by strategic alliances and topic-based partnerships, and the implementation of the 2030 Agenda is no exception here.

a) High-level Political Forum on Sustainable Development (HLPF)

Since 2016, the HLPF has served as the central forum for exchange and debate on global progress with the implementation of the 2030 Agenda.

Its work centres on the Voluntary National Reviews (VNR) published by each state on their action to implement the 2030 Agenda.

Its work centres on the Voluntary National Reviews (VNR) published by each state on their action to implement the 2030 Agenda. In the period from 2016 to 2020, 143 countries produced and presented a total of 205 VNRs to the HLPF in New York. Some member states have already submitted more than one report. Alongside the VNRs, the HLPF offers a space for discussion on overarching themes such as the individual SDGs, which rotate as focus issues, as well as debate at expert and ministerial level.

Although the HLPF is gaining attention, the UN Secretary-General's annual progress reports on the 2030 Agenda make for disappointing reading. They state that the international community is not moving quickly or ambitiously enough to achieve the SDGs by 2030.

At the global level, progress has been recorded in areas such as the fight against extreme poverty, reducing child mortality, access to education and the expansion of renewable energies. However, even before the COVID-19 pandemic began, this had to be seen in the context of setbacks with the environment-related SDGs and efforts to combat social inequalities. Progress has stagnated in particular with regard to the fight against hunger, and there has been no progress with expanding sustainable agriculture or establishing sustainable patterns of consumption and production.

The review of the HLPF and its working methods, originally planned for the spring of 2020, has been postponed until 2021 as a result of the pandemic. The corresponding resolution is therefore not expected to be passed by the UN General Assembly until 2021.

As things stand, improvements could be made with regard to the comparability and quality of the voluntary national reports, the time and space dedicated to the subsequent discussions, the participation of NGOs, and preparation and follow-up on the part of the HLPF, as well as its links to other UN fora and bodies that deliberate on other SDG-related topics. Germany involves social stakeholders in the preparation of the HLPF as part of the 2030 Agenda dialogue forum. Since 2019 they have also been invited to participate in the annual German HLPF conferences.

German VNRs in 2016 and 2021

Germany campaigns for transparent reporting on the implementation of the 2030 Agenda and the 17 SDGs.

In July 2016, it was one of the first countries to submit a VNR on the development of the German Sustainable Development Strategy. It has announced its intention to submit a second VNR to the HLPF in July 2021.

This report will build on the present update to the GSDS and will describe German efforts and plans to implement it both nationally and internationally. Social stakeholder groups will contribute via the dialogue fora organised by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Federal Ministry for Economic Cooperation and Development, as well as at the third German HLPF conference. These discussions should also cover how social stakeholder groups are to be included in the presentation of the Report to the HLPF.

Statement from the dialogue on the GSDS

"The Council expects the German Government to look in detail at its ideas for reforming the HLPF, as published in May 2020. This review should look particularly at proposals concerning the HLPF's work to 'measure the distance to the target', so to speak, as well as the need to align reporting within the HLPF more closely with areas of transformation, in order to strengthen the systemic outlook around the world."

Council for Sustainable Development, 29 October 2020

"The aspects put forward at the HLPF 2021 must be relevant, ambitious and transparent, and also show actual weaknesses in sustainability in Germany."

German Forum on Environment and Development

b) SDG Summit 2019

At the conclusion of the first four-year cycle, following the adoption of the 2030 Agenda, 80 heads of state and government met for the first time for an SDG Summit on 24/25 September 2019, convened under the auspices of the UN General Assembly.

The political declaration adopted by delegates called upon member states and relevant stakeholders to pursue a Decade of Action from 2020 to 2030. In addition to raising awareness of the 2030 Agenda at all decision-making levels, it emphasised the need for an accelerated, concerted effort to achieve

the SDGs. This is required in particular for those SDGs on which the least progress has been made, and those action areas that are of key importance in achieving the SDGs.

SDG Summits are held every four years. UN Secretary-General Guterres has decided that, in the years in between an 'SDG Moment' will be held at head of state and government level. This will give them an opportunity to present progress they have made and challenges they have encountered in implementing the Agenda and its SDGs. The first SDG Moment was held virtually in September 2020. It naturally centred on the impact of the COVID-19 pandemic, as well as the challenges and opportunities of a better and green recovery thereafter.

c) Global Sustainable Development Report

A further element of the SDG Summit in September 2019 was the presentation of the first Global Sustainable Development Report (GSDR). The mandate for the GSDR was issued in the Ministerial Declaration at the HLPF of 2016. It will be published every four years. Germany supported the production of the report by organising several workshops in the Global South. These resulted in the local scientific community being more closely involved.

The report was drafted by 15 independent scientists from different countries and disciplines. It identifies areas of the 2030 Agenda in which there is a particular need for action. The report states that not only has the international community made no progress in recent years on the issues of climate action, biodiversity, social inequality and avoiding waste, but the situation now is much more serious than when the 2030 Agenda was originally adopted. Furthermore, failure to achieve the SDGs associated with these areas also jeopardises the achievement of the other SDGs.

The GSDR identified six specific policy areas as entry points, the focused treatment of which using a variety of levers might accelerate the implementation of the 2030 Agenda (see also 3. a) and b)).

Entry points

- Human well-being and capabilities
- Sustainable and just economies
- Food systems and nutrition patterns
- Urban and peri-urban development
- Energy decarbonisation and universal access
- Global environmental commons

Levers of transformation

- Governance
- Economy and finance
- Individual and collective action
- Science and technology

Measures targeted at the entry points can address several SDGs at the same time, and accelerate their achievement or facilitate it at all. The Global Sustainable Development Report is also to be commended for its precise analysis of the interrelationships and possible synergies between the SDGs.

d) Foreign sustainability policy, sustainable trade policy, international cooperation

The federal ministries align their international activities with the principle of sustainability. For example, German foreign policy employs diplomacy to further the implementation of the 2030 Agenda, and thus makes a significant contribution to promoting sustainability at the international level.

Diplomacy for sustainability

The Federal Foreign Office (AA) takes a horizontal approach to sustainable international action, extending its 'diplomacy for sustainability' across several fields, especially in multilateral organisations. This is also the principal approach taken by the Alliance for Multilateralism, which was initiated by the AA. It was also the instigator of numerous bilateral initiatives and projects that address peace and stability, as well as inequality, climate and water diplomacy, and many other global aspects of sustainability. Peace, security and development are inextricable (see Chapter C. SDG 16 Peace, justice and strong institutions). It is also the underlying principle of German foreign policy, as laid down in the German Government "Preventing Crises, Managing Conflicts, Building Peace" guidelines.

German foreign policy contributes to sustainable development because one of its primary objectives is to find lasting solutions to conflict that involve all of the parties concerned. This includes close exchange with partners in a community of shared values and interests in the form of bilateral discussions and strategic dialogues. For example, sustainability dialogue with France is enshrined in its own chapter in the Treaty of Aachen of January 2019. Sustainable development also plays a central role in a number of regional strategies, such as the update to the German Government's policy guidelines on Africa, the Arctic (2019), and the Indo-Pacific region (2020).

During Germany's membership of the UN Security Council in 2019/2020, foreign policy continued to advocate prevention and a cross-linked understanding of security as a precondition for sustainable development. This considers the causes of possible conflicts in the future, such as those falling under the climate change and security agenda. This addresses the security risks to people and governments as a result of climate change. Germany placed climate change and security on the UN Security Council agenda. The participation of women in crisis prevention and peace processes makes those processes more effective and more sustainable. For that reason "women, peace and security" was one of the focal points of Germany's work within the Security Council. Indeed, under German leadership, the Council passed Resolution 2467 (2019) on sexual violence in conflict, and committed itself to consistently embedding the Women, Peace and Security agenda in its resolutions and the mandates of UN peacebuilding missions. Peace processes benefit from greater social inclusivity. Young people should therefore be involved more closely in these processes in the future. Resolution 2535, adopted under the German presidency of the Security Council, underscored the Youth, Peace and Security agenda and emphasised the role of young peace activists.

Sustainability targets also shape the German Government's international cooperation in other areas. Urban development policy is one example here, which centres around discussions of what frameworks and practicable tools towns and cities in Germany and other nations need to implement sustainability concepts successfully at the local level. The Federal Ministry of the Interior (BMI) already works closely with the USA, Ukraine and South Africa on integrated urban development for example, and collaboration is to be extended to other countries. The benefits here are not limited to international partners. This dialogue also produces valuable findings for the German side, so that the National Urban Development Policy can be geared to global challenges.

The SDGs are also an important element in international cooperation on education, science and research. In fact, "overcoming global challenges together" is one of the five targets of the German Government's strategy on internationalising these three fields. Numerous measures to achieve various SDGs are conducted under the umbrella of this target. One specific example is the Indo-German Science and Technology Centre. Working with the Indian Department of Science and Technology, for more than a decade now the Federal Ministry of Education and Research (BMBF) has promoted a flagship initiative supporting co-operation on clean, green technologies for sustainable production, involving both German and Indian companies.

Sustainability in trade policy

Trade policy, which is largely determined by the European Union (EU), should also make a substantial contribution to sustainable development. The German Government will thus continue to support the European Commission in its efforts to embed aspects of sustainability appropriately in free trade agreements and in the Generalised Scheme of Preferences. In addition, the EU promotes the achievement of the SDGs through the work of the World Trade Organization. The German Government plays a constructive part here, too.

e) German Government cooperation with developing and newly industrialised countries

The 2030 Agenda, with its 17 Sustainable Development Goals, is the guiding principle of the German Government's international cooperation work, in particular with developing and newly industrialised countries. Five years after the Agenda was adopted, there are signs that these nations continue to have significant catching-up to do before they can be said to be on a sustainable development path. As is the case in other areas, global challenges such as climate change, pandemics and growing inequality can be overcome only by means of closer cooperation between nations.

As the world's second-largest public donor to development cooperation, Germany is fundamental to the achievement of the SDGs in its partner countries. In 2019, development support from German public-sector institutions totalled EUR 21.6 billion, corresponding to 0.61 % of the country's gross national income (GNI). This takes Germany close to its self-declared commitment to set 0.7 % of GNI aside for development cooperation by 2030. It also represents a significant contribution to the implementation of the 2030 Agenda and the Addis Ababa Action Agenda (AAAA) to finance the 2030 Agenda.

Despite this financial support, the challenges faced by Germany's development cooperation partners remain enormous. The number of people living in hunger has risen for the third successive year, for example. Some 820 million people – one in nine world-wide – does not have access to enough food. Meanwhile, more than two-thirds of the global population (71 %) live in countries in which inequality has grown in recent years. Although more than a billion people globally have lifted themselves out of extreme poverty, there are wide regional disparities. Some countries in sub-Saharan Africa still have a poverty rate of more than 70 %, and the COVID-19 pandemic has resulted in an increase in poverty globally for the first time for more than 20 years.

Cooperation priority areas

Development cooperation action is guided by the five foremost principles that underlie the 17 SDGs: People, Planet, Prosperity, Peace, and Partnership – the 5 Ps. Particular attention is paid to reaching the poorest and most disadvantaged with Germany's work on the ground. In line with the guiding "leave no one behind" theme of the 2030 Agenda, German development cooperation work revolves around people.

Development cooperation examples

People: A world without hunger and poverty is possible. Dedicating around EUR 1.5 billion annually, Germany is one of the biggest donors to food security, agriculture and rural development world-wide. Through its special ONE World – No Hunger initiative, German development cooperation contributes to the fight against hunger and malnutrition and to protections for natural habitats and production bases in developing countries. For example, between 2016 and 2018 more than 26 million subsistence farmers were able to build greater resilience to the effects of climate change.

Planet: Germany leads the way in international climate action, and is dedicating increasing resources to adaptation to climate change. Government approval in 2015 to double German climate financing from the general budget from EUR 2 billion in 2014 to EUR 4 billion in 2020 had been implemented in full by 2019. Where biodiversity is concerned, Germany is one of the largest public-sector funders of conservation areas in developing and newly industrialised countries. Globally, we support more than 500 such areas, which cover land area four times the size of Germany.

Prosperity: Development cooperation promotes sustainable and inclusive economic growth in partner countries, and encourages compliance with and respect for core labour standards and international social, environmental and human rights standards throughout global supply chains. It has also created platforms to involve a broad stakeholder base, such as the German initiatives on sustainable cocoa and palm oil. Founded in 2014, the Textiles Partnership now covers almost 50 % of the German retail textile market. It now numbers 135 members, which continue to take on-the-ground action to improve working and environmental conditions in the textile supply chain. They also report transparently on their efforts.

Peace: Peace is a precondition for development. Germany supports remain and return programmes in conflict areas, and is committed to creating long-term development

prospects as well as the reconstruction of areas in which peace has been established. These include the arc of crisis surrounding Syria, the Sahel, and Afghanistan. The German Government invests more than EUR 4.5 billion (annual average 2018–2020) in giving people in these areas a future.

Partnership: Via multi-stakeholder initiatives, the German Government joins with business and civil society and cooperates with German development cooperation partner countries to promote sustainable development world-wide. These partnerships include the Development and Climate Alliance (carbon offset through verified climate action projects in developing and newly industrialised countries), the Prevent Waste Alliance (increasing resource-efficiency and minimising waste and pollutants), and cooperation with Länder and local government (e.g. municipal climate and sustainability partnerships).

Specific programme to guide and implement the 2030 Agenda

The German Government also helps partner countries specifically to establish and to reinforce their institutional sustainability architectures.

With the **2030 Implementation Initiative**, the German Government promotes 34 measures in 28 partner countries in Africa, Asia and Latin America. These are targeted at areas that are key to the immediate implementation of the 2030 Agenda. It works with these partner countries to create political frameworks such as national sustainable development strategies, to mobilise domestic resources and private investment, and to strengthen reporting capacities. The Initiative is in great demand from partner governments and will therefore be continued in the years to come. In this way, the German Government and partner countries are together helping to move the needle towards transformation for sustainable development.

Sample project: SDG Monitoring & Review in Ghana

In Ghana, the Implementation Initiative primarily supports implementation of the principle of accountability. It has helped Ghana to set up a national SDG monitoring platform that makes data transparently available and also serves as a basis for national review processes. A new working group, SDG Data Friends, coordinates key stakeholders in SDG monitoring and also acts as a steering committee. At the local level, a communal digital database concerning the achievement of the SDGs – the District Development Data Platform – has been established,

and is now also being used as a planning basis. A civil society platform has also been set up to give civil society a greater voice in political decision-making processes. It has proven the motivation behind new accountability processes and closer cooperation with NGOs to implement the 2030 Agenda. In addition, continuing education for NGOs and journalists on handling this data has strengthened the watchdog function of civil society.

Through its **Transformation Fund**, in 2018 the German Government supported projects that helped more than 20 initiatives in 18 partner countries with the implementation of the 2030 Agenda. In addition to partner governments it mainly assisted civil society institutions to take a stronger role in those activities (for more information, please visit <https://www.2030transformationfund.com/>). The international **Partners for Review (P4R) network** set up in tandem by the Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), supports reciprocal learning and exchange between UN member states. Its priority is to encourage national reporting to the UN High-level Political Forum on Sustainable Development (HLPF) and to develop national review mechanisms to monitor progress with the 2030 Agenda.

Furthermore, via the **Global Forum for National SDG Advisory Bodies** the German Government helps to strengthen institutional structures for the implementation of the 2030 Agenda and the SDGs around the world, and works towards sustainability being rooted more firmly in national policy processes.

At the SDG Summit, the BMU and UNEP kicked off the **GO for SDGs (GO4SDGs)** programme to drive forward the implementation of environment-related SDGs in developing and newly industrialised countries. Priority areas are a climate-friendly and generally sustainable direction for the economy, sustainable patterns of consumption, green jobs, and measures to encourage the younger generation to get involved.

The German Government has supported developing and newly industrialised countries via the Federal Ministry for the Environment's **International Climate Initiative (ICI)** since 2008. More than 700 ICI projects have been commissioned in the intervening years, with a total of EUR 3.9 billion allocated so far, all of them contributing in partner countries to the creation of political, technological, economic and financial-market conditions conducive to sustainable economic systems.

Implementation of the 2030 Agenda via the BMZ 2030 reform strategy

In 2020, a strategic reorientation of development cooperation work to factor in the 2030 Agenda was adopted in the form of the BMZ 2030 reform strategy. As part of this process of reform, the BMZ was given a more distinct thematic profile, and new themed priority areas were determined to support the implementation of the 2030 Agenda and the principle of leaving no one behind (see ties with the individual SDGs in the box below). Five core areas, ten initiative areas and six quality criteria were defined to achieve this:

Priorities for bilateral government-level development cooperation in partner countries are being refocused on the basis of the core areas. The initiative areas are a means with which visibly and actively to set areas of special development policy emphasis during a certain period, to lend impetus, and to address new issues. They also incorporate successful initiatives undertaken in recent years. The quality criteria are a mark of what the BMZ defines as value-based, sustainable and forward-looking development cooperation. They are applied across the board for all measures.

BMZ 2030: List of areas according to the 2030 Agenda model

Five core areas:

- Peaceful and inclusive societies (SDG 16)
- A world without hunger (SDGs 2 and 6)
- Training and sustainable growth (SDGs 4, 8, 9 and 17)
- Climate and energy (SDGs 7, 11 and 13)
- The environment and natural resources (SDGs 6, 14 and 15)

Ten initiative areas:

- BMZ Marshall Plan with Africa (all SDGs)
- Health, pandemic response and the One Health approach (SDGs 2 and 3)
- Sustainable supply chains and "Grüner Knopf" (Green Button) (SDG 12)
- Population growth and family planning (SDGs 3 and 5)
- Digicenters and digital technology (all SDGs)
- Returning to New Opportunities (SDGs 4, 8 and 10.7 (and others))
- Development and Climate Alliance (SDG 13)
- Green people's energy (SDG 7)
- Synthetic fuels: green hydrogen and derivatives (SDGs 7 and 9)
- Media freedom, creative industries, sport for development (SDGs 8, 11 and 16 (and others))

Six quality criteria:

- Human rights, gender equality and disability inclusion (all SDGs; "leave no one behind")

- Fighting poverty and reducing inequality (SDGs 1 and 10; “leave no one behind”)
- Environmental and climate impact assessment (SDG 13 (and others))
- Digital technology (“digital by default” approach; all SDGs)
- Anti-corruption and integrity (SDG 16)
- Conflict sensitivity (“do no harm” approach; SDG 16 (and others))

The new partnership model, with its own cooperation structures, more effectively replicates differing conditions in partner countries and Germany's own varied cooperation interests. This provides a framework for a more customised joint approach to implementing the 2030 Agenda. For example, with “reform” partnerships in Tunisia, Côte d'Ivoire, Ghana, Ethiopia, Morocco and Senegal, the BMZ is helping these countries to speed up implementation of the 2030 Agenda. This type of partnership rests on the principle of independent responsibility, with more reforms and initiative required from the partners themselves to spur business development and job creation.

Impact assessments within the BMZ are also geared to the SDGs, and standardised SDG-specific indicators have been introduced. These help to ensure better transparency and evidence-based accountability about how Germany helps its partner countries to achieve the SDGs

The challenge of COVID-19

With its many and varied programmes, the German Government makes an important contribution to the implementation of the 2030 Agenda in its partner countries. However, the current pandemic is jeopardising the progress that has been achieved towards the Sustainable Development Goals in many areas.

COVID-19 can only be beaten if it is brought under control everywhere. The AA is coordinating the German Government's international response to the pandemic. The Federal Foreign Office (AA) and BMZ represent Germany in the managing bodies of the COVAX Facility, which aims to make COVID-19 vaccines available and affordable worldwide. The AA has made EUR 450 million available to counter the humanitarian impact of the COVID-19 pandemic.

The United Nations' latest SDG progress report underlines the setbacks the pandemic is likely to cause, and points out that humanity stands at a crossroads. We must set the right course now towards greater sustainability if we are to emerge strengthened from the crisis. In addition to a comprehensive crisis response, the German Government is therefore committed to medium and long-term measures to refocus on sustainable development.

Impact of the COVID-19 pandemic on developing and newly industrialised countries

Developing and newly industrialised countries are particularly hard hit by the direct and indirect impacts of the COVID-19 pandemic, which are jeopardising or even cancelling out the progress made in recent decades. A few examples from different areas are given below:

SDG 1 – Poverty: The pandemic means that many incomes are shrinking and millions of jobs are being lost. The World Bank estimates that up to 150 million people will fall back into extreme poverty (i.e. living on less than USD 1.90 per day) by 2021. Most of them live in sub-Saharan Africa. The number of people living only marginally above this international poverty line could rise to as many as 500 million people. More than half of the world's population has no access to state social security benefits. In Africa, the figure is almost 90 %.

SDG 2 – Hunger: According to World Food Programme (WFP) estimates, an additional 130 million people went hungry in 2020 alone. The problem is particularly acute in Burkina Faso, Chad, the Democratic Republic of the Congo, Ethiopia, Kenya, Myanmar, Niger, Palestine and Somalia.

SDG 3 – Health: Many have been unable to access medical treatment, and the WHO believes that there have been more than 1.7 million additional deaths from AIDS, tuberculosis and malaria. Key vaccine supply chains have been interrupted.

SDG 8 – Sustainable economic growth: Global economic output is expected to have declined by around 5 % in 2020 as a result of the pandemic. Developing and COVID-19 can only be beaten if it is brought under control everywhere. The AA Newly industrialised countries have been particularly hard hit. In India, economic output collapsed by almost 25 % in Q2 2020, while Mexico was down 17 % and South Africa 16 %. Current IMF forecasts predict that global trade in 2020 will be 12 % lower than in 2019.

Through the BMZ's Emergency COVID-19 Support Programme, the Government responded swiftly to help partner countries to contain the pandemic and to cope with its acute economic impact. At short notice, EUR 1.15 billion was diverted from other budgets and more than EUR 3 billion in new funding provided for 2020 and 2021, mobilising total assistance of some EUR 4.3 billion. Germany led the world with this comprehensive approach.

Priorities of the Emergency COVID-19 Support Programme

1. Health and pandemic control
2. Food security and basic food services to prevent famines; maintaining food production
3. Stabilisation of fragile regions affected by displacement
4. Social protection and securing jobs in global supply chains
5. Additional economic support for enterprises in key industries
6. Government liquidity: immediate COVID-19 assistance to finance national programmes directly
7. Closer international cooperation.

These are just some of the outcomes that were recorded in 2020:

- **Gavi, The Vaccine Alliance and the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM):** By providing additional funding for the GFATM and Gavi health organisations, Germany is further extending its role as one of the key donors to development cooperation initiatives. The additional funds are being made available to the COVID-19 Response Mechanism. In addition to Germany's core contribution, Gavi is receiving additional support to ensure rapid world-wide vaccine distribution.
- **Hospital partnerships in Africa:** Partnerships between German and African hospitals are providing urgently needed clinic supplies in nine countries: Uganda, Rwanda, Kenya, Tanzania, Ethiopia, Liberia, Congo-Brazzaville, Gabon and Ghana. The first deliveries were handed over in mid-October 2020.
- **Social Security in the Sahel region:** In Mali, Mauretania and Niger, the German Government is supporting 1.7 million particularly affected people by supplying food, protections for children, and preventing infection, and thus helping to stabilise the situation.

In addition, in July 2020, the German Government also announced a COVID-19 response package worth an initial total of EUR 68 million. It will be disbursed via the BMU's International Climate Initiative (ICI). It is intended to help partner countries cushion the direct impacts of the pandemic and also link the restarting of the economy and social stabilisation with action on climate and biodiversity. Assistance includes first aid for nature conservation areas and biodiversity hotspots, as well as economic advisors in many ICI partner countries. Furthermore, the German Government has stepped up its cooperation with multilateral stakeholders such as the World Bank, IMF and UNDP.

The aim here is to improve the (fiscal) policy framework for climate-friendly economic stimulus measures, and to provide targeted support for investment in green sectors of the economy.

As at the time of writing in early 2021, the pandemic is still unbeaten, and is demanding a redoubling of efforts around the world. For 2021 the German Government therefore plans to continue helping partner countries to overcome the effects of the virus. With the situation developing all the time, a fast and flexible response to the crisis remains important. Beyond this, greater attention will be paid to structural needs in partner countries during the year ahead.

Planned measures include greater support with the provision and distribution of tests and vaccines. In the interests of effectively preventing supply bottlenecks and famine, the German Government will continue to fund food security programmes. The ongoing implementation of the new BMZ One Health initiative will see a new pandemic centre established in Kenya to continue crossover research into human and animal health. In addition, the BMZ is planning alongside the World Bank to improve food safety and the early detection of zoonotic diseases in food production.

The objective of the various programmes is to facilitate an economic and social recovery that is geared to sustainability ("Recover Better"). Their guiding principle and compass are the 2030 Agenda for Sustainable Development and its 17 SDGs, and the Paris Climate Agreement. The key criteria for implementation

- Add-on to a current programmes (instead of new instruments)
- Link with national structures; embedded in the overall sustainability strategy,
- partner focus, development policy effectiveness, visibility and flexibility.

2. Sustainability in the EU

"Europe should be regarded internationally as an advocate of an order of justice, of innovation and of sustainability. That is the vision for Europe."

Federal Chancellor Dr. Angela Merkel in a speech to the European Parliament on 8 July 2020 in Brussels.

European cooperation is more crucial than ever in the age of a fundamental shift in the global paradigm, brought about by developments such as climate change, the digital transformation, geopolitical instability, and now the COVID-19 pandemic. By consistently implementing the 2030

Agenda, the EU has the potential to make an important contribution to the successful long-term management of these challenges.

Implementation of the SDGs at EU level

The European Commission made sustainable development a clear priority at the start of the new 2019–2024 legislative term. It announced that it would place the 2030 Agenda at the heart of EU policy and would make it a measure of its actions both internally and externally. With its European Green Deal proposal, the Commission also put forward a new European model of the future in which, by 2050, Europe is to become a climate-neutral, resource-conserving continent with a fair and prosperous society as well as a modern, resource-efficient and competitive economy. The social acceptability of change – achieved via the Just Transition Mechanism – will be a further determining factor.

"The starting point for this must be making our economies, societies and way of life more sustainable and resilient [...] And it also means doubling down on our growth strategy by investing in the European Green Deal. As the global recovery picks up, global warming will not slow down. First-mover advantage will count double and finding the right projects to invest in will be key. A more modern and circular economy will make us less dependent and boost our resilience. This is the lesson we need to learn from this crisis. Investing in large scale renovation, renewables, clean transport, sustainable food and nature restoration will be even more important than before."

President of the European Commission, Ursula von der Leyen, in a speech to the European Parliament on 16 April 2020.

Member states' expectations of European cooperation in the current legislative term also centre on sustainability. Immediately after the European Parliament elections in May 2019, heads of state and government agreed a strategic agenda for the period to 2024. It includes priorities such as building a climate-neutral, green, fair and social Europe. Strengthening the rule of law and cooperation with Africa are also important strategic agenda issues that are relevant to the EU in the sustainable development context. Last but not least, the strategic agenda contains the promise that the EU will use its influence to lead the response to global challenges and to promote the implementation of the 2030 Agenda.

Sustainable development is laid down as an objective in the Treaty on European Union. The EU must nonetheless determine what the 2030 Agenda actually means at EU policy level. Indeed, the EU is partly or wholly responsible for policy fields that are central to the implementation of the

2030 Agenda, such as foreign trade, agricultural/environmental policy and development cooperation. Consequently, in many of these areas decisions made at the EU level are decisive to whether or not the SDGs are achieved at the global level. The fundamental principle of sustainability laid down in Art. 3 par. 3 second sentence TEU provides the framework for this. As one of the largest economic areas in the world, the EU also has a particular responsibility for the global impact of its actions. The policy coherence rules for foreign trade, and for development cooperation in the foreign trade context (in accordance with Art. 18 IV TEU and Art. 208 I TFEU) emphasise this accountability.

Germany is therefore an active proponent of ambitious action to implementation of the 2030 Agenda at EU level. All EU member states agree that a broad strategy framework is needed here, as has been called for multiple times in Conclusions reached by the Council of the European Union (under General Affairs), and the European Council. Resolutions passed by the European Parliament have also repeatedly called upon the Commission to draft a comprehensive strategy for the implementation of the 2030 Agenda.

EU sustainability policy initiatives

The President of the Commission wrote "mission letters" to EU commissioners at the beginning of the legislative term, urging them to make certain that the SDGs were achieved in their particular areas of responsibility. The College of Commissioners, led by the President of the Commission, has the task of ensuring the implementation of the 2030 Agenda as a whole. In November 2020, the Commission presented its plan to oversee and achieve the SDGs, entitled "Delivering on the UN's Sustainable Development Goals – A comprehensive approach". It describes eight action areas.

Eight strands of the Commission's SDG strategy

- Applying deeply transformative policies (European Green Deal, etc.)
- European Semester
- Multiannual Financial Framework, development approach Next Generation EU and sustainable finance strategy
- Better regulation
- Policy coherence for sustainable development
- Foreign and development policy, incl. trade policy ("EU engagement in the world")
- Monitoring and reporting
- Engagement of civil society

European Green Deal

The strategy is centred on deeply transformative Commission policies, such as the European Green Deal, which has been presented by the Commission as an integral part of the EU's implementation of the 2030 Agenda. It addresses core areas of transformation such as climate action, clean energy, industry, the circular economy, sustainable agriculture and food systems, and sustainable mobility. The aim is to ensure that the European Green Deal gives a major boost to sustainable growth and employment, and that the necessary processes of structural change leave no one behind. To achieve this, it also proposes EU spending programmes to cushion the socio-economic effects of this change in the regions that are most heavily affected.

Selected objectives of the European Green Deal

- First greenhouse gas-neutral continent by 2050
- Clean, affordable energy
- Move towards a circular economy
- Energy and resource-efficient construction
- Pollutant-free environment
- European chemicals strategy for sustainability
- Preserve and restore ecosystems and biodiversity
- Fair, healthy and environmentally friendly food systems for a better diet
- Sustainable, intelligent mobility
- Leave no one behind

How can we make progress in Europe on the path towards a climate-neutral and sustainable continent? – The European Green Deal offers us an answer to this question. It shows us how to achieve climate neutrality and greater sustainability, without – and this is very important to me – reducing our capacity for innovation or our competitiveness. On the contrary, the European Green Deal brings together environmental necessity and a robust economy. After all, protecting the natural resources is an essential prerequisite for economic success. While this may sound like stating the obvious, we must become much more aware of this and then actually apply this insight in our daily lives.

We Europeans therefore have a leading role to play in this regard. We must prove that economic growth can be decoupled from emissions and the consumption of resources. We must learn from the mistakes of the past. This means that European industrialised countries have to step up to the plate also in the transfer of innovations

and technologies. They must play a pioneering role here. This is a form of development cooperation that reflects our responsibility for less industrialised countries. These are the countries that are suffering as a result of climate change, which can be laid at the door of industrialised countries in particular. It goes without saying that we Europeans are not solely responsible for taking action on the climate. But close attention is being paid in many parts of the world as to how we approach our responsibility. Our example is therefore crucial to whether other countries join us in advancing solutions for carbon-neutral growth.

Federal Chancellor Dr. Angela Merkel in a speech to the annual conference of the European Sustainable Development Network (ESDN)

European Semester

A further strand of the SDG strategy is the European Semester, the European Union's annual coordination cycle for economic, budgetary, employment and social policy. The Commission began to integrate the 2030 Agenda more closely into the Semester with the publication of its autumn package in December 2019. The German Government is keen to avoid duplication here, and believes that the Semester process should continue to focus on economic and fiscal policy. It recognises that the refocusing of the European Semester offers a good opportunity to reflect aspects of sustainability more clearly than before in economic policy issues.

Other important initiatives

Many further policy initiatives from the present Commission relate to the 2030 Agenda and the SDGs. These include the application of the Multiannual Financial Framework, the Digital Strategy, the Gender Equality Strategy, and the Action Plan on Human Rights. These initiatives also make an important contribution to the achievement of the Sustainable Development Goals.

Council Working Party on the 2030 Agenda

The 2030 Agenda for Sustainable Development Working Party was set up at the end of 2017 to support a coherent approach to implementing the 2030 Agenda in the EU. This included linking the single market more closely with foreign trade. This provided what Germany had been proposing for years, i.e. to create the opportunity for EU member states to discuss sustainability issues specifically.

The Working Party has been meeting regularly since March 2018. On behalf of the Council, it is supporting the implementation of the 2030 Agenda at the EU level. In both April

and December 2019, the Council accepted conclusions drawn up by the Working Party that offered recommendations on improving EU sustainability policy. The Working Party also prepares and coordinates joint EU position statements for international fora and processes.

The cultural dimension of sustainable development

The importance of the contribution that the arts have to make to sustainable development both within the EU and in EU foreign cultural relations was emphasised in a joint resolution of EU ministers of culture in November 2019. In January 2021, a working party began consultations on the basis of this resolution that are aimed at integrating the cultural dimension of sustainable development into the implementation of the 2030 Agenda at EU level. The European Commission's New Bauhaus project could be a practical asset here.

Sustainable finance

The financial sector is now also lending considerable impetus to sustainable development. The European Commission had actually presented an "Action Plan on Financing Sustainable Growth" in March 2018. The current Commission also attaches great importance to this area, and will publish an update to the Action Plan – the updated Sustainable Finance Strategy – in early 2021.

The new Strategy addresses the core issue of how to effect the extensive investment that is planned to support transformation in Europe and to put the European Green Deal into effect. Public-sector funding alone will not be enough, so private investments are to be mobilised to an increasing degree. The EU's sustainable finance policy is to create the right conditions for this, and the Commission's Renewed Sustainable Finance Strategy that is expected in the first quarter of 2021 will also come into play.

The European Commission's Sustainable Finance Strategy

With its Action Plan on Financing Sustainable Growth, the European Commission presented an ambitious programme of work to strengthen sustainable finance in the EU. It was followed up by a slew of legislative initiatives, the adoption of which set important waymarkers for a sustainable financial system in Europe:

Taxonomy Regulation (Regulation (EU) 2020/852):
The Regulation on the establishment of a framework to facilitate sustainable investment is the centrepiece of the Action Plan. It is intended to create a comprehensive classification system for sustainable economic activities

to encourage an common EU-wide understanding of the environmental sustainability dimension of business operations. The EU taxonomy provides investors in the financial markets with information on which investments finance environmentally businesses. In January 2021, the Commission presented its proposals to tighten up this taxonomy for the climate action and climate adaptation targets. Activities must be drafted for six environmental targets in total.

Transparency Regulation (Regulation (EU) 2019/2088):

This Regulation entered into force in December 2019 and took effect from March 2021. It determines standard sustainability-related disclosure obligations for certain institutional investors (e.g. funds and certain insurance companies), certain insurance intermediaries, and investment advisors. These financial market actors must provide a clear account of how they handle sustainability risks in their investment decision-making and advisory processes. The Regulation also creates more far-reaching transparency obligations for financial products that are described as sustainable. The aim here is to improve comparability on the market with regard to how aspects of sustainability are factored into those products.

Benchmark Regulation (Regulation (EU) 2019/2089):

The entry into force of this new regulation in December 2019 created two new categories of benchmarks for low-emission investments. One is the EU Climate Transition Benchmark for climate-friendly investments, and the other is a special benchmark that aligns investment portfolios with the Paris Climate Agreement's target of limiting the rise in the Earth's temperature to much less than 2 °C and ideally 1.5 °C higher than its pre-industrialisation level. This is the EU Paris-aligned Benchmark. The Regulation is also intended to ensure greater transparency and to prevent greenwashing.

Where sustainable finance is concerned, the main topic of debate at EU level up to now has been the extent to which climate and environment-related risks can be taken into account appropriately by financial market stakeholders. The German Government welcomes the intention also to pay greater heed at EU level to the consideration and integration of governance and social aspects in sustainable finance. It will embark on an ambitious programme of measures to implement the EU Sustainable Finance Strategy, and is also committed nationally to reinforcing sustainable action in the financial sector. To this end, in the spring of 2021 the German Government will present a national sustainable finance strategy with a view to developing Germany into a leading sustainable finance centre (see Chapter B, III, 1 d).

German presidency of the Council of the European Union

The implementation of the 2030 Agenda was also advanced during the German presidency of the Council of the EU in the second half of 2020. In its Presidency Programme, Germany determined the 2030 Agenda to be one of the guiding principles of its presidency. The same was true of the Council's 18-month Trio Programme covering the presidencies of Germany, Portugal and Slovenia.

The presentation in November 2020 of the Commission's strategy for implementing the 2030 Agenda meant that one of the objectives of Germany's presidency of the Council of the EU was therefore achieved. Consultations on the strategy began during the German presidency and will continue during Portugal's tenure.

As part of the European Green Deal, during its presidency of the Council of the EU Germany made a great effort to advance as far as possible policy portfolios that help to improve sustainability. It will continue to support these matters.

Spending under the EU's Multiannual Financial Framework (MFF) and the Next Generation EU (NGEU) recovery plan should contribute at least 30 % of the total amount allocated to achieving the EU's climate targets. The MFF and NGEU recovery plan are intended to support the target of a climate-neutral EU by 2050 and to help realise the new climate target for 2030 that EU member states have already agreed. It would reduce greenhouse-gas emissions by at least 55 % compared to their 1990 level.

The conclusion of Council negotiations on the EU Climate Law (Klimagesetz), including a new EU 2030 climate target, underscored the EU's international leadership role in the field of climate policy. It was also an important step in the economic, technological and social processes of transformation to make Europe the first climate-neutral continent by 2050, and thus to push ahead with the implementation of the 2030 Agenda. A Just Transition Fund is to be set up to cushion the economic and social impacts of the EU's ambitious climate policy.

The foundations have been laid to adjust the energy framework towards a new 2030 climate target. Better conditions within the EU for the cross-border expansion of renewable energies, and the development of European and global hydrogen markets and infrastructure are part of this.

Beyond climate and energy policy, by supporting the objectives of the EU's Biodiversity Strategy for 2030, the Council has created a basis for active European Union input into negotiations on the new global framework for biodiversity post-2020, under the umbrella of the Convention on Biological Diversity. A new and dedicated spending target has also been set to improve biodiversity.

In addition, there has been lively debate about the EU's Chemicals Strategy for Sustainability with a view to preparing Council Conclusions under the Portuguese presidency.

Where food is concerned, in its Conclusions on the Farm-to-Fork Strategy, the Council clearly acknowledged the need for a sustainable and economically viable agricultural sector from the producer through to the consumer. Furthermore, the Commission received guidance on drafting the EU Forests Strategy that was announced for 2021, and the first steps towards achieving deforestation-free supply chains for agricultural commodities were discussed.

To make mobility in Europe more sustainable and more affordable, the Council agreed to revise the Eurovignette Directive to introduce a scale of rates according to the vehicle's carbon emissions.

The German Government has advocated lending human rights and sustainability greater weight in private-sector business operations, including global value and supply chains. A consensus was reached among EU member states on the importance of aiming high with EU policy, in part as a response to the upheaval of the global COVID-19 pandemic. This was then formalised as Council Conclusions.

The opportunities and challenges that digitalisation presents for business and society was a further focal point of the German presidency. Particular attention was also given to the Commission's Circular Economy Action Plan.

Germany was instrumental in bringing about Council Conclusions that provide for aspects of sustainability to be factored more systematically into processes of innovation, for efforts to drive the transition to a resource-efficient circular economy, to harness digital technologies more effectively for action on the environment and climate, and to limit the energy and resource consumption of digital infrastructures. This approach is reflected in the Council Conclusions on digitalisation for the benefit of the environment, which were adopted by the Environment Council in December 2020.

Events connected with the German presidency were made as sustainable as possible, from the choice of venue to catering and mobility. All emissions that were unavoidable as a result of travel, for example, were offset. To do this, German purchased emission reduction credits (ERCs) from projects that are certified according to the UN rules laid down in the Kyoto Protocol. The purchase of ERCs finances climate action projects that extend beyond simply reducing carbon emissions to generate additional, sustainable added value for the project countries in question.

European Sustainable Development Network (ESDN)

The German Government works closely with the administrations of other European states on sustainable development. It is a member of the European Sustainable Development Network (ESDN). As part of the German presidency of the Council of the EU, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) hosted the ESDN's annual conference in October 2020. It was attended online by over 350 representatives of more than 30 European countries, who discussed the challenges they face with the implementation of the 2030 Agenda, especially in connection with the European Green Deal. The conference was preceded by a European Youth Camp, attended by some 20 young people from all over Europe.

European Sustainable Development Week

The activities of the European Sustainable Development Week (ESDW, see esdw.eu) show every year how sustainable development motivates considerable numbers of people in Europe. Owing to the COVID-19 pandemic, in 2020 the ESDW was held 5. between 20 and 26 September, instead of between 30 May and 5 June as originally planned. To enable as many people as possible to take part, actions between 18 September and 8 October were also counted towards the ESDW in this pandemic year. The 2021 ESDW is once again to be held in September.

The initiative came initially from France, Austria and Germany. Germany's participation is organised through the Council for Sustainable Development (please visit www.tatenfuermorgen.de).

The German Government supports the initiative and campaigns both nationally and throughout Europe to encourage all stakeholders to participate fully. The activities held as part of the ESDW demonstrate that the Sustainable Development Goal affect all levels and all stakeholders.

In 2019, the number of events held across Europe rose to 6,704, attracting some nine million participants. There were 3,248 such events in Germany in 2019. This was also a new high, thanks in part to the activities of the Regional Networks of Sustainability Strategies (RENN, please refer below to II. 3 c). Despite the difficult circumstances caused by the pandemic, an impressive 4,075 actions were reported across Europe for 2020. There were 2,150 events in Germany (German Sustainability Action Days only)

EU development policy

EU development policy has committed to implementing the 2030 Agenda. The new European Consensus on Development of May 2017, in particular, is based entirely on the 2030 Agenda and the SDGs. Following on from this, action has been taken to

ensure that the 2030 Agenda forms the touchstone for the new Neighbourhood, Development and International Cooperation Instrument proposed by the Commission. It is scheduled to enter into force in the spring or early summer of 2021.

The 2030 Agenda also represents the compass for cooperation between EU member states and governments and other stakeholders in partner countries. Cooperation with the nations of Africa, the Caribbean and the Pacific (ACP countries) is a traditional priority area for European development policy. The "post-Cotonou" partnership agreement has been under renegotiation since 2018. Germany is a strong advocate of the successor agreement being aligned with the implementation of the 2030 Agenda.

3. Sustainability in Germany

a) Measures in response to the COVID-19 pandemic

In Germany as in other countries, existing pressure to achieve the global Sustainable Development Goals by 2030 has been overlaid by the devastating effects of the COVID-19 pandemic, and thus increased in many areas.

Combating the consequences of COVID-19, safeguarding prosperity and fostering sustainability

The declared aim of the German Government is therefore not only to respond to the pandemic, but also swiftly to lead Germany onto a sustainable growth path and trigger a push for modernisation through innovation, so that the country can emerge strengthened from the crisis.

For example, the Government is supporting all of those who are affected by restrictions to prevent the spread of the virus with assistance programmes, as well as a variety of support and advice. The aim is to ensure the survival of businesses and social services, preserve jobs and prevent social hardship and crisis situations. Furthermore, on 3 June 2020 the coalition partners presented an economic stimulus programme that provides EUR 130 billion in financing for 2020 and 2021.

"Anyone getting an economic stimulus programme off the ground has to talk about the future. We will not be able to deliver all the transformation, the change, that we need for the next decade in these two years of the stimulus programme. Despite this, everything we do has to be purposeful in a way that helps us always to keep an eye on the transformation of our society, change and the future."

Federal Chancellor Dr. Angela Merkel, 3 June 2020

"Combating the consequences of COVID-19, safeguarding prosperity and fostering sustainability" refers to an Economic Stimulus and Crisis Management Package, a Future Technologies Package, and measures geared to the fulfilment of Germany's international responsibilities (see box).

Most of the measures under the Economic Stimulus and Crisis Management Package were implemented in 2020. These included a reduction in the rate of sales tax, the child bonus, a reduction in the levy payable under the Renewable Energy Sources Act (EEG) for 2021 and 2022, degressive depreciation rates for tax purposes, and the second interim financial assistance package, as well as all measures which have an appreciable effect on economic activity.

The measures contained in the Future Technologies Package have a long time horizon. Some important elements such as the National Hydrogen Strategy, the Hospital Future Programme and the EU's SURE short-time work scheme also got off the ground in 2020. Work is still ongoing on a raft of measures such as expanding the charging station infrastructure, promoting R&D in e-mobility and battery cell manufacture, an additional capital injection (of EUR 5 billion) for Deutsche Bahn AG, and investment to support digitalisation.

Emerging confidently from the crisis

The programme presented by the coalition partners and adopted by the German Government on 12 June 2020 has the following three elements:

The Economic Stimulus and Crisis Management Package strengthened and will continue to strengthen Germany's economic growth and economic power, while also supporting the Länder and local government, for example, as well as young people and families.

Specific measures include:

Strengthening demand and stabilising expectations

- Reducing the rate of sales tax from 19% to 16% for the period from 1 July 2020 to 31 December 2020, and lowering the reduced rate of sales tax from 7% to 5% during the same period, in order to bolster purchasing power and calm the expectations of both buyers and sellers.
- In all areas, the Federal Government is examining the extent to which planned government orders and investments can be brought forward (EUR 10 billion).

Help for SMEs

- An interim financial assistance programme allows for a

range of support measures for small and medium-sized companies that have lost significant revenue as a result of COVID-19. It applies to all sectors, but also takes into account the specific situation of those that have been particularly hard hit. This is true, for example, of events logistics firms, actors, nightclubs and travel agencies, as well as the many other companies affected by ongoing shutdowns (EUR 25 billion).

Supporting companies through the economic recovery and setting investment incentives:

- Companies can claim degressive depreciation rates on movable assets acquired or manufactured in calendar 2020 and 2021. This provides an incentive to invest.
- The option of setting losses off against prior-year profits for tax purposes was broadened. Tax loss carrybacks were increased to a maximum of EUR 5 million for 2020 and 2021 (EUR 10 million in the case of joint taxation. The Government also created the facility to apply the carryback to 2019 tax returns (EUR 2 billion).
- The due date for import sales tax was deferred until the 26th of the following month. This generates additional liquidity of EUR 5 billion for businesses.
- Corporation tax law is being modernised, and should allow partnerships the option of being taxed as a limited company. This improves competitive conditions for companies (EUR 0.3 billion).

Promoting investment in local authorities

- In the future, the Federal Government and the Länder will assume up to 75% of the costs of accommodation for those on benefits, instead of up to 50% as in the past, thereby providing long-term relief for local authorities (EUR 4 billion).
- In addition, the Federal Government and the Länder will each pay half of the local business tax revenue, which is estimated at around EUR 12 billion for 2020.

Supporting the arts

- NEUSTART KULTUR is a rescue and future support package for the arts industry. It is intended to be a major force in preserving and securing Germany's arts and cultural infrastructure. It is also the key to rescuing existing employment and earning opportunities for artists, and creating new ones. The package should encourage investments in cultural facilities necessitated by the pandemic; 2. the preservation and reinforcement of the cultural infrastructure, and emergency assistance for the many

small and medium-sized venues and projects that are mainly privately financed; 3. alternative forms of expression, including digital offerings, which evolved successfully in the course of the crisis and were widely used; 4. greater demand as a result of the pandemic, met consistently by cultural facilities and projects supported by the Government. The programme also includes assistance for private radio stations, which have been hard hit by the collapse in advertising revenue.

Supporting young people and families

- In view of the COVID-19 crisis, the child supplement became an emergency supplement (Notfall KiZ) for the period from 1 April to 30 September 2020, making it faster and easier for families to claim this benefit. Furthermore, in a simplified means testing process parents are no longer required to provide details of their financial situation if there are no significant assets to declare. Under the rulings on Book Two of the German Social Code, simplified means testing for the child supplement was extended to 31 December 2020 to reflect the ongoing burden of the pandemic.
- To help parents balance work and family life during the crisis, child sickness benefit was doubled and expanded for 2021. Parents who are insured with a statutory health insurer are able to apply for child sickness benefit for 20 instead of ten days for each child legally covered by that health insurance. Single parents may now apply for 40 days' benefit instead of 20. Under the new rules, parents will also receive child sickness benefit if their child is not ill but must be cared for at home because a childcare facility (daycare centre, nursery or childminding service), school or centre for people with disabilities is closed or subject to restricted access.
- Pro-rata compensation for loss of earnings was introduced for parents right at the outbreak of the COVID-19 pandemic. This applies to parents who must care for their child themselves because a daycare centre, school or centre for people with disabilities is closed temporarily by order of the authorities (§ 56 (1a) Protection Against Infection Act (Infektionsschutzgesetz)). This government-funded compensation is intended to prevent working parents suffering an excessive fall in their income and to help them balance work and family life.
- Families received a one-off child bonus totalling EUR 300 per child in October and November 2020. This boosts aggregate demand where it is especially needed. The child bonus was not counted under basic income support, but was set off against the child allowance in higher-income households.

• To stabilise the incomes of single parents, the applicable tax relief was more than doubled to EUR 4,008. This is a permanent change.

- The COVID-19 pandemic has meant that a rising number of parents are no longer able to meet the qualifying criteria for the parental allowance. The rules were therefore changed in the spring of 2020 to continue providing effective benefit support to these families:
 1. Parents classified as key workers who were urgently needed at their place of work were able to defer the months for which they were eligible for the parental allowance.
 2. Parents should not lose their partnership bonus if they had worked more or less than planned as a result of the pandemic.
 3. Income supplements such as short-time working allowances and basic unemployment benefit should not reduce the parental allowance. This concerns parents who have been working part time and claiming the allowance.
 4. Months in which income is lower owing to the pandemic can be omitted from the parental allowance calculation. This concerns expectant parents who are suffering loss of income as a result of the pandemic, because they are claiming the short-time working allowance, for example. The special COVID-19 rules on the partnership bonus and on excluding low-income months from the parental allowance calculation, as well as the rule leaving the level of parental allowance for parents working part-time unchanged if they are claiming income supplements, were extended until 31 December 2021. The last of the above points was included permanently in the Act on Parental Allowance and Parental Leave (Bundeselterngeld und Elternzeitgesetz) by its second amending act.
- To support the Länder in their efforts to stabilise charitable organisations, for 2020 the Federal Government launched a special loan programme for charitable organisations via the Kreditanstalt für Wiederaufbau (KfW). Such institutions include youth hostels and family holiday centres. The programme has since been extended to 30 June 2021.
- Child and youth education and child and youth work facilities offering overnight accommodation and organisations promoting long-term international youth exchange received a cash boost in 2020 and 2021 thanks to the special Kinder- und Jugendbildung, Kinder- und Jugendarbeit programme.
- The EUR 50 billion Future Technologies Package is intended to advance the process of modernisation in Germany and strengthen its role as a global exporter of cutting-edge technology, in particular by investing in the digital future and climate technologies.

Specific measures include

- Promoting the transformation of transportation
- The Federal Government supports the Länder in financing local authorities' local public transport systems. To do this, in 2020 it increased its contribution to regionalisation funds for this period only by an additional EUR 2.5 billion.
- As an innovation bonus, the Federal Government is doubling its share of the environmental bonus for a fixed period up to 31 December 2025. The Federal Government incentive to buy an electric car therefore increases from EUR 3,000 to EUR 6,000 in the case of a vehicle with a list price of up to EUR 40,000.
- An additional EUR 2.5 billion is being invested in the expansion of a secure modern charging station infrastructure, as well as in encouraging research and development into e-mobility and battery cell manufacture.
- Investments in the future by vehicle manufacturers and suppliers in the auto industry are to be boosted by EUR 2 billion from 2020 to 2024.
- From 2021 onwards, the motor vehicle tax payable on new vehicles will be aligned more closely with carbon emissions. Drivers will pay less tax on vehicles with low potential emissions than they do on those with high emissions. Preferential treatment for purely electric vehicles will also be extended.
- Limited-term fleet exchange programmes are intended to promote e-mobility. These concern the vehicles used by social services in city traffic, as well as electric vans for tradespeople and SMEs.
- The Federal Government is investing in a programme to upgrade bus and truck fleets that promotes alternative drive technologies.
- To encourage the use of green trucks in heavy traffic, the Federal Government is starting an EUR 1 billion national fleet renewal programme to get old trucks out of service. This involves replacing the existing heavy truck fleet with modern trucks which comply with Euro 6 emissions standards.
- As the owner of Deutsche Bahn AG, the Federal Government will cover 80 % of the COVID-19 losses incurred despite the company's corrective action in the form of an equity increase in line with regulations on state aid. Some EUR 5 billion is earmarked for this under the key elements of the Economic Stimulus Package.

• Furthermore, mobile communications reception is to be improved significantly along the 39,000 kilometres of German railways.

• Efforts will continue to expand shipping as a climate-friendly mode of transport. These will concentrate on promoting innovation and a fleet renewal programme for governmental vessels, addition to an immediate Clean Ships action programme (EUR 1 billion).

• The Mobicor research project on the development of mobility in the age of COVID-19 is comparing empirical data to determine what behaviours or routines have changed with regard to choice of mode of transport during the pandemic, and what habits might remain after the crisis. The objective is to identify areas in which there is the potential to avoid traffic that is not absolutely necessary. The information will feed into the transformation towards a sustainable system of mobility.

The energy transition and climate targets

- The Federal Government has decided to promote hydrogen technology with an ambitious package of research, innovation and investment. One of its aims is to lay the foundation for new export technologies, and to pave the way towards greenhouse gas neutrality in industry, heavy traffic and other areas.
- The Government is providing a grant to reduce the EEG levy to 6.5 ct/kwh in 2021 and 6.0 ct/kwh in 2022.
- The ceiling on the expansion of solar power is to be abolished, and the corresponding target for offshore wind energy increased.
- From 2020 onwards, the budget for measures to encourage energy-efficiency and renewable energies for building application will be raised by EUR 2 billion.

Investments in digitalisation

• The EUR 3 billion in planned investments in artificial intelligence (AI) up to 2025 has been increased to EUR 5 billion. It is to be used to modernise computer infrastructures, improve data availability, and build up research and transfer structures of international repute as the basis of a European AI network. The German Government is also providing additional funding for the quantum technology, including the development of quantum computing.

- The new Mobilinfrastrukturgesellschaft mbH (MIG) mobile infrastructure company will have EUR 5 million with which to construct a nationwide 5G network by 2025.
- In the interests of Germany playing a leading role as a global provider of future communication systems such as 6G, the Federal Government is investing in research and testing for new network technologies.
- Work on digitalising administrative processes continues, not least so that public-sector services can be made available online.
- The Smart City programme will be continued and funding upped by EUR 500 million to give a second chance of support to projects in cities and local authorities that have not yet got off the ground.

Promoting education/training and research

- Fifth investment programme for childcare funding 2020–2021: an additional total of EUR 1 billion has been allocated for 2020 and 2021 to create 90,000 new childcare places in daycare centres and childminding services. These funds can also be used to remodel premises and to invest in new strategies for hygiene and the use of space necessitated by the COVID-19 pandemic. The planned expansion of all-day schools and all-day care should be sped up. Anticipating the planned legal entitlement to full-day care at primary school age, in addition to the EUR 2 million that the federal government committed to under the Coalition Agreement it will provide the Länder with a further EUR 1.5 billion to invest in accelerating the introduction of full-day facilities. Support for the Digital Pact for Schools is also to be boosted by a further EUR 1 billion.
- The federal vocational education protection programme (Ausbildungsplätze sichern), which is scheduled to receive EUR 850 million in 2020/2021, is intended to safeguard vocational education and training places during the crisis, and to maintain the quality of training provided. The key elements of the Economic Stimulus and Crisis Management Package adopted by the German Government on 24 June 2020 include 1) training grants of EUR 2,000 per place for SMEs that do not reduce the number of VET places they offer in 2020 compared with the previous three years. SMEs that increase the number of places receive EUR 3,000 for each additional training contract signed; 2) financial support for SMEs that continue training activities for trainees/apprentices they have already employed, despite the considerable burdens they face as a result

of the pandemic; 3) support for training partnerships and contract training with a grant of EUR 4,000; and a takeover bonus of EUR 3,000 for companies that take on the trainees of a company that has gone bust owing to the pandemic. The two corresponding funding guidelines entered into force on 1 August 2020 and 31 October 2020.

- The tax break for research that was introduced on 1 January 2020 is to be improved. For expenditures incurred after 30 June 2020 and before 1 July 2026, the funding rate for research allowances (25 %) will be granted on a maximum assessment basis of up to EUR 4 million per company, instead of EUR 2 million as in the past.
- In applied research, co-funding requirements for companies whose finances have been hit particularly hard by the pandemic will be reduced.

More resilient healthcare/avoiding pandemics.

- In September 2020, the Federal Government and the Länder adopted the Pact for the Public Health Service, intended to provide EUR 4 billion in staff, technical and digital support for public health authorities.
- The Federal Government is launching a Hospital Future Programme to support necessary investment, specifically the digitalisation of hospitals (EUR 3 billion).
- The Federal Government supports the Coalition for Epidemic Preparedness Innovations (CEPI) and the development of a German COVID-19 vaccine. The aim here is to have a safe and effective vaccine to hand that can also be produced in Germany.

In addition, in the interests of animal welfare an investment programme is being launched to fund the remodelling of barns to improve the conditions in which livestock are kept (EUR 300 million). In addition, the German Government is providing a further EUR 700 million to conserve forests and manage them sustainably. This includes support for digitalisation in forestry.

Beyond these domestic initiatives, Germany fulfils its European and international responsibilities (see Chapter II. 1 and 2.).

Position of the Council for Sustainable Development

The Council (see Chapter B. III. 3) published a position paper on 18 May 2020. It makes eight recommendations.

Council for Sustainable Development: "A sustainable recovery from the coronavirus crisis"

- Sustainability should be the guiding principle for all steps out of the crisis
- The crisis should be used as an opportunity for transformation
- Equal opportunities and social cohesion should be promoted
- Economic stimulus programmes should be linked to climate, environmental and resource conservation
- Recovery and transformation funding should be combined
- Supply chains should be diversified and the circular economy strengthened
- The EU's collaboration on ecological and social issues should be strengthened
- Collaboration with the Global South should be intensified

At an online Council conference on 15 June 2020, Federal Chancellor Angela Merkel emphasised the importance of the sustainability principle for the work ahead.

"We want to contain the consequences of the pandemic and invest in sustainable development in equal measure. We must therefore strengthen the resilience of our economy and society to pandemics, climate change and other major challenges. We also want to achieve a sustainable way of living and doing business in our country.... The 2030 Agenda and its global Sustainable Development Goals are our compass as we set a sustainable development course into the future."

Chancellor Angela Merkel, 2007

Communication on COVID-19

The Federal Government and the Länder continually provide comprehensive information on the COVID-19 pandemic. These are based on their joint decisions on how to manage the pandemic. Early, fact-based crisis communications facilitated a fact-based discussion within society. Academic communications from research institutes and universities accounted for an important part of this, because both levels of government believe in independent expertise. Confidence in government institutions surged to record highs as a result.

Corona-Warn-App

The Corona-Warn-App developed on behalf of the German Government became one of the best-known digital offerings for years. Both civil society institutions and the private sector are supporting the Federal Government campaign and helping to make the voluntary joint project a success. The associated broad-based media campaign is intended to reach all age groups. The Corona-Warn-App is a service that breaks chains of infection more quickly and comprehensively, protecting users and others with minimal effort while maintaining maximum data privacy.

Part and parcel of government communications on the COVID-19 pandemic is the message that the return from the crisis must be taken as an opportunity for sustainable development in Germany and in Europe.

b) Achieving long-term change

Challenges for sustainable development – ten years to go to 2030

The new version of the German Sustainable Development Strategy published in 2017, together with its update in November 2018, were the first step towards implementing the 2030 Agenda. One third of the time to the Agenda's target year has already passed. In Germany as elsewhere, the remaining decade must now be dedicated to accelerated action.

The present update to the GSDS centres on the question how the radical change that is needed can be instigated and achieved with the involvement of all concerned.

"Ahead of us lies the path towards a truly comprehensive transformation that will impact climate protection, the circular economy, biodiversity, sustainable agriculture, sustainable mobility and other issues in equal measure. This should not be underestimated. Such a comprehensive transformation entails far-reaching structural adjustments in national economies. For all the new opportunities this promises, such change can also be painful, for example if jobs are lost in certain industries. I think I know what I'm talking about here. In Germany, for example, the intensive expansion of renewable energies may offer new job prospects in this sector, but we also want to phase out coal by 2038 at the latest. Creating alternatives when jobs or sources of income are lost involves a great deal of effort. We must not abandon the affected regions and the people there; and we're not abandoning them."

Speech by Federal Chancellor Dr. Angela Merkel on the occasion of the annual conference of the European Sustainable Development Network (ESDN),

13 October 2020 in Berlin

aa) Areas of transformation

Following on from the Global Sustainable Development Report published in the autumn of 2019 (GSDS, p. II. 1. C)) as well as the content of the European Green Deal (p. II.2.) a series of key stakeholders called for areas of transformation to be considered more fully in the GSDS. These included the Council for Sustainable Development, the Scientific Platform for Sustainability 2030, and the German Sustainable Development Solution Network (SDSN). In its statement of 3 March 2020, the SDSN expressed its support in particular for action to tackle the areas of human well-being and capabilities, social justice, energy, the circular economy, construction and transport, agriculture and food systems, and a pollutant-free environment.

In the dialogue on the GSDS, many respondents proposed defining the areas of transformation more precisely by linking them to the Strategy's off-track indicators (i.e. those whose targets would be missed if current trends continue), and by providing core measures for each of the six areas. An overview of these can be found after Chapter A. II. 3 (6)).

In view of the above recommendations, the German Government believes that progress in Germany in the following areas is particularly relevant to achieving the SDGs. The order in which they appear is not indicative of priority. These areas of transformation apply nationally, as well as in cooperation with partners around the world, and in international fora and organisations.

Statement from the dialogue on the GSDS

"The inclusion of "Areas of transformation, in which progress is particularly relevant to achieving the SDGs in Germany", is a good and important step. However, what is missing here is how sustainability is to be advanced as a priority in these areas, with what measures, and how the individual areas of transformation relate to each other. All of this must be laid down in greater detail in the update to the GSDS in 2021 ..."

Nature and Biodiversity Conservation Union (NABU)

(1) Human well-being and capabilities; social justice

The well-being of all people today and in the future is at the very core of sustainable development. Unlike any generation before them, the present one has the knowledge and ability to shape a sustainable future for themselves. The fundamental rights and needs of each individual must be secured; they must be protected against existential risks, their prosperity must be encouraged, and they must be empowered to act sustainably. This task is presented by a large number of policy areas.

In Germany, creating living conditions of an equivalent standard is of great importance to sustainable development, and to increasing prosperity and social justice. The work of the Commission for Equivalent Living Conditions uncovered significant regional disparities both between and within regions. The resulting move away from structurally weak regions and peripheral rural areas towards prospering urban centres impedes sustainable development, however. Existing housing and infrastructure in areas with declining populations are underused and lose value, while significant financial and material resources are consumed in the creation of new housing, as well as technical and social infrastructures of all kinds. Active structural policy, and regional policy above all, is also designed to help discourage population drift from many regions, on the one hand, and to relieve the pressure on conurbations, on the other, with the various implications for sustainable development and other areas.

Education provides the basis of a self-determined, conscientious life. It is a major factor in the prosperity and participation of each individual, and encourages social cohesion and progress.

Germany is therefore committed at all political levels to supporting and enhancing educational offerings of a high standard (see Chapter C, SDG 4). The aim is to achieve an inclusive, equal-opportunity system of education from early years to adulthood. It is especially important here to have a range of vocational education and training courses available, to give people the opportunity to prepare for a fast-changing labour market, and to play an active part in shaping it.



Training and supporting highly qualified professionals, whether they hold an academic or higher vocational qualification (see indicator 4.1b), is decisive in securing Germany's competitiveness as an innovative, high-tech location.

Education for sustainable development (ESD) is of crucial importance here, because it makes an essential contribution to people's understanding of the global relationships involved in sustainable development. Integrating ESD in all fields of education helps to cement sustainability issues more firmly in the everyday mindset, thereby enabling people to think and act sustainably (see Chapter C).

Cultural education, too, plays an important part in actively and creatively shaping both one's own life and that of society.

Whether directly or indirectly, the empirical findings from science and research enable people to overcome new challenges and help to determine their own futures. Promoting an excellent, independent system of science and innovation, as well as tax breaks for private-sector research and development projects, are essential investments in the common good, innovative capacity, and human progress (see Chapter C, SDG 9 and Sustainability Principle no. 6, Chapter B, IV 1).

Preventative research in areas such as health and environmental issues, occupies a special position here. Its aim is to identify potential and real risks to humans and the environment at an early stage and to avert or minimise them reinforcing innovation and transformation-centred research in specific areas also encourage the development of new technical solutions and social innovations with real-world applications, resulting in a better, healthier, and more equitable life.

New technologies can do much to help achieve sustainability targets, but only if there is the right kind of technological sovereignty, and those technologies are designed and deployed sustainably.

Health is a central factor in happiness, quality of life and well-being. It underpins a self-determined life, and participation not just in education, but also in economic and social life. It is therefore one of the keys to the sustainable development of society and the economy in general. The COVID-19 crisis in particular has highlighted the particular relevance of health to all areas of social and economic life, and thus to the achievement of the other 2030 Agenda Sustainable Development Goals.

In a globalised world, human health must be seen in context, alongside the health of animals and the environment. That is why interdisciplinary approaches are becoming increasingly important in this area. The German Government therefore promotes the One Health approach, protecting

the health of farm and wild animals, as well as biodiversity and natural habitats, as part of its development cooperation work.

Sustainable, efficient health systems and broad access to general healthcare, as well as to health services of a high quality, are crucial to the achievement of SDG 3. According to international comparative studies, Germany achieves excellent standards in this regard. The current OECD study entitled *Health at a Glance* states that access to healthcare services in Germany is better than the international average, and that the package of social security-funded benefits is very comprehensive here.

It is nonetheless still important to maintain access to these high standards of care, and to improve them still further. A crucial point here, alongside sustainable financing for the health sector, is that models of care must be modernised. Among other approaches, this will mean expanding care across different sectors.

Greater public participation in healthcare is a further area of focus in encouraging society to mobilise. It also supports social cohesion in general. That is why the German Government is stepping up its efforts in relation to prevention, promoting health, and improving health literacy at both the personal and the organisational level.

Environmental justice is another concern with a bearing on health. The aim here is to reduce the impact of emissions that affect health, such as noise and air pollutants, in socially disadvantaged neighbourhoods and residential areas, to tackle these at their root, and to give everyone access to environmental resources that promote health.

Digitalisation and digital innovation have a special role to play in the future of healthcare. For example, in addition to setting up a secure data network for relevant information on the health of all insureds, the German Government is working on putting artificial intelligence to work in the health sector. This could make it easier to provide care, and significantly expand treatment options. The important thing here is that all digital innovations meet high data privacy and security standards at the same time.

Medical progress is impossible without effective research into health. The German Government therefore supports such research in Germany, defining the strategic outline for it with its Health Research Framework Programme. Digitalisation and personalisation are the keys to progress here. The focus is on the individual, because health research can succeed only if its findings are applicable to and accepted by the people themselves.

The German Government attaches considerable importance to broader social inclusion in research into health. Open-

ing up the research process in this way allows the scientific community access to the ideas, outlooks and expertise of the general public. This then improves the social relevance and transparency of health research, and the way in which its findings are transferred, and enhances its scientific and social value.

International cooperation is fundamental to global health, not only in fighting outbreaks of disease and pandemics, but also in reducing and treating non-communicable conditions such as cardiovascular disease, cancer and diabetes. Cooperation is also essential in producing strategies to combat the increase in antibiotic resistance, and in protecting and achieving sexual and reproductive health and the related rights. In such an interconnected world, these issues demand international dialogue and coordination. The German Government believes that the way forward here is to support the work of the WHO and other UN organisations, and to work closely with the principal stakeholders in the global health architecture, as well as G7 and G20 processes.

The Government's aim here is to contain social inequality so as to improve social participation and social cohesion for all. In Germany, people are essentially protected by the social insurance system, which is available to them in the event of illness, accident, long-term infirmity, unemployment and old age. By providing preventive and medical benefits and services to support labour force participation, the German system of pension insurance is a vital factor in ensuring that people are able to earn a living. Beyond this basic safety net, the German Government has also taken action to raise pay in low-wage sectors and to improve participation among people with disabilities (see SDG 10). There is the risk that the effects of the COVID-19 pandemic will widen existing inequalities and create new ones. The German Government has instituted wide-ranging protections here. For example, short-time working has averted job losses in many areas, while the solo self-employed and small businesses have received grants to cover their operating costs. Meanwhile, the conditions of application for minimum subsistence benefits have been simplified and shorn of red tape, and measures are in place to ensure that tenants do not lose their homes if the impact of the pandemic means that they are temporarily unable to pay the rent. In many cases this has allowed people to maintain their social status.

To facilitate human well-being, human rights must be upheld, work paid appropriately, social security created, gender-specific inequalities combated and social structures that prevent marginalised sections of society and minorities living a self-determined life changed.

This is particularly true in the context of work. The rights of employees must be protected and safe working conditions created. Particular attention must be paid to those in

precarious employment situation, which includes migrant workers, and forced and child labour must be prevented.

Under the UN Guiding Principles on Business and Human Rights, in the global value chain context, the duty to protect human rights lies primarily with national governments, while companies have a responsibility to respect human rights within their own business activities and along their own value chains. The German Government fulfils this duty, adopting the National Action Plan on Business and Human Rights (NAP) in 2016. It also works at the national, European and international level towards the universal introduction of a corporate due diligence obligation to ensure compliance with human rights and social standards and create a level playing field at the same time. Under the NAP the German Government also funds support programmes for businesses wishing to fulfil their responsibilities as they relate to human rights, environmental matters and international labour and social standards (see Chapter C, II, SDG 8).

Furthermore, the Government can help to achieve social justice by acting sustainably as an administration. Respecting social and environmental principles in public procurement has the power to improve labour and social standards along the entire value chain (see Chapter C, II, SDG 12). The federal administration's efforts to act sustainably are guided by the German Government's Programme of Sustainability Measures (see Chapter B, V).

(2) Energy transition and climate action

Action on the climate is a primary global challenge. That is why, at the 2015 UN Climate Change Conference in Paris, 197 states undertook to limit global warming to well under 2 °C, and where possible to 1.5 °C, and to achieve greenhouse gas neutrality globally by the second half of the century at the latest.

With the European Green Deal and its proposal to increase the EU's climate target for 2030 to a reduction of at least 55 % compared with 1990 emissions levels, the European Commission emphasised the importance of climate policy, and signalled that it would be taking an ambitious path.

EU heads of state and government had agreed in December 2019 on the target of a greenhouse gas-neutral European Union by 2050. At the European Council of 10-11 December 2020, they then adopted the Commission proposal and raised the EU's climate target for 2030.

The European Council thereby approved the new binding EU target of internally reducing net greenhouse gas emissions by at least 55 % compared with 1990 levels by 2030.

The EU Emissions Trading System (EU-ETS) for the energy and industrial sectors should contribute significantly to achieving these climate targets. Germany is also advocating EU-wide pricing for those carbon emissions that are not currently covered by the EU-ETS. In the second quarter of 2021, the European Commission presented proposals to bring all of the major legal instruments governing the climate and energy into line with the EU's new climate target for 2030.

At present, Germany is required to cut emissions that are not covered by the EU-ETS by 38 % compared with their 2005 level. This non-ETS domain covers transportation, buildings, small industry, agriculture and waste.

The German Government lent the implementation of the European Green Deal its full support during its presidency of the EU Council, with the aim of recovering from the economic and social consequences of the COVID-19 pandemic in a way that shapes the transition to a sustainable economy. There was also discussion under the German presidency of the Council of the European Union of which instruments might be used to achieve the EU's climate and energy targets for 2030. In their capacity as planning and monitoring tools, National Energy and Climate Plans (NECPs) are particularly important here in ensuring that the EU's 2030 targets are met.



Reflecting European climate targets and requirements, the German Government has set itself the goal of all electricity generated and consumed in Germany being greenhouse gas neutral by 2050 at the latest. This target is laid down in the revised Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz, EEG 2021). Reliable operating frameworks and planning certainty are extremely important here. With the 2030 Climate Action Programme and the Federal Climate Change Act, the German Government has already laid a firm basis from which to achieve the interim target in 2030. The Federal Climate Change Act provides for greenhouse gas emissions in Germany to be reduced by at least 55 % compared with 1990 levels by 2030, and requires compliance with sectorial emissions limits, which will be trimmed back annually.

The effects of the EU's new and ambitious climate target for 2030 will also be felt in Germany, and we will be required to make a greater contribution to achieving it. However, the extent and form in which EU member states will be required to do their bit towards the new target will become clear only with the Commission's actual legislative proposals, which are expected in Q2 2021.

The energy transition, which sets the framework in Germany for a sustainable and socially equitable energy policy with long-term goals, will be a major element in achieving climate action targets at national, European and international levels. Germany wants to preserve the natural foundations of life, and as one of the means to this end is radically transforming its energy supply system. With the energy transition, Germany is embarking on a journey towards a sustainable energy supply that is built on the cornerstones of efficient energy use, a reduction in energy consumption and the further expansion of energy generation from renewable sources. The main guiding principle of energy policy remains the triad of security of supply, environmental compatibility and affordability.

The Coal Phase-Out Act (Kohleausstiegsgesetz) puts the energy policy recommendations of the Commission on Growth, Structural Change and Employment (KWSB) into practice. The installed generation capacity of coal-fired power stations on the market is to be reduced to a total of 17 GW by 2030, and coal-fired power generation phased out entirely by 2038 at the latest. The schedule for decommissioning lignite-fired power plants was negotiated with the plant operators. Meanwhile, how hard coal power stations are to be decommissioned is to be determined by 2026 as part of a public tender offer, and then implemented on the basis of regulations issued under administrative law.

Reducing and terminating coal-fired electricity generation is the reason behind and condition for the payment of structural assistance to the Länder. It is extremely important to the German Government to support the structural

change associated with the coal phase-out. Its initial step was to create an emergency relief plan for lignite-producing regions, so that the Länder could draw immediate benefit from quickly realisable and effective projects. The Structural Reinforcement Act for Mining Regions (Strukturstärkungsgesetz Kohleregionen) that entered into force on 14 August 2020 is designed to help those regions that are affected by the coal phase-out to find a sustainable and forward-looking structural development path. A total of EUR 41.09 billion is to be made available to affected coal-mining regions. The investment that this supports should factor in future demographic trends to ensure that it continues to generate returns, and it must also be aligned with sustainability targets.

Electricity and energy prices impact on the international competitiveness of many companies in Germany. Targeted action can reduce the risk of carbon leakage and encourage decarbonisation in industry. It thus supports climate action by preventing carbon emissions simply being shifted to third countries, and by keeping value creation and jobs in Germany. At the same time, these measures must reflect the objectives of climate action and the energy transition.

In recent decades Germany has succeeded in reducing energy consumption while increasing economic output and also considerably increasing the share of renewable energy in gross final energy consumption. Thanks to the increasing supply of renewable energy and greater efficiency, net dependence on fossil energy imports has also decreased. The transformation of the energy system is also creating new value-creation potential for industry and commerce located in Germany.

By adopting the 2030 Climate Action Programme and passing the Federal Climate Change Act, the German Government took the fundamental decisions that were required for the legally binding implementation of the Climate Action Plan 2050 and to achieve the European climate targets for 2030 by which Germany is bound. The 2030 Climate Action Programme contains a comprehensive package of measures for all sectors (see box).

The Future Technologies Package that was adopted as part of the Economic Stimulus Package to combat the impact of the COVID-19 pandemic also sets incentives for climate action, energy transition and mobility, in particular. Among other financial support, EUR 7 billion is earmarked to promote hydrogen technologies in Germany, and a further EUR 2 billion is planned for international hydrogen partnerships. The well-received CO₂ Building Rehabilitation Programme has also earned considerable additional funding.

Saving energy and using it more efficiently is key to achieving climate action targets. At the same time, energy efficiency contributes to growth and prosperity in Germany, whether through corresponding cost savings for private

and industrial consumers or through the associated investments and the development of particularly energy-efficient products and processes. Accordingly, Germany has set itself ambitious energy-efficiency targets, for example in the Energy Concept, its blueprint for energy policy, and in the Energy Efficiency Strategy 2050, and has already achieved a great deal. Nevertheless, great scope for savings and requirements for further action still remain.

Alongside the replacement of coal-fired by gas-fired combined heat and power plants, and the phasing out of coal-based power generation in general, the targeted and efficient development of renewable energies, synchronised with grid capacity and increasingly market-based, is a crucial milestone on the route to the climate targets in the energy sector.

At the same time the German Government is continuing to invest in research and innovation to tap into further energy efficiency potential, further expand the share of renewables in the energy mix, and in the future to harness the opportunities presented by hydrogen as a fuel.

2030 Climate Action Programme and the Federal Climate Change Act

On 9 October 2019, the German Government adopted the 2030 Climate Action Programme and presented the Federal Climate Change Act for the first time. These two instruments are intended to achieve Germany's climate action targets overall, and in particular in the next ten years, up to 2030. The Federal Climate Change Act provides for greenhouse gas emissions in Germany to be reduced by at least 55% of their 1990 level by 2030. The German Government is also pursuing greenhouse gas neutrality by 2050 as one of its long-term objectives. While the 2030 Climate Action Programme includes measures for all sectors, the Act provides the legal framework for future climate action policy in Germany. As a sort of intergenerational contract, it ensures that climate action targets can be planned and also achieved with certainty.

The Climate Cabinet was set up in the spring of 2019. The original remit of the Cabinet Committee on Climate Action (Climate Cabinet) was to prepare German Government decisions to launch all of the laws and measures needed to achieve the 2030 targets. On 20 September 2019 the Climate Cabinet presented the key points of the 2030 Climate Action Programme, which was then adopted by the Federal Cabinet a few days later on 25 September. The 2030 Climate Action Programme was drafted on the basis of these key points and further measures proposed by the ministries concerned. It was adopted by the Federal Cabinet on 9 October 2019. The Climate Cabinet will continue to meet.

The 2030 Climate Action Programme takes an holistic approach consisting of support, price incentives, and regulatory law. Its guiding principle is that, as a leading industrialised nation, Germany should meet the climate action targets in an economically sustainable and socially equitable way. The measures embedded in the Programme are waymarkers for climate-friendly behaviours and both public and private investment.

National carbon pricing is a core element of the Programme. The national emissions trading system for bringing fuels onto the market began in January 2021. This attaches a gradually increasing price to emissions from the combustion of fossil fuels that were not previously subject to the EU-ETS. Those stakeholders who bring to market fuels that were already subject to energy tax take part in emissions trading. In the case of oil-based products these are primarily traders and producers, whereas in the case of natural gas they are largely the suppliers who deliver to the end customer. Certificates will be issued at a fixed price from 2021 to 2025, creating a reliable pricing trajectory which will enable consumers and businesses to ready themselves and take carbon pricing into account in future purchasing and investment decisions. A price corridor will then apply in 2026, and thereafter certificate prices will essentially be determined by market forces. Greenhouse gas pricing is intended to make climate-friendly alternatives less expensive in future, while the prices of high-polluting fuel options rise. The general aim here is to encourage consumers to choose a climate-friendly product if possible, the next time they replace their car or heating system. Revenues from carbon pricing are reinvested in climate measures or returned in full to the public, for example by lowering the levy payable under the Renewable Energy Sources Act (EEG).

The 2030 Climate Action Programme contains measures for individual sectors and areas. These cover energy, industry, buildings, transportation, agriculture and forestry, and waste management. The Programme also includes cross-sectoral measures

- **Energy:** including ending coal-fired power generation, the expansion of renewables, the ongoing refinement of combined heat and power, the conversion of the heating network to renewable energies, the energy transition as a real-life laboratory, and the Energy Efficiency Strategy 2050.
- **Buildings:** including tax breaks to promote energy-efficient modernisation, federal support for efficient buildings, federal buildings as an example, and the replacement of heating systems.

- **Transportation:** including the expansion of the charging station infrastructure for e-mobility, measures to encourage the switch to electric cars, increasing the appeal of local public transport and cycling, and action to strengthen the rail sector
- **Industry:** including efficiency and process heat from renewable energies, competitive tenders for energy efficiency, and a national decarbonisation programme.
- **Waste management:** including ventilation and gas capture at disposal sites.
- **Agriculture:** including reducing nitrogen surpluses, the use of manure to produce energy, the expansion of organic farming, reducing emissions from livestock farming, and greater energy efficiency
- **Land use, changes in land use, and forestry:** including the conservation and sustainable management of forests and timber use, preserving and encouraging humus in arable land, the preservation of permanent pasture, the protection of wetland soils and a reduction in the use of peat.
- **General measures** in areas such as the climate-neutral federal government, grey emissions from the manufacture of construction products, research and innovation, sustainable financing and climate action and society.

The Federal Climate Change Act that entered into force in December 2019 is the second key pillar of the climate action package. In addition to determining binding sector targets – annual emissions quantities – for each individual year between 2020 and 2030, it sets out what emissions reductions the individual segments of the economy must achieve. The Federal Environment Agency will publish the individual sectors' prior-year emissions data by 15 March of each year. This will then be audited by an independent panel of experts within one month. If a given sector does not achieve its targets, the corresponding federal ministry has three months from the panel's presentation of its findings to put forward an emergency programme that will ensure that the sector's annual emissions limits are met for the following year.

(3) Circular economy

The impending resource shortage demands that consumption and production be largely decoupled from resource consumption. Consumption and production must remain within the boundaries of our planet. This involves both consumption by the individual, and reworking the models of value creation that underlie our output. Resource efficiency, the circular economy and sustainable supply chains are equally as essential as preventing waste where possible, and its responsible disposal where not.



Unless secondary raw materials are used, economic activity rests on the use, processing and transformation of natural resources. The task of forward-looking political bodies is to see that these resources are handled sustainably. The negative environmental impacts of production and consumption must be a) minimised and b) offset. Policymakers formulate product standards, promote environmental efficiency at production plants, recycling processes and the circular economy, set limits for substances entering the environment, provide information and empower consumers to consume sustainably by accrediting quality labels or initiating debate on sustainable business and consumption practices. Furthermore, the German Government can also pay attention to sustainable resource use in its goods purchasing processes. Sustainable public procurement thus has a central part to play in promoting a circular economy.

All in all, ‘circular economy’ is increasingly being used to describe not only technical issues, but also fundamental questions of economic policy as we move towards resource-efficient ways of doing business.

Statement from the dialogue on the GSDS

“Sustainability can be lived in all three of its aspects only with a functioning (raw materials) industry that takes responsibility for the entire materials cycle, and safely reintroduces products back into the material cycle at the end of their useful lives.”

Wirtschaftsvereinigung Stahl, steel industry association

While resource-efficiency ensures that only small volumes of new resources are required, reintroducing materials that are no longer required for production and consumption into the circular economy enables secondary resources to take the place of primary ones. Sustainable consumption and sustainable business involve the responsible use of re-

sources, avoidance of waste, and efficient recycling. These three principles close the cycle as much as is possible.

As one of the most resource-heavy sectors of the economy, construction is particularly relevant here. In Germany alone, 517 million tonnes of mineral resources are used for building each year, corresponding to 90 % of total domestic extraction. Construction and demolition waste from the sector also accounts for 52 % of all waste in Germany. Meanwhile, there has been a steady rise over the past three decades in plastic waste from end consumers, and the volume of electrical and electronic devices being thrown away. In the future, the energy transition and transformation of transportation will present other challenges, such as the recycling and disposal of solar panels, wind farms, old diesel vehicles and lithium-ion batteries.

Since 2012, the German Resource Efficiency Programme (ProgRess), created under the lead of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, has provided the primary basis for the protection and sustainable use of natural resources. The Government updates the Programme every four years. It promotes knowledge and innovation in resource efficiency, global environmental and social responsibility in the use of natural resources, and ways of doing business in largely closed cycles. On 17 June 2020 the German Government adopted the second update, ProgRess III, which factors in current challenges for environmental policy.

The changes compared with ProgRess II include:

- An emphasis on what resource efficiency can do to help achieve climate action targets
- Consideration of the potentials and risks to resource efficiency of digitalisation
- Consideration of mobility from the resource efficiency perspective
- Flagging of priority action.

As the largest and therefore dominant sector, construction is involved in setting Germany’s resource efficiency criteria. The Federal Ministry of the Interior (BMI) has therefore set up Round Table on Resource Efficiency in Civil Engineering to support ProgRess work. It will pinpoint current events and discuss them with participants from the sector. Work is currently ongoing to develop a set of indicators that will allow resource efficiency in civil engineering to be described, with a view to making it measurable.

In addition to the sparing and efficient management of resources, closing materials cycles at the end of their use represents the second pillar of a circular economy. Products and materials that are no longer used are taken as waste for recycling or other form of recovery, and harmful substances and impurities separated off and removed.

The strategic direction here is set in particular by the Circular Economy Act (Kreislaufwirtschaftsgesetz), revised in 2020, the Electrical and Electronic Equipment Act (Elektro- und Elektronikgerätegesetz) updated in 2015, and the Waste Prevention Programme of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Länder. Policymakers must create the necessary frameworks and conditions that give businesses a permanent point of reference, and are also implementable in practice. The task is to create the legal frameworks and organisational requirements, and to apply the “producer pays” principle – in the form of legislation on statutory levies or product responsibility, for example – to guide stakeholders and their interactions. From the life cycle assessment point of view, these should then ensure that natural resources and energy are conserved as far as is possible for future business activity. Producers, consumers, local authorities and waste disposal companies all have a specific role to play here. Dividing products into different waste categories, and using non-recyclable waste to generate energy, provides the technical and organisational framework for an efficient recycling industry.

The targets laid down in revised EU law represent a challenge that will give rise to new ways of managing waste. Waste reduction must be improved, waste must be classified more broadly into its different fractions, more pollutants must be separated out, and the use of recycled materials must be increased. This applies to food waste every bit as much as it does to construction and demolition waste, as well as plastics and old electrical appliances. Public procurement has a duty to set an example here.

In November 2018, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) adopted a Five-Point Plan for less plastic waste and more recycling. One of its core elements is the Packaging Act (Verpackungsgesetz) that entered into force on 1 January 2019. Its aim is to reduce the impact of packaging waste on the environment, and it includes provisions on minimising both the volume and mass of packaging, and increasing recycling rates. The roundtable for less plastic waste, initiated by the BMU with representatives of the retail and industrial sectors and environmental associations, is another element of the Plan. It was supported by a BMU campaign entitled “No to the throwaway society” (Nein zur Wegwerfgesellschaft).

Since supply and value chains are now global, in May 2019 the PREVENT Waste Alliance was launched at the initiative of the Federal Ministry for Economic Cooperation and Development. The Alliance serves more than 150 member organisations from the business and academic communities, civil society and public-sector institutions world-wide as a platform for exchange and international cooperation. The Alliance is intended to help minimise waste around the

world, to eliminate pollutants and to reintroduce resources into the product life cycle. Its members campaign together for the prevention, collection, recycling and use of secondary raw materials in developing and newly industrialised countries. The emphasis here is on plastic waste from packaging and disposable products, electrical and electronic devices, and on improving the basis for tackling these issues at the local authority level.

In the National Bioeconomy Strategy adopted by the Federal Cabinet on 15 January 2020, the German Government affirmed the transformation of business and society into an economy centred on sustainable, organic and natural cycles. The National Bioeconomy Strategy links the policy fields of industry and energy, agriculture and food, forestry and fisheries, the climate and the environment, and research and development in order to promote this process of transition.

(4) Sustainable building and the transformation of transportation

Sustainable building

By providing homes and all other building structures, the construction and buildings sector meets fundamental needs in society and business. It is crucial to urban and settlement structures that are strong, resilient and focused on the public interest.

Buildings and civil engineering structures are durable goods. Planning and investment decisions in the construction and buildings sector have consequences for society, business and the environment for many decades to come. That is why future specifications must be given special consideration alongside current ones here. These future requirements will arise in connection with climate change and resource scarcity, demographic change and the changing needs and expectations of users. The basis for sustainable building already exists, however. With innovative building products and methods, means of digitalisation, expanded

VET and CET courses linked to sustainable building, well-qualified experts and improved planning and evaluation tools, the sustainable building principle is already incorporated into the planning, construction and operation of buildings and structural facilities. There is nonetheless scope for its continued optimisation and growth.

Given its upstream and downstream processes, the construction and buildings sector is closely interwoven with the challenges of other areas of transformation. Sustainable building must be energy efficient and climate neutral, it must maintain biodiversity, conserve resources and use renewable materials, reduce land area use, and support the sustainable procurement of products and services, including compliance with human rights. While respecting all of these factors in its supply chain, sustainable building must ensure the health and comfort of users. All of these requirements demand an approach involving different ministries and sectors.

Climate neutrality and resource conservation, specifically, may no longer be treated as an add-on to the mandatory fulfilment of technical, functional, architectural, economic and urban planning requirements. Sustainable building specifications must permeate all planning and investment decisions throughout the construction and buildings sector.



Greater attention must be paid in the practice of planning, construction and operation of buildings and structural facilities to recording, valuing and strategically influencing energy and materials flows and the impact on the local and global environment.

Where climate action is concerned (see A. II 3. aa), action must be taken across sectors to help minimise the greenhouse gases emitted by real estate during their life cycle. The buildings sector is directly responsible for 14 % of all greenhouse gas emissions in Germany. If the emissions incurred in the energy sector for providing electricity and district heat to the buildings sector are factored, the share of total emissions rises to around 25 %. Added to this are the "grey" emissions from the production of construction materials, building components and systems engineering, etc. in the industrial sector. If an holistic cross-sectoral approach is taken that covers all emissions chains, the buildings sector accounts for some 40 % of all greenhouse gas emissions. The German Government will further promote sustainable, climate-neutral building, define specifications for the latter, trial them in pilot schemes, and encourage the method's market launch.

Sustainable planning and building are also decisive in promoting the circular economy. Both construction and renovation should be developed towards a circular economy system in which a steadily increasing proportion of construction materials is re-used. Appropriate needs planning for construction projects can be used as a way of implementing the principle of urban mining, in which the building stock is used as a store of secondary resources, and thus as a source for new construction products and building components. Ensuring that structures are dismantled and recycled appropriately, and the new buildings are durable and adaptable, will help to close or slow down materials cycles. The use of secondary resources and recycled products in new buildings and modernisation projects conserves raw material resources.

Furthermore, by documenting the materials that actually go into the current building stock, by setting requirements for the ease of dismantling and recycling of building components, and requirements with regard to selective dismantling, sustainable building also helps to reduce non-recyclable waste. The Federal Ministry of the Interior will develop indicators to record and evaluate the use of resources for new building and modernisation projects. These are intended to motivate stakeholders in construction to use a greater proportion of secondary raw materials and recycled products.

The German Government will systematically develop the system of national awards in the building sector to emphasise sustainable building more heavily. Best practices in sustainable building should be rewarded and promulgated among the broad (professional) public.

The implementation of binding requirements for compatibility with the environment and health, as well as consideration for the social aspects of buildings, demands the use of suitable methods, data, rules and tools that prove and communicate that requirements have been met.

Germany will therefore step up its previous activities with regard to sustainable building, beginning with evolution in its planning culture. The stakeholders in the building under construction must take a greater share of the responsibility for society and the environment. In the interests of embedding this principle in practice, evaluation frameworks and systems such as the Assessment System for Sustainable Building (BNB) are being enhanced, their fitness for purpose and effect improved, and their application broadened. The public sector should provide an example here. Representatives of industry, associations, local government and Land administrations, and the academic world, are playing an active part in the further development of such frameworks and systems. The BMI's Round Table on Sustainable Building is an established platform for such exchange.

The measures to step up the German Government's activities with regard to sustainable buildings are to be adopted in 2021 in an interministerial action plan. Key entry points are likely to be the following:

- Provision of resources for research, development and promotion commensurate with the importance of the construction and buildings sector to the sustainable development of Germany
- Expansion of targeted public relations work to promote sustainable, future-friendly building
- Expansion of support for government-recognised sustainable building certifications
- Development of a grant programme to support the use of renewable resources and secondary raw materials in construction projects of all kinds
- Development of a simplified procedure for building life cycle assessments, and expansion of the ÖKOBAUDAT assessment database as the basis of incorporating the full life cycle into regulatory law and grant programmes
- Creation of a central BNB system host for the Federal Government, Länder and local government
- Development and introduction of calculation, assessment and verification processes to limit greenhouse gas emissions in building life cycles, including the drafting of limits and targets geared to planetary boundaries.

Transformation of transportation

Transportation can be transformed only if mobility is recognised as an essential element of life in society that must continue to be accessible to all. A forward-looking system of mobility must therefore be created on this premise that is economically, socially and ecologically balanced.

The opportunities are there. Many factors influence mobility at present. They are associated with profound structural changes and challenges.

One side of this is the increasing interconnectedness of all parts of our lives, and our changing mobility needs. Climate action is particularly important in the transport sector. On the other side, technological innovations and developments in alternative drive technologies and fuels, and in digitalisation and automation are on the advance. These changes wield significant influence over our cities and local authorities in particular, because sustainable mobility growth and integrated urban development are inextricably linked in many ways.

All of these factors combine to produce a process of transformation that must be managed at all levels of society. Whether or not this succeeds will depend crucially on the extent to which new forms and solutions for mobility are accepted by the public, and how well they fit with the realities of people's lives and their current and future needs.

To guide this process towards sustainability, in September 2018 the German Government launched the National Platform Future of Mobility (NPM). The aim of the NPM is to develop groundbreaking strategies and recommendations for action. This naturally also serves the purpose of keeping competitive companies and jobs in Germany. At the same time, the work of the NPM helps to ensure that we have viable and affordable sustainable mobility that is needs-based and environmentally friendly. (On the NPM please also see Chapter C II 11.2 a/b.)

(5) Sustainable agricultural and food systems

An holistic perspective is required to achieve the Global Sustainable Development Goals that are closely linked to agriculture and food, specifically SDGs 2, 3, 12 and 15). “Food systems” describes the complex interrelationships and interdependencies between the way in which agricultural commodities are produced, processed and transported, and how foodstuffs are consumed and handled. The term is also used by the UN Food and Agriculture Organization (FAO).

The German Government supports the integrated approach followed by the FAO, and is working to enhance food systems in Germany and the EU to reflect the SDGs more closely.

In practice, this means jointly formulating national, European and international agricultural, food, health, and environment and climate policy, and designing strategies and measures in the same way.

The challenge at international, European and national level is to ensure a sufficient supply of a variety of safe, affordable foodstuffs, as well as a healthy diet for everyone, world-wide. At the same time, action on the environment and climate must be guaranteed, the welfare of farm animals improved, producers' rights respected and their working and living conditions upgraded, and rural areas preserved as attractive places to live and work. The UN Food Systems Summit in 2021 offers an outstanding opportunity to instigate the necessary transformation here.

Agricultural commodities have a particular importance also where buildings are concerned. The construction industry is a major market for building materials from renewable resources, and its demand ensures that downstream enterprises survive. The availability of a sufficient quality and quantity of such sustainable materials is crucial to the buildings sector being able to achieve its own resource conservation and environmental relief targets.

The transition to a more sustainable food system can only succeed if politicians, businesses and consumers all fulfil their own responsibilities. The German Government welcomes the many initiatives in this area that have indeed come from business and civil society. These include those promoting fair and climate and environmentally friendly production, as well as more sustainable diets and the reduction of food waste within the food system as a whole.



When developing its policies, the German Government takes a broad and inclusive approach that includes the stakeholders affected by the issue in question. This is achieved by means of a variety of dialog formats, as well as hearings. One example here is the work of the Commission on the Future of Agriculture. It examines how to balance the need for change, to improve animal welfare and protections for the environment and the climate, with reliable crop yields and a German agricultural sector whose lasting economic and social viability is assured. On 11 February 2020, as part of a long-term transformation strategy the Borchert Commission presented comprehensive proposals for reforming the way in which farm animals are kept. Having been drawn up the Commission's network of experts in animal husbandry, they were backed by a broad consensus. The German Government is examining the available options, and putting them into practice while paying particular attention to protecting both the livestock and the environment.

The COVID-19 pandemic has been a stark reminder of the vital importance of reliable food supply chains, as well as the fundamental nature of the agricultural and food sector. Calls for more sustainable agriculture in Germany therefore ask us a number of questions: How much do we value domestic agriculture? How can we ensure that we conserve natural resources and preserve or restore biodiversity at the same time? How can we achieve socially acceptable agriculture that is fit for the future? What compromises do we have to accept? The Commission on the Future of Agriculture is charged with drawing up recommendations for all of these issues. It comprises a balanced mix of representatives from agriculture, other social groups (specifically environmental, animal welfare and consumer associations) and the scientific community.

Even before the 2030 Agenda was adopted in 2015, the German Government was working to make the transformation of the agricultural and food sector in Germany more sustainable. Examples in agriculture include the development of strategies for arable and livestock farming, amendments to the Fertiliser Application Ordinance (Düngeverordnung), the National Strategy on Biological Diversity, the Action Programme for Insect Conservation, the Strategy for the Future of Organic Farming (Federal Ministry of Food and Agriculture), and the ongoing changes to the EU's Common Agricultural Policy. Please refer to Chapter C for details of current measures). A number of key stimuli for more sustainable food consumption have also been established already. Examples include the EU organic logo and the national Bio (organic label), the introduction of the Nutri-Score nutrition label, and the DGE quality standard for mass catering established by the German Nutrition Society. (Please refer to Chapter C for details of current measures). The State Secretaries' Committee on Sustainable Development discussed this areas of transformation on 13 July 2020 (see Chapter B. III. 1. a).

(6) Pollutant-free environment

In common with all living beings, humans need an environment in which they can live healthily, and which allows for their physical, spiritual, mental and social wellbeing. In practical terms, this means that we need clean air, clean drinking water, safe consumer goods, healthy and dignified living conditions, high air quality indoors and working conditions that are healthy and safe, in addition to unspoilt nature with clean lakes and rivers where we can recharge and restore balance in our lives. We humans interact with our environment in many ways. Human-generated environmental impacts, such as pollutants in the air or in the products we use, as well as the materials and compounds that we create, like poisonous household chemicals, are a burden not just on the environment but on ourselves.

Humans spend the majority of their time inside, be it at work or at home. Indoor air hygiene is therefore one of the main criteria of the Assessment System for Sustainable Building (BNB). Ensured by avoiding harmful substances in building construction and usage, high-quality air indoors contributes to our health, well-being and productivity.

Effective protections for people and the environment improve the resilience not just of our own health, but also of our society and our economy. Ultimately, this can be achieved only by using pollutant substitutes on a large scale, and by preventing the release of pollutants into the environment.

A precautionary approach like this also makes economic sense, because it minimises the later cost of managing the impact of pollution on the environment and our health. This includes the disposal of hazardous waste.

Quite apart from that, it is still important to identify what the impacts are, both now and in the future, to understand what legislative and political action must be taken to prevent as much as is possible the effects of harmful substances and emissions.

The German Government launched its NanoDialogue initiative in 2006 under the lead of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. It has been a significant factor in ensuring a fair and fact-based debate on nanotechnology in Germany. This stakeholder dialogue, which is one-of-a-kind internationally, has committed always to look at opportunities and potential risks in parallel. More than 400 stakeholders have contrib-



uted to date. The NanoDialogue is to be rounded off in 2022 with an international conference in association with the OECD.

Environmental legislation promotes a pollutant-free environment amid the interplay of the requirements of chemicals law and product design and statutory regulations on water, emissions and waste, for example. Finally, providing information to the public about damaging effects on the environment or health encourages sustainable behaviours on the part of consumers and businesses alike.

Harmful environmental impacts and goods trading are not contained within national borders, which is why much environmental law has been codified at the European level. The German Government is a major contributor to the development and refinement of European environmental and chemical law. The REACH Regulation, for example, provides a framework for the ongoing testing of materials and compounds for environmental and health risks, and for activating the corresponding risk management measures where necessary.

The German Government has also made the objective of a pollutant-free environment a high priority at the international level. Specifically, it is taking the lead in preparing the conclusion of an ambitious successor to the Strategic Approach to International Chemicals Management (SAICM), and making efforts to ensure the corresponding mandate from the UN General Assembly.

Linking areas of transformation

The importance of linking the areas of transformation with measures and indicators, as well as the broader content of the GSDS was raised on multiple occasions during the process of dialogue. Drawing on a proposal that emerged from that process, the following illustration offers a vivid representation of the connections between the areas of transformation and the targets and measures of the Strategy in the areas in which particular action is required because they will not be achieved as things stand, i.e. the indicators are off track.

The illustration picks out specific measures in the transformation area in question. These are specific plans of action that either already exist or are planned. The German Government wishes to make significant progress in these areas in order to achieve the targets within the foreseeable future. These measures will take particular priority in GSDS work in the future.

Figure¹: Areas of transformation, off-track
indicators, measures¹



¹ Source: Marianne Beisheim, SGP, statement as part of the dialogue process, October 2020 (updated with regard to off-track indicators and with the addition of German Government input on core measures in the specific areas of transformation)

Notes on the core measures

1. Human wellbeing and capabilities

- (1) **Digital Pact for Schools:** The Digital Pact for Schools took effect in May 2019, and represents a major push on the part of the Federal Government and the Länder towards equipping schools with digital technology. It is supported by EUR 5 billion in Federal Government funding. The COVID-19 pandemic prompted the release of a further EUR 500 million focused on assisting socially disadvantaged pupils, and a further EUR 500 million to support the employment of IT administrators (Chapter C.II. 4 a).
- (2) **Pact for the Public Health Service:** In September 2020 the Federal Government and the Länder adopted the Pact for the Public Health Service in consultation with the national associations of local authorities. Publicly-funded healthcare is tremendously important in safeguarding public health effectively, as the COVID-19 pandemic has demonstrated so unforgettable. The purpose of the Pact is to devote EUR 4 billion to strengthening and modernising the public health services between 2021 and 2026 in terms of staff and infrastructure across the whole spectrum of their responsibilities and at all administrative levels (Chapter C. II. 3. a).
- (3) **Research for Sustainability (FONA) Strategy**
With the November 2020 publication of its Research for Sustainability (FONA) Strategy, the Federal Ministry of Education and Research made a significant step forward in securing and strengthening our fitness for the future. Over the coming five years, some EUR 4 million is to be invested not only in reinforcing our basic knowledge of climate and sustainability issues, but also in focusing more sharply on green innovation. With its systematic approach, the FONA Strategy advances potential solutions for all areas of transformation und the GSDS (Chapter C. II. 8. a, 9 a).
- (4) **Measures to help companies fulfil due diligence obligations:** The information and support available to companies about their corporate social responsibilities, sustainability and their due diligence obligations is being expanded. Sources include the Business and Human Rights Helpdesk, the SME Compass and the German Global Compact Network. This programme is intended gradually to increase the number of companies fulfilling and reporting on their duties of due diligence with regard to human rights and social and environmental standards (Chapter C. II. 8. a).
- (5) **One Health:** Human, animal and the environmental health are closely interwoven. In the One Health approach, the relevant areas of government collaborate to counter the transmission of pathogens, for example. The German Government advocates strengthening existing structures at the WHO, FAO, and the World Organisation for Animal Health (OIE) in a tripartite approach, complemented by UNEP. The priority areas here are zoonosis transmission, neglected tropical diseases, antibiotic resistance and the protection of biodiversity and natural habitats. One Health also assists partner countries as they build knowledge about animal diseases and ways of preventing and treating them. German Government programmes to protect biodiversity around the world lower the risk of pandemics, because they reduce man-made environmental interventions such as changes to land use, agricultural expansion and intensified farming. Programmes to regulate and monitor the trade in wild animals, include measures to combat the illegal wildlife trade, also help to prevent pandemics (Chapter C. II. 3. a) and indicator 3.3).
- (6) **Sustainable finance policy:** Sustainable finance is one of the crucial levers in mobilising capital in the interests of a (more) sustainable economy, and enabling investment in the future. The aim of sustainable finance is to take sustainability criteria from the environmental, social and governance (ESG) dimensions and weave them into investment and financing decisions. It has a direct impact on the (real) economy, helping to minimise economic and social risks while facilitating green finance. The German Government therefore actively supports the many initiatives at European level, such as the Taxonomy Regulation. In addition, in the Sustainable Finance Committee it has created an advisory body made up of financial, economic and sustainability experts that will present its initial recommendations as early as February 2021. The German Government will then build on this input to draft a National Sustainable Finance Strategy. Reliable, future-proof frameworks that allow sustainability risks to be incorporated more fully into economic decision-making create the conditions for innovation, long-term (investment) decision-making and the necessary transformation to flourish (Chapter B. III. 1 a; Chapter B. IV. 4 b; Chapter C II. 8 a).

2. Energy transition and climate action

- (1) **2030 Climate Action Programme:** By adopting the 2030 Climate Action Programme and the Federal Climate Change Act, the German Government took the fundamental decisions that were required for the legally binding implementation of the Climate Action Plan 2050, and to achieve the European climate targets for 2030 by which Germany is also bound. The Climate Action Programme contains a comprehensive package of measures for all sectors (Chapter A. II. 3 aa) (2); Chapter C. II. 13 et seq.).

- (2) **Climate Change Act:** The Federal Climate Change Act sets out annual emissions limits for the individual sectors up to 2030. These fall year by year. A monitoring mechanism was also agreed, under which the Federal Environment Agency will report annually on sector emissions. The data will be checked by the Expert Council on Climate Issues (*Expertenrat für Klimafragen*). Should a sector exceed its emission limit, an immediate action programme must be drawn up that ensures compliance with emissions limits in subsequent years (Chapter C. II. 13 a, indicator 13.1.a).
- (3) **National fuel emissions trading for heating/transport:** The 2030 Climate Action Programme harnesses the market economy primarily by the new system of carbon pricing for the heating and transportation sectors that came into effect on 1 January 2021. The national emissions trading system goes beyond emissions trading in the EU to include emissions from the burning of fossil-based fuels and propellants. The German Government will return all of the revenue from carbon pricing to the people and to companies by reducing the levy payable under the Renewable Energy Sources Act, investing in climate action and aid to maintain affected companies' cross-border competitiveness (Chapter C. II. 13 a).
- (4) **Coal Phase-Out Act:** The Coal Phase-Out Act (*Kohleausstiegsgegesetz*) puts the energy policy recommendations of the Commission on Growth, Structural Change and Employment into practice. The installed generation capacity of coal-fired power stations on the market is to be reduced to a total of 17 gigawatts by 2030, and coal-fired power generation phased out entirely by 2038 at the latest (Chapter A II. 3 b) aa) (2); Chapter C. II. 13 a); indicator 13.1.a).
- (5) **Renewable Energy Sources Act, EEG 2021:** The further steady and cost-efficient expansion of renewable energies in step with grid capacity is decisive step on the way towards achieving climate targets. The Renewable Energy Sources Act 2021 (*Erneuerbare-Energien-Gesetz*, EEG 2021) determines that all electricity generated or consumed in Germany must be greenhouse gas-neutral by 2050. It also maps out the development paths of the individual technologies so that the proportion of renewables in gross power consumption will rise to 65% by 2030 (Chapter A. II. 3 aa) (2); Chapter C. II. 13).
- (6) **Grant programmes to support decarbonising in industry:** Looking ahead, production-related greenhouse gas emissions in the industrial sector must also be reduced and avoided where possible. The German Government has instituted a series of programmes to aid this transition. This includes the Decarbonising in Industry (*Dekarbonisierung in der Industrie*) grant programme, under which around EUR 2 billion has gone into promoting

the use of green nitrogen instead of coal in steel manufacture since 2019. Further examples include the pilot climate contracts programme (carbon contracts for difference) to offset higher operating costs somewhat, and the lightweighting technology transfer programme that began in April 2020. An additional grant programme to support the use of hydrogen in industry, and a further programme on avoiding and using carbon dioxide in energy-intensive primary industries using carbon capture and utilisation (CCU)/carbon capture and storage (CCS) technologies are also planned (Chapter A. II.3. b aa) (2); Chapter C. II. 13; Chapter C: II. 12. a).

- (7) **Global NDC Partnership:** Nationally determined contributions (NDCs) help to implement the undertakings of the Paris Climate Agreement. Alongside Morocco and other countries, in 2016 the German Government initiated a global NDC Partnership to implement national NDCs. The Partnership now has 187 members, including developing and industrialised nations, international organisations, development banks and more (Chapter C.II.13.a).

3. Circular economy

- (1) **Creation of the necessary framework conditions in primary and secondary law:** These include, in particular, the Circular Economy Act (*Kreislaufwirtschaftsgesetz*), revised in 2020, the Electrical and Electronic Equipment Act (*Elektro- und Elektronikgerätegesetz*) updated in 2015, and the Waste Prevention Programme set up by the Federal Government with the participation of the Länder (Chapter A II. 3. Aa) (3); Chapter C.II. 12 a).
- (2) **ProgRess III:** Since 2012, the German Resource Efficiency Programme (ProgRess) has provided the primary basis for the protection and sustainable use of natural resources and ways of doing business in closed cycles. It was updated most recently on 17 June 2020, when it was retitled ProgRess III (Chapter A II. 3. b) aa) (3); Chapter C. II. 12).
- (3) **Programme for Sustainable Consumption:** In 2016 the German Government presented the National Programme for Sustainable Consumption, an interministerial scheme intended to generate progress with the transition to a more sustainable way of life in Germany, and thereby take sustainability from niche to mainstream. The Programme is currently being updated. The German Government's Siegelklarheit consumer portal, for example, makes sustainable products more recognisable to consumers, and encourages them to consider working conditions, social welfare standards and the environmental burdens of manufacture into their purchase decisions (Chapter C. II. 12 a).

- (4) **Sustainable product design:** Environmental design contributes to the circular economy with products that consume less energy and fewer resources. The 2005 EU Ecodesign Directive had already set binding requirements for some products, such as washing machines, dishwashers and refrigerators, to encourage their reparability and long useful lives. The European Commission's new Sustainable Products Initiative is intended to extend this approach to other products, and to broaden it with instruments such as the product passport. The German Government supports this initiative and its implementation (Chapter C. II. 12 a.; indicator 12.1.b).
- (5) **Five-Point Plan for less plastic waste and more recycling, November 2018:** The Plan covers several points, including the Packaging Act (Verpackungsgesetz) that entered into force in January 2019, and a round table initiated by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Chapter A. II. 3. b) aa) (3).
- (6) **PREVENT Waste Alliance:** The Federal Ministry for Economic Cooperation and Development's PREVENT Waste Alliance encourages cross-sectoral cooperation in the interests of a global circular economy. Successful case studies and recommendations for action are publicised, and eight pioneering approaches are being piloted up to mid-2021 (Chapter A. II. 3. b) aa) (3); Chapter C. II., 12. a).
- (7) **PAGE, GO4SDGs:** The German Government supports action on the part of the Partnership for Action on Green Economy (PAGE) and the GO4SDGs initiative launched by the UN Environment Programme (UNEP). The objective of the latter is to embed the principles of sustainability in politics, business and society in developing and newly industrialised countries, including country-specific measures in the interest of a better and green recovery (Chapter C. II. 12, a).

4. Sustainable building and the transformation of transportation

- (1) **Round Table on Resource Efficiency in Civil Engineering:** The Round Table comprises stakeholders from the construction industry, science and academia, local authorities, environmental associations and authorities. Its aim is to support dialogue on resource-efficient construction, in addition to innovative technical developments and the circular economy. The objective is to reduce the use of resources and to make the most of the potential of resource efficiency so that greenhouse gas emissions can also be cut. Special indicators are to be devised to make resource efficiency more measurable (Chapter A. II. 3 b aa) (c).
- (2) **Federal Funding for Efficient Buildings (sustainability class):** As part of the Federal Funding for Efficient Buildings (BEG) initiative, the German Government will also

make a greater effort to promote sustainable building. To this end, in 2021 a sustainability class will be added to the BEG. Funding for this class will be conditional upon presentation of the Nachhaltiges Gebäude sustainable building quality label. The label recognises voluntary compliance with above-average standards for particularly important sustainable building criteria, such as greenhouse gas emissions in the building's life cycle (Chapter A. II. 3 b aa); Chapter C. II. 7. a); indicator 7.1.a/b).

- (3) **Support for Länder and local government:** Support packages for Länder and local government are to be developed to establish the sustainability framework at all levels of the public sector. As part of an initiative under the Future Building innovation programme, in 2021 the concept for a national Centre of Excellence for Sustainable Building will be developed, and options for its establishment in practice examined (Chapter C. II., 11. a).
- (4) **Additional support for research:** Building research is to receive additional support in the interests of further developing sustainable construction methods in a way that reflects their overarching importance. A pilot project on experimental construction is to be added to the Future Building innovation programme as one of the ways of achieving this. The aim is to further the transfer of innovation into general planning and building practice (Chapter C. II., 11.a).
- (5) **Incentives for electric cars and trucks:** E-mobility will be promoted via Charging Infrastructure Master Plan and the provision of an additional (compared with autumn 2019) 50,000 public charging stations by the end of 2021. Furthermore, by 2030 electricity and electricity-based fuels are to account for a third of the distance covered by road freight traffic (Chapter A. II. 3. b) aa) (2); Chapter B. III. 1. a).
- (6) **Measures to improve the efficiency and digitalisation of cars and trucks:** Vehicle efficiency is to be improved by, for example, technical adjustments to new vehicles and the use of low-resistance tyres and oils while the vehicles are in use. In addition, the efficiency of the system as a whole is to be raised by means of a range of IT-support infrastructure schemes so that better use can be made of the existing road infrastructure. These include intelligent traffic controls and networking, platooning and ride-sharing (Chapter B. III. 1. a).
- (7) **Use of alternative, regenerative fuels:** These include sustainable advanced biofuels and electricity-based fuels, especially in aviation (Chapter B. III. 1. a), Chapter C. II. 7. bb), indicator 7.2 a/b).
- (8) **Modal shift in passenger and goods traffic:** The modal shift in passenger traffic is to be accelerated by incentivising bus and cycle usage and strengthening the rail net-

work to allow the number of long-distance passengers to be doubled by 2030. There will also be investment in the rail freight network to encourage the modal shift in goods traffic, the target being for rail to take a 25% share of total goods traffic by 2030. Inland shipping will also benefit from this programme (Chapter B. III. 1. a), Chapter C. II. bb), indicators 11.2.a/b and 11.2.c).

- (9) **Carbon pricing in the transport sector:** This is intended to set incentives to invest in the new climate-friendly technologies described above, and also to limit the rebound effects associated with their use. Broadening emissions trading to include non-EU ETS sectors should give the transformation of transportation a further boost. Since the emission of harmful greenhouse gases is closely linked to the energy consumed for transport purposes, carbon pricing also helps to reduce final energy consumption in goods and passenger transport (Chapter C. II. 7. a).
- (10) **Transformative Urban Mobility Initiative:** Through the Transformative Urban Mobility Initiative (TUMI), since 2016 the Federal Ministry for Economic Cooperation and Development has helped partner cities and countries to improve the efficiency of their urban mobility systems, build local capacity with decision-makers and experts, and mobilise financing for the transport sector. This has already facilitated more than EUR 2 billion in investment in sustainable transport infrastructure and innovative mobility services. Since 2019, the Ministry has also supported the launch of sustainable e-mobility solutions in partner cities via the TUMIVolt programme. Sharing technical expertise based on renewable energies supports the use of e-mobility in local public transport systems and innovative shared mobility services and permits the development of customised strategies for the introduction and funding of these technologies (Chapter C. II. 9. a).
- (11) **Establishment of a sustainable building expertise network for development cooperation:** Sustainable building is gaining increasing recognition internationally owing to its relevance to climate conservation and employment. In recognition of this, the Federal Ministry for Economic Cooperation set up a sustainable building expertise network. Two dialogue fora were held in 2019 and 2020 in which representatives of German business, universities and research institutes, as well as construction sector associations, identified opportunities to make innovations in building materials accessible and applicable to partners in newly industrialised and developing countries. This work will be extended further and its practical application broadened.

5. Sustainable agricultural and food systems

- (1) **Strategy for the Future of Organic Farming:** The German Government has set itself the target of increasing the proportion of land farmed organically by 20% up to 2030. The Strategy for the Future of Organic Farming (ZöL) provides support for this in the form of 24 action strategies, divided across five areas of action. The five action areas are national keys to more vigorous growth in organic farming Chapter C. II., 2. a) and indicator 2.1.b.)
- (2) **Protection for soils and forests as carbon sinks, and better activation of the climate action potential of the forests (including the use of timber):** Some of the climate action points under the German Governments 2030 Climate Action Programme focus on carbon storage in agriculture and forestry, including timber products. The earth's soils provide the foundation for our lives, and are the planet's biggest terrestrial carbon sink. Preserving and thickening the layer of humus can help to capture carbon dioxide from the atmosphere, and thus contribute to mitigating the effects of climate change. More humus also has a positive effect on soil health, while re-wetting former wetlands plays a major part in protecting the climate. It prevents carbon dioxide from dried-out wetlands entering the atmosphere. The climate action potential of the forests must also be seen in this context, in terms of their sustainable management and the sustainable use of timber. In recent years our forests have nonetheless been damaged by extreme dry periods, huge infestations of bark beetles, and storms. Wide-ranging assistance programmes were created in response to cope with this forest damage, restore forest to a semi-natural state that is better adapted to climate change, and ensure that forests are managed sustainably. Further action will be required to preserve the forests as carbon sinks. With their sustainable management and the restoration of the humus layer in the soil, forests supply important ecosystem services (Chapter C. II. 13. a).
- (3) **Livestock Strategy:** Livestock farming in Germany requires a resilient way forward. This highly developed sector is to be restructured on the basis of the Livestock Strategy. Its aims are to further improve animal welfare in livestock farming, significantly reduce its impact on the environment, and at the same time secure both the economic foundation for farming operations and supplies to consumers of sustainably produced meat. The recommendations presented in February 2020 by the Borchert Commission offer an important starting point from which to plan this transformation. In addition, the planned governmental animal welfare label will promote the welfare of livestock, in the sense of sustainable, animal-friendly production. Furthermore, the Federal Ministry of Food and Agriculture supported the introduction of an Eu-wide animal welfare label under the

Germany Presidency of the EU Council, and initiated the adoption of Council Conclusions on the potential launch of an Eu-wide animal welfare label.

- (4) **2035 Arable Farming Strategy:** The German Government's Arable Farming Strategy, adopted in the Coalition Agreement for the 19th legislative term, will set out the options and paths that sustainable (environmentally friendly and economically viable) arable farming that enjoys greater social acceptance must take in the future. Alongside securing supplies of foodstuffs, feedstuffs and organic raw materials, the objectives and guidelines of the Strategy are to conserve natural resources, protect the climate and adapting arable farming to climate change. It also aims to secure incomes, improve social acceptance, and to preserve and foster biodiversity in the agrarian landscape (Chapter C. II. 2. a). The Federal Ministry of Food and Agriculture's "2035 Arable Farming Strategy" discussion paper provides the basis for this, as it describes the possible individual measures that might help to achieve the targets.
- (5) **Nutri-Score:** The Nutri-Score is intended to make it simple to choose the healthy option. The Nutri-Score is an enhanced nutrition label that indicates the nutritional value of a packaged food product by profiling it with scores from A to E, each of the five levels being colour-coded. Consumers can thus see nutritional ratings on the front of its packaging at a glance and compare various items in the same product group. The healthier food item can thus be more quickly identified by means of a simple comparison.
- (6) **Action Programme for Insect Conservation:** Insects are an integral part of biodiversity and play a vital role in our ecosystems. Despite this, both the total number of insects in Germany and the species diversity among them have fallen drastically in recent decades. To counter this, the German Government adopted the Action Programme for Insect Conservation in September 2019. Its aim is to turn the tide on the falling numbers and diversity of insects (Chapter C. II. 15 a).
- (7) **National Food Systems Summit Dialogue:** National Food Systems Summit Dialogues are planned in conjunction with the UN Food Systems Summit that is planned for September 2021. Relevant actors will debate the future development of food systems in an inclusive process at a variety of levels. The German Government will incorporate the findings into its own approaches in this area. At the international level, Germany has also contributed content, staff and funding to the success of the Food Systems Summits and to realising their transformative potential.
- (8) **Deforestation-free supply chains:** Based on its guidelines for the promotion of deforestation-free supply chains

for agricultural commodities approved in April 2020, the German Government will in future position itself even more strongly and actively both at the national level and in bilateral relations and international forums. Particular attention will be paid here to the protection of primary forests. With the solutions proposed in the guidelines, the German Government wishes to make a recognisable contribution to the preservation of forests throughout the world by eliminating deforestation from the production and import of agricultural products.

- (9) **Food waste:** The efficient use of our resources is a key factor in the question as to how growing numbers of people will get enough to eat. Reducing food waste along the entire food supply chain (SDG 12.3) is therefore a big step forward in conserving those resources. The German Government has a major part to play here, through its National Strategy for Food Waste Reduction. At the same time, the Strategy makes it clear that it can achieve its aim only if all stakeholders from civil society, business, and the academic and scientific spheres, get involved in the process.

6. Pollutant-free environment

- (1) **Refinement of European environmental and chemical law; international measures:** Under the REACH Regulation, materials and compounds are analysed continually for environmental and health risks, and the corresponding risk management measures activated where necessary. The German Government has also made this objective a high priority at the international level. Specifically, it is taking the lead in preparing the conclusion of an ambitious successor to the Strategic Approach to International Chemicals Management (SAICM), and making efforts to ensure the corresponding mandate from the UN General Assembly (Chapter C. II. 3. a).
- (2) **National Air Pollution Control Programme:** Adopted on 22 May 2019 by the Federal Cabinet, the National Air Pollution Control Programme includes a package of measures to reduce pollutant emissions into the air so that Germany is able to fulfil the emissions reduction obligations laid down in the EU's National Emission Ceilings (NEC) Directive. The Directive aims to halve early deaths caused by air pollution between 2005 and 2030, and also to relieve the stress on natural ecosystem and protect biodiversity (Chapter C. II. 3; indicator 3.2.a (air pollutants)).
- (3) **Prevention of marine litter:** In the fight against marine litter, the German Government places its main focus on avoiding waste and preventing deposits of debris. Germany is campaigning intensively at the regional level in the context of the OSPAR and HELCOM "Regional Action Plans on Marine Litter". The action plans on marine

letter adopted under the German G7 and G20 presidencies in 2015 and 2017 set out specific political and practical targets, along with a time horizon and lead stakeholders (Chapter C. II. 14. aa).

bb) Levers

Implementing sustainable development targets requires more than action in the relevant policy areas, such as health or energy. It also demands operating conditions that make sustainable development possible in the first place.

The German Government regards the following areas as important levers or cross-sectional fields to support transformation. Its views reflect the statement on the German Sustainable Development Solution Network (SDSN), which is itself based to some extent on the Global Sustainable Development Report (GSDR) (see above, Chapter A. II. 3. a).

- Governance: This covers structures to overcome sector-based thinking, as well as new forms of cooperation and transformative learning, including knowledge platforms (see Chapter B, especially III. and IV.).
- Social mobilisation and inclusion: In addition to the participation of all social stakeholders, the task here is to encourage and to acknowledge voluntary commitment, and to empower people to help shape a more sustainable world. This also involves making existing engagement within the community visible in all its diversity, breadth and value, and remembering it when setting policy (see Chapter B, especially VIII. and IX.).

• Funding: Diverting financial flows towards sustainable development is seen as crucial to the areas of transformation. In addition to aligning grants and trade agreements with sustainability considerations, public-sector investment may also be relevant, as may measures to integrate aspects of sustainability in financial market decision-making, in the sense of sustainable finance (see Chapter B, especially IV. 4., and Chapter C, especially 8).

• Research, innovation and digitalisation: Science and research are regarded as having enormous potential to use innovation to find sustainable solutions and technologies to today's challenges and conflicts of interest (see Chapter B VIII.).

• International responsibility and cooperation: Global challenges demand effective international and multi-lateral cooperation. At the same time each state, and the industrialised nations in particular, must think about the impacts and consequences in other countries that might be caused by their actions.

With the exception of the international responsibility and cooperation lever (see A. II. 1 above), this topic is examined in greater detail in Chapters B and C.



Chapter B. German Sustainable Development Strategy



Handover of the review by Helen Clark (left) with the participation of Chair of the Council for Sustainable Development Marlehn Thieme (centre) to the Federal Chancellor, 4 June 2018

I. Need for update

The challenge is clear: the 2030 Agenda for Sustainable Development requires greater action and progress in the transition to more sustainability. The German Sustainable Development Strategy must therefore be updated. Indeed, it has been called for on multiple occasions. Added to this is the COVID-19 pandemic with serious consequences in a large number of policy areas.

Which conclusions are to be drawn for this in the individual areas of policy in order to achieve good and sustainable development on a permanent basis?

How can the short-term needs be met without ignoring the long-term requirements? This question is addressed below for the individual policy areas (Chapter C).

The question also arises here as to how, under the current operating conditions, sustainability in politics and society can be strengthened further and the transformation pushed forward in important policy areas.

A number of stimuli and initiatives for updating the Sustainable Development Strategy are set out as examples below. These also served as the basis for the draft version for public consultation (see Chapter B, VIII, 3).

International peer review

Particularly important impulses for further developing the Sustainable Development Strategy were provided at the start of the 19th legislative term by the international peer review organised by the Council for Sustainable Development. Helen Clark, former Prime Minister of New Zealand and until April 2017 Head of the United Nations Development Programme (UNDP), was in charge of the peer review. The other participating experts came from Mexico, Belgium, Switzerland, China, South Africa, the Netherlands, France, Norway, the UK and Canada.

The objective of the German Government was to use this third peer review (2009, 2013, 2018) to gain a neutral view of the strengths and weaknesses of its own activities.

Owing to its timing (the review was published a few weeks after the government was formed), it was possible to use the peer review as a starting point for German sustainability policy in the new legislative term.

The review was handed over to the Federal Chancellor on 4 June 2018 at the annual conference of the Council for Sustainable Development.

The peer review underlines the political importance of sustainability policy and the key role played by Germany in implementing the 2030 Agenda for Sustainable Development. The German Sustainable Development Strategy is held in high esteem internationally and Germany is well positioned its ambitious implementation, in the sense of “if Germany can’t do it, then who can?”

“We wish to express our gratitude to Germany for its willingness to permit an independent international review of this core government strategy and recommend this approach to all countries as a means of promoting implementation of the 2030 Agenda for Sustainable Development, the Sustainable Development Goals and the national sustainable development strategies.”

Helen Clark, 12 July 2018, New York

However, the experts also found much need for action that they set out as a recommendation containing 11 areas with a total of 66 subtopics. These were aimed above all at strengthening implementation of the existing GSDS, increasing the levels of ambition and at individual political issues considered particularly important.

Recommendations of the peer review

1. Continue what is working, expand what is good and change what is inadequate
2. Shape the institutional architecture for implementing the German Sustainable Development Strategy more effectively
3. Set own targets more ambitiously
4. Promote an enabling environment in which no-one is left behind
5. The German Government needs to strengthen its central coordination and resolutely address serious deviations from its own targets (off-track indicators)

6. Parliament: greater parliamentary scrutiny is required
7. The independent function of the Council for Sustainable Development must be strengthened
8. Bring communication up to date
9. Promote holistic thinking and education for sustainability
10. Indicators: expand budgets and monitoring activities
11. Address questions arising and apply the principles of the German Sustainable Development Strategy to Germany’s global interactions

A number of further stakeholders have since also made suggestions on updating the GSDS.

Parliamentary Advisory Council on Sustainable Development

On 11 March 2020, the Parliamentary Advisory Council on Sustainable Development adopted a discussion paper for the new 2020 version of the German Sustainable Development Strategy.

In this, it underlined the leading role assumed by Germany by applying the SDGs to the national context. At the same time, it repeated its view “that Germany can do more for sustainability than has been the case so far and that the core challenge lies in boosting the 2030 Agenda for Sustainable Development politically”. The Parliamentary Advisory Council on Sustainable Development also adopted a position paper on 1 July 2020 on attaching appropriate importance to sustainability targets in the legislative process (see Chapter B, III., 2, Presentation of the Parliamentary Advisory Council on Sustainable Development).

Council for Sustainable Development

In addition to the statement entitled “A sustainable recovery from the coronavirus crisis” (see Chapter A. 3.a.), the Council for Sustainable Development adopted a statement entitled “Get the decade of sustainability off to an ambitious start” on 13 May 2020 that contained initial recommendations for further developing the 2020/2021 German Sustainable Development Strategy. This was followed in October 2020 by the “Setting the right course now for the Decade of Action ahead” statement that was based on the draft Sustainable Development Strategy update (see Chapter B, 3.).

Bundesrechnungshof (German SAI)

The German SAI conducted a review of national implementation of the 2030 Agenda for Sustainable Development and to this end obtained information in June/July 2018 at the Federal Chancellery and from all ministries. It informed the German Government of the results 2019. In view of the relevance of this issue for society as a whole, it also reported on it in July 2020 to the Budget Committee of the German Bundestag.

In its audit reports, the German SAI praised the German Sustainable Development Strategy and the 2018 update, including the institutional architecture and leadership from the Federal Chancellery. The updated Strategy was found already to have addressed some weaknesses and points of criticism, above all from the peer review. This was an “important step in the right direction”. What was now needed was to “fill the GSDS with life”. The German SAI made suggestions here, particularly in the areas of consistency, evaluation, indicators and communication. It also considered it important for the ministries to fulfil their responsibility and develop their own strategies for implementing the GSDS in their respective areas of responsibility.

In addition, the German SAI regularly conducts further audits addressing the question of whether and to what extent the ministries include sustainability as a guiding principle in their administrative practices. Here it has pointed out among other things that sustainability aspects need to be better integrated into governmental actions.

The audit by the German SAI is to be viewed in the context of the 2016 agreements of the International Organisation of Supreme Audit Institutions (INTOSAI) in Abu Dhabi. These state that the supreme audit institutions are to assume an important role in implementing the 2030 Agenda for Sustainable Development and conduct the corresponding audits at national government level. It was decided in the Bonn Declaration of Sustainability adopted at the Conference of Presidents of the German SAI and the Audit Institutions of the German Federal States on 16 October 2018 that the audit institutions were to contribute within their respective mandates towards successfully accomplishing the goals of the 2030 Agenda for Sustainable Development.

Further proposals

Far-reaching recommendations for updating the Strategy were made by other stakeholders in spring 2020, including the Scientific Platform for Sustainability 2030 (wpn2030) and SDSN Germany (see Chapter B, VIII. 1–3.).

The aforementioned statements and recommendations were included along with the other tips from the Strategy dialogue in the consultations within the German Government. Conclusions on these can be found below and particularly in Chapter C.

II. Development and status of the Strategy

The coalition parties also committed themselves to the guiding principle of sustainable development for the 19th legislative term.

“The implementation of the 2030 Agenda and the promotion of sustainable development are a yardstick of government action. We aim to develop further Germany’s Sustainable Development Strategy in a steady and ambitious manner.”

Coalition agreement for the 19th legislative term

Sustainability definition

The concept of sustainable development or sustainability as a political guiding principle goes back to the Report of the Brundtland Commission of 1987:

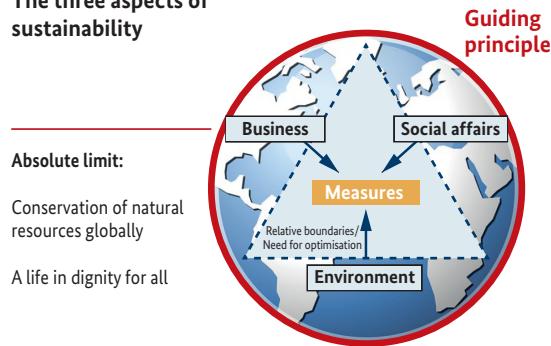
“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of “needs”, in particular the essential needs of the world’s poor, to which overriding priority should be given*
- the idea of limitations imposed by the state of technology and social organisation on the environment’s ability to meet present and future needs.”*

*World Commission on Environment and Development,
the Brundtland Commission, 1987*

The GSDS follows this definition.

The three aspects of sustainability



For the German Government, following the guiding principle of sustainable development means working towards its policies meeting the needs of today's and future generations equally – in Germany and in all parts of the world – and allowing them fulfilled lives of dignity. This requires economically efficient, socially equitable and environmentally sustainable development, constrained only by the planetary boundaries of our Earth together with the objective of a life of dignity for all (a life without poverty and hunger; a life in which all people can fulfil their potential in dignity and equality, see key message of the 2030 Agenda).

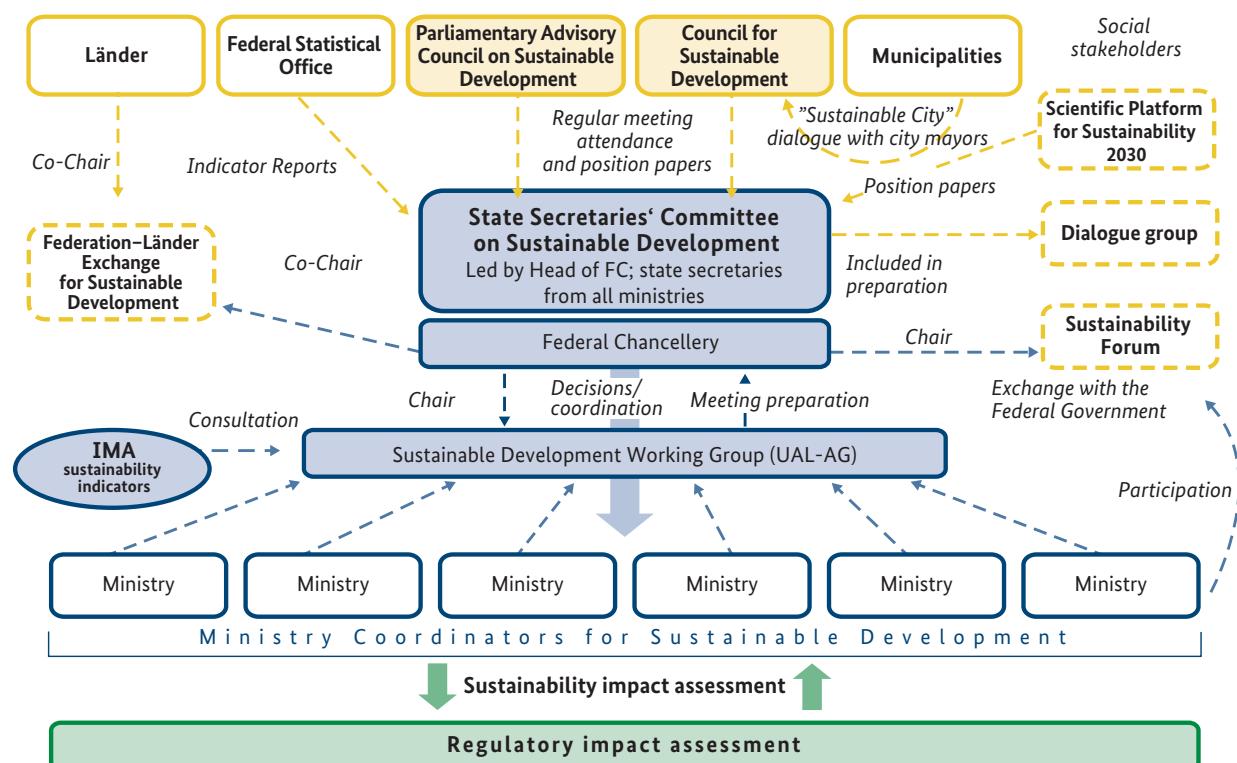
In its update of the 2018 Strategy, the German Government set out six principles of sustainable development. According to the first principle (see Chapter B, IV. 1.), "sustainable development" is to be applied consistently as a guiding principle in all areas and decisions.

Sustainability principle 1

"The overriding goal and benchmark of all actions is to safeguard the Earth's natural resources on a permanent basis and to enable all people to live a life in dignity now and in the future."

To this end, economic efficiency, the protection of natural resources, social justice and equal participation must be synthesised in all decisions, while taking account of systemic interrelationships and technological and societal innovations, so that developments for present and future generations are environmentally and socially sustainable on a global scale. Political action must be coherent."

Overview: institutions



The boundaries of our planet's resilience define a safe space within which development, global justice, prosperity and a good life can be achieved and permanently secured. According to this research, humanity has already left the safe space with regard to the loss of biodiversity, the disruption of biogeochemical cycles of nitrogen and phosphorus, climate change and land-system change. The value of the sustainability principle is thinking in the three sustainability dimensions business, environment and social affairs in order primarily to highlight their interrelationships and often conflicting objectives. Conflicting objectives also potentially exist between SDGs and within individual sustainability targets with regard to sustainable growth or the construction of infrastructures and urban development and the protection of nature and the environment. These can and must then be resolved by balancing the three sustainability dimensions of sustainability in fulfilment of Germany's international responsibility. This challenge resurfaces continuously for each sustainability goal.

Measures at three levels

The Sustainable Development Strategy presents Germany's measures for achieving the 17 SDGs at three levels (see Chapter C). Alongside measures with effects in Germany, there are also measures by Germany with a global impact. In addition, there is also the support of other countries in the form of bilateral cooperation (measures with Germany). This way Germany is showing that it is committed to full implementation of the 2030 Agenda and its SDGs and is taking on the full scale of this challenge as its own.

III. Institutions, structures and responsibilities

1. State Secretaries' Committee on Sustainable Development

The State Secretaries' Committee on Sustainable Development is chaired by the Head of the Federal Chancellery and serves as central coordinator for the Sustainable Development Strategy. As the highest-ranking government body for sustainable development, its task is to ensure that this guiding principle is tangibly applied to all policy areas.

To this end the State Secretaries' Committee on Sustainable Development is in future to report annually on its activities to the Federal Cabinet.

All ministries are represented on the Committee at Permanent Undersecretary of State level. The objective of the State Secretaries' Committee on Sustainable Development

is to gear the actions of the ministries in the different policy areas towards sustainable development through implementation of the Sustainable Development Strategy and the SDGs.

The chairs of the Council for Sustainable Development and the Parliamentary Advisory Council on Sustainable Development are also invited to each meeting.

The meetings of the State Secretaries' Committee on Sustainable Development are prepared and implementation by the ministries of the German Sustainable Development Strategy and its continuing evolution is supported by a working group under the direction of the Federal Chancellery in which all ministries are generally represented by the directors in charge of the matters in question. The Federal Ministry for the Environment is in charge of the interministerial working group for sustainability indicators.

Dialogue Group

A group of social stakeholders has been included in the preparation of the meetings of the State Secretaries' Committee on Sustainable Development since 2018.

In June 2018, 15 institutions and organisations from the fields of business, environment, society and development/international affairs were identified for this Dialogue Group, initially for the period 2018/2019 and now until 2021. Applications by the organisations/institutions during the 2017 meeting of the Sustainability Forum formed the basis of this selection. The ministry responsible for preparing each meeting topic invites these 15 permanent members and five other organisations/institutions with a particular connection to the topic to a meeting in preparation for the State Secretaries' Meeting.

Dialogue Group – organisations participating in ministry discussions in preparation for meetings of the State Secretaries' Committee on Sustainable Development:

- Friends of the Earth Germany
- Deutscher Naturschutzbund (German League for Nature Protection)
- World Wide Fund for Nature
- BDI The Voice of German Industry
- Confederation of German Employers' Associations
- Bundesdeutscher Arbeitskreis für Umweltbewusstes Management (German Environmental Management Association)
- German Farmers' Association
- DGB – German Trade Union Confederation

- Federation of German Consumer Organisations
- German Federal Youth Council
- VENRO (umbrella organisation of development and humanitarian NGOs in Germany)
- German Forum on Environment and Development
- Germanwatch
- Sustainable Development Solutions Network

Following the State Secretaries' Meeting, the members of the Dialogue Group are informed in writing about the outcome of the meeting by the lead State Secretary.

Interest was expressed by a number of stakeholders during the consultation in contributing to the work of the Dialogue Group. However, there is a degree of incompatibility between the size of the group and its efficient operation. From the perspective of the German Government, the form chosen represents a good compromise between the involvement of important multipliers for the dimensions of sustainability and limiting the size in order to facilitate in-depth discussion. However, the German Government will pay greater attention when selecting the five further organisations/institutions to ensuring that important multipliers for the issue in society are taken into account. Furthermore, the background papers for preparing the meeting are in future to be published promptly to enable further organisations/institutions to participate in writing.

Work programme of the State Secretaries' Committee on Sustainable Development

The State Secretaries' Committee on Sustainable Development follows a work programme that is issued for a period of approximately two years in each case. The following priority topics are still planned up to the summer of 2021:

- National Programme for Sustainable Consumption
- Local authorities as central stakeholders for sustainable development

a) Priority areas since 2018

The priority areas addressed by the State Secretaries' Committee on Sustainable Development since 2018 (19th legislative term) are described in more detail below. The resolutions of the meetings are published on the German Government's website (www.deutsche-nachhaltigkeitsstrategie.de).

State Secretaries' Meeting on the peer review, June 2018

Content of the meeting

The focal point of the Committee's first meeting in this legislative term on 5 June 2018 was a discussion of the recommendations of the peer review with the international experts. Out of 11 experts in total, Helen Clark, who was in charge of the peer review, and four others attended the meeting.

The members of the peer review underlined the key role played by Germany in implementing the 2030 Agenda. However, the experts also found much need for action (see above). The necessary transformation processes towards more sustainability had so far only taken place to a limited extent. The peer review members particularly emphasised the need for action in policy areas from the Sustainable Development Strategy that were falling short of their targets (off-track indicators). A more swift and decisive approach was required here and action plans were needed at ministerial level.

The peer review members also proposed a series of process improvements in sustainability policy, for example to strengthen the role of the State Secretaries' Committee and/or the Parliamentary Advisory Council on Sustainable Development Enshrining the sustainability principle in the Basic Law (Grundgesetz) was also proposed. Here, the peer review picked up on a proposal of the Council for Sustainable Development and consultations of the Parliamentary Advisory Council on Sustainable Development from the previous legislative term.

Owing to Germany's special responsibility for successful implementation of the 2030 Agenda, the group of experts thought that in some cases more ambitious objectives also ought to be drawn up. This applied among other things to the areas of land degradation, changes in agriculture, more sustainable production and consumer behaviour and speeding up the phasing out of fossil fuel production.

Implementation

The report of the experts has influenced the German Government's work on the Sustainable Development Strategy in many areas.

A separate communication budget for sustainability was incorporated into the federal budget in 2018 and additional funds were provided for the Regional Hubs for Sustainability Strategies (RENN) in line with the empha-



Federal Minister Prof. Braun, Head of the Federal Chancellery, and members of the State Secretaries' Committee on Sustainable Development with participating international experts (peers)

sis placed by the peer review on the importance of the regional level.

Concerning the off-track indicators, the State Secretaries' Committee on Sustainable Development approved a report on 16 December 2019 on "Implementation of the objectives of the German Sustainable Development Strategy", containing further measures (see indicators, p. 57).

As recommended by the experts in the peer review, the report was presented at the HLPF in New York (July 2018) by the head of the group of experts and other peers during a side event with representatives of the German Government and the Council for Sustainable Development. Germany's experience with the independent peer review of the Sustainable Development Strategy attracted much interest.

The implementation of the peers' recommendations will continue to be reviewed at the topic meetings of the State Secretaries' Committee on Sustainable Development (e.g. education for sustainable development).

State Secretaries' Meeting on global health policy, October 2018

Content of the meeting

At the meeting of 29 October 2018, the topic of global health policy was discussed with four experts from nation-

al and international research as well as the World Health Organization (WHO).

The State Secretaries' Committee on Sustainable Development underlined here the major importance of the health-related objectives of the UN 2030 Agenda for a sustainable global development and the increased effort needed to achieve them.

It furthermore emphasised the importance of the new global health strategy of the German Government, also against the background of the high international expectations placed on Germany's recognised commitment. The German Government will also continue to support the development and implementation of the Global Action Plan for Healthy Lives and Well-being for All aimed at implementing health-related sustainability objectives. This originates from a joint initiative between Federal Chancellor Angela Merkel, Norwegian Prime Minister Erna Solberg, and Ghana's President Nana Akufo-Addo, with the World Health Organization commissioned to coordinate its preparation.

Closer interministerial cooperation on global health was agreed in view of the close links of health with many other objectives of the 2030 Agenda and the German Sustainable Development Strategy. There was also recognition of the importance of networks and dialogue platforms for achieving the goals of the 2030 Agenda in order to consolidate the interdisciplinary exchange.

Implementation

The German Government's new global health strategy was drawn up under the leadership of the Federal Ministry of Health and adopted by the Federal Cabinet on 7 October 2020. The strategy aims to address core issues of global health, with the further strengthening of the WHO as the coordinating body in charge playing a central role politically, institutionally and financially.

The Global Action Plan for Healthy Lives and Well-being for All was published on the fringes of the UN General Assembly Week in September 2019 under the title "Stronger Collaboration, Better Health". Under the leadership of the WHO, 11 further multilateral organisations focusing on global health, development cooperation and humanitarian aid undertake to increase the consistency and coordination of their cooperation in order to accelerate the implementation of SDG 3 and other health-related sustainability targets.

The German Government is supporting implementation of the Global Action Plan via the organisations involved and continues to advocate for better coordination locally. This is of major relevance particularly in the context of the current COVID-19 crisis. Among other things at the request of the German Government, the organisations have undertaken to report annually on their progress with the Global Action Plan.

To facilitate a multi-sector and multi-stakeholder exchange of experience, activities and innovative solutions on global health issues and increased networking, the Global Health Hub Germany was established with the support of start-up funding from the Federal Ministry of Health in early 2019 as an overarching platform in Germany.

State Secretaries' Meeting on Federation-Länder cooperation on sustainable development and climate-neutral administration, December 2018

Content of the meeting

The objective of the Committee's meeting of 10 December 2018 was to strengthen the Federation-Länder cooperation on sustainable development and exchange views on the topic of sustainable administration, especially climate-neutral administration.

The Heads of the State and Senate Chancelleries of Baden-Württemberg, Bremen, Hamburg, North Rhine-Westphalia, Schleswig-Holstein and Thuringia attended the meeting.

The Federal Government and the Länder stressed that ambitious joint activities were required to implement the Global Sustainable Development Goals and also underlined the importance of broader and more intensive communication of the sustainability issue.

The State Secretaries' Committee on Sustainable Development also discussed with colleagues from the Länder how administrations might in future act in a more sustainable and above all climate-neutral manner. Furthermore, the representatives of the Federal Government and the Länder unanimously underlined the importance of sustainable public procurement.

The representatives of the German Government saw commitments at Länder level, most of which wish to achieve the goal of climate-neutral Land administration by 2030, as an incentive and incitement for the federal administration. In order to achieve climate neutrality, priority needed to be given to the avoidance and reduction of greenhouse gas emissions as opposed to offsetting them.

Implementation

On 6 June 2019, the Federal Chancellor and the Länder Heads of Government issued a joint declaration entitled "Working together to promote sustainable development – assuming responsibility for a bright future in Germany, Europe and around the world" (p. 69).

With a view to updating the GSDS, the Federal Government held dialogue conferences together with the Länder in Stuttgart, Norderstedt and Bonn.

In addition, the Centre of Excellence for Sustainable Procurement held a consultation meeting with individual Länder in early March 2020 regarding a joint Federation-Länder training initiative on sustainable public procurement.

By adopting the 2030 Climate Action Programme and the Federal Climate Change Act, the Federation has set itself the target of organising its own administration in a climate-neutral manner by 2030. A Climate-Neutral Federal Government Coordination Unit was set up at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in February 2020 on the basis of a resolution of the State Secretaries' Committee on Sustainable Development of December 2019. This Unit is also entrusted with perpetuating the Federation-Länder Exchange on Climate-Neutral Administration.

It commenced its duties in 2020 (see Chapter B. V. for further information).

The Federal Ministry for Economic Cooperation and Development was the first Federal Ministry to achieve climate neutrality at the end of 2019, followed by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in 2020. CO₂ emissions are calculated as part of the environmental management system according to the Eco-Management and Audit Scheme (EMAS). Emissions in 2020 are to be offset retroactively from 2018.

State Secretaries' Meeting on sustainable finance, February 2019

Content of the meeting

The potential of sustainable finance for sustainable development was discussed together with experts from the financial sector at the meeting on 25 February 2019.

The Committee stressed that sustainable finance could contribute to the achievement of sustainability targets. At the same time it was made clear that above all environmental and associated real economic changes could pose significant risks for individual financial market participants as well as the financial market as a whole.

The Committee therefore welcomed the fact that financial market participants were already taking sustainability aspects into consideration to some degree in their investment decisions. The State Secretaries' Committee on Sustainable Development also encouraged financial market participants to address adequately the consequences of their actions for people and the environment.

It was agreed that a sustainable finance strategy for the German Government was to be developed in order to make Germany a leading country for this issue.

The following further steps were also agreed:

- Establishment of a Sustainable Finance Committee for dialogue between the German Government and the financial sector, real economy, civil society and science
- Continuation of the Exchange on Sustainable Finance for government-linked investments
- Development of a communication strategy to raise awareness among consumers and the financial industry about sustainable finance

- Review of whether the issue of green or sustainable Federal Bonds in Germany within the planned follow-up financing is feasible.

Implementation

The resolutions of the State Secretaries' Committee on Sustainable Development are currently being implemented. The Sustainable Finance Committee created by the Federal Ministry of Finance and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in close consultation with the Federal Ministry for Economic Affairs and Energy was constituted in June 2019. Thirty-eight representatives from the financial sector, real economy, science and civil society are currently discussing possible recommendations for action to serve as a basis for the development of a sustainable finance strategy for the German Government.

To this end the Advisory Council published an interim report with action approaches in March 2020 and brought it up for discussion within the framework of a consultation. The final report is to be published in the first quarter of 2021 and will serve as a central source of input for the German Government's sustainable finance strategy.

The German Government has continued the exchange on possible sustainable investment strategies with the aim of adequately taking into account risks arising from ESG aspects for government-linked investments. The State Secretaries' Committee on Sustainable Development wishes to underline that the methodological freedom for the implementation of sustainable investment concepts is important as government-linked investments vary greatly in terms of volumes, targets, legal requirements and management. On 30 January 2020, a Federal Ministry of Finance workshop was held with the aim of facilitating a general exchange of opinion with real economy experts and members and observers of the Sustainable Finance Committee. This included a discussion of possibilities for implementing a new sustainability concept for the equity investment of four government-linked special funds. A suitable share index is to be found or newly developed for these special funds.

A review of the economic viability of issuing green federal securities came to a positive conclusion. On 2 September 2020, the first ten-year green Federal Bond was successfully issued with a volume of EUR 6.5 billion. It attracted very high demand and was five times oversubscribed. Compared with the conventional twin bond, the Federal Bond achieved an interest saving of one basis point. The issue of the five-year green Federal Bond in an auction process on 4 November was also successful. Investors were thus prepared to pay a premium for "green". A green yield curve is to be estab-

lished in the long term. To this end, green federal securities are being integrated into the regular capital market presence of the Federal Government and issued regularly in different maturity segments.

State Secretaries' Meeting on sustainability policy at global and European level, May 2019

Content of the meeting

At its meeting of 27 May 2019, the Committee addressed questions concerning international and European sustainability policy. Experts from the scientific community and from the European Environment Agency attended the meeting. It was agreed that the speed of implementation of the goals of the 2030 Agenda for Sustainable Development also needed to be significantly increased at international and EU level.

The Committee announced that, at the SDG Summit in September 2019, the German Government would advocate a global appeal to accelerate implementation of the Agenda.

With a view to the EU level, the Committee stressed that the 2030 Agenda needed to be implemented more quickly than before. The Agenda should be given more consideration in all relevant policy areas in future. The German Government would continue to push for a 2030 Agenda implementation strategy at European level.

This should define EU sustainability targets and initiate a political process enabling their attainment to be reviewed regularly.

The State Secretaries' Committee on Sustainable Development furthermore agreed to organise events during Germany's presidency of the Council of the EU in compliance with sustainability criteria.

Implementation

There is still consensus that, particularly in view of the global consequences of the COVID-19 pandemic, there is an urgent need to accelerate the implementation of the 2030 Agenda.

The Federal Chancellor, Federal Minister of the Environment Schulze and Federal Development Minister Müller attended the United Nations SDG Summit in September 2019. Thanks also to the strong German commitment, an ambitious political declaration was adopted at the summit proclaiming a Decade of Action and Delivery for the implementation of the 2030 Agenda. It was also decided that "SDG moments" would in future take place in the

first week of the UN General Assembly. The goal of these high-ranking events was to be to maintain the political momentum for powerful SDG implementation, and forge broad alliances for this purpose (see also Chapter II.1).

The goal of a European 2030 Agenda implementation strategy has not been formally achieved at EU level. However, the Commission presented an approach on 18 November 2020 for overseeing and achieving the SDGs that contains many elements of a strategy. One of the key objectives of Germany's presidency of the Council of the EU was thus achieved (see Chapter II.2).

To stage events in a sustainable and climate-neutral manner during Germany's presidency of the Council of the EU, the German Government based all events on the tried-and-tested sustainability guidelines of the Federal Environment Agency and the Federal Ministry for the Environment. The criteria include aspects such as venue selection, waste management, catering and travel options for guests. For example, regional, fair trade and largely plant-based foods were offered, and there were no give-aways.

All unavoidable emissions were offset. The Federal Environment Agency has collected data about the total volume of emissions for Germany's presidency of the Council of the EU and calculated 71,519 tonnes of CO₂ equivalents. This also includes flights by participants that were not already offset otherwise.

To offset those emissions, Germany purchased emission reduction credits (ERC) from projects certified according to the UN Kyoto Protocol's Clean Development Mechanism (CDM). These ERCs also finance climate protection projects that not only demonstrably reduce local emissions but also generate long-term benefits for the project countries, for example by creating new jobs locally or protecting the health of the local population.

State Secretaries' Meeting on digitalisation and sustainability/digital policy for sustainable economic activity, November 2019

Content of the meeting

At the Committee's meeting on 11 November 2019, the State Secretaries underlined the major opportunities offered by digitalisation, for instance in the analysis of substantial quantities of data in the areas of decentralised energy supply, intelligent transport planning and sustainable production.

Digitalisation along the value chain was seen as a core factor in achieving the SDGs. Transparency about the origin of raw materials, resource and energy consumption, social aspects and the respect of human rights is essential.

At the same time, the participants of the meeting were aware that digitalisation could entail some significant economic, social and environmental consequences.

The Committee therefore considered it important for digitalisation and sustainability to be considered in all German Government strategies, so that digitalisation strategies can contribute even more towards achieving the Sustainable Development Goals.

The participants underlined the necessity of a reliable data infrastructure that protected the rights of its users. The Data Science for Sustainable Development initiative of the Federal Ministry of Education and Research was supported by the State Secretaries. The Committee favoured the initiative being implemented as part of the interministerial City of the Future innovation platform.

SMEs play a decisive role for achieving the SDGs. 99.5 % of businesses in Germany are small and medium-sized enterprises. They generate 54 % of output. A suitable network for transporting the concept of sustainability through digitalisation to SMEs is SMEs Digital. 26 Mittelstand 4.0 Centres of Excellence spread throughout the country support SMEs with expertise and specific implementation projects on topics such as law (Recht 4.0), IT security and digital business models.

Implementation

The Federal Ministry of Education and Research is implementing the resolution in particular via the Natural. Digital. Sustainable action plan published in December 2019. The Data Science for Sustainable Development (DSSD) and Digital GreenTech measures, as well as the integration of digitalisation in the national Education for Sustainable Development (ESD) process are core components of the action plan.

As part of the Digital GreenTech initiative, the Digital GreenTech – Umwelttechnik trifft Digitalisierung (Digital GreenTech – environmental technology meets digitalisation) programme announced in March 2020 offers funding for sustainable digital environmental technologies to protect natural resources and reduction of the environmental impact. In the area of ESD, digitalisation experts are now providing input to the national process in order to embed ESD+digitalisation in educational frameworks.

The link between sustainability and digitalisation is also reflected in a large number of activities on the part of the Federal Ministry for Economic Affairs and Energy. "Living more sustainably through digitalisation" was the key theme of the German Government's 2020 Digital Summit. The "Innovative Digitalisation of the Economy" platform is developing a concept for connecting digital sovereignty, sustainability and resilience. The Industry 4.0 platform, which with its 2030 Vision is clearly committed to sustainability, is drawing up practical recommendations for action in working groups, among other things regarding the circular economy. The Sustainability Task Force of the Industry 4.0 platform has prepared a discussion paper with conceptual considerations and an illustration of the role of Industry 4.0 in environmental sustainability. It also collected a large number of best practice examples. The discussion paper was published at the 2020 Digital Summit and is available online. An interactive guideline has been developed within the SMEs Digital network for SMEs to conduct a self-analysis of their environmental and social challenges with best practice examples (on issues such as sustainability standards along the value chain). "Living more sustainably through digitalisation" was also the key theme of the German Government's 2020 virtual Digital Summit in Jena. The increasing energy consumption due to the use of digital technologies poses a challenge for the energy efficiency policy and is included in the German Government's 2050 Energy Efficiency Strategy that was adopted by the Federal Cabinet at the end of 2019. The 2050 Energy Efficiency Strategy serves as the go-ahead for a process of dialogue with the stakeholders of the Energy Efficiency Platform. Within this framework, topic-based working groups are to draw up ways of addressing untapped energy efficiency potential, including in the area of digitalisation.

State Secretaries' Meeting on sustainable mobility, December 2019

Content of the meeting

At its meeting on 16 December 2019, the Committee discussed current challenges of sustainable mobility, including with a view to the conclusions of the Sustainable City dialogue among mayors hosted by the Council for Sustainable Development which addressed the issue of how and by which means we wish to be mobile in the future.

The State Secretaries' Committee on Sustainable Development underlined that mobility both in Germany and globally needed to change direction towards a sustainable system. The competitiveness of Germany's mobility economy will increasingly depend on innovations facilitating environmentally and socially compatible mobility.

The members of the Committee referred to the importance of the 2030 Climate Action Programme. This contains a large number of key decisions for reducing CO₂ emissions in the entire transport sector value chain, and shaping future mobility. The German Sustainable Development Strategy is an important foundation for developing sustainable mobility that is geared towards the avoidance, relocation and improvement of passenger and goods transport. It should also permit the components of sustainable mobility that are already in place, and those still required, to be combined.

The Committee underlined the opportunities of digitalisation, for instance in the area of rail networks and technology, autonomous driving and for new mobility services. Passenger transport and logistics could be linked in a cost and time-efficient manner. There are also various initiatives to advance the development of integrated, intermodal, transregional mobility platforms which can be used to plan, book and pay for journeys involving various transport providers. The State Secretaries stressed the need to improve rail travel, cycling, walking and public transport significantly, including an expansion of overnight rail services, to make the railways an increasingly attractive alternative also to national and European air travel. In cooperation with the Länder and the municipal umbrella organisations, the legal scope of local authorities to manage and redistribute land is to be broadened. Greater consideration than before is to be given to cycle traffic in the allocation of public space. The National Cycling Plan (NRVP 3.0) planned for 2020 was one of the plans that was highlighted.

With a view to the role model function of the public sector, the Committee recommended initially introducing mobility management for the supreme federal authorities. To reduce the emissions from official trips, rail use is also being facilitated where the costs are higher.

Implementation

The German Government is creating the framework for the operational implementation of the bundle of individual measures contained in the 2030 Climate Action Programme. Some of these measures are still at the conception phase, while others are already being implemented. This is illustrated by the following examples:

- E-mobility/charging infrastructure

In November 2019 the German Government approved a master plan for the development of charging infrastructure. It contains a large number of measures to create publicly and non-publicly accessible charging infrastruc-

ture. The aim is to install an additional 50,000 public charging stations (compared with the autumn of 2019) by the end of 2021. The Federal Ministry of Transport and Digital Infrastructure brought a funding guideline into force on 1 November 2020 to devote EUR 200 million to expanding the private charging infrastructure. It runs until 31 December 2023. The public charging infrastructure programme is also being continued in the spring of 2021 with a further budget of EUR 500 million. A new EUR 350 million grant programme for the commercial charging infrastructure was also to follow in the spring of 2021. Its focus will be charging stations for electric vehicles at the workplace (especially during working hours).

- Market launch of alternative fuels

The Federal Ministry of Transport and Digital Infrastructure is continuing the German Government's mobility and fuel strategy here. At the same time, the market launch is being prepared. Renewable fuels (electricity-based fuels from renewable energies and advanced biofuels) are an important element of the 2030 Climate Action Programme. To develop the corresponding infrastructure for alternative fuels, the Federal Ministry of Transport and Digital Infrastructure will receive a total of around EUR 1.54 billion from the Special Energy and Climate Fund (EKF) and the National Hydrogen Strategy in the period from 2021 to 2024. The necessary concepts are currently being prepared to support the market launch of electricity-based jet fuel, generating facilities for advanced biofuels and other electricity-based renewable fuels, and the development of renewable fuels.

- Research for rail as a mode of transport

The German Centre for Rail Traffic Research at the Federal Railway Authority is carrying out climate action projects that have been started or already completed, such as the Innovative Freight Wagons project and a study on innovative traction units. The 2021 budget contains more funds for rail research – an additional EUR 7 million and commitment appropriations of EUR 10 million, among other things for LärmLab 21, the testing of digitally automated coupling and the digital test bed.

- Climate-neutral Federal Government

This is being supported by a coordination unit newly set up at the Federal Ministry for the Environment.

- Introduction of mobility management initially at supreme federal authorities

In 2019, the Federal Environment Agency issued a booklet entitled *Mobilitätsmanagement in der Bundesverwaltung* (Mobility Management in the Federal Administration), containing practical recommendations for action. On 23 April 2020, the Federal Ministry of Transport and Digital Infrastructure also published its *Mobilitätsmanagement in Bundesbehörden* practical guide to mobility management at federal authorities, which had been drawn up on the basis of a pilot project. These action guidelines already take account of measures contained in the 2030 Climate Action Programme. This applies in particular to an amendment to federal travel expenses legislation such that to reduce emissions from official trips, decisions should be made not just on the basis of cost-effectiveness, but should also consider sustainability and environmental compatibility. The use of rail travel for official trips is already possible, even if the costs exceed those of travelling by air (circular of the Federal Ministry of the Interior of 21 January 2020).

In a decree of 14 January 2020, the Federal Ministry of Transport and Digital Infrastructure instructed its subordinate authorities to purchase primarily low-emission official vehicles (passenger cars and light commercial vehicles) within the meaning of section 2 of the Electric Mobility Act (Elektromobilitätsgesetz).

- Sustainable mobility research agenda

Since early 2020, the Federal Ministry of Education and Research has been supporting mobility project experiments at local government level with around EUR 34 million via the "Sustainable Urban Mobility" research agenda. Around 50 local government projects throughout Germany have been supported since early 2020 in order to bring about a sustained change to the mobility sector together with central stakeholders and multipliers from business, civil society and science. Specifically, the projects address issues including multimodal mobility, public transport, mobility services and the digitalisation of mobility. As well as the prompt implementation of innovative concepts, 12 interdisciplinary research projects with a long-term perspective are also being supported from the summer of 2020. These are creating new systemic approaches that will in future help to review the effects of the measures deployed and enable their effectiveness to be demonstrated.

State Secretaries' Committee Meeting on the requirements for a sustainable development of the food system, July 2020

Content of the meeting

At its meeting of 13 July, the State Secretaries' Committee

addressed the challenges of sustainable dietary habits as well as political measures and instruments for strengthening sustainable food systems. External scientific experts also attended the meeting.

The Committee expressed its commitment to the creation of sustainable food systems within the meaning of the 2030 Agenda for Sustainable Development at global, European and national level. In view of the COVID-19 pandemic, it underlined the systemically relevant importance of regional food production in Germany and throughout the world, as well as the high social and political relevance of the supply of health-promoting, sustainably produced and sufficiently affordable foods.

It made clear that the safeguarding of food supplies must be understood as a challenge of sustainable food systems throughout the entire value chain from production, processing and trading through to consumption and disposal, including protection of the environmental assets. This includes promoting sustainable agriculture that avoids negative impacts on developing countries. The Committee emphasised that the Farm-to-Fork Strategy of the European Commission set out objectives for creating more sustainable food systems at global, EU and national level.

It welcomed the establishment of the Commission on the Future of Agriculture, that will examine how to facilitate more sustainable agriculture in Germany. Furthermore, the role model function of public-sector mass catering facilities was stressed, particularly those of the federal administration. These facilities are to be geared more closely to sustainability requirements, with organic food accounting for at least 20 % of that served at federal administration canteens.

Implementation

At EU level, the German Government is arguing in the negotiations on the update to the Common Agricultural Policy (CAP) for greater ambition with regard to environmental and climate action. The other objectives of the CAP, such as security of supply, development of rural areas, competitiveness, income stability and risk hedging also need to be adequately borne in mind with a view to environmental, economic and social sustainability.

During Germany's presidency of the Council of the European Union, the German Government called for the update of the CAP for the period after 2020 to be brought into line with the goals of the European Green Deal, which are substantiated by the Farm-to-Fork Strategy in the area of agriculture and diet. The Federal Ministry of Food and Ag-

riculture also tabled the introduction of an animal welfare label and a standardised enhanced nutrition label across the EU for discussion by the Council.

The public sector has a special role model function in the organisation of mass catering facilities. It is with this in mind that the Federal Ministry of Food and Agriculture launched the Bio Bitte – mehr Bio in öffentlichen Kantinen (More organic food in public canteens) initiative as part of implementation of the Strategy for the Future of Organic Farming. The initiative funded via the Federal Scheme for Organic Farming and Other Forms of Sustainable Agriculture (BÖLN) aims to provide decision-makers in politics, administration and practice with targeted assistance in the introduction and expansion of the use of organic food at public facilities such as day nurseries, schools, retirement homes, hospitals and office canteens. Among other things, an initial one-day dialogue forum for stakeholders and decision makers in the federal administration is planned for the autumn of 2020 that is to offer practical guidance and support the process for achieving the goal of an organic food share of at least 20% at the federal government's canteens.

The Commission on the Future of Agriculture was installed by the Federal Cabinet in July 2020. A branch office is being established at the Federal Ministry of Food and Agriculture in order to provide organisational support. The Commission is to draw on experts, scientists and social stakeholders, especially environmental, animal welfare and consumer associations, to draw up practical recommendations for productive and resource-conserving agriculture. A final report is to be issued in the summer of 2021.

Based on its guidelines for the promotion of deforestation-free supply chains for agricultural commodities that were approved in April 2020, the German Government will in future position itself even more strongly both at the national level and in bilateral relations and international forums. It will also participate actively in the promotion of deforestation-free agricultural supply chains. Particular attention will be paid here to the protection promotion of deforestation-free supply chains for agricultural commodities are described in the guidelines. With these proposed solutions, the German Government wishes to make a recognisable contribution to the preservation of forests throughout the world, by eliminating deforestation from the production and import of agricultural products.

State Secretaries' Meeting on sustainability "Made in Germany" – opportunities and challenges for businesses operating sustainably, October 2020

Content of the meeting

At its meeting of 26 October 2020, the State Secretaries' Committee discussed the importance of businesses to sustainable development. Two representatives of sustainability-related enterprise initiatives also attended the meeting as guests. The Committee underlined the major responsibility of businesses in achieving the Sustainable Development Goals. Long-term business success is not possible without safeguarding social and environmental objectives, while innovative and competitive enterprises are needed for successful sustainable development.

The State Secretaries' Committee identified the need for an alliance of society, business and government for climate neutrality and prosperity, and considers the European Commission's European Green Deal to be a unique opportunity to advance climate protection, sustainability and the economy together. At the meeting it praised the successes and innovative solutions already achieved by businesses in reaching the Sustainable Development Goals, while at the same time noting the need for further changes at companies in their internal and external orientation and actions. The state was also called upon here to create economically viable, reliable operating conditions, and the social partners were called upon to get involved.

The State Secretaries' Committee consider corporate sustainability reporting to be an important lever for driving forward sustainable development. It therefore welcomed the review of Directive 2014/95/EU ("CSR Directive") by the European Commission, as well as the drafting of recommendations for action to strengthen non-financial reporting by the Sustainable Finance Committee of the German Government and – on behalf of the Federal Ministry of Justice and Consumer Protection – by the Accounting Standards Committee of Germany. It is important of primary forests. Approaches to the for representatives of business, civil society and science also to be involved in this.

In this connection the State Secretaries' Committee referred the decision of the German Government of 16 September 2020 to incorporate the German Sustainability Code in the principles of good corporate governance and active holdings management in the federal administration (Public Corporate Governance Code). It would also be pleased to see even more companies participating in the German Sustainability Code.

The State Secretaries' Committee underlined the expectations of the German Government from all businesses, as set out in the National Action Plan on Business and Human Rights adopted in 2016, to introduce a process of corporate due diligence. This would cover respect for human rights along their supply and value chains in a manner appropriate to their size, sector and position. The Committee referred to the ongoing preparations of key issues for national and possible European legislation.

As public procurement is an important instrument for promoting sustainable and innovative products and services, thereby making sustainable corporate action even more viable economically and generating the right impetus for a sustainable economic recovery, the State Secretaries' Committee called on the procurement agencies to make consistent use of the scope for sustainable procurement offered by public procurement legislation. It also referred to the initiative of Germany's presidency of the Council of the EU to adopt Council Conclusions to support sustainable and innovative procurement at the EU level. These were adopted on 25 November 2020.

Implementation

The ministries are making use of their discussion formats with businesses and business associations as well as joint implementation initiatives with businesses to drive forward the sustainable development of the economy, be able to identify need for action at an early stage, and to support knowledge transfer. Examples of discussion formats with business are the German Government's National CSR Forum, the Stakeholder Roundtable on Sustainability of the Federal Ministry for Economic Affairs and Energy, the National Platform for Resource Efficiency, the German Government's Sustainable Finance Committee, the Global Compact Network Germany, and the sector dialogues of the Federal Ministry of Labour and Social Affairs, as part of the National Action Plan on Business and Human Rights.

As there are a large number of advisory and support programmes assisting companies in achieving the Development Goals, the Federal Ministry of Labour and Social Affairs is further developing the www.csr-in-deutschland.de information portal in collaboration with the other ministries, so that companies are referred in a swift and needs-based manner to suitable advisory and support programmes of the Federal Government and in a further step to those of the Länder.

The principle of the circular economy is a suitable concept with which companies can contribute towards the transition to a climate-neutral and resource-efficient economy. With this in mind, the Federal Ministry for Eco-

nomic Affairs and Energy has identified potential activities from an economic policy perspective for promoting the circular economy, while taking account of the many projects and strategies that already exist, including those concerning norms and standards. It also plans to involve other ministries, and business and professional associations.

The implementation of the SDGs and the targets of the German Sustainable Development Strategy are a fixed component of the economic policy reporting of the Federal Ministry for Economic Affairs and Energy. Sustainability aspects and selected sustainability indicators are communicated even more strongly here.

State Secretaries' Meeting on sustainability: education and commitment – strengthening education as the key to sustainable development, December 2020

Content of the meeting

At its meeting of 14 December 2020, the State Secretaries' Committee discussed the key role of education and commitment for sustainable development. Three guests from civil society and the scientific community took part in the meeting and highlighted the particular relevance of education and communication for sustainability. A special emphasis was placed here on supporting the commitment of young people to sustainable development.

In its resolution, the State Secretaries' Committee underlined the major importance of SDG 4 "High-quality education", especially target 4.7 "Education for sustainable development", as a driver for implementing the SDGs and the German Sustainable Development Strategy. The objective of education for sustainable development (ESD) is to enable people to understand the impact of their own actions on the world and to make responsible, sustainable decisions. The State Secretaries' Committee therefore confirmed the German Government's support of the new UNESCO ESD 2030 programme.

The Committee also pointed to the effects of the COVID-19 pandemic and the risk of reinforcing existing inequalities and creating new ones. Here the State Secretaries underlined the need to further develop and expand education for sustainable development in all areas of education – day nurseries, schools, companies, universities and sports clubs. Important ESD stakeholders here are the Länder, which are cooperating with the German Government within the scope of the curriculum focusing on the theme of global development, and local authorities. The commitment of civil society to ESD is also a core ele-

ment, especially in the non-formal education sector, and needed to be strengthened.

The commitment of many young people, for instance in the Fridays for Future movement, has shown how strongly they are standing up for a sustainable future. The State Secretaries' Committee confirmed the targets German Government's Youth Strategy. This includes inspiring and enabling as many young people as possible to participate actively in civil society. Scope is to be created for to strengthen the engagement of young people, as well as international exchange, for example by means of international voluntary service programmes, youth exchange schemes and school twinning projects. Young people will also continue to help shape the new UNESCO ESD 2030 programme nationally.

As well as initial and further training for educational staff, the training of managers is crucial for the success of education for sustainable development. This is also true of those working in government. The State Secretaries' Committee underlined here the role model function of the Federal Government and the necessity also to establish ESD at all levels of federal administration. The establishment of the new sustainability training office at the Federal Academy of Public Administration was thus welcomed by the State Secretaries' Committee.

Implementation

To strengthen education and commitment to sustainability, the participatory multi-stakeholder approach of the German Government to implement the National Action Plan on ESD will be continued. The Action Plan is to be supplemented with new measures. Further measures and nationwide transfer are to be supported via the National Platform on Education for Sustainable Development. This will enable ESD to be successfully embedded in the entire education system, thereby also strengthening engagement for sustainability.

Vocational training for sustainable development (VETSD) where education, work and profession meet offers special potential for applying the principles of sustainability to professional activity and stimulating a sustainability-centric transformation in business and society. The transfer between science and the world of work will therefore continue to be supported with the corresponding funding from VETSD.

The link of sustainability-oriented research with teaching is also important and for this reason the Sustainability in Science Initiative (SISI) is to be continued and further developed.

The new sustainability training office at the Federal Academy of Public Administration (BAköV) will develop a needs-based portfolio of courses for ministries and federal authorities, particularly with a view to the objective of sustainability in governmental actions and the achievement of a climate-neutral administration by 2030. The specific needs of managers, employees and particular target groups such as environmental managers/officers will be addressed here and new formats and practical concepts tried out where appropriate in addition to the existing courses.

b) Further meeting elements

Ministry reports

To boost the implementation of the GSDS and the achievement of the SDGs, all ministries set out how all of the component parts of their ministry policies help to further the implementation of the German Sustainable Development Strategy and the 2030 Agenda for Sustainable Development. This is done once per legislative term at a meeting of the State Secretaries' Committee on Sustainable Development. Particular attention is paid here to conflicting objectives, and to how these goals interact with other targets. The ministry reports are published and sent to the Parliamentary Advisory Council on Sustainable Development after the meeting of the State Secretaries' Committee on Sustainable Development. This also helps to strengthen the systematic implementation of the goals set (as advocated in the international peer review and the dialogue process).

Ministry reports were presented from 2018 up to and including December 2020 by the Federal Ministry for Economic Affairs and Energy, Federal Ministry for Economic Cooperation and Development, Federal Foreign Office, Federal Ministry of Defence, Federal Ministry of Finance, Federal Ministry of Food and Agriculture, Federal Ministry of Health, Federal Ministry of Education and Research, Federal Ministry of Labour and Social Affairs, Federal Ministry for Families, Senior Citizens, Women and Youth, Federal Ministry of Justice and Consumer Protection, Federal Ministry of the Interior, Federal Ministry of Transport and Digital Infrastructure, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Federal Government Commissioner for Culture and the Media. The Federal Foreign Office and Federal Ministry of Defence for a second time. The reports are published at www.deutsche-nachhaltigkeitsstrategie.de.

Flagship projects

The State Secretaries' Committee has selected a flagship project for each year since 2012. Innovative projects of an exemplary nature have been recognised for cooperation between ministries (horizontal integration) and involving different levels (vertical integration).

Global-local: locating the 2030 Agenda flagship project 2018

The Global-local: locating the 2030 Agenda project was selected as the flagship project for 2018. This includes the Municipalities for Global Sustainability project, financed by the Federal Ministry for Economic Cooperation and Development, that supports the embedding and implementation of the 2030 Agenda at the local level. Local authorities are advised and supported in their strategy development within the framework of a coherent multi-level approach (Federal Government, Länder, local authorities).

The flagship project links global challenges with local activity and strengthens relevant stakeholders. The aim of the project is to help local government to implement the 2030 Agenda within their municipalities. To this end the Federal Ministry for Economic Cooperation and Development provides methodical assistance in drawing up customised sustainability strategies. German local authorities swap their experiences with municipalities from the Global South, thereby enabling both partners to learn from each other. A special feature of the project is the broad-based cooperation between local authorities, Länder and the Federal Government.

2019 flagship project

The lightweighting strategy for Germany's industrial sector (Schlüsseltechnologie Leichtbau: Ein Prozess für die Entwicklung einer Leichtbaustrategie für den Industriestandort Deutschland) was singled out as the 2019 flagship project. Lightweighting is a design philosophy that is based on a simple principle, and plays an important role in many industrial sectors. It aims to save weight, energy and emissions while maintaining or improving functionality and simultaneously enhancing resource efficiency.

A key issues paper was drawn up at three workshops as part of an interactive process with the relevant stakeholders from March 2019 to October 2020. It has now been incorporated into the lightweighting strategy of the Federal Ministry for Economic Affairs and Energy. The strategy was published in early January 2021.

This instrument is not being continued as the idea associated with it is now so widespread in the creation and realisation of projects that it no longer seems necessary to single out one particular project every year.

2. Parliamentary Advisory Council on Sustainable Development

The German Bundestag decided in 2004 to establish the Parliamentary Advisory Council on Sustainable Development. It has since been reconstituted at the start of each legislative term.

The Parliamentary Advisory Council plays an important role where the social and political arenas meet. It supports the German Government's policy on sustainability at national, European and international level in the German Bundestag, and can determine the areas to which it will lend impetus.

Composition

The Parliamentary Advisory Council has 17 ordinary and 17 deputy members, of whom six ordinary and six deputy members are from the CDU/CSU parliamentary group, three from the Social Democratic Party of Germany, and two each from the AfD, Free Democratic Party, DIE LINKE and Alliance 90/The Greens. The Chair is Andreas Lenz, CSU, Member of the Bundestag, and the Deputy Chair is Nina Scheer, SPD, Member of the Bundestag.

Tasks

The Parliamentary Advisory Council brings the issue of sustainability into the German Bundestag and uses the stimulus provided by the GSDS and 2030 Agenda for political work in the parliamentary groups, committees and plenary debates in the German Bundestag.

To this end it holds regular public discussions on issues such as the deposit of materials into soils and waters, lifelong learning (the content of education for sustainable development), follow-up to the SDG Summit, and sustainability through digitalisation.

Among other things it prepares statements and recommendations on the priority areas of the State Secretaries' Committee on Sustainable Development, attends meetings and invites the lead ministry to a discussion of the outcomes of the meetings of the Parliamentary Advisory Council.

The PBnE examines the sustainability impact assessments compiled by the ministries and, where necessary, calls for corrections and additions at the respective ministries. It submits the result of its evaluation to the relevant lead

committee in the form of a statement, which this committee must in turn discuss and evaluate in writing. The sustainability impact assessment is intended to ensure that the long-term impact of draft bills and regulations is transparent, and potentially conflicting objectives and alternatives are visible so that they can be prioritised (see also page 63).

Discussion paper of March 2020

In its discussion paper, the Parliamentary Advisory Council on Sustainable Development put forward a large number of specific proposals and requests for updating the GSDS.

The Advisory Council calls on the German Government to “develop the update to the GSDS as an overarching strategy with principles and targets that are consistently and coherently implemented in the numerous individual strategies and programmes”.

Contents of the discussion paper

The paper contains proposals and requests for making sustainability more visible as a central political challenge and for its greater consideration at the international level. These are important points at the European level and will facilitate improved dialogue with the Länder and local government.

A particular concern of the Parliamentary Advisory Council on Sustainable Development is for policy coherence to be further improved, for example by using appropriate resources to reinforce the work of the Ministry Coordinators for Sustainable Development.

While the assessment of proposed legislation using the electronic sustainability assessment tool is welcomed, it needs to be refined into a comprehensive assessment of the impact of legislation on sustainability.

The importance of involving social stakeholders is also highlighted.

Changes are suggested both to the work of the State Secretaries’ Committee on Sustainable Development and to the communication of the meetings by the Press and Information Office of the Federal Government. In addition, the sustainability indicators need to be improved in order to do justice to Germany’s leading role.

Position paper of 1 July 2020 on attaching appropriate importance to sustainability targets in the legislative process

In its position paper published in the summer of 2020, the Parliamentary Advisory Council on Sustainable Development advocated a stronger sustainability policy, greater policy coherence and, in particular, the sustainability impact assessment.

Contents of the position paper

With a view to strengthening the sustainability impact assessment of proposed legislation, the Parliamentary Advisory Council on Sustainable Development calls for an early assessment, its publication and review by a committee.

The Parliamentary Advisory Council on Sustainable Development furthermore recommends linking the federal budget with the SDGs. Going forward, the federal budget should be structured according to sustainability criteria.

In order to strengthen the consistency of sustainability policy, the Parliamentary Advisory Council on Sustainable Development recommends a comprehensive annual review of progress implementing the GSDS, with its targets and measures, and an annual debate during the “Sustainability and climate” plenary week. The Ministry Coordinators for Sustainable Development must also be given additional resources and powers.

The Parliamentary Advisory Council is to be upgraded into a Committee for Sustainable Development.

Stronger role of the Parliamentary Advisory Council on Sustainable Development

The Parliamentary Advisory Council on Sustainable Development is seeking an institutional strengthening of its position in the Bundestag. Its aim is to be enshrined in the German Bundestag’s Rules of Procedure as a permanent body. Unlike the Bundestag’s specialist committees, it is currently re-appointed for each legislative term.

Sustainability and climate plenary week

The German Bundestag has decided (ref. 19/15128) to devote two days once a year to debating the progress made in achieving the national climate targets as well as the sustainability targets of the German Sustainable Development Strategy.

The first sustainability plenary week was held from 16 to 18 September 2020. It began with a 90-minute general debate attended by Prof. Braun, as Head of the Federal Chancellery. Meetings on the following relevant sustainability issues took place during the week and were attended by the responsible Federal Ministers Scheuer, Schulze, Klöckner, Altmaier, Heil, Giffey and Müller: mobility of the future; climate, environment and natural resources; sustainable growth and a green social market economy; the changing world of work; innovation, education and digitalisation; development and international cooperation; living and consuming sustainably.

In the resolution on the general debate, the German Bundestag calls on the German Government to carry out a comprehensive review by the middle of each subsequent legislative term regarding the implementation and achievement of the 17 sustainability targets of the German Sustainable Development Strategy. On this basis the German Government should in future set out objectives for each sustainability targets for the legislative term in question, and propose a package of measures to be submitted to the German Bundestag for adoption if appropriate.

Target achievement should be assessed and commented on annually during the approved Sustainability and Climate Week (ref. 19/15128) by the German Bundestag (ref. 19/22505, Nachhaltigkeit ist Richtschnur unserer Politik (Sustainability is the guiding principle of our policy).

3. Council for Sustainable Development

Since 2001, the Council for Sustainable Development has been a central stakeholder of the German Sustainable Development Strategy.

Currently appointed for the 2020 to 2022 period, it has a dual function: it is a stakeholder in the social dialogue surrounding sustainability and at the same time an advisor of the German Government.

The 15 members of the Council are appointed ad personam (and not as formal representatives of individual interests or associations) by the Federal Chancellor for three years.

With their professional and personal backgrounds, the members stand for the economic, ecological and social aspects of sustainable development in their national and international dimension. The Chair of the Council since January 2020 has been Dr. Werner Schnappauf (former Bavarian State Minister of the Environment, Health and Consumer Protection and former CEO of the Federation of German Industries). The Deputy Chair is Prof. Imme Scholz (Deputy

Director of the German Development Institute and Honorary Professor at Hochschule Bonn-Rhein-Sieg University of Applied Sciences).

Like its members, the Council is professionally independent. It:

- a) Advises the German Government with regard to questions of sustainable development;
- b) Contributes to improving the Sustainable Development Strategy;
- c) Publishes statements concerning particular issues; and
- d) Contributes primarily to raising public awareness and to social dialogue surrounding sustainability.

The Council is supported in its work by the office financed by the Federal Chancellery. On 27 February 2020, Dr. Marc-Oliver Pahl succeeded outgoing Secretary-General Prof. Günther Bachmann, who had managed the office since 2001.

Activities of the Council

The 2016–2019 Activity Report of the Council for Sustainable Development contains an overview of the recommendations and statements of the past three years.

In the initiatives cited below by way of example, the Council for Sustainable Development aims to launch implementation measures for sustainable development at all levels together with network partners:

Lord Mayor Dialogue

Sustainability calls for responsible leadership. The Lord Mayors of more than 30 German cities participating in the “Sustainable Cities” dialogue support this.

The dialogue has been facilitated since early 2010 by the Council for Sustainable Development. For the participating Lord Mayors, sustainability is “a matter for the boss”. As political leaders, they campaign in a special manner for a sustainable development in their cities. They use the dialogue to discuss strategies and measures of sustainable development.

The participating Lord Mayors have drawn up the “Strategic cornerstones for sustainable development in municipalities” as the basis of their joint dialogue. In doing so, they committed themselves to the 2030 Agenda for Sustainable Development and the Sustainable Development Goals as well as the sustainability targets defined for Ger-



Fig.: Federal Minister Prof. Helge Braun with members of the Council for Sustainable Development and the Council's Secretary-General at the inaugural meeting of the Council on 17 January 2020 at the Federal Chancellery

many. They are also committed to the goal of climate neutrality and to meeting the 1.5°C target of the Paris Agreement. The cornerstones are the strategic backbone of a common understanding of sustainable urban development, to which the participating Lord Mayors are gearing their own policies. With the cornerstones, joint statements and position papers, they provide important impetus at federal level for local government sustainability policy.

Regional Hubs for Sustainability Strategies (RENN)

The RENN form a regional network with 20 partners from all 16 Länder for sustainable action and social transformation within the meaning of the Sustainable Development Goals (SDGs).

The aim is to network civil society activities with regard to national, regional and local authority sustainability strategies. They support stakeholders from civil society, local authorities, politics and administration wishing to contribute towards a sustainable development in Germany by strengthening and networking their initiatives and competencies locally, regionally and nationally. The RENN partners organise events on issues concerning sustainability and implementation of the 2030 Agenda. A large number of publications offer practical tips for lo-

cal implementation of the 17 Sustainable Development Goals. The network headquarters are based at the office of the Council for Sustainable Development.

The “Project Sustainability” award has been presented by the four RENN in cooperation with the Council for Sustainable Development since 2018. The regionalisation has enabled the number of entries to be doubled to around 450. The Council for Sustainable award project, assists on the jury and provides support with its expertise and network. RENN South also assumed responsibility in the autumn of 2019 for the online guide to sustainable consumption The Sustainable Shopping Basket previously published by the Council for Sustainable Development (www.nachhaltiger-warenkorb.de).

In 2019 the RENN network for the first time received funds for development policy educational work from the Federal Ministry for Economic Cooperation and Development. Prominent film spots at matches at 1. Bundesliga grounds, articles in Deutsche Bahn’s magazine “db mobil” and high-publicity events also enabled awareness of the theme of global sustainability to be raised among people who had previously not shown any interest in it. Campaigns such as these and more than 3,000 initiatives during the German Sustainability Action Days serve to show that the idea of a regional sustainability network has

proven successful and achieved an impact throughout the country and the entire spectrum of society.

The international experts of the peer review acknowledged the importance of the RENN network for implementing the 2030 Agenda at local and regional level in 2018 and recommended extending it until 2030.

Sustainability Culture Fund

The Sustainability Culture Fund based on an initiative of the German Bundestag (EUR 7.5 million for three years) is addressed at social stakeholders. It promotes approaches aiming to enshrine a culture of sustainability in society in the areas of food culture, mobility, construction, fashion and rural development.

Almost 90 projects were supported nationwide by the summer of 2020 within the framework of ideas competitions and direct funding. A third of the supported projects have now been concluded, while many are undergoing or about to undergo implementation and reflect the strength and creativity of civic engagement for sustainability.

Illustrative examples include the support of two campaign years with all schools in the Saarlouis district on the themes of food and mobility and the support of the University of Hildesheim in cooperation with the Federal Association of Sociocultural Centres (Bundesvereinigung Soziokultureller Zentren) with direct funding for the compilation of an industry guideline for the application of the German Sustainability Code at sociocultural centres.

www.tatenfuermorgen.de

German Sustainability Code

For seven years now, the SDC has been supporting corporate sustainability reporting with the German Sustainability Code (DNK).

The Sustainability Code provides companies and organisations with guidance for the disclosure of non-financial benefits and issues concerning the CSR reporting obligation and the National Action Plan on Business and Human Rights.

Over 600 companies now make use of the free database and other services of the German Sustainability Code.

A nationwide training partner network of around 100 stakeholders assists companies, chambers of commerce

and business associations in addressing the new requirements for corporate reporting.

Users of the German Sustainability Code report on the basis of 20 criteria about the importance of sustainability in their core business and in doing so create a basis of information for social dialogue on sustainable economic activity. The German Sustainability Code also serves many users as a management tool for handling sustainability issues in their own company. The German Sustainability Code is increasingly drawn upon in the European partner network among other things in Greece, the Czech Republic and Romania as well as outside Europe.

This voluntary transparency initiative of the Council for Sustainable Development is gaining relevance in connection with sustainable finance – including the handling of sustainability risks. The lack of reliable and comparable corporate data is lamented in the discussion about a sustainable financial system. The Sustainability Code organises this with a low entry threshold. Medium-sized companies make use of the Sustainability Code due to its practicability and in order to bring corporate practices into the political sphere. The SDC sees further areas of application for the Sustainability Code in connection with digitalisation and supply chain management. The SDC intends to develop the Sustainability Code further in stakeholder dialogue in the next three years on the basis of the report of the German Government's Scientific Advisory Council on Global Environmental Change entitled Towards our Common Digital Future.

www.deutscher-nachhaltigkeitskodex.de

Global Forum for National SDG Advisory Bodies

Creating, identifying and naming options for action and constructively supporting structural change to bring about a sustainable government and society – these are the core tasks of sustainable development councils and comparable bodies.

Sustainable development councils, committees and similar multi-stakeholder platforms represent an important component of national sustainable development architectures worldwide in order to advise governments about options for action and social initiatives for implementing the Sustainable Development Goals.

During the SDG Summit of the United Nations in September 2019, the Council for Sustainable Development launched a Global Forum for National SDG Advisory Bodies together with Finland and the United Nations.

The international exchange of experiences serves to create a collective body of knowledge about the diverse possibilities for implementing sustainability-related processes. The network members in turn draw on this knowledge, adjust it to their individual context in implementation and alongside implementation create guidelines for the applicable challenges and opportunities in order to use their initiatives to create options for action and thereby accelerate sustainable development.

Sustainability in the Basic Law

The Council for Sustainable Development supports the inclusion of sustainable development in the Basic Law (among others the Council's Chair Marlehn Thieme at its annual conference on 4 June 2019).

This call has been backed by both the international experts conducting the peer review and Member of the Bundestag Lenz, Chair of the Parliamentary Advisory Council on Sustainable Development.

An important project of the Council in the future will also be the Joint Effort for Sustainability initiative. The German Government has commissioned the Council with its substantiation and implementation (see B. IX. below).

Statement on the draft version

On 29 October 2020, the Council for Sustainable Development issued a statement on the draft version of the German Sustainable Development Strategy. It assessed the initial identification of the areas of transformation particularly positively.

Setting the right course now for the Decade of Action ahead.

"The German Government recognises ... that readjustments will not suffice in central policy areas but that a fundamental transition needs to be introduced. From the viewpoint of the Council, the areas of transformation now need to be supplemented with strategies and timetables as well as far-reaching and binding targets. When looking further into the strategic aspects of this, we recommend placing a particular focus on off-track indicators; in the case of foreseeable target deviations, the Federal Ministries affected must be compelled to adopt specific and effective countermeasures. The Council for Sustainable Development suggests developing a new set of key indicators for German sustainability policy based on the areas of transformation.

As far as the international dimension of sustainability policy is concerned, the draft version presented does not meet the expectations and above all the requirements of the Council, which sets out specific suggestions for new targets and indicators in its statement. The Council for Sustainable Development furthermore recommends publishing an abridged version of the Strategy in order to introduce the topic to the discourse in the run-up to the Bundestag elections and formation of a new government.

Statement of the Council for Sustainable Development of 29 October 2020 (excerpt)

4. Allocation of responsibilities within the German Government

Owing to the great political importance of the sustainability principle and its policy-spanning approach, the German Sustainable Development Strategy is under the direct aegis of the Federal Chancellery.

At the practical level, this does not change the responsibility of the ministries for implementing the Sustainable Development Strategy and 2030 Agenda in their respective policy fields. Irrespective of where lead roles and responsibilities are actually allocated, all ministries have a shared responsibility for achieving the Strategy's targets.

5. Ministry Coordinators

To ensure that the ministries coordinate between themselves and act together with regard to implementation of the 2030 Agenda, a Ministry Coordinator for Sustainable Development was nominated at each ministry (ideally at Director-General level) in the first half of 2017.

Duties of the Ministry Coordinator for Sustainable Development

- Is the central contact person for issues relating to sustainable development;
- Is involved at interministerial level in the implementation of the German Sustainable Development Strategy and the 2030 Agenda in the policy of their ministry;
- Is involved at interministerial level in promoting the taking into account of sustainability aspects in the legislative and regulatory process (sustainability impact assessment according to Art. 44 par. 1, fourth sentence of the GGO) and in ministry strategies.

The list of Ministry Coordinators and points of contact at the ministries is published on the German Government's website. The Ministry Coordinators regularly exchange their experiences at the invitation of the Federal Chancellery.

The Ministry Coordinators play an important role in ensuring the political consistency of sustainability activities within the German Government. This is also underlined by the Parliamentary Advisory Council on Sustainable Development and the Scientific Platform for Sustainability 2030.

The ministries have adopted various measures on their own responsibility in the period since the introduction of Ministry Coordinators with the new version of the German Sustainable Development Strategy in 2017. These include inclusion of the function of Coordinator in the organisational chart, assignment of the Coordinator to ministry management with direct access, attendance at regular high-level interministerial meetings, personnel support in the execution of tasks and the provision of in-house training on sustainability impact assessment issues and the contents of the German Sustainable Development Strategy.

IV. Sustainability governance

The governance of the German Sustainable Development Strategy is geared to the management concept and is therefore also referred to as sustainability management. Its distinguishing feature is the extensive involvement of all political stakeholders (see above) and areas (see below).

Governance comprises the principles of sustainable development, indicators and targets, monitoring and other procedural elements, particularly including the assessment of the impact of regulatory measures on sustainable development.

1. Principles of sustainable development

During the 2018 update, the original management rules consisting of three basic rules and nine rules of sustainability for specific action areas were replaced by principles of sustainable development. The principles largely include existing aspects while supplementing them with new ones and in particular bringing them into line with the 2030 Agenda for Sustainable Development.

On the basis of a statement by the Council for Sustainable Development, the German Government drew up and consulted the public about a proposed text for the principles. Based on the feedback, the principles were finalised as set out below.

Function of the principles

The ministries must observe the principles when drawing up measures in their various areas of policy. They describe how sustainable policy looks and what it contains, and are used by the ministries for a number of purposes including sustainability-related regulatory impact assessments.

Principles of sustainable development

1. Apply sustainable development as a guiding principle at all times and in all decisions

The overriding goal and benchmark of all actions is to safeguard the Earth's natural resources on a permanent basis and to enable all people to live a life of dignity now and in the future.²

To this end, economic efficiency, the protection of natural resources, social justice and equal participation must be synthesised in all decisions, while taking account of systemic interrelationships and technological and societal innovations, so that developments for present and future generations are environmentally and socially sustainable on a global scale. Political action must be coherent

2. Assume global responsibility

a) In line with the United Nations 2030 Agenda for Sustainable Development and the Paris Climate Agreement, the following must be combined at global level:

- Fight against poverty, hunger, social inequality and exclusion;*
- Respecting, protecting and guaranteeing human rights;*
- Comprehensive participation for all in economic and social development;*
- Protection of the environment, especially the climate, including compliance with environmental boundaries in a regional and global context;*
- Responsible government action under the rule of law.*

b) Germany must consider and encourage sustainable development in other countries. Wherever possible, our actions in Germany must not cause burdens for people or the environment in other countries.

² World Commission on Environment and Development (Brundtland Commission), 1987

3. Strengthen the natural resource base on which life depends

- a) To strengthen the natural resource base and keep within planetary boundaries, material cycles must be closed as quickly as possible and/or brought into alignment with ecosystem process and functions. To this end:
- Renewable natural goods (e.g. woods and fish populations) and soils may be used only within the bounds of their ability to regenerate and without impairing their other environmental functions;
 - Non-renewable natural goods (e.g. mineral raw materials and fossil fuels) must be used as sparingly as possible. Renewable resources are to replace the use of non-renewable resources, provided this reduces the environmental impact and this use is also sustainable in every aspect;
 - Substances may be released into the environment only in line with the precautionary principle and within the environmental boundaries of the sustainability of natural systems (environmental responsiveness).
- b) Dangers and unjustifiable risks to human health and nature must be avoided.

4. Strengthen sustainable economic activity

- a) The structural transformation required for global sustainable consumption and production and the technological advancements to be harnessed for this purpose should be financially viable as well as ecologically and socially sustainable, and should ensure intergenerational equity in the German and global contexts.
- b) Energy and natural resource consumption and the use of transport must be decoupled from economic growth. At the same time, the aim must be to curb the increase in demand for energy, resources and transport, and for consumption to decline as a result of efficiency gains (absolute decoupling).
- c) Sustainable agriculture and fishing must be productive, competitive and socially and environmentally compatible; they must protect and conserve biodiversity, soils and waters in particular, and take into account the requirements of both livestock farming that respects animal welfare, and precautionary consumer protections, especially where health is concerned.
- d) Public budgets are obliged to take account of intergenerational equity in all of the dimensions of sustainability.

The financial markets must also factor in the demands of sustainable development.

5. Preserve and enhance social cohesion in an open society

To strengthen social cohesion and leave no one behind:

- Poverty and social exclusion should be overcome and prevented to the greatest possible extent, and inclusive prosperity promoted;
- Efforts should be made to achieve equivalent living standards in every region;
- Everyone should have an equal opportunity to share in economic growth;
- Necessary adaptations to demographic change must be made at an early stage at the political and economic levels and in society;
- Everyone should be able to take part fully in social, cultural and political life without discrimination;
- Contributions should be made to reduce poverty and inequality worldwide.

6. Use education, science and innovation as drivers of sustainable development

- a) The necessary qualifications and skills must be enshrined throughout the education system in the interests of Education for Sustainable Development. Opportunities to participate in high-quality education and acquire capabilities in sustainable development must be further improved, regardless of background, gender or age.
- b) All decisions must be based on scientific findings. Science and research are called upon to focus more intensively on the goals and challenges of global sustainable development.
- c) Sustainability aspects must be included consistently, right from the start, in innovation processes, especially in the context of digitalisation, so that opportunities for sustainable development can be seized and risks for people and the environment can be avoided. At the same time, willingness and scope to innovate must be broadened.

2. Sustainability indicators and targets/measures

As a management framework, the Strategy now contains 75 indicators, and targets in 41 areas. Together, they show where we stand on sustainable development, and provide the basis for managing the Strategy.

The indicators were brought into line with the 17 SDGs and given a more international outlook when the new version of the Sustainable Development Strategy was published at the start of 2017. Thirteen additional topic areas and 30 indicators were newly added. They represent issues of particular relevance to Germany when implementing the 2030 Agenda. Each SDG is assigned at least one indicator.

Key indicators

The selected indicators should be regarded as key indicators: They denote a particularly important topic or outstanding activity connected with an SDG. Some of them also serve as gateways to more comprehensive indicator systems and statistics that already exist. Examples here include the GSDS indicators for poverty and inequality, biodiversity, and crime statistics. This further information frequently provides an insight into the extent to which different social groups are affected, which economic sectors contribute to developments or how conditions are spread geographically across Germany.

For each SDG, at least one indicator-backed political target is listed which identifies relevant need for action in the area in question, although it does not aim to describe that action in detail.

Assistance of the Federal Statistical Office in monitoring the Strategy and the international SDG indicators

As an independent body with a high level of competence and neutrality, every two years the Federal Statistical Office reports extensively on the trend in national sustainability indicators in its indicator report. This remit derives from the Sustainable Development Strategy. The degree to which targets are likely to be achieved is scored using weather symbols.

The data on the indicators of the German Sustainable Development Strategy have also been available on an online platform since February 2020 (www.dns-indikatoren.de). This platform supplements the Indicator Report and facilitates a timely update of the indicators. It offers further added value through interactive functions such as individual feature selection, download of figures and data and a map-based illustration of the indicators.

In a linked domain of the online platform (www.sdg-indikatoren.de) the data for Germany concerning the Sustainable Development Goals of the United Nations 2030 Agenda are provided. The Federal Statistical Office publishes and coordinates the data submitted by Germany wherever possible annually concerning the global indicators. The basis for this primarily comprises official statistical data and other data sources. As the German Sustainable Development Strategy is the national implementation of the 2030 Agenda, related indicators of both strategies are linked with each other on the platform. The site of the Federal Statistical Office offers a good overview of the links of the German Sustainable Development Strategy with the reporting systems at European and global level. This overview also shows clearly that different indicators are needed at many points for the various reporting levels, be this due to the spatial resolution of data or other weightings of the importance of topics from an international perspective. The availability of disaggregated and informative data remains an underlying challenge both with a view to measuring the progress of implementation of the SDGs and for the evidence-based shaping of sustainable policies.

Out of a total of 231 indicators, 95 still feature poor data availability and a survey methodology has not yet been agreed for 20. Significant investments in national statistical capacities and technical expertise are therefore needed particularly in partner countries in order to ensure a high level of quality and uniform standards of data collection and interpretation. High-quality and comparable data are also important in order to be able to structure public services in a needs-based manner and take account of social aspects.

Importance of the target and indicator system

The target and indicator system is an important part of the Strategy's management system (see overview in annex on p. 304). However, it is not the only instrument for assessing the Strategy and its implementation. On the one hand, not all areas that are relevant for sustainable development can be shown, and on the other, not all measures can be taken into account. The Preamble of the 2030 Agenda and the principles of sustainable development of the German Sustainable Development Strategy are just as important a guide, as are the insights from a diverse range of participation processes for the Strategy.

Feedback and assessments of the Council for Sustainable Development, the Parliamentary Advisory Council on Sustainable Development and other social stakeholders are also relevant when measuring the success of the German

Sustainable Development Strategy. The discussions are frequently focused on the indicators. However, these are just a means to an end. The targets determining the level of ambition of sustainable development and the associated measures set out in the Strategy are ultimately important for the political debate. The number of sustainability indicators in the Strategy is deliberately limited in order to facilitate an overview of the state of sustainable development achieved with as little data as possible and thereby create a sustainability policy compass that remains manageable.

Update to the indicators and targets

In updating the indicators, it is fundamentally necessary to weigh up the desirable continuity of targets and indicators against sensible additions/adjustments, as well as the comprehensive mapping of important policy areas against limiting the number of indicators in order to preserve their manageability and communicability. Data availability and data quality are also decisive factors.

Control indicators of the 2016 German Sustainable Development Strategy

In the German Sustainable Development Strategy published at the start of 2017, a review of an addition of further indicators for the following six areas was announced: food waste and losses in Germany, ending hunger and malnutrition throughout the world, sustainable public procurement, education for sustainable development, effect of research investments and soil protection.

In the 2018 update, new indicators were adopted for the areas:

- food security: realising the right to food worldwide;
- sustainable public procurement.

For the other four areas the reviews are continuing as set out below. Their adoption cannot be decided until the reviews are complete.

Food waste and losses in Germany

Since May 2018, an indicator for recording food waste in Germany has been under development by an interministerial working group led by the Federal Ministry of Food and Agriculture. This is to be capable of tracking the reduction in food waste in tonnes of fresh mass across all levels of the value chain as targeted by SDG 12.3.

The Federal Ministry of Food and Agriculture asked the Thünen Institute in October 2018 to calculate the data baseline for incurred food waste for the year 2015. The report, which is based on data from the Pathways to Reduce Food Waste project supported by the Federal Ministry of Education and Research, was published in September 2019. It emerged while drawing up the baseline that the data availability along the entire value chain has improved in recent years, but that reliable statements are still not possible in many areas for lack of representative random samples. The Thünen Institute was asked at the end of 2019 to draw up suggestions together with the Federal Environment Agency and the Federal Statistical Office for further developing the existing baseline concept to facilitate continuous monitoring of food waste compatible with time series. A concept was presented for this in early March 2020 that contains the requirements of the data collection needed for EU reporting and serves as a working base for the development of one or more sub-indicators.

Among other things, the work carried out within the framework of the National Strategy for Food Waste Reduction adopted by the Cabinet is to contribute to improving the data situation. Data collection with measurements alone is practically not possible. Illustrative special surveys are required for extrapolation for each of five subsectors (including private households, retail, away-from-home consumption).

In view of the availability of data, adoption can realistically be expected by 2024 at the earliest. It must be borne in mind when creating the indicator and any sub-indicators that singling out just one sector of the food chain in the illustration would not be expedient.

Education for Sustainable Development (ESD)

Since January 2019, four research networks – funded by the Federal Ministry of Education and Research – have been working on the development of ESD indicators for the school and vocational training areas of education. The idea is to make use of the (sets of) indicators for national and international ESD reporting.

The second meeting of the research networks (7-8 November 2019) aimed to draw up a proposal for an overarching (*paris pro toto*) ESD indicator for updating the German Sustainable Development Strategy. In the view of the experts, only an ESD indicator for teacher training is currently suitable for measuring the development of ESD – also due to data availability. However, such an indicator is only relevant for a narrow area and would therefore need to be supplemented by other areas (e.g. output, outcome) in order to enable progress in the implementation of education for sustainable development to be adequately measured. Further consultations are therefore to take place and further results of the research projects to be included in the consultations.

There has already been a national ESD monitoring system since 2015 conducted by the Institute of Future Studies of Freie Universität Berlin and supported by the Federal Ministry of Education and Research. The ESD monitoring system regularly delivers exemplary results concerning the degree of structural embedding of ESD in the various areas of education. Analyses of relevant documents, such as syllabuses and curricula, reveal a moderately positive trend in the inclusion of ESD. The summaries of the ESD monitoring system are regularly published and incorporated into the national ESD process. The initial stock-taking on the implementation of the National ESD Action Plan published in May also sheds light on progress

Soil protection

As soil is a non-renewable and limited resource, safeguarding its many functions and ecosystem services is of outstanding importance. The German Government aims to develop an informative soil indicator that covers all relevant forms of land use.

Mapping soil quality in an indicator is a complex and challenging task as soil quality is determined by a range of factors and short-term changes in particular are sometimes difficult to trace.

Use of the available statistical data was initially reviewed. However, it became clear that the data are not sufficiently compatible and consistent for providing a reliable picture of nationwide changes in soil quality. Use of remote sensing data is currently being investigated. It is not yet possible at present to predict the extent to which workable statements about soil quality and changes of land use can be derived from the prepared raw data, also in combination with other data sources.

The work so far has initially considered changes to land use and soil quality on land used for agriculture. This work is currently being continued on the basis of a research project funded by the Federal Ministry of Food and Agriculture for the derivation of remote sensing information (including a review of an increase/decrease in productivity, gain/loss of soil quality, scope of winter greening and humus content in terms of their detectability and suitability as a contribution to the soil indicator on agriculturally utilised land). The project is due for completion in September 2021. Further considerations are also needed regarding the inclusion of changes in soil quality on other types of land.

The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is currently drawing up a concept for this. The soil protection indicator will not be available before 2022 at the earliest.

Effect of research investments

The Federal Ministry of Education and Research has been supporting projects for the updating of indicators for research and innovation since the end of 2017. So far, 14 projects selected by expert juries are receiving support following two rounds of funding. The announcement of the second round of funding explicitly pointed out that there was a particular interest in the development of an indicator illustrating the extent to which research and innovation contribute to sustainable development.

Three of the fourteen projects are related to sustainability. It is not possible at the present time for any statement to be made about whether the results of these three projects can be used to draw up a set of indicators for measuring the impact of research investments.

New indicators in 2021

The following indicators have been added to the GSDS:

- Global pandemic prevention (indicator 3.3)
- Women in management positions in the federal civil service (indicator 5.1.c)
- Proportion of fathers receiving parental allowance (indicator 5.1.d)
- Rollout of broadband (indicator 9.1.b)
- Cultural heritage (improving access to cultural heritage) (indicator 11.4)
- Soil protection world-wide (indicator 15.3.b)

By adopting further indicators concerning global sustainability issues, the German Government has responded to input received during the dialogue process.

Changes to existing indicators

The targets have been adjusted for the following ten indicators:

- Indicator 2.2 (food security – realising the right to food worldwide): The indicator has been adjusted in three areas compared with the 2018 Sustainable Development Strategy: 1) The governance concept has been refined and a governance filter is applied. 2) The guidelines and recommendations to be taken into account have been narrowed down in order to strengthen the thematic focus on realising the right to food and reduce the indicator's complexity. 3) A more clearly defined measurement method is used in order to enable a change of the indicator over time to be measured.
- Indicator 4.1.a): Early school leavers: reduction to 9.5 % by 2030 (previously 10 % by 2020).
- Indicator 4.1.b: Persons with an academic or higher vocational qualification (30–34 year-olds with a tertiary or post-secondary non-tertiary level of education): to be increased to 55 % by 2030 (previously 42 % by 2020).
- Indicator 6.2: Distinction between 6.2.a Access to drinking water and 6.2.b Connection to sanitation, including changed targets and basic data.
- Indicator 7.1.b: Primary energy consumption: new interim target: to be reduced by 30 % by 2030.
- Indicator 7.2.a: Share of renewable energies in gross final energy consumption: new interim target to be increased to 45 % by 2040.
- Indicator 7.2.b: Share of renewable energies in gross electricity consumption: to be increased to at 65 % by 2030 (previously at least 50 % by 2030) and greenhouse gas neutrality of electricity generated and consumed in Germany by 2050.
- Indicator 12.1.b (global environmental impact by private household consumption): The previous indicator, energy consumption and CO₂ emissions from consumption, has been significantly expanded in terms of scope. In addition to direct/indirect CO₂ emissions and energy consumption, it now also comprises direct and indirect use of raw materials in connection with the production and consumption of all goods for the consumer activities of domestic private households.
- Indicator 13.1.a: Greenhouse gas emissions: achievement of greenhouse gas neutrality by 2050 (previously to be reduced by at least 70 % by 2040 and at least 80 to 95 % by 2050).10 % bis 2020).

- Indicator 16.1: Criminal offences: Number of criminal offences recorded per 100,000 inhabitants to be reduced to fewer than 6,500 by 2030 7,000 by 2030

Changes to existing indicators under review

The existing indicator 8.6 (Members of the Textiles Partnership) is to be replaced in future by an indicator that has greater informative value and scope regarding the theme of global supply chains – enabling decent work worldwide.

An indicator considering further economic sectors beyond the textile sector and investigating a representative selection of companies in this respect would be preferable. However, the indicator is to remain closely geared to the human rights due diligence approach that is recognised internationally for sustainability management in global supply chains and forms the basis for the German Government's National Action Plan on Business and Human Rights.

2019 report on off-track indicators

In the report of the peer review, the international experts particularly highlighted the need for action regarding the sustainability indicators, the targets for which cannot yet be achieved in the foreseeable future: labelling with a cloud (foreseeable target shortfall of more than 20%) or a thunderstorm (increase in target shortfall).

Of the 66 national indicators existing in 2018, 32 were labelled positively with a sun (24) or sun/cloud symbol (8), meaning that in the event of continued development deviation of these indicators from the target value would amount to less than 5 % and between 5 and 20 % respectively.

A total of 28 indicators were assessed critically with a cloud (20) or thunderstorm symbol (8). Here the deviation of the indicators from the target value amounts to more than 20 % (cloud) or the indicator is developing in the opposite direction and therefore actually increasing its distance from the target value (thunderstorm). There was no data available for six indicators.



List of off-track indicators at the end of 2018	
2.1.a	Nitrogen surplus
2.1.b	Organic farming
3.1.a	Premature mortality (deaths per 100,000 inhabitants under 70): women
3.1.b	Premature mortality (cases of death per 100,000 inhabitants under 70): men
3.1.f	Obesity rate among adults (18 years and older)
3.2.a	Emissions of air pollutants (index of national emissions of air pollutants SO ₂ , NO _x , NH ₃ , NMVOC and PM _{2.5})
4.1.a	Early school leavers (18 to 24-year-olds without a school leaving certificate)
4.2.a	All-day care provision for children (0 to 2-year-olds)
4.2.b	All-day care provision for children (0 to 5-year-olds)
5.1.a	Gender pay gap
6.1.a	Phosphorus in flowing waters
6.1.b	Nitrate in groundwater – proportion of monitoring points in Germany at which the threshold of 50 mg/l for nitrate is exceeded
7.1.a	Final energy productivity
7.1.b	Primary energy consumption
7.2.a	Share of renewable energies in gross final energy consumption
8.2.c	Government debt
9.1.a	Private and public expenditure on research and development
10.1	Foreign school graduates
11.1.c	Inhabitants by area occupied by built-up areas and transport infrastructure (density of settlements)
11.2.a	Final energy consumption in goods transport
11.2.b	Final energy consumption in passenger transport
12.1.a	Market share of products certified by publicly managed eco-labelling schemes (in future: market share of products and services bearing trustworthy

12.2	EMAS eco-management
13.1.a	Greenhouse gas emissions
14.1.aa	Nutrient inputs in coastal waters and marine waters – nitrogen input via the inflows into the Baltic
14.1.ab	Nitrogen input in coastal and marine waters – nitrogen input via the inflows into the North Sea
14.1.b	Share of sustainably fished fish populations in the North Sea and Baltic
15.1	Biodiversity and landscape quality

A report on the off-track indicators with further measures was approved and published by the State Secretaries' Committee on Sustainable Development on 16 December 2019. This was drawn up on the basis of the Federal Statistical Office's 2018 Indicator Report. This did not include the indicators on government debt (with a view to these more recent figures reflecting a significant change in the situation) and indicator 10.1.

The Council for Sustainable Development was involved in drawing up the report and able to comment on draft versions of the ministries responsible. Other social stakeholders were also involved. An announcement from the update of the GSDS in November 2018 was accordingly implemented. The German Government will also continue to monitor implementation of the off-track indicators closely.

The ministries will in future compile a joint report about the status of target achievement and planned measures for the benefit of off-track indicators following publication of the Indicator Reports of the Federal Statistical Office as the basis for treatment by the State Secretaries' Committee on Sustainable Development. This will subsequently be published.

There were a number of changes to the off-track indicators compared with 2018. Significant improvements (now "on-track") been made with indicators of 3.2.a (emissions of air pollutants), 7.2.a (share of renewable energies in gross final energy consumption), 8.2.c (debt) and 11.1.c (density of settlements). However, there were deteriorations (now "off-track") in the case of indicators 12.1.bc (global environmental impact by private household consumption) and 11.2.a (final energy consumption in goods transport). The scores of six of the off-track indicators have changed, with three better and three worse.

Effects of the COVID-19 pandemic not immediately visible

The COVID-19 pandemic will have an impact on the performance of various indicators. However, depending on how soon data are available for an indicator (a time lag of around two years is not unusual), it may not be possible to map these changes at present. In view of the current borrowing requirement, this also affects the aforementioned indicator 8.2.c.

<i>Status of the indicators</i>		<i>Status evaluation by the Federal Statistical Office</i>
	Goal is (almost) reached	 Development is heading in the right direction, but a gap of more than 20% will remain
	Development is heading in the right direction, but between 5 % and 20% of the goal will not be met	 Development is heading in the wrong direction

Übersicht der Schlüsselindikatoren in 39 Bereichen

No.	Indicator field <i>Sustainability postulate</i>	Indicators	Targets	Status
SDG 1. End poverty in all its forms everywhere				
1.1.a	Poverty <i>Limiting poverty</i>	Material deprivation	Keep the proportion of persons who are materially deprived considerably below the EU-28 level by 2030	
1.1.b		Severe material deprivation	Keep the proportion of persons who are severely materially deprived considerably below the EU-28 level by 2030	
SDG 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture				
2.1.a	Farming <i>Environmentally sound production in our cultivated landscapes</i>	Nitrogen surplus in agriculture	Reduction of the nitrogen surpluses of the overall balance for Germany to 70 kilograms per hectare of utilised agricultural area on an annual average between 2028 and 2032	
2.1.b		Organic farming	Increase the proportion of organically farmed agricultural land to 20 % by 2030	
2.2	Food security <i>Realising the right to food world-wide</i>	Support for good governance in attaining appropriate nutrition worldwide	Funds disbursed for the application of the guidelines and recommendations of the UN Committee on World Food Security (CFS) to be increased appropriately as a percentage of total spending on food security by 2030	-

SDG 3. Ensure healthy lives and promote well-being for all at all ages				
3.1.a	Health and nutrition <i>Living healthy longer</i>	Premature mortality (women)	To be reduced to 100 cases per 100,000 inhabitants (women) by 2030	
3.1.b		Premature mortality (men)	To be reduced to 190 cases per 100,000 inhabitants (men) by 2030	
3.1.c		Smoking rate among adolescents	Reduction to 7 % by 2030	
3.1.d		Smoking rate among adults	Reduction to 19 % by 2030	
3.1.e		Obesity rate among children and adolescents	Increase to be permanently halted	-
3.1.f		Obesity rate among adults	Increase to be permanently halted	
3.2.a	Air pollution <i>Keeping the environment healthy</i>	Emissions of air pollutants	Reduction of emissions to 55 % of 2005 level (unweighted average of the five pollutants) by 2030	
3.2.b		Share of the population with excessive exposure to PM ₁₀	WHO particulate matter guideline value of 20 mcg/m ³ for PM ₁₀ to be adhered to as widely as possible by 2030	
3.3	Global health <i>Strengthening the global health architecture</i>	Germany's contribution to global pandemic prevention and response	Expenditure to be increased by 2030	
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all				
4.1.a	Education <i>Continuously improving education and vocational training</i>	Early school leavers	Reduce the proportion to 9.5 % by 2030	
4.1.b		Persons with an academic or higher vocational qualification (30 to 34-year-olds with a tertiary or post-secondary non-tertiary level of education)	Increase the proportion to 55 % by 2030	
4.2.a	Prospects for families <i>Improving the compatibility of work and family life</i>	All-day care provision for 0 to 2-year old children	Increase to 35 % by 2030	
4.2.b		All-day care provision for	Increase to 60 % by 2020 and to 70 % by 2030	

SDG 5. Achieve gender equality and empower all women and girls				
5.1.a	Equality <i>Promoting equality and a partnership-based division of responsibilities</i>	Gender pay gap	Reduce the gap to 10% by 2020, maintained until 2030	
5.1.b		Women in management positions in business	30% women on supervisory boards of listed and fully co-determined companies by 2030	
5.1.c		Women in management positions in the federal civil service	Equal-opportunity participation of women and men in civil service management positions by 2025	
5.1.d		Proportion of fathers receiving parental allowance	65 % by 2030	
5.1.e	Strengthening the economic participation of women globally	Vocational qualifications of women and girls through German development cooperation	To be increased gradually by a third by 2030 compared to 2015 as the base year	-
SDG 6. Ensure availability and sustainable management of water and sanitation for all				
6.1.a	Water quality <i>Reduction of substance pollution in water</i>	Phosphorus in flowing waters	Not exceeding benchmark values for specific types of water bodies at all monitoring points by 2030	
6.1.b		Nitrate in groundwater	Compliance with the nitrate threshold value of 50 mg/l at all monitoring points by 2030	
6.2.a	Drinking water and sanitation <i>Better access to drinking water and sanitation worldwide, higher (safer) quality</i>	Number of people gaining first-time or upgraded access to drinking water owing to German support	6 million people per year by 2030	-
6.2.b		Number of people gaining first-time or improved access to sanitation owing to German support	4 million people per year by 2030	-
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all				
7.1.a	Resource conservation <i>Using resources economically and efficiently</i>	Final energy productivity	Increase by 2.1 % per year from 2008 to 2050	
7.1.b		Primary energy consumption	Reduction by 20 % by 2020, by 30 % by 2030, and 50 % by 2050, all compared to 2008	
7.2.a	Renewable energies <i>Strengthening a sustainable energy supply</i>	Share of renewable energies in gross final energy consumption	Increase to 18 % by 2020, to 30 % by 2030, to 45 % by 2040 and to 60 % by 2050	

7.2.b		Share of electricity from renewable energy sources in gross electricity consumption	Increase to at least 35 % by 2020, 65 % by 2030, and greenhouse gas neutrality of electricity generated and consumed in Germany by 2050	
SDG 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all				
8.1	Resource conservation <i>Using resources economically and efficiently</i>	Raw material input productivity	Trend of the years 2000–2010 to be maintained until 2030	
8.2.a	Government debt <i>Consolidating public finances – creating intergenerational equity</i>	Government deficit	Annual government deficit less than 3 % of GDP To be maintained until 2030	
8.2.b		Structural deficit	Structurally balanced government budget, general government structural deficit must not exceed 0.5 % of GDP To be maintained until 2030	
8.2.c		Government debt	Ratio of government debt to GDP must not exceed 60 % To be maintained until 2030	
8.3	Provision for future economic stability <i>Creating favourable investment conditions – securing long-term prosperity</i>	Gross fixed capital formation in relation to GDP	Appropriate development of the ratio To be maintained until 2030	
8.4	Economic performance <i>Combining greater economic output with environmental and social responsibility</i>	Gross domestic product per capita	Steady and appropriate economic growth	
8.5.a	Employment <i>Boosting employment levels</i>	Employment rate, total (20 to 64-year-olds)	Increase to 78% by 2030	
8.5.b		Employment rate, older people (60 to 64-year-olds)	To be maintained until 2030	
8.6	Global supply chains <i>Enabling decent work worldwide</i>	Members of the Textiles Partnership	Significantly increase by 2030	

SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation				
9.1.a	Innovation <i>Shaping the future sustainably with new solutions</i>	Private and public expenditure on research and development	At least 3.5 % of GDP per year by 2025	
9.1.b		Rollout of broadband – share of households with access to gigabit broadband services	Universal gigabit network rollout by 2025	-
SDG 10. Reduce inequality within and among countries				
10.1	Equal educational opportunities <i>Improving educational success of foreigners in German schools</i>	Foreign school graduates	Increase the proportion of foreign school leavers with at least a secondary general school certificate and bring into line with that of German school leavers by 2030	
10.2	Distributive justice <i>Preventing excessive inequality within Germany</i>	Gini coefficient of income after social transfers	Gini coefficient of income after social transfers to be below the EU28 figure by 2030	
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable				
11.1.a	Land usee <i>Using land sustainably</i>	Expansion of settlement and transport area in ha per day	Reduction to under 30 ha on average per day by 2030	
11.1.b		Loss of open space area	Reduce the loss of per capita open space area	
11.1.c		Density of settlements	No reduction in density of settlements	
11.2.a	Mobility <i>Guaranteeing mobility – protecting the environment</i>	Final energy consumption in goods transport	Reduction by 15–20 % by 2030	
11.2.b		Final energy consumption in passenger transport	Reduction by 15–20 % by 2030	
11.2.c		Accessibility of medium-sized and large cities by public transport	Reduction of average travel time by public transport	-
11.3.	Housing <i>Affordable housing for all</i>	Housing cost overload	Reduce the proportion of people who are overburdened to 13 % by 2030	
11.4	Cultural heritage <i>Improving access to cultural heritage</i>	Number of objects in the German Digital Library	Increase in the number of objects in the network of the German Digital Library to 50 million by 2030	

SDG 12. Ensure sustainable consumption and production patterns

12.1.a	Sustainable consumption <i>Making consumption environmentally and socially compatible</i>	Market share of products certified by publicly managed eco-labeling schemes (in future: market share of products and services bearing trustworthy and demanding eco- and social labels)	Increase the market share to 34 % by 2030	
12.1.ba		Global environmental impact by private household consumption – use of raw materials	Steady reduction	
12.1.bb		Global environmental impact by private household consumption – energy consumption	Steady reduction	
12.1.bc		Global environmental impact by private household consumption – CO ₂ emissions	Steady reduction	
12.2	Sustainable production <i>Steadily increasing the proportion of sustainable production</i>	EMAS eco-management	5,000 locations of organisations by 2030	
12.3.a	Sustainable procurement <i>Giving shape to the public sector's exemplary role in sustainable procurement</i>	Paper bearing the Blue Angel label as a proportion of the total paper consumption of the direct federal administration	Increase the proportion to 95 % by 2020	–
12.3.b		CO ₂ emissions of commercially available vehicles in the public sector	Significantly reduce	–

SDG 13. Take urgent action to combat climate change and its impacts

13.1.a	Climate protection <i>Reducing greenhouse gases</i>	Greenhouse gas emissions	Reduce by at least 40 % by 2020 and by at least 55 % by 2030, in each case compared to 1990; greenhouse gas neutrality to be achieved by 2050	
13.1.b	Contribution to international climate finance	International climate finance for the reduction of greenhouse gases and adaptation to climate change	Double finance by 2020 compared to 2014	

SDG 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1.aa	Protecting the oceans <i>Protecting and sustainably using oceans and marine resources</i>	Nitrogen input in coastal and marine waters – nitrogen input via the inflows into the Baltic Sea	Adherence to good quality in accordance with the Ordinance on the Protection of Surface Waters (annual averages for total nitrogen in rivers flowing into the Baltic may not exceed 2.6 mg/l)	
14.1.ab		Nitrogen input in coastal and marine waters – nitrogen input via the inflows into the North Sea	Adherence to good quality in accordance with the Ordinance on the Protection of Surface Waters (annual averages for total nitrogen in rivers flowing into the North Sea may not exceed 2.8 mg/l)	
14.1.b		Share of sustainably fished stocks of fish in the North and Baltic Seas	All fish stocks used for commercial purposes to be sustainably managed in accordance with the Maximum Sustainable Yield (MSY) approach by 2020	

SDG 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

15.1	Biodiversity <i>Conserving species – protecting habitats</i>	Biodiversity and landscape quality	Reach the index value of 100 by 2030	
15.2	Ecosystems <i>Protecting ecosystems, conserving ecosystem services and preserving habitats</i>	Eutrophication of ecosystems	Reduction by 35 % by 2030 compared to 2005	
15.3.a	Preventing deforestation and protecting soils world-wide	Preservation or restoration of forests in developing countries under the REDD+ rulebook	Increase payments by 2030	
15.3.b		German gross bilateral development expenditure for the implementation of the UN Convention to Combat Desertification	Increase payments by 2030	

SDG 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1	Crime <i>Further increasing personal security</i>	Criminal offences	Reduce the number of criminal offences recorded per 100,000 inhabitants to less than 6,500 by 2030	
16.2	Peace and security <i>Taking practical action to combat proliferation, especially of small arms</i>	Number of projects to secure, register and destroy small arms and light weapons carried out by Germany in affected regions of the world	At least 15 projects a year by 2030	

16.3.a	Good governance <i>Combating corruption</i>	Corruption Perceptions Index in Germany	Improvement by 2030, compared to 2012	
16.3.b		Corruption Perceptions Index in partner countries for German development cooperation	Improvement by 2030, compared to 2012	
SDG 17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.				
17.1	Development cooperation <i>Supporting sustainable development</i>	Official development assistance as a proportion of gross national income	Increase the proportion to 0.7% of gross national income by 2030	
17.2	Knowledge transfer, especially in technical areas <i>Sharing knowledge internationally</i>	Number of students and researchers from developing countries and LDCs per year	Increase the number by 10 % from 2015 to 2020, then stabilised	
17.3	Opening markets <i>Improving trade opportunities for developing countries</i>	Imports from least developed countries	Increase the proportion by 100 % by 2030, compared to 2014	

3. Monitoring

Sustainably oriented policy-making is an ongoing task that requires continuous updating and success measurement and calls for a transparent approach.

The German Sustainable Development Strategy is updated every four years with public participation and the next report is scheduled for the middle of the next legislative term (end of 2023/start of 2024).

Every two years the Federal Statistical Office reports on the indicators and achievement of the set targets and will next do so at the end of 2022. It serves as a basis for the management of sustainable policies and necessary realignments, but also as a transparent source of information for democratic decision-making and debate. The statisticians are responsible for the technical analysis of the indicators and their development.

4. Instruments for strengthening policy coherence

Strengthening policy coherence for sustainable development was highlighted as a particular challenge in the Sustainable Development Strategy at the start of 2017. This requires a coherent and coordinated deployment of all policy instruments in order

to contribute nationally and internationally to implementation of the 2030 Agenda.

a) Sustainability impact assessment

Since 2009, there has been an obligation to subject draft laws and regulations to a sustainability impact assessment, which is enshrined in the Joint Rules of Procedure of the Federal Ministries (GGO). As the GGO comes under internal procedural law, its validity is not restricted to a particular legislative term.

"It must be shown whether the impact of the draft legislation is consistent with sustainable development, and in particular what will be its long-term impact."

Section 44 (1) sentence 4 of the Joint Rules of Procedure of the Federal Ministries

It enables the German Government to scrutinise the consequences of draft legislation in terms of sustainable development (the obligation here arises from section 62 (2) in conjunction with section 44 (1) sentence 1 GGO). The sustainability impact assessment for laws and regulations has become an established part of legislative practice.

The sustainability impact assessment contributes to improved legislation, as it makes it possible to recognise, at an early stage, undesirable side-effects of legal provisions, either in the long term or across policy areas. It also allows a direct link to be created between the Strategy and law-making.

The sustainability impact assessment is conducted by the ministry responsible for the legislative project in consultation with the other ministries concerned.

Electronic sustainability impact assessment (eNAP)

The new version of the Sustainable Development Strategy brought with it an improvement of the sustainability impact assessment as part of the regulatory impact assessment. A computer-assisted tool was developed for this by the Federal Ministry of the Interior together with the Federal Chancellery. The targets and indicators of the Sustainable Development Strategy, the Principles for Sustainable Development, and other references to the individual SDGs provide the frame of reference for this assessment.

eNAP is intended to improve assessment quality, while making it easier to perform. Users are guided systematically through the content of the Sustainable Development Strategy that is relevant to the assessment.

eNAP was launched on 1 March 2018 and is available to the ministries as a standard procedure for sustainability impact assessments. The application (www.enap.bund.de) can be freely used by all social stakeholders.

The State Secretaries' Committee on Sustainable Development once again drew attention to the existing web-based electronic sustainability impact assessment on 16 December 2019, which in future is to be applied to all regulatory initiatives in order to improve the quality of the assessments. This rule may be suspended in exceptional cases, subject to the approval of the competent Ministry Coordinator for Sustainable Development.

The sustainability impact assessment lies in the responsibility of the Parliamentary Advisory Council on Sustainable Development (see Chapter B(III)(2)), upon whose initiative the regulation was introduced in 2009. Its statements are used by the relevant lead committees in their own reviews. They can also become relevant in subsequent court rulings as part of the historic interpretation of standards (such as Baden-Württemberg Higher Administrative Court, ruling of 18 March 2019, filing code 18/00340).

How can the obligation to conduct assessments be implemented even better more than ten years after its introduction? How can assessments be designed more meaningfully and at the same time practically?

These questions were addressed on 28 October 2020 at a workshop of the Federal Chancellery at which experts reported from an international, national and regional perspective on their experiences and proposals for improvement. A report of the German Government to the German Bundestag on the sustainability impact assessment is planned by the end of the legislative term.

b) Finance and budgeting as a lever for sustainable development

Public finances can exert considerable leverage for sustainable development. This is true not only of the federal budget itself, but also of the subsidies and financial investments that come from it and the sustainable procurement of products and services (see p. 241, indicator 12.3.a/b).

Subsidy assessment

In order to increase transparency, justification pressure and management possibilities with regard to subsidies, the German Government follows subsidy-policy guidelines that bind the policymakers to the measures they are responsible for. On 28 January 2015, the Federal Cabinet adopted the subsidy-policy guidelines and augmented them with a sustainability impact assessment and the regular evaluation of subsidies. With the sustainability impact assessment, the German Government underscores its intention to embed the principle of sustainability deeper into subsidy policy. The sustainability impact assessment is guided by the targets of the National Sustainable Development Strategy and focuses on the long-term economic, ecological and social impact. If relevant, conflicting targets and their handling are also disclosed.

Federal budget

Reference was made during the dialogue conferences to the major importance of the federal budget for sustainable development and it was suggested that sustainability aspects be included in a stronger and more systematic manner. For example, some dialogue stakeholders proposed trying out a linking of sustainability targets with the federal budget in an initial model project.

Such a project could help to put fiscal and budgetary policy leverage to even better effect to promote sustainable development, which would also benefit implementation of the sustainability targets. Such a step would also create more clarity about which budgetary measures contribute to achieving the sustainability targets.

It is not least for this reason that the German Government intends, as an initial step within the scope of a pilot project led by the Federal Ministry of Finance and involving other ministries, to review which possibilities exist for linking

the SDGs and the targets and indicators of the Sustainable Development Strategy with the federal budget. The creation of transparency concerning the connection between targets and indicators of the Sustainable Development Strategy on the one hand and budgetary policy measures on the other can potentially help to improve the impact orientation of the federal budget. This could also make conflicts between different sustainability targets more easily recognisable. Moreover, suitable linking could in the long term also contribute to a gradual improvement of the quantification of the impact of programmes (geared towards sustainability) and in doing so further enhance the quality of public finances as a whole.

Green Bonds

The German Government expects all financial market participants to address risks within the framework of their investment strategy. These expressly also include risks arising under consideration of sustainability aspects (e.g. "stranded" assets). By issuing green federal securities, the German Government is sending out a clear signal that it also takes sustainability and transparency concerning sustainability seriously in the financial markets. The performance audit planned by the State Secretaries' Committee for the issue of green federal securities was concluded positively. In the second half of 2020, a ten-year green Federal Bond and a five-year green Federal Bond were successfully issued with a total volume of EUR 11.5 billion. Both green federal securities attracted very high demand. Investors were thus prepared to pay a premium for "green".

With its plans for regularly issuing green federal securities, the German Government is making a significant contribution towards growing the market for sustainable financial products.

c) Continuing education

In view of the role model function of the federal administration and the need to support employees in the implementation of sustainability principles, the sustainability training office was established at the Federal Academy of Public Administration in January 2020.

The main task of the new office is to develop needs-based continuing education and support measures for managers and staff of the federal administration.

Based on the survey of the presidents of the federal authorities carried out in 2020 concerning the most urgent continuing education requirements, the sustainability training office is developing concepts for the continuing education of managers and employees in order to support them in managing the transformation processes at the authorities aimed at fostering sustainable development. The German Government's objective of having all federal authorities operating in a climate-neutral manner by 2030 also entails a major need for new expertise and the use of new sets of instru-

ments. Here many authorities envisage a major need for information and continuing education.

There is strong demand among both managers and employees for technical presentations on new developments and political objectives, specialist and organisational knowledge for the implementation and monitoring of sustainability and climate protection targets, best practice examples from Germany and abroad and an exchange of experiences between the authorities. The Federal Academy of Public Administration relies here on proven formats for further training such as workshops, coaching and conferences, and increasingly also on new online formats that are being very well received by users. Online platforms for the exchange of experiences of authorities with regard to their change processes are also being set up.

To this end the sustainability training office makes use of synergies with partners such as the Federal Chancellery, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the Federal Environment Agency, the Institute for Federal Real Estate, the Climate-Neutral Federal Government Coordination Unit, the Centre of Excellence for Sustainable Procurement as well as universities and other social partners in order to develop optimum further training opportunities for the employees of authorities.

The continuing education needs of particular target groups, such as environmental managers/officers, are also addressed, with special importance attached to the practical relevance of the continuing education formats.

5. Communications

Communication on progress with the implementation of the German Sustainable Development Strategy is one of the primary elements of German sustainability policy, to which great importance is therefore attached in the public relations work of the Press and Information Office of the Federal Government and the individual ministries.

In their 2018 peer review evaluation of the Sustainable Development Strategy, the international experts encouraged the German Government to provide more information about the Sustainable Development Goals of the 2030 Agenda and their implementation via the GSDS.

Recommendation of the 2018 peer review

"While achieving the targets of sustainability is complex, it is possible to communicate the German Sustainable Development Strategy and the global SDG story (the narrative) effectively. If this is implemented well, it can even make people curious and awaken their interest to learn

more, while sparking a genuine commitment to promote Germany in terms of sustainability.

We appreciate the efforts made so far by the Press and Information Office of the Federal Government to communicate the German Sustainable Development Strategy. We believe that improving and expanding communication will make a major contribution to implementing the German Sustainable Development Strategy. It is furthermore necessary to strengthen the communication structures at all levels and in all sectors. We recommend that the German Government ... create a budget item for communications surrounding the German Sustainable Development Strategy, and develop a communication strategy ..."

The budget legislator therefore for the first time earmarked a total of EUR 600,000 in the 2018 budget for interministerial sustainability communication in the budget of the Press and Information Office of the Federal Government and increased the funding for continuing this in the fiscal years following 2019 to EUR 1 million per year.

The Press and Information Office of the Federal Government has thus stepped up its communication on the theme of sustainability across the entire range of instruments, such as on the Internet and in social media, via a six-weekly newsletter entitled Sustainability, further print products, in public dialogue at the Open Day of the German Government, with multipliers and via media information conferences. This supply of information is supplemented by the specific public and press relations work of the ministries.

The aim of the German Government's communication strategy is for the population to be aware of the Sustainable Development Goals, to know what the German Government is doing in order to achieve them and for this knowledge also to help them in changing their own behaviour. People need to be convinced by an intergenerational approach and carried along in the necessary transformation process towards a sustainable economy and sustainable consumption. To this end, interministerial communication is broadly based. It draws on both participatory elements and the direct approaching of the public, multipliers and the professional public. It also includes the idea of a Joint Effort for Sustainability comprising the Federal Government, Länder and civil society.

The Press and Information Office of the Federal Government has pursued completely new avenues with its almost entirely digital information campaign www.dieglorreichen17.de. The campaign presents the 17 Sustainable Development Goals. Seventeen unusual figures aim to awaken curiosity about the individual SDGs and sustainable development and motivate people to take part. The initial target group was 18–30-year-olds.

The Press and Information Office of the Federal Government also offers a broad range of information on its website that is promoted in digital and social media, with motivating best practice videos and interactive elements.

This has enabled awareness of the 2030 Agenda and the SDGs to be significantly increased. While, as revealed by a baseline measurement, prior to the campaign only a quarter of the population knew about the 2030 Agenda of the United Nations (according to third-party surveys as little as a tenth of the population), this share rose to more than a third of the population after the campaign and will have increased further since.

Current studies on the perception of sustainability in the population show that many consider the issue important, although there is still a need for information. The Global Survey on Sustainability and the SDGs, a quantitative, global (non-representative) survey of 26,374 persons conducted from September 2018 until June 2019, showed that the SDGs were still not widely known: fewer than half of those canvassed in Germany knew about the SDGs. The climate protection measures, health and well-being and high-quality education goals were considered particularly important.

A representative survey in July 2020 revealed sustainability to be the second most important issue after climate protection.

The digital information campaign of the Press and Information Office of the Federal Government was supplemented and strengthened by the Tour of Sustainability launched by the Federal Ministry for Economic Cooperation and Development in November 2019 and by links. The aim of the Federal Ministry for Economic Cooperation and Development's campaign is to bring together stakeholders from politics, business and society in order to promote the Sustainable Development Goals of the 2030 Agenda at regional events.

Further online initiatives furthermore address specific target groups, such as the participation portal www.17ziele.de supported by the Federal Ministry for Economic Cooperation and Development, and the www.sdg-portal.de website with information about the progress of local governments in implementing the SDGs. The German Government's social media offers people consumer-oriented information and guidance concerning the key sustainability issues.

An important strategic communication approach is also formed by the high-profile participation of the public, associations and the professional public in updating the German Sustainable Development Strategy. A core element comprised four nationwide public dialogues and the public consultation for the draft Strategy update in October 2020 (see Chapter B(VIII)(3)).

The high-profile support afforded by the German Government to the German Sustainability Award is highlighted by



the peer review as an example of best practice is also part of the communication strategy. The organisation of the German Sustainability Day has so far been supported by various federal ministries (Federal Ministry for Economic Cooperation and Development, Federal Ministry of Education and Research, Federal Ministry for Economic Affairs

and Energy, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) and the Press and Information Office of the Federal Government. The granting of sustainability awards and project funding thus strengthens this unique sustainability platform in Germany.

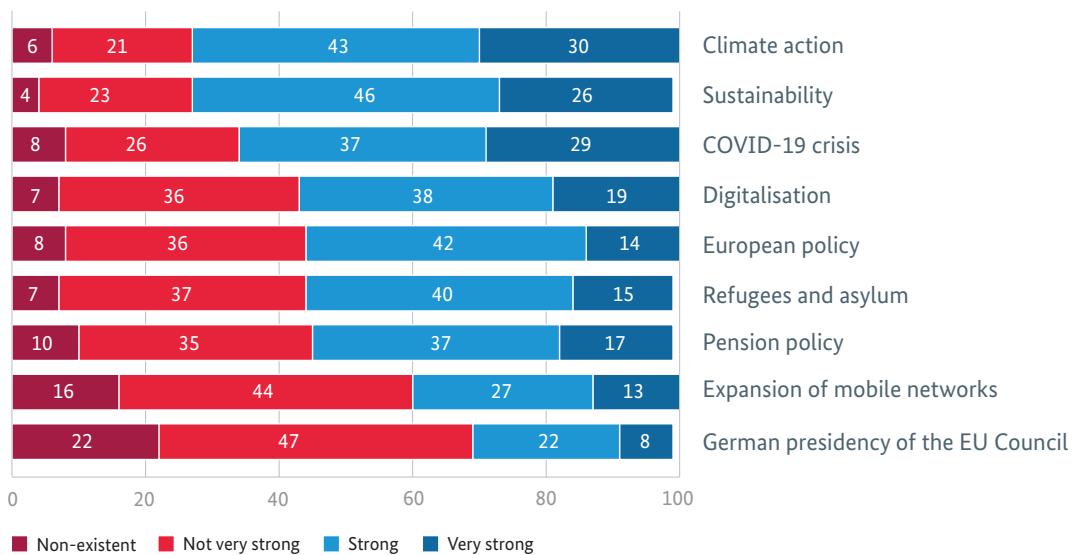
Transformation through communication

How can communication about sustainability be improved further? This was a question raised in a large number of statements concerning the draft for the Sustainable Development Strategy. It was enlarged upon during the congress on the German Sustainability Award, the German Sustainability Day. In addition, a key topic meeting was held in December 2020 with the support of the Press and Information Office of the Federal Government entitled "COVID-19, the climate and social division – communication in times of global threats" that was also attended among others by Government Spokesperson and State Secretary Seibert. The upshot of the meeting was that successful sustainability communication is closely connected with the credibility of the communicator. The major efforts made by the German Government, for instance in the area of climate action and gender equality, bear the hallmarks of a credible policy. More long-term-oriented sustainability communication can also learn from the fact and knowledge-based communication during the COVID-19 crisis.

Moreover, the communication of sustainability is caught in a balancing act between the abstract nature of the concept and the need to provide specific examples. This tension must always be appropriately balanced when communicating, while ensuring that the overall context of sustainability is never lost sight of when considering individual examples.

How interested are you in the following topics?

Forsa survey, commissioned by the Press and Information Office of the Federal Government (6–8 July 2020)



V. Programme of Sustainability Measures

The German Government has set itself specific targets since 2010 in order to ensure that its own administration acts sustainably.

Programme of Measures

The current Programme of Sustainability Measures of 30 March 2015 contains 11 measures for which the progress of implementation is determined annually and published in a monitoring report. The 2019 monitoring report was presented to the State Secretaries' Committee on Sustainable Development on 13 July 2020 and subsequently published (see www.bundesregierung.de/massnahmenprogramm-nachhaltigkeit).

Contents of the Programme of Measures

The Programme of Measures is geared to all agencies and institutions of the direct federal administration (unless specifically defined otherwise), and contains 11 areas for action: the Federation's function as a role model for sustainable construction, climate action as a contribution towards a climate-neutral federal administration, the use of renewable energies in the heating of federal buildings, energy-efficient modernisation plan for federal properties, energy/environmental management systems, public procurement, sustainability criteria for cafeteria services, reduction and offsetting of CO₂ emissions caused by transport, event organisation, compatibility of work with family life/care, including equal participation in management positions, and cultural diversification within the administration.

The update to the programme of measures is now planned up to the summer of 2021. Important progress was already made with the climate package in the autumn of 2019. The year 2030 was set as the target year for a climate-neutral federal administration with the 2030 Climate Action Programme and the Federal Climate Change Act. A Climate-Neutral Federal Government Coordination Unit was set up at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety to support the various aspects of this work.

The Federal Ministry for Economic Cooperation and Development and Federal Ministry for the Environment, Nature Conservation and Nuclear Safety already set their administrations on a climate-neutral path in 2019 and 2020 respectively. The CO₂ emissions are calculated as part of the environmental management system according to the Eco-Management and Audit Scheme (EMAS). Non-avoided/avoidable emissions are offset in both ministries.

Sustainable procurement

The programme of measures was the basis for steadily improving the incorporation of aspects of sustainability in public procurement award procedures in recent years. The role of the Centre of Excellence for Sustainable Procurement (KNB), which forms part of the Procurement Office of the Federal Ministry of the Interior, is particularly important here.

The Federal Government and the Länder are facing joint challenges with regard to sustainable public procurement. In view of this, the German Government is to strengthen and substantiate the Federation-Länder cooperation on sustainable procurement. This cooperation is particularly important for making use of the economic policy opportunities (combined market power) of sustainable procurement.

In order to promote sustainable public procurement by the German Government, priorities are initially being set for structuring the procurement processes and operating conditions towards more strategic procurement and equipping staff with the skills needed for the implementation of sustainable procurement. Increased use will be made of budgetary control opportunities in favour of sustainable public procurement.

Sustainable procurement

Based on the Public Procurement Statistics Ordinance (Vergabestatistikverordnung), the Federal Statistical Office, on behalf of the Federal Ministry for Economic Affairs and Energy, has published administrative statistics on public tenders awarded at federal, Land and local authority level. The statistics will for the first time make valid information available about the procurement activities of the public sector. The Public Procurement Statistics Ordinance was amended in March 2020 with the Act to Accelerate Procurement in Defence and Security and Optimise Procurement Statistics (Gesetz zur beschleunigten Beschaffung im Bereich Verteidigung und Sicherheit und zur Optimierung der Vergabestatistik): It considerably extended the recording of sustainability criteria in tender award procedures. In procedures around the upper threshold, in particular, records now show what type of sustainability criteria may have been included at which stage of the procurement process. The fundamental inclusion of sustainability criteria is recorded for procurement processes in the lower threshold area. The recording of data commenced on 1 October 2020 and initial evaluations are expected in the course of 2021.

The new version of the Administrative Regulation on the Procurement of Energy-Efficient Products and Services

was approved by the Federal Cabinet in March 2020 and entered into force in May 2020. The Regulation has obliged the federal authorities since 2008 to define special criteria concerning the energy efficiency of the products and services to be procured when awarding public procurement contracts. The new version sets out the obligation to take energy efficiency aspects into account more clearly: the procurers must essentially prescribe the highest efficiency class available on the European market within the meaning of the EU Energy Consumption Labelling Ordinance when setting out product specifications. If such an efficiency class is not (yet) achieved or not yet available for the product in question, energy efficiency can alternatively be based on the highest performance level available on the European market. The new version of the Administrative Regulation enables the German Government to continue to ensure a high degree of energy efficiency for all procurement processes of the federal administration, which represents an important element for achieving a climate-neutral administration in the medium term.

Beyond the adjustment of the Administrative Regulation on the Procurement of Energy-Efficient Products and Services, the German Government plans in a second step aimed at implementing the 2030 Climate Action Programme to put forward a General Administrative Regulation on Climate-Friendly Public Procurement geared especially towards reaching the set target of a climate-neutral German Government by 2030.

The German Government committed itself in the Programme of Sustainability Measures in 2015 to ensuring as far as possible that 50 % of textiles are procured sustainably by 2020. To this end, the Federal Ministry for Economic Cooperation and Development has in an initial step drawn up a guideline containing the German Government's standard definition of sustainability in public textile procurement. The guideline of the German Government with recommendations for sustainable textile procurement by the federal administration defines social and environmental sustainability criteria for individual textile products. It thereby offers procurement officers practical support in the application of stringent sustainability criteria in the procurement process. This first-time integrated definition of social and environmental criteria for specific textile products marks pioneering work in the German Government's guideline.

As the German Government's central information and advice centre on sustainable public procurement, the Centre of Excellence for Sustainable Procurement has since 2012 been supporting contracting authorities of the Federal Government, Länder and local government in taking account of sustainability criteria in their procure-

ments. For example, they can contact the Centre of Excellence for Sustainable Procurement via a telephone hotline and by e-mail. In addition, the Centre of Excellence for Sustainable Procurement offers training on sustainable procurement and on human rights in procurement and together with the Länder operates a central information platform on all issues concerning sustainable public procurement with legal frameworks, guidelines and much more.

It works with all areas of society to promote and design solutions for sustainable public procurement. For example, it has negotiated a declaration of commitment with the industry organisation Bitkom for the inclusion of social criteria in IT procurement that is set out in the National Action Plan on Business and Human Rights.

The Centre of Excellence for Sustainable Procurement is also being expanded in terms of staff and further developed as the central point of contact and advice centre of the German Government. Services for persons bearing responsibility for the strategic management of procurement are in particular to be expanded. An essential component of this is the networking of all parties involved in the procurement process (especially clients and budget planners). Cooperation with the Länder is to be stepped up and the advisory services of the German Government are to be better linked. Particularly in view of the digital transformation, alternative support formats are to be promoted.

With a view to the role model function of the federal administration, all measures are to be developed further in an ambitious manner beyond climate neutrality and sustainable procurement and their area of application expanded as far as possible. The adoption of new measures, such as education for sustainable development for employees of the Federation, is also under discussion.

VI. Federation-Länder cooperation

The Länder play a crucial role in the implementation of the German sustainability targets and the 2030 Agenda. In Germany's federal structure, the powers to enact and enforce legislation on important areas of sustainable development lie with them.

Land sustainable development strategies

Eleven Länder have already drawn up or are currently working on their own sustainable development strategies (Baden-Württemberg, Bavaria, Brandenburg, Hesse, Lower Saxony, North Rhine-Westphalia, Rhineland-Palatinate, Saarland, Saxony, Saxony-Anhalt, Thuringia). The short Länder profiles on the German Government's website (www.nationale-nachhaltigkeitsstrategie.de) provide an overview of the Länder sustainability activities.

Federation-Länder Exchange on Sustainable Development

Meeting twice a year, the Federation-Länder Exchange on Sustainable Development was established as a format for regular exchange on current sustainability-related developments at both federal and Land level. Meetings are prepared and led by the Federal Chancellery together with the Land holding the chair of the Conference of Minister-Presidents.

In 2018/2019, the work of the Federal-Länder Exchange on Sustainable Development focused on how the sustainability structures of the Federal Government and Länder could converge more in order to reach the goals of the 2030 Agenda.

It was agreed that shared sustainability issues would where necessary be discussed regularly at meetings between the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder.

Joint steps

The configuration of the sustainability processes, tools and content differs greatly among the Länder. The German Government would therefore welcome it if all Länder were to develop sustainable development strategies and align them more closely to the National Sustainable Development Strategy. At the same time, the Länder should be able to set their own priorities in the interests of federalism. The joint implementation of the 2030 Agenda, which spans all policy areas, and of the National Sustainable Development Strategy requires tools for the necessary policy coherence.

In their resolution of 15 November 2018, the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder stressed the need for ambitious joint activities to implement the Global Sustainable Develop-

ment Goals, the targets of the German Sustainable Development Strategy and the strategies of the Länder.

Based on a report on the status of Federation-Länder co-operation, the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder called for a set of joint indicators. The indicators of the German Sustainable Development Strategy set out in the report, for which data are also available in the Länder, are to serve as the basis for a provisional set of joint indicators of the Federal Government and Länder. These indicators are to be included as far as possible wherever this makes sense in the sustainable development strategies of the Länder in the light of their individual approaches and methods. In addition, the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries asked the Federal-Länder Exchange on Sustainable Development and the Federal and Länder statistical offices to continue working on a set of joint indicators. This work is taking place in a working group of the statistical offices led by the Land Statistical Office of Baden-Württemberg and the Statistical Office for Hamburg and Schleswig-Holstein (Statistikamt Nord), which regularly reports to the Federal-Länder Exchange on Sustainable Development.

Joint declaration

On 6 June 2019, the Federal Chancellor and the Länder Heads of Government issued a joint declaration entitled "Working together to promote sustainable development – assuming responsibility for a bright future in Germany, Europe and around the world". This comprises three sections: sustainable development is described as a joint challenge of the Federal Government and Länder (I.). Both the Federal Government and the Länder intend to align their political activities with the principles of sustainable development set out in the Sustainable Development Strategy (II.). The Federal Government and the Länder have further stated that they regard sustainable development as a community project.

Involvement of the Länder in updating the Sustainable Development Strategy

In their resolution of 9 May 2019, the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder welcomed the involvement of the Länder in updating the Sustainable Development Strategy, among other things within the framework of the planned regional dialogue conferences (in Stuttgart, Norderstedt, Erfurt and Bonn). They called for the joint efforts of the Federal Government and Länder towards implementing the 2030 Agenda to be visible in the update to the Strategy.

In a resolution of 12 November 2020, the Federal Government and Länder reiterated the need for increased efforts at all levels and in all sectors of society in order to achieve the SDGs. They also agreed on the ongoing procedure for the Joint Effort for Sustainability initiative.

Sustainable administration

At its meeting of 10 December 2018, the State Secretaries' Committee on Sustainable Development discussed the steps for further cooperation on sustainable development and the issue of a sustainable and above all climate-neutral administration together with the Länder Baden-Württemberg, Bremen, Hamburg, North Rhine-Westphalia, Schleswig-Holstein and Thuringia.

Based on this, the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder asked the Federal-Länder Exchange on Sustainable Development in their resolution of 9 May 2019 to clarify the next steps for the exchange between the Federal Government and Länder on sustainable procurement and climate-neutral administration.

International cooperation of the Länder

A central tool for supporting global responsibility at Länder level is a Federal-Länder programme. This serves to promote the engagement of German Länder with development policy and integrate it with development policy activities of the Federal Government.

Almost all the Länder are active with projects in the Global South through this cooperation framework. At the same time, the formalised exchange between the Federal Government and Länder on the Development Assistance Committee also creates the framework for local authority engagement.

The four Regional Hubs for Sustainability Strategies (RENN) have enabled the federal, Länder and local authority levels to be linked.



Die
Bundesregierung



Resolution of the Chancellor of the Federal Republic of Germany
and the Heads of Government of the Länder
– Berlin, 6 June 2019 –

DECLARATION BY THE FEDERATION AND LÄNDER

Working together to promote sustainable development while assuming responsibility for a bright future in Germany, Europe and around the world

I. Our common challenge

Out of responsibility for a bright future in Germany, Europe and the world, we, the Chancellor of the Federal Republic of Germany and the heads of government of the Länder, are working together to ensure that the guiding principle of sustainable development is consistently applied at the level of the Federation and the Länder.

We want to work together to implement the 2030 Agenda for Sustainable Development of the United Nations with its 17 Sustainable Development Goals in Germany. The adoption of the 2030 Agenda was a milestone in international cooperation towards creating a world worth living in for everyone. We want to make swift progress in order to master the challenges facing present and future generations, in Germany and – together with our partners – also in Europe and around the world. We firmly believe that this responsibility cannot and must not end at the borders of our country.

The overarching goal and benchmark of all our actions must be to preserve the Earth's natural basis for life in the long term and to enable all people to live in dignity now and in the future.

To this end, we want to raise the profile and harness the potential of sustainable development for our economy at the national and international level through sustainable innovations and investments, thereby creating and safeguarding employment in the long term. To this end, people from all sectors of society must be won over for the cause of sustainable development. Moreover, cohesion and participation must be strengthened and the necessary processes of change must become a priority for everyone.

We have seen that efforts to achieve greater sustainability are in a crucial phase – around the world, in Europe and in Germany. We need further vigorous action at every level in order to shape our world in a sustainable fashion:

- Around the world, the priority will be to preserve the achievements of joint and cooperative action by states (multilateralism) and to strengthen sustainable development in all areas. Everyone stands to benefit if all states manage to assume joint responsibility for ensuring good prospects for present and future generations.
- In the EU, the priority in the coming months will be to shape the future of the Union together in the spirit of sustainable development through cooperation between the newly elected European Parliament, the member states and regions and a new European Commission.
- In Germany, the priority will be to gear our efforts even more strongly to sustainable development. In this regard, we are focusing in particular on the challenges associated with the implementation of the 2030 Agenda for a highly developed industrialised country. The Federal Government and the Länder are assuming joint responsibility for an ambitious German contribution to implementing the 2030 Agenda. We are living up to this responsibility.

II. Our common compass: Principles of sustainable development

Many important initiatives to implement the 2030 Agenda have been taken at the level of the Federation and the Länder in recent years. Irrespective of the progress made, we continue to need radical change as we are still far from achieving our objectives in a number of areas.

We therefore want to forge ahead and send a signal together. We will gear our political actions in the Federation and the Länder to the principles of sustainable development as set out by the German Sustainable Development Strategy:

- (1) Apply sustainable development as a guiding principle at all times in all areas and in all decisions
- (2) Assume global responsibility
- (3) Strengthen the natural resource base on which life depends
- (4) Strengthen sustainable economic activity
- (5) Preserve and enhance social cohesion in an open society
- (6) Use education, science and innovation as drivers of sustainable development

The aforementioned principles outline fundamental requirements for a sustainable policy.

III. Our common objective: sustainable development as a collaborative project

We can only make Germany sustainable by working together. Progress on the path towards sustainable development can only be achieved through respectful cooperation if everyone does their part in line with their interests, opportunities, talents and skills.

Many members of the public, local authorities and companies, as well as initiatives and organisations are already taking action and leading by example, implementing exemplary steps and measures. We want to raise the profile of these efforts, strengthen them and encourage further activities. We invite all stakeholders to work on this together with us.

We consider sustainable development to be an opportunity for our country and for the world. Together, we can achieve the transformation towards a sustainable Germany with a strong contribution to a sustainable world; it is in our hands.

VII. Cooperation with local government

Local government is a driving force for achieving the targets of the 2030 Agenda and the German Sustainable Development Strategy. The strategic embedding of the SDGs in everyday administration is enabling sustainable development to be implemented locally. The development and implementation of integrated local government sustainability are an important instrument that should be strengthened still further in the future.

Multi-level approach

In a multi-level federal system, each level of government – Federal Government, Länder and local government – bears a joint responsibility for achieving the goals of the 2030 Agenda. An important role is played here by the municipal umbrella organisations. The Association of German Cities has repeatedly affirmed its commitment to the international sustainability and climate targets and particularly following the experience of the COVID-19 pandemic considers it necessary for existing municipal sustainability strategies to be developed further. This also includes changes to patterns of consumption and production. The Association of German Counties and the German Association of Towns and Municipalities also support a greater consideration of sustainability at local authority level.

SDG indicators for local authorities project

To highlight the contribution of German local government to the 2030 Agenda, the municipal umbrella organisations, the German Institute of Urban Affairs, the Federal Institute for Research on Building, Urban Affairs and Spatial Development, Engagement Global's Service Agency Communities in One World and the Bertelsmann Stiftung launched the joint project "SDG indicators for local authorities" back in 2017. The project assigned the 17 SDGs and their 169 associated targets of the 2030 Agenda to German local authorities to determine whether the UN targets are relevant for German local government and the extent to which the latter bear responsibility for their achievement.

Following a broad-based discussion process involving municipal experts, a second edition of the "SDG indicators for local authorities" handbook was published in 2020 with meaningful municipal indicators. Among other things a greater focus was placed on SDG 3 (health) with a view to the COVID-19 pandemic. Municipal indicators reflect the state of local healthcare provision in a citizen-friendly and practical manner.

Not all the indicators described in the handbook are available free of charge and without restriction. However, they have a high quality and are available for selection. All freely available indicators can be retrieved from the SDG portal www.sdg-portal.de. Each municipality with more than 5,000 inhabitants can thus compile a sustainability report with little outlay. Other municipalities use the report as an opening balance sheet and change, replace or supplement indicators according to their own local authority policy priorities. The most up-to-date version of the portal also offers local governments the option of entering flagship projects and reviewing their own progress of implementation also within the framework of sustainability reports. The Association of German Cities considers the SDG indicators to be the best framework of reference for reviewing the individual local authorities' progress in implementing the targets.

The easy operation and attractive visualisation of the SDG portal was also the decisive factor behind the SDG Award that the UN presented in seven different categories in 2019 for exemplary implementation of the SDGs. The SDG portal was nominated in the "Best visualisation" category and singled out as one of three projects in the final at the award ceremony in Bonn in May 2019. The award has helped to draw attention to the project among local governments throughout the world. The Italian portal www.sdg-portal.it is now completed and available in Italian and English. In addition, application of the method to Moroccan municipalities is in preparation. The GIZ is also contributing to the further proliferation of the SDG portal.

International municipal collaboration is also becoming visible within the framework of the High-level Political Forum (HLPF) of the United Nations. Numerous local governments across the world, including the German cities of Mannheim, Bonn and Stuttgart, have prepared Voluntary Local Reviews (VLRs) in order to demonstrate how sustainability is practised at the municipal level and how local government can contribute to achieving the SDGs.

Sustainability communication with local authorities largely takes place at the level of the Länder. The German Government is therefore arguing that a contribution to the implementation of the 2030 Agenda and the achievement of the SDGs should be made at municipal level.

In the context of the 2030 Agenda, the German Sustainable Development Strategy and the sustainability strategies of the Länder, Engagement Global and its Service Agency Communities in One World advises municipalities on behalf of the Federal Ministry for Economic Cooperation and Development on the development of sustainability strat-

egies under the particular aspect of municipal development policy. The “Municipalities for Global Sustainability” initiative is currently being implemented in Baden-Württemberg, Bavaria, Brandenburg, Lower Saxony, North Rhine-Westphalia, Rhineland-Palatinate, Saarland, Schleswig-Holstein and Thuringia. One hundred and fifty-eight local authorities have already signed the specimen resolution on the 2030 Agenda of the Association of German Cities and the Council of European Municipalities and Regions and come together to form the “Club of 2030 Agenda Municipalities”.

In 2018 the State Secretaries’ Committee on Sustainable Development singled out the “Global-local: locating the 2030 Agenda” project as a flagship project. This project offers guidance with regard to sustainable municipal development and integrates sustainability and development policy. Specific action programmes promote achievement of the SDGs at local level.

The Länder contribute through their representation on the individual project advisory boards by the State Chancelleries and/or relevant specialist ministries. The project schedule includes incentives to involve stakeholders from business, civil society and other municipal institutions. At the international level the project has been cited in the European Commission’s reflection paper entitled “Towards a Sustainable Europe by 2030” as a policy highlight. The project is recognised internationally within a joint programme entitled “A territorial approach to the SDGs” of the OECD and the “Local SDG Leadership Initiative” of the Brookings Institution, a US think tank, as a positive example of localisation of the SDGs.

More than 30 lord mayors are now discussing their sustainability initiatives as part of the Council for Sustainable Development’s Lord Mayor Initiative.

VIII. Involvement of social stakeholders

Global partnership and the multi-stakeholder approach are important principles of the 2030 Agenda. The German Government has therefore created new formats for including social stakeholders in the updated GSDS

1. Bodies established since 2017 with the German Sustainable Development Strategy

a) Sustainability Forum

The Sustainability Forum is held annually at the Federal Chancellery and serves to facilitate dialogue between the German Government and core stakeholders about the current state and future of implementation of the Sustainable Development Strategy and the 2030 Agenda.

Tasks of the Sustainability Forum

- *The German Government presents the current state of implementation of the 2030 Agenda/work programme.*
- *Social organisations provide information about their steps taken to implement the 2030 Agenda, comment on implementation by the German Government and make suggestions for further enhancement.*
- *Linking up of specific ways for civil society, business and science to participate in the implementation of the 2030 Agenda as part of the Sustainable*

At the initial Sustainability Forum on 13 June 2017, around 100 experts from civil society, business, science, churches, Länder and local government engaged in discussion. They praised the 2016 Strategy with its significant innovations as a major step in the right direction but also called for it to be resolutely implemented. They described the efforts being made by their organisations and institutions to achieve greater sustainability and were in turn informed about the German Government’s activities, such as the dialogue forum on the 2030 Agenda of the Federal Ministry for Economic Cooperation and Development and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, and the Scientific Platform for Sustainability 2030.

The second Sustainability Forum on 18 June 2018 was attended by more than 120 representatives of a good 60 organisations. They again presented their activities and priorities for sustainable development and discussed with rep-

representatives of the German Government the areas in which the German Sustainable Development Strategy was already to be updated in the current year and what was to be included in the extensive update through to 2020. Ministry Coordinators from eight federal ministries outlined the priorities of their work. Workshops led by representatives of social stakeholders addressed the evolution of management rules, sustainability indicators, recommendations of the peer review, the Scientific Platform for Sustainability 2030 and the HLPF.

Around 150 participants took up the invitation of the Head of the Federal Chancellery to attend the Sustainability Forum on 13 June 2019. A good 60 environmental, social, development and youth associations, institutions and organisations from science and business, churches, trade unions and expert panels were represented together with municipal umbrella organisations, Länder, the German Bundestag and federal ministries. A representative of Hamburg's Land government informed those attending about the joint declaration by the Federal Government and the Länder (see Chapter VI.). Five workshops discussed the themes of international sustainability policy, sustainability indicators, Federation-Länder cooperation, communication and the work of the State Secretaries' Committee on Sustainable Development with a focus on the work of the Dialogue Group.

The 2020 Sustainability Forum (held virtually) at the Federal Chancellery on 15 October 2020 and attended by more than 50 organisations and institutions discussed the update to the GSDS (see Chapter B, VIII, 3.).

b) Dialogue Group

While the Forum addresses the implementation and updating of the GSDS once a year, the Dialogue Group convenes specifically for preparing the individual priority areas of the State Secretaries' Committee on Sustainable Development (see Chapter II. 1).

c) Scientific Platform for Sustainability 2030

It was decided in the 2016 GSDS to set up a Scientific Platform for Sustainability 2030 (wpn2030). The underlying idea came from the Federal Ministry of Education and Research, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Federal Ministry for Economic Cooperation and Development in 2016, and it was launched officially in May 2017.

The platform serves as a hub for science, society and policy-makers in order to support implementation of the Sustainable Development Strategy and the SDGs with scientific expertise. Current scientific findings are bundled and incorporated into the implementation processes of the Sustainable Development Strategy in a targeted manner. At the same

time, the platform addresses open issues from past experience and incorporates them into the scientific discussion.

In order to ensure a broad and independent scientific basis for the platform, its management has been assigned to three scientific organisations – the Institute for Advanced Sustainability Studies in Potsdam (IASS), the Sustainable Development Solutions Networks (SDSN) Germany and the German Committee Future Earth. The Scientific Platform has been jointly chaired since January 2020 by Prof. Daniela Jacob, Prof. Christa Liedtke and Prof. Patrizia Nanz (since February 2021 Prof. Mark Lawrence, IASS). The content of the Platform's work is coordinated by a steering committee with 26 members appointed in consultation with the representatives of the ministries responsible for a three-year term of office. The steering committee is made up of representatives from science, civil society and business. The federal ministries responsible as well as others affected by the issue and the Federal Chancellery also sit on the steering committee as permanent guests.

To date the Scientific Platform for Sustainability 2030 has worked on the following priority areas: "sustainable consumption", "future of work", "global commons" and "sustainable mobility". The Scientific Platform contributed to the update of the German Sustainable Development Strategy with a comprehensive reflection paper at the end of 2019 ("Bitte wenden! Wissen(schaft) für eine nachhaltige Entwicklung Deutschlands (Turning the page – scientific knowledge for Germany's sustainable development)), which set out recommendations for improved governance and transformation steps in relevant policy areas. In its discussion paper, "A sustainable recovery from the coronavirus crisis" published in August 2020, the Scientific Platform recommends strengthening crisis resilience through sustainability.

As another of the Platform's dialogue formats, a series of workshops has been jointly launched with SDSN Germany with scientific advisory councils of the German Government (dialogue with scientific advisory boards). The third dialogue with scientific advisory boards in September 2020 was attended by representatives of 21 advisory boards and advisory bodies of the German Government. This format enables scientific forces from different disciplines to be bundled for sustainability priorities, thereby also supporting an inter-ministerial sustainability policy. The dialogue with scientific advisory boards has drawn up recommendations for updating the German Sustainable Development Strategy.

2020 dialogue with scientific advisory boards – participating advisory boards and advisory bodies

- Advisory Council for Civilian Crisis Prevention
- German Ethics Council
- Digital Council of the German Government
- Commission of Experts for Research and Innovation
- Fördernetzwerk Interdisziplinäre Sozialpolitikforschung (Network for the Promotion of Interdisciplinary Social Policy Research)
- German Rectors' Conference
- German Data Forum
- Council for Sustainable Development
- Advisory Council on the Assessment of Developments in the Health Care System
- Advisory Council for Consumer Affairs
- German Social Advisory Council
- German Advisory Council on the Environment
- German Council of Economic Experts
- United Nations – Political Advisory Board
- COVID-19 Crisis Unit for Scientific Advice
- Scientific Advisory Board for Family Matters at the Federal Ministry for Families, Senior Citizens, Women and Youth
- German Advisory Council on Global Change
- Scientific Advisory Board on Agricultural Policy, Food and Consumer Health Protection
- Scientific Advisory Board on Biodiversity and Genetic Resources
- Scientific Advisory Board at the Federal Ministry of Transport and Digital Infrastructure
- Specialist Group for Regulatory Issues of the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway

The Scientific Platform has contributed to the update to the German Sustainable Development Strategy with a number of statements.

Statement of wpn2030 concerning the draft version of the German Sustainable Development Strategy

Comments and recommendations

1. Shape political actions more coherently via the German Sustainable Development Strategy by correlating the latter with other strategies of the German Government and with all levels of government
2. Strengthen governance structures
3. Further strengthen the interface of politics and science

4. Interlock and address resilience, crisis resistance and sustainability even more clearly through the Sustainable Development Strategy
5. Substantiate and implement the Joint Effort for Sustainability
6. Implement pilot project for linking SDGs/German Sustainable Development Strategy with the federal budget
7. Consistently implement "In, with and through Germany conception" at different levels
8. Strengthen natural resources and review and if necessary amend land use systems

wpn2030: Bitte wenden! Wissen(schaft) für eine nachhaltige Entwicklung Deutschlands (Turning the page – scientific knowledge for Germany's sustainable development)

... The direction the German Sustainable Development Strategy is pointing in is correct but the speed and depth of change is still nowhere near adequate....

Recommendations:

1. Strengthen the political and social relevance of the German Sustainable Development Strategy.
2. Strengthen the understanding of interrelationships and encourage overarching examinations of conflicting objectives and synergy potential.
3. Analyse the causes of target shortfalls and adjust measures.
4. Review and supplement targets and indicators.
5. Improve sustainability governance.
6. Improve science policy interface on both sides.

Further information about the Platform can be found at www.wpn2030.de.

2. Other important social stakeholders

Social stakeholders play a vital role in the implementation of global and national sustainable development goals. With their knowledge, engagement, networks and resources, they are an indispensable partner in the new Global Partnership. A wholesale transition to sustainable development needs everyone to be on board. Implementation begins with the everyday decisions of each and every individual: which clothes should I wear, how should I travel to work and what should I eat?

Business

As central stakeholders, businesses play a key role in implementation of the 2030 Agenda.

Entrepreneurial freedom and market competition are not only engines of economic success but also – along with social partnership and responsibility – provide important stimulus for sustainability. The assumption of corporate social responsibility (CSR) can drive innovation and contribute to a social and ecological form of globalisation.

There are already corresponding activities that call for and support corporate responsibility. At international level, for example, these include the UN Guiding Principles on Business and Human Rights and initiatives such as the UN Global Compact. The central reference framework at the national level is the National Action Plan on Business and Human Rights. This is supplemented by a whole raft of initiatives such as “econsense” and “Chemie hoch drei”, as well as the fora for sustainable cocoa and sustainable palm oil and the Partnership for Sustainable Textiles. They can provide stimulus for further activities to ensure increased sustainability in business. In the field of corporate social responsibility, representatives from business – together with representatives from trade unions, non-governmental organisations, science and politics – participate in the German Government’s National CSR Forum. On 8 June 2018, the National CSR Forum approved a “Berlin CSR consensus on corporate responsibility in value and supply chains”, which is to give businesses more guidance for specific action.

German Sustainability Award Foundation

In cooperation with the Council for Sustainable Development, the German Sustainability Award has been presented in Düsseldorf since 2008. It is presented to companies and local government that combine economic success with social responsibility and environmental protection, and harness sustainable activities to generate further growth. Partnerships of companies and local government with partners

in the Global South are also singled out for a special award. The German Sustainability Award also recognises consistent sustainability management and sustainability themes in brand management. In addition, a special prize is awarded to individuals who outstandingly promote the concept of sustainable society in Germany and abroad. The German Government is represented on the Foundation’s Board of Trustees, and the German Chancellor has often been its patron.

Scientific community

Without the scientific community in this form, the 2030 Agenda would neither exist, nor would it be possible to meet the social, environmental and economic challenges associated with it. A free scientific community creates the knowledge base and is one of the main drivers of innovation for a sustainable future in the spirit of the 17 SDGs (see sixth principle for sustainable development, Chapter B. IV. 1.).

Germany has a powerful scientific system. For many years it has been making significant contributions both nationally and internationally to preparedness for the future. Examples here include the German Government’s Scientific Advisory Council on Global Environmental Change, and the Intergovernmental Panel on Climate Change. These and other activities involve pointing out long-term trends and risks, as well as specific potential solutions for social and political processes.

In addition, with its innovative capacity, the German research community is increasingly helping to develop new solutions and products to help implement the SDGs in Germany and world-wide. These include both technical solutions above all originating from natural and engineering science, as well as socially relevant innovations to which humanities and social sciences make a major contribution. A decisive factor here are participatory, interdisciplinary and transdisciplinary approaches to research that encourage exchange between science and politics, society and business and therefore effective and rapid knowledge and technology transfer (see Chapter C, SDG 9).

Research for Sustainability (FONA)

A special role is played here by the Research for Sustainability framework. With new findings in the area of basic research and practical new technologies and social innovations, it makes a direct contribution to sustainable development. The spectrum of topics covered ranges from

climate and natural resources research, marine, polar and energy research through to regional and mobility research. With its three Research for Sustainability (FONA) framework programmes, the Federal Ministry of Education and Research has been intensively promoting the strengthening of sustainability research since 2005. Since then more than

10,000 projects have been supported and a strong interdisciplinary and transdisciplinary networking of research activities has been achieved. With its even stronger target orientation, the new FONA Strategy from the Federal Ministry of Education and Research that has now been launched will make an important contribution to implementing the German Sustainable Development Strategy and the 2030 Agenda (see Chapter C, SDG 9).

Culture, media and creative sector

Culture and media penetrate all social issues and therefore also the 17 SDGs. As bearers and mediators of values, they play an important role in the social transition towards sustainable development. Art and cultural institutions, the creative sector and the individual stakeholders themselves are accordingly called upon to support resource and climate conservation, high-quality education and the target of sustainable cities and communities. In relation to the three dimensions of sustainability (environmental, economic and social), culture can therefore be considered a binding element that significantly influences all areas of life and makes its own contribution towards implementing the set targets. Culture and the creative sector also help to achieve the SDGs in their capacity as economic factors. Due to their particular perspective, artists, creative minds and cultural institutions assume an independent significance as stakeholders in the sustainability debate:

- for example, artists have always addressed and been inspired by the relationship between culture and nature as well as current social processes such as the handling of poverty and migration. They create utopia and blueprints for a society in which we wish to live in future. In doing so they can initiate and convey innovations and new narratives for sustainable living. They in turn inspire the audience with their works. Art can in this way inspire engagement for more sustainability.
- Art inspires creativity and in doing so becomes an innovation driver. Art, culture and the media stimulate the intellectual-creative force of a society. Creative and innovative solutions to technical challenges sometimes arise in the creative sector, such as in the design or film industry. Successful business models can develop from these that create sustainable employment and income prospects throughout the world.

- However, museums, festivals and virtually every artistic production also leave behind a carbon footprint. It is therefore to be welcomed when these stakeholders and creative minds analyse and as far as possible improve their environmental impact. Some pioneers are already showing how to do this and how the role model function of publicly accessible and recognised institutions in urban and rural areas can be deployed as multipliers of a sustainable way of life and business.

3. Dialogue on the update to the Strategy

The German Government relies on dialogue and transparency for updating the Strategy.

First phase: preparation of draft

Preparation of the draft Strategy was based on four national and regional conferences.

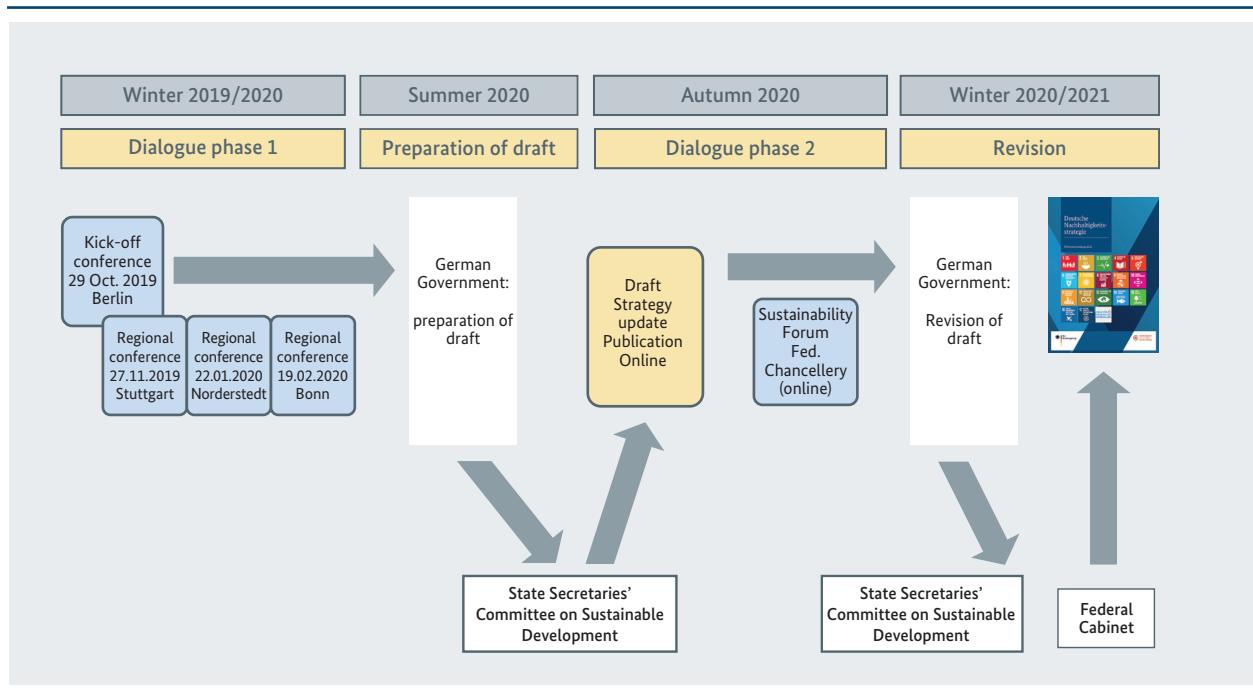
At the first conference in Berlin, special workshops systematically shed light on the contributions of the German Sustainable Development Strategy towards implementing the 17 SDGs; these were supplemented by workshops on international and European sustainability issues and the proposal for the Joint Effort for Sustainability.

The following three regional conferences also addressed the 17 SDGs from the perspective of regional prioritisations.

The German Government was represented at the conferences by Federal Ministers and State Secretaries; two Minister-Presidents attended the regional conferences (Winfried Kretschmann and Daniel Günther) and the Länder otherwise took part at ministerial level.

Around 1,400 people attended the four dialogue conferences and made an important contribution with their input to updating the German Sustainable Development Strategy. In an initial phase, all participants also had the opportunity to submit comments and suggestions online for updating the Strategy.

This included the statement of the German Sustainable Development Solutions Network (SDSN Germany) proposing a focus on key transformations and overarching levers (see above under Chapter A. II. 3. aa/bb).



SDSN Germany – five suggestions for structural enhancements to the German Sustainable Development Strategy, 3 March 2020

1. Mutually strengthen German Sustainable Development Strategy and European Green Deal
2. Implementation through focus on key transformations and overarching levers
3. Make consistent use of the transformative fiscal lever
4. Enshrine the Strategy in parliament and society, strengthen control within the government
5. Link timescales of Sustainable Development Strategy and key political processes

The binding element of these statements was the acknowledgement of the progress achieved within the framework of the Sustainable Development Strategy together with the call for a greater force of impact and more ambition; the overall political relevance of the Strategy needs to be strengthened.

Second phase: revision of draft

In a second phase that started on 1 October 2020 with the publication of the draft Strategy, online participation was opened with a video message from the German Chancellor.

Sustainability Forum

Around 120 representatives of organisations and institutions took part in the virtual Sustainability Forum hosted by the Federal Chancellery on 15 October 2020.

They praised the draft version in many respects as a good basis for updating the Sustainable Development Strategy. The policy of considering not just individual targets but in addition also important areas of transformation was particularly highlighted.

At the same time, there was broad consensus among the participants that an even more ambitious approach was needed. To this end, a large number of very different topic areas for possible further elaboration or improvement was identified in the discussion. These included substantiating the idea of a Joint Effort for Sustainability (see Chapter B(IX) below). Also addressed was the issue of a greater inclusion of the international dimension in the Strategy, while a strengthening of the existing sustainability policy structures within the government was likewise discussed. In addition, the participants suggested improving the communication of sustainability issues. Many stakeholders also underlined the importance of budget planning for implementation of the SDGs.

Written statements

The points mentioned were also reflected in the written statements received. Around 360 written statements were received during the dialogue phase up to the end of October 2020 that were forwarded directly to the ministries responsi-

ble for review and contained important impulses for the revision of the draft. **Responses that were cleared for publication appeared on the www.dialog-nachhaltigkeit.de website.**

Here too, advances in the Strategy were welcomed. The German Government had “undertaken important steps in recent years to raise awareness of the issue and enshrine fundamental principles of sustainability in the various policy areas”. The draft version “stood out against the Sustainable Development Strategy with improvements in systematics and presentation”. Nevertheless, there was also a significant need for action. The Strategy urgently needed more ambition and force of impact.

Statements from the dialogue on the GSDS

“As has now ... become clear, we are a long way from achieving the set targets both internationally and in Germany in significant areas of the SDGs and the German Sustainable Development Strategy. ... Despite all good approaches as well as the remarkable progress in the governance of the Sustainable Development Strategy, an urgent need for action is ... to be observed to which the draft 2021 update does not yet offer an adequate answer.”

WWF

“While its existence, regular revision and incorporation into the German sustainability architecture ... are most gratifying, [the German Sustainable Development Strategy] will not get us anywhere as long as sustainability remains the second, third or tenth priority as a decision-making criterion.”

German Forum on Environment and Development

“The basis for a forward-looking narrative that the German Sustainable Development Strategy can be and must become ... is in place. The German Government simply needs to embrace and adopt it as a political opportunity for a new partnership agreement at German and EU level.”

Germanwatch

“We think that considerably more courage and a more ambitious approach and measures are called for in the update of the German Sustainable Development Strategy.”

B.A.U.M. e.V.

“There must be a switch in the last decade up to 2030 from strategy mode to action mode – at all levels and in interaction with all social stakeholders.”

econsense, Forum for Sustainable Development of German Business

Statements came not only from a broad spectrum of organisations and institutions but also from a large number of members of the public. They called for a fundamental shift in many areas and submitted proposals for a revision of the Strategy from a broad range of topics. It became clear here that sustainability is seen as an overarching and pioneering issue with a direct impact on the reality of life.

Some participants called for the theme of sustainability to be included in school curricula. Others advocated “more open” communication between citizens and government. The topic of finance also played an important role in the statements. For example, it was suggested that, in addition to the regulatory impact assessment and subsidy assessment, the sustainability impact assessment should be expanded to include an investment and budget assessment. This assessment should comprise a review of all financial resources spent by the Federation in its overall budget and in the individual budgets of the ministries in terms of sustainability in the planning phase. As well as the economic effects, the ecological and social impact entailed by this use of resources should be investigated.

Institutional stakeholders in particular, such as the Scientific Platform for Sustainability 2030, spoke out in favour of the German Sustainable Development Strategy being correlated more strongly with other strategies of the German Government. The German Sustainable Development Strategy should be linked with strategies concerning issues such as digitalisation, biodiversity, climate policy and adaptation to climate change.

The adoption of the areas of transformation proposed in the draft Strategy was addressed particularly frequently and almost always positively. The areas of transformation should be linked with off-track indicators and measures.

Another widespread theme of the written statements was the international orientation of the Sustainable Development Strategy. Both the Council for Sustainable Development and other stakeholders called for the international perspective to be developed more strongly. An effective sustainability policy required the SDGs to become the guiding principle of the multilateral and bilateral relations of Germany and the EU as a whole, i.e. also with the USA, China and Russia. Trade, innovations and investments particularly took place with industrialised countries. This was a strong lever for more sustainability.

Sustainability as a community project and participation in sustainability were also reflected in some statements and accompanied by an offer to contribute actively to this.

It was suggested several times that following adoption of the Strategy a follow-up process immediately be launched in order to discuss the prospects of the ongoing procedure.

A very specific proposal was put forward by several parties to compile an abridged version of the Strategy to accompany the full version with a clear presentation of the strategic core elements of the Sustainable Development Strategy. The German Government took up this proposal.

An important point in many statements was also the Strategy's governance structure. Many stakeholders called for the coordination function and role of the Federal Chancellery to be strengthened. The specific suggestions included the appointment at the Federal Chancellery of a Minister of State for Sustainability, the appointment of a Federal Government Commissioner for Sustainability, a kind of sustainability tsar at Director-General level comparable with the existing G8/G20 tsar with corresponding capacities, and the establishment of a Sustainability Staff Unit. The Ministry Coordinators needed to be strengthened at the ministries. Ministries lagging behind in implementing the targets should put forward catch-up plans with specific measures setting out in a binding manner how gaps in implementation were to be swiftly closed. The State Secretaries' Committee on Sustainable Development should be commissioned to work continuously on an implementation programme for the German Sustainable Development Strategy.

A large number of private statements (around 70) referred to a study by the Wuppertal Institute. This stated that a climate-neutral energy system by 2035 was very ambitious but fundamentally achievable if the German Government's strategies were bundled.

Wuppertal study

The study "CO₂-neutral by 2035: Key Points of a German Contribution to Maintain the 1.5°C Limit" of the Wuppertal Institute for Climate, Environment, Energy gGmbH springs from the Paris Agreement setting the target of limiting global warming to well below 2°C and if possible to 1.5°C. The study concludes that Germany needs to make its energy system climate-neutral by around 2035 in order to make an adequate contribution to achieving the 1.5°C target. According to the study, this is very ambitious but fundamentally achievable as long as all strategies possible from today's perspective are bundled and a large number of measures are brought forward and intensified. The study offers suggestions as to how CO₂ neutrality can be achieved by 2035 particularly in the energy, industry, transport and construction sectors. The primary conclusion was that broad social consensus is needed to achieve the target. To this end the transition path needs to be designed fairly and social aspects must be taken into account.

IX. Joint Effort for Sustainability

Embedding sustainability and civic engagement in society

Realistically, the 2030 Agenda and the German Sustainable Development Strategy can be implemented successfully only if they are broadly supported and actively furthered by society as a whole. Putting the 2030 Agenda into a practice is a community project.

Many people are already engaged in countless organisations and initiatives for sustainable development, in Germany and around the world. In Germany, some 30 million people have volunteered their time and are doing their bit to improve social cohesion. Each and every individual can make a real difference with their day-to-day actions.

Education for sustainable development (ESD) is of crucial importance here. It enables people to think and act in a forward-looking manner so that they can contribute actively to the creation of a sustainable world. Skills for dealing with uncertainties and complex problem situations are conveyed with the help of ESD (see Chapter C.4).

Schools and universities provide important operating space for this. They are the place where knowledge is acquired, (self)-experience is gained and scope for reflection is opened up. Children, young people and young adults are not least important stakeholders in the public discussion about sustainable development. Young people wish to help shape our society and do so in many ways. They are particularly concerned about the condition of the world. Among other things with its Youth Strategy, the German Government aims to keep in mind in a responsible manner the interests of the young generation and to strengthen their opportunities for participation – not least in sustainability issues.

Forms of informal learning and of participation and dialogue in associations, businesses and initiatives are also an important lever regardless of age for activating civil engagement for more sustainability at both the national level and within the framework of bilateral and multilateral exchange and placement programmes.

Support of the German Government for voluntary work

One example of the support of civic engagement is the Deutsche Stiftung für Engagement und Ehrenamt (German Foundation for Voluntary Work) as the national point of contact with service packages for civic and volunteer workers. Furthermore, the Advisory and Network-

ing Office of Engagement Global advises organisations, initiatives and explicitly also individuals on behalf of the German Government on engagement and networking opportunities concerning the entire spectrum of international sustainability issues

2030 Agenda – global partnership and multi-stakeholder approach

The 2030 Agenda for Sustainable Development has made clear that advocating sustainable development is something that concerns everyone. The principle of the 2030 Agenda's Global Partnership and the associated multi-stakeholder approach call for new forms of cooperation between stakeholders and the people politically responsible for implementing the Agenda.

Other countries have in some cases concluded from this the need to include the contribution of social stakeholders actively and directly in implementing the 2030 Agenda. One highly respected example internationally is Finland, where stakeholders are asked to commit themselves to activities for implementation in their own area.

Finland example: "Society's Commitment to Sustainable Development"

The participants in this activity are asked to select from a list of eight targets a sustainable development target relevant for them and to commit themselves to specific measures contributing to this. They then report on a website about the measures taken and results achieved. The measures and results are monitored by the Finnish National Commission on Sustainable Development.

<https://kestavakehitys.fi/en/commitment2050>

Growing public interest in sustainable development has in fact been registered both nationally and internationally in recent years alongside increasing commitment to related issues.

Recent examples of this include the commitment primarily of young people in the "Fridays for Future" movement and the widespread participation in the European Sustainable Development Week (ESDW). More and more initiatives and organisations, local government and members of the public are supporting the cause of sustainable development in Germany.

The overall focus of the German Sustainable Development Strategy was initially placed on the contribution of the state – specifically the federal level – towards sustainable development with the goal of creating structures and political framework conditions for sustainable development.

In the latest update to the German Sustainable Development Strategy of 2016, the German Government has defined strengthening cooperation with social stakeholders as one of the update's areas of focus. A host of measures were adopted for this (see Chapter VIII above). Without the backing of the population for sustainable development and without further action by each individual stakeholder, it will not be possible to achieve sustainable development in Germany.

"Progress towards sustainability is a community project. We therefore need to have everyone on board."

Chancellor Angela Merkel, annual conference of the Council for Sustainable Development, 4 June 2019

With a view to the pending update of the Strategy, the Council for Sustainable Development put forward some suggestions in 2019 that particularly also included the call to implement the concept of a community project. This was linked to specific proposals.

1. Recommendations: society as a stakeholder – commitments from throughout society

The Council for Sustainable Development recommends the German Government as part of the update of the Sustainable Development Strategy to address and include society at large. Compared with the early stages of the Sustainable Development Strategy, we today note a significantly more broadly enshrined willingness to get involved and become active.

Our proposal ties in with statements of the German Government, which has correctly underlined on repeated occasions that the transition to sustainable development calls for joint collaboration, a kind of pact for the future or partnership agreement or a community project.

The task now is actually to launch this. The words must be followed by actions.... To this end the Council for Sustainable Development recommends the following initial steps for the 2020 German Sustainable Development Strategy:...

- Address the social dimension***

Administrations, authorities, associations, sector initiatives, specialist communities, clubs and self-administrations (no individual private ‘consignors’) should be allowed to present their contributions to the objectives of the Sustainable Development Strategy. This must take place within an organised framework. Target promises, self-commitments, independent initiatives, interbranch agreements, consumer information and buying syndicates for the procurement of sustainable products are expected – all focused on the targets of the Sustainable Development Strategy. The central question is what we live from. It supplements thinking about how we can live and work well. Voluntary contributions are submitted and requested in the spirit of the commitment concept. The suggestions and comments of social organisations and business associations are included in the design of the approach. This does not affect the execution of binding sustainability obligations under the rule of law.

Council for Sustainable Development, position paper entitled “The Strategy needs to deliver: Council for Sustainable Development recommends creative consistency to the German Government”, 4 June 2019

Federation-Länder declaration

In their joint declaration of 6 June 2019, the Federal Government and Länder underlined the importance of a Joint Effort for Sustainability and issued an invitation to society to think jointly about the steps for this (see Chapter V).

A sustainable Germany can only succeed if all social groups join forces in actively promoting this. This calls for the existing political and social momentum to be utilised.

Dialogue phase 1

Participants attending the discussion events about the German Sustainable Development Strategy in autumn 2019/ spring 2020 addressed the fundamental principles and configuration of the Joint Effort for Sustainability at three workshops on the basis of the following guiding questions.

Questions for the dialogue workshops

- How can a community project make the commitment of many (different stakeholders) visible and strengthen this in the best possible way?
- From which good practice examples could the Joint Effort for Sustainability initiative learn? And what could it learn?

It became clear here that the idea of a community project enjoyed strong support.

Statements from the dialogue on the GSDS

“Sustainability can only succeed as a community project. We can only achieve the sustainability targets if the Federal Government and Länder take the same course. New digital opportunities must also be developed for the Joint Effort for Sustainability initiative in order to bring the stakeholders together.”

Prime Minister Daniel Günther, dialogue conference in Norderstedt, 22 January 2020

“Our aim is the integrity of creation and a new fairness for all – in close collaboration with local government, civil society, environmental organisations, business and science. Sustainability is a community project that can only succeed if we listen to each other and place the Doctrine of the Mean at the heart of our actions.”

Ursula Heinen-Esser, Minister for the Environment, Agriculture, Conservation and Consumer Protection of the State of North Rhine-Westphalia, dialogue conference in Bonn, 19 February 2020

It emerged at the same time that very different ideas still existed regarding the actual design.

Statement from the dialogue on the GSDS

“I therefore call for the Sustainable Development Strategy to be given a renewed boost. This can ... be the idea of a community project.

The idea is strong. It is decentralised. It is addressed at the majority. It implies a new governance of social, ecological and also economic action.

The idea is still fragile and tentative. It hovers like an imaginary cloud, remains intangible and vague. It is unclear where the strings and stitches are that can be pulled. We still lack a clear picture.”

Prof. Günther Bachmann, dialogue conference in Norderstedt, 22 January 2020

Dialogue phase 2

The Joint Effort for Sustainability initiative was highlighted by many stakeholders in their feedback on the draft update of the Sustainable Development Strategy as a particularly important activity. As was already the case in the initial phase of the dialogue, a host of stakeholders explicitly expressed their interest in contributing to implementation of the community project concept.

From idea to reality

The Joint Effort for Sustainability initiative is not intended to replace the necessary government framework or public sector activity. The aim is to make a contribution towards a more sustainable society by strengthening social engagement.

It was stressed several times in the discussion that existing activities were not to be duplicated. This particularly concerns the activities of the Council for Sustainable Development as well as those of the German Government.

Following the initial phase of the dialogue, the Federal Government and Länder discussed the configuration of the Joint Effort for Sustainability within the framework of the Federal-Länder Exchange on Sustainable Development with the participation of the Council for Sustainable Development.

Based on a concept put forward by the Council for Sustainable Development (see below), the Federal Government and Länder finally agreed on the further procedure for the community project on 12 November 2020.

Resolution of the Federation and Länder of 12 November 2020 – agenda item: Update to the German Sustainable Development Strategy

1. Against the backdrop of the Decade of Action called for by the United Nations, the Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder agree that increased efforts at all levels and in all sectors of society are needed in order to achieve the SDGs by 2030 and the further progress towards sustainable development required for this.

2. The Länder are making an important contribution towards a sustainable development in Germany with their sustainability strategies and concepts for implementing the 2030 Agenda. The update to the German Sustainable Development Strategy should make it clear that the Federal Government and the Länder work together to implement the 2030 Agenda.

3. The Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder point to the resolution of the Federation and Länder of 6 June 2019 concerning sustainable development with the proposal of the Joint Effort for Sustainability. This needs to be swiftly substantiated in order to facilitate a launch in the summer of 2021 on the occasion of the voluntary German country report within the framework of the High-level Political Forum of the United Nations.

4. The Heads of the State and Senate Chancelleries of the Länder welcome the fact that the Federal Government has commissioned the Council for Sustainable Development with the design and implementation of the community project and request the Federal Government to discuss the further implementation steps at the Federation-Länder Exchange on Sustainable Development. In order to ensure a coherent sustainability policy, they consider it necessary for existing networking and information services of the RENN network and Länder to be taken into account and duplicate structures avoided.

5. The Head of the Federal Chancellery and the Heads of the State and Senate Chancelleries of the Länder call on the Federation-Länder Exchange on Sustainable Development to discuss possibilities for strengthening the impact of the community project and put forward any proposals in this regard by the end of 2021.

Coordination by the Council for Sustainable Development

Owing to its independence, the Council for Sustainable Development is ideally suited for coordinating the community project, not by way of a top-down approach but as a platform and facilitator of a joint procedure. It comprises experts from a diverse range of sustainability dimensions. With its stakeholder processes already implemented such as the Lord Mayor Dialogue and preparation of the German Sustainability Code, it has broad experience and credibility with corresponding processes.

The Council for Sustainable Development has been provided with additional funds in the 2021 federal budget for assumption of the coordinating function in designing and implementing the community project.

The Council has declared its willingness to assume the coordinating function for the Joint Effort for Sustainability and is now working on further substantiating the community project. The starting point for this is the concept drawn up by it in August 2020 that is currently being updated with the participation of the Federal Government, the Länder and other stakeholders.

Joint Effort for Sustainability – concept of the Council for Sustainable Development of August 2020 (key elements)

Stakeholders:

- The community project is addressed primarily at social stakeholders (from private individuals, initiatives and organisations to churches, businesses and local government supporting implementation of the 2030 Agenda and the Sustainable Development Strategy in Germany)
- The Council for Sustainable Development is responsible for development and coordination in cooperation with the RENN
- The Federal Government and Länder act as motivators and framework providers

Platform with map: The basis for the community project comprises a digital platform with a map that is used to search for and display sustainability initiatives throughout Germany and link them with a diverse range of self-learning functions (analysis and evaluation algorithms). This also enables initiatives to be detected that in terms of their self-perception do not comprise explicit sustainability activities but which nonetheless make an important contribution towards implementation of the SDGs.

In order to prevent any 'randomness' of the stakeholders and risk of misuse, the latter present at least one specific sustainability activity on the platform and document how they contribute with their activities to advancing sustainable development in Germany and (where applicable) internationally. They also endorse an ambitious declaration drawn up by the coordinator of the community project with an affirmation among other things of the SDGs.

Tools: The platform and map in themselves already offer visibility as well as dialogue and networking opportunities including an extensive mailing list for events. In order to generate dynamic social momentum, various tools are gradually to be developed and launched (see below for examples) by the stakeholders (see above). Use is also to be made here as far as possible of already existing funding activities and programmes.

- **Calls:** The Council for Sustainable Development, Federal Government, Länder or individual stakeholders launch calls in order to initiate specific activities concerning a topic for a given period.

- **Challenges:** With a campaign and promotional nature, these are above all intended to gain new and young stakeholders for the community project. The latter can be called on via the platform and social media channels to meet a given challenge in the cause of sustainability for a given period.

- **Commitments:** The stakeholders can also publish qualitative and quantitative commitments on the platform (e.g. specific climate targets, undertakings to change mobility behaviour etc.) and are obliged to report on their achievement.

X. Next steps

Sustainability policy is based on the understanding that this is a process that needs to be continuously driven forward regardless of legislative terms. Sustainability policy is an ongoing task that calls for the German Sustainable Development Strategy to be continuously reviewed and updated in collaboration with social stakeholders.

Work on the Strategy continuing

The German Government will therefore also continue working on the Strategy in a consistent manner following the adoption of the 2021 Sustainable Development Strategy.

It will do so through the work of the State Secretaries' Committee on Sustainable Development and, equally, the implementation of GSDS targets at ministry level. Priority here will be given to policy areas in which the indicators are currently off track. In addition, particular attention is to be paid to the areas of transformation identified for the first time in this Strategy.

It was not possible for anything near all the suggestions from the Strategy dialogue and submitted statements to be implemented in this Strategy update. They continue to form an important basis with the aim of continuously improving the force of impact of the German Sustainable Development Strategy in the interests of a coherent and ambitious sustainability policy.

One example of this is the Joint Effort for Sustainability initiative that is being substantiated and implemented by the Council for Sustainable Development. The initial steps here are now to be clarified in time for the go-ahead to take place in the summer of 2021.

In addition, further to a suggestion from the dialogue, the German Government wishes to continue the discussion with relevant social and academic stakeholders, and in particular the Council for Sustainable Development. This is to examine where the Strategy must be stricter in terms of both governance and its measures and targets.

Statement from the dialogue on the GSDSe

"The wpn2030 suggests that ... the German Government and stakeholders in sustainability architecture and governance engage in discussions over the coming months. As part of an ongoing process that monitors and captures the outlook for sustainable development, they should agree on which implementation and update steps should be prioritised with a view to the new legislative term, and how these can be advanced strategically."

Based on this, a political declaration on future sustainability policy should be made by the end of the legislative term at the level of the State Secretaries' Committee on Sustainable Development. A basis could thus be created at the same time from which to identify relevant steps when the next government is formed, as well as for a fundamental policy decision on the Strategy once that government is in place.

The Federal Statistical Office report on the Strategy's indicators is scheduled for as soon as 2022. The next comprehensive update to the GSDS is planned for the end of 2023/early 2024.

Maintain international engagement

Germany will continue to make steadfast progress with its activities internationally. It will demonstrate that sustainability is intrinsic to both German foreign policy and multi-lateral cooperation.

In July 2021, Germany will present its sustainability activities to the United Nations High-level Political Forum in the form of its voluntary national review. Here, too, civil society will be closely involved in compiling the report. A further review is planned for submission in 2024, based on the next update to the German Sustainable Development Strategy.

Timetable

2021 Continuation of discussions with stakeholders on the update of the Sustainable Development Strategy; State Secretaries' Committee on Sustainable Development resolution (prospects)

2022 Possible policy decision of new German Government on the Sustainable Development Strategy; Indicator Report of Federal Statistical Office

End of 2023/early 2024

Prospective update of 2024 Sustainable

Development Strategy

Possible third reporting by Germany prior to the next HLPF



Chapter C. Germany's Contribution to Achieving the SDGs

I. Structure/overview

The implementation of the 2030 Agenda and its 17 SDGs is a task for the entire German Government and affects a large number of policy areas.

The Sustainable Development Strategy forms an essential framework for the national implementation of the 2030 Agenda. It is not, however, the only focus of the German Government's implementation activity; the Government also contributes to the implementation of the 2030 Agenda with other measures that are not listed in the Strategy.

A selection of completed or planned activities across the whole spectrum for the achievement of the 17 SDGs is presented below.³

Structure of the presentation

Basic content, political priorities and selected existing and planned implementation measures for each SDG will be explained at the beginning of each sub-chapter. This description is not conclusive, but instead provides an initial insight into aspects that the German Government considers important.

Given the universality of the 2030 Agenda, the German Government needs to make appropriate contributions to the achievement of all 17 Sustainable Development Goals

as a whole, both through its national policies and internationally. This affects the ministries and the full range of their specific individual political measures (departmental strategies, programmes, projects, legislation, promotion, etc.).

For each SDG, the following chapter will describe three levels that are closely interlinked and overlap to some extent.

Structure of the German measures presented

- 1. Third level: Measures with effects in Germany***
- 2. Third level: Measures implemented by Germany with global effects, in particular activities of general public interest, in other words those that serving the global common good***
- 3. Third level: Targeted support for other countries through their joint implementation of measures with Germany, especially in the context of international bilateral cooperation.***

The descriptions of the measures are each followed by an outline of the indicators specified as part of the Sustainable Development Strategy and their goals. To increase the steering effect of the strategy, each strategy indicator is immediately followed by information on activities undertaken by the German Government to implement the set goals.

³ Public budgets are not prejudiced by this update of the GSDS. Any additional requirements arising from the listed measures are to be covered by the relevant departmental budgets when the applicable federal budget is drawn up.

In accordance with recommendations, particularly those arising from the International Peer Review, the German Government has focused particular attention on measures relating to those indicators where achievement of the targets is not yet assured. These outlines follow on from the treatment of the “off-track” indicators at the meeting of the State Secretaries’ Committee on Sustainable Development in December 2019.

Link with the areas of transformation

The 75 individual targets of the strategy form an entity. Even though they are presented individually in the following pages, they are interrelated and interdependent in multiple respects.

In the pursuit of the goals, great relevance attaches to the progress made in the six areas of transformation presented in Chapter A, namely human well-being and capabilities, social justice, energy transition and climate action, the circular economy, sustainable building and the transformation of transportation, sustainable agricultural and food systems, and a pollutant-free environment (see Chapter A, II. 3. aa) along with the levers referred to in Chapter A., II., 3., bb)).

On the one hand, each of the six transformation areas affects several SDGs and indicators in the GSDS. On the other hand, they have the potential to resolve conflicts of goals that have hitherto been hampering progress. For example, there is a close correlation between dietary habits and the present agricultural systems, which means that these matters must be treated as a single issue. Accordingly, progress in the areas of transformation has a particularly important bearing on off-track indicators too (see Chapter A, figure: areas of transformation, off-track indicators and measures in Chapter A).

The conflicts of goals can only be resolved on the level of measures, where each of the three dimensions of sustainability – business, environment and social affairs, including their international impact – must be examined. The weight attached to each of these dimensions is determined in every individual case by an apportionment process in which all stakeholders within society must be included.

Consideration must be given in this context to the fiscal objectives that also form part of the Sustainable Development Strategy. The inclusion of goals in the strategy, then, does not alter the fact that measures planned for the implementation of these goals must fit in with the requirements of the German Government’s budgetary and financial policies.

II. Priorities, measures, national indicators and targets

1. End poverty in all its forms everywhere

a) Main substance and political priorities in the view of the German Government

The aim of SDG 1 is to eliminate extreme poverty entirely by 2030. According to World Bank estimates, 700 million people worldwide were living in extreme poverty in 2015. As a consequence of the COVID-19 pandemic, up to 124 million more people might have fallen into extreme poverty in 2020 alone.

Certain sections of the population are disproportionately affected by poverty or suffer more severely from its consequences. These include, for example, women and children, the elderly, people with disabilities and indigenous peoples. According to the World Bank definition, a person who lives on less than USD 1.90 per day lives in extreme poverty. If other factors besides income, such as education, health and standard of living, are taken into consideration, more than 1.3 billion persons worldwide are living in circumstances defined as multidimensional poverty, according to the 2019 Global Multidimensional Poverty Index.

In addition to the goal of eradicating extreme poverty (target 1.1), target 1.2 strives to reduce by half poverty in all its dimensions according to the respective national definitions.

National importance

From the perspective of an economically highly developed country like Germany, which possesses a well-functioning income safety net, the primary focus must be on the distribution of income and property within society. Although the effects of the COVID-19 pandemic have led to sharp falls in many people's incomes, the income safety net, together with the current measures being taken by the German Government, is still working, even in these difficult conditions. Absolute poverty can thus be avoided.

Relative poverty, on the other hand, relates to the risk of poverty and manifests itself in limited opportunities for material, social and cultural inclusion and hence in the absence of the basis for a decent life. There are close connections and overlaps with SDG 10 (Reduce income inequality within and among countries) and with the core principle of leaving no one behind but also with other SDGs. Combating poverty cannot be done in isolation but is dependent on success in areas such as education, equality, family, health, housing, infrastructure, economic, environment and climate policy as well as employment and fiscal policy. Poverty can be overcome only if progress is made in all relevant areas. The most

effective means of avoiding poverty therefore remains an adequately paid job and the fullest possible employment record. Children living in the household also benefit when parents are in permanent and sufficiently gainful employment. Children are far less at risk of poverty if both of their parents are employed. Among the keys to two-income households are high-quality education but also shrewd economic policies, from which there emerge close links with SDG 8. The COVID-19 pandemic poses formidable challenges for Germany too in this domain.



While there can be cross-pollination between individual goals, there can also be conflicts between them. These occurs especially if processes of change impact on the situation of relatively low-income households. It is therefore important, for example, to shape the energy transition in such a way that energy and housing costs remain affordable for low-income households.

German Government activities

I. Measures in Germany

The German Government pursues a preventive approach to combating poverty. Its aim is to achieve a high employment level with adequate pay levels. The increase in recent years in the number of jobs for which social insurance contributions are payable has thus been gratifying, although the effects of the COVID-19 pandemic have halted the upward trend. Measures to promote employment are described in the context of SDG 8. In addition, by means of the Skills Development Opportunities Act (Qualifizierungschancengesetz), the German Government has improved the continuing training of employed persons affected by previous structural change. In this way employees' skills can be developed to match the needs of companies before any redundancies occur.

In Germany, people are essentially protected by the social insurance system, which is available to them in the event of illness, accident, long-term infirmity, unemployment and old age. Unemployment insurance protects people who lose their jobs by paying them unemployment benefit. At the same time, unemployment insurance is tied into the system of employment promotion, which assists recipients in finding the right job quickly.

Pensions insurance protects insured persons, particularly by providing them with old-age pensions, pensions for reduced employability and survivors' pensions. The amount of a pension in these cases is chiefly determined by the total amount of earnings on which insurance con-

tributions have been paid. The more contribution years have been amassed and the higher the total contributory income, the larger will be the pension.

Accident insurance, besides paying out for therapeutic treatment, primarily provides an injury pension if an insured person's health is permanently impaired as the result of an accident at work or an occupational disease. The amount of the injury pension payable to an employee is based on the recipient's annual wage or salary and the notional reduction of his or her employability in the mainstream labour market.

If citizens in Germany have no entitlement to these social insurance benefits, they are protected for an unlimited time by an income safety net from the worst effects of poverty if they cannot meet their needs by their own efforts. The existing elements of the safety net, namely social assistance under Book Twelve of the German Social Code (*Sozialgesetzbuch*) and basic income support for jobseekers under Book Two of the Code, offer protection to people in need of assistance. As the lowest social safety net, they cover necessary living expenses plus reasonable expenditure on participation in social and cultural life; they provide for standard subsistence needs, reasonable accommodation and heating costs, necessary health insurance and long-term care insurance costs and, where appropriate, additional and special needs as well as for the educational and inclusion needs of children where the available household resources do not suffice for these purposes.

Children, juveniles and young adults who (or whose families) do not have sufficient income and/or assets can also obtain additional benefits to cover their specific educational and inclusion requirements.

The German Government remains committed to strengthening and unburdening families and children, and this is reflected in improvements to the child supplement that were introduced by the Strong Families Act (*Starke-Familien-Gesetz*). Among other measures, the child supplement was increased and restructured in two stages, the first taking effect on 1 July 2019 and the second on 1 January 2020. As of 1 January 2021, the child supplement was increased to EUR 205 monthly. In families with low incomes, the child supplement, together with child benefit and the education and inclusion payments, provides for children's subsistence and ensures that even low-paid employment is worthwhile. At the same time, education and inclusion benefits for children and young people were improved as follows with effect from 1 August 2019:

- Increase in the school supplies package: For the 2019/2020 school year, a one-off increase in the support payment for personal school supplies – e.g. for writing materials, a satchel and exercise books – raised the amount of the payment from EUR 100 to EUR 150; from 2021, it will be increased by the rate of change in the standard needs scale.

- Free school transport: All expenditure for the necessary transport of school pupils is met. This even applies if the pupils' tickets issued by the local public transport provider are also valid for general travel other than journeys to and from school

- Communal lunches in schools, daycare centres and childminding services are ensured for each entitled child at no additional cost to parents.

- Appropriate learning support: In future, remedial assistance will also be available in cases where there is no immediate risk that the pupil will have to repeat a year.

- Increase in inclusion benefits: The monthly lump-sum allowance for participation in communal sporting, playing and cultural activities, such as membership of a sports club, will henceforth be increased from EUR 10 to EUR 15.

These welfare state benefits provide people with a subsistence minimum that also enables them to participate to a reasonable extent in social and cultural life. If citizens have no entitlements under the welfare system or if they do not claim those entitlements, perhaps because of complex issues connected with homelessness, the Fund for European Aid to the Most Deprived (FEAD) can help. With a total financial allocation of some EUR 93 million, the Fund is intended to improve the lives of homeless people and those threatened with homelessness as well as the lives of new migrants from other EU member states. FEAD advisers perform a bridge-building function and alleviate obstacles to the use of existing forms of aid, such as language courses or medical advice.

In spite of this comprehensive support system, there are still homeless people in Germany. For this reason, the German Government will improve its knowledge base on the circumstances of these people in accordance with the principle of leaving no one behind. To this end, statistics will be compiled on homeless people in temporary accommodation as well as on forms of homelessness that lie outside the scope of the statistical survey. In addition, the German Government will fund research studies that also shed light on the causes of homelessness.

In order to examine fully the issue of poverty, the German Government presents a Report on Poverty and Wealth, produced by the Federal Ministry of Labour and Social Affairs, once in each legislative term. The report provides important insight into relative and absolute deprivation and poverty – as well as wealth and privilege. It serves as a tool for reviewing political action and a stimulant for new measures to prevent and combat poverty. All of the reports that have appeared to date, along with further up-to-date information, can be accessed in German on the web page www.armuts-und-reichtumsbericht.de; the executive summary of the fifth report (2017) is accessible in English at https://www.armuts-und-reichtumsbericht.de/SharedDocs/Downloads/Service/Studien/the-german-federal-governments-5th-report-on-poverty-and-wealth.pdf?__blob=publicationFile&v=2. The sixth Report on Poverty and Wealth is being drafted and is scheduled for adoption by the federal cabinet in early 2021.

II. Measures by Germany

Germany is committed to its global responsibility and contributes globally to the fight against poverty in all its dimensions and in all policy areas.

In the context of its development cooperation, for example, Germany presses for fair working conditions, minimum living wages and the exercise of responsibility by German companies in partner countries as means of combating poverty. This is done through support for multi-stakeholder initiatives such as the Partnership for Sustainable Textiles and the German Initiative on Sustainable Cocoa. Germany also promotes social standards in other global supply and value chains, such as those for coffee and cashew nuts, so that the people at the start of the supply chain can live from their work and have their children educated.

In the G7 and G20 frameworks too, Germany is a major advocate of decent work, gender equality and fairness in the implementation of technological change. During its presidencies of the G7 and G20, Germany has thrown its weight behind sustainable global supply chains. One of the key outcomes of this effort has been the global G7 Vision Zero Fund for the elimination of severe and fatal accidents at work, the aim of which is to reinforce the application of labour and social standards in global supply chains.

III. Measures with Germany

Combating poverty in all its dimensions is the paramount aim of German development cooperation. To this end, Germany assists partner countries, for example in promoting inclusive economic growth and decent em-

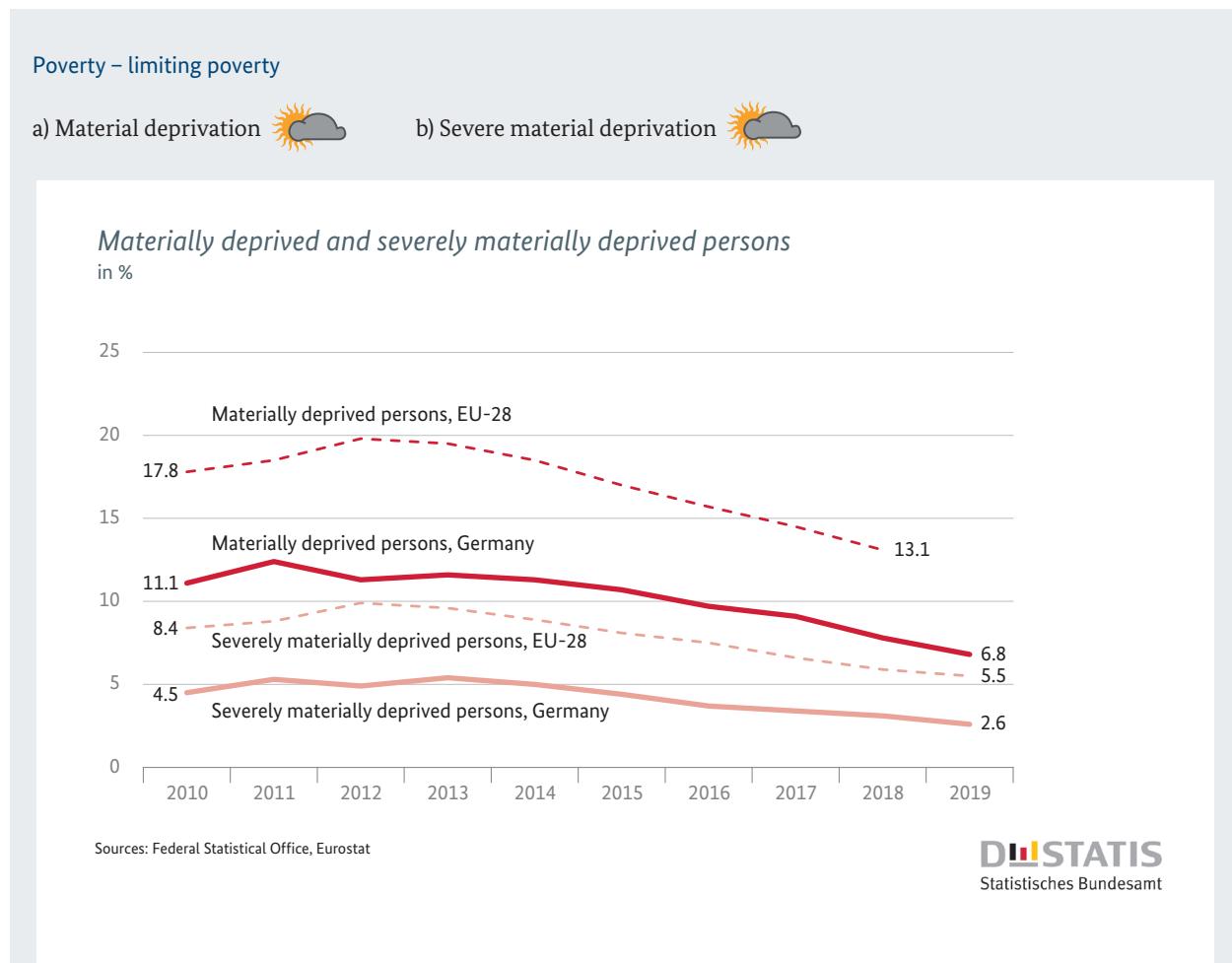
ployment (see SDG 8), in improving access to education and health services (see SDGs 4 and 5) and in establishing social security systems (health insurance, basic income support, old-age provision).

Universal social security plays an important part in limiting poverty. By supporting social security systems in countries with which it engages in development cooperation, for example through cash transfers, public employment measures or health service vouchers for infants and toddlers, Germany enables particularly poor and/or disadvantaged people to satisfy their basic needs and to protect themselves against risks, such as illness or weather-related events. At the same time, this support creates the conditions for enhanced economic and social inclusion of these people. In India, for instance, since 2018 some 500 million people have been covered by state-funded free health insurance under a scheme that was established with German advisory assistance. Similarly, the Government of Malawi is assisted in funding and implementing social cash transfers for almost 600,000 people. In Burkina Faso, beginning in 2020, cash transfers provided with German assistance have been helping to improve the food security of women and children.

Another increasingly important aim is the protection of poor and vulnerable people against climate-related risks. The InsuResilience Global Partnership, initiated during the German presidency of the G7, is the main global initiative for the development of climate and disaster risk finance and insurance. By 2025, the aim is that 500 million poor and vulnerable people in developing countries will be covered against climate and disaster shocks by pre-arranged risk finance and insurance mechanisms. Since 2018, the German Government has also been participating in the Sahel Adaptive Social Protection Programme, which assists the G5 Sahel and Senegal in establishing and developing their social security systems so that those countries can remain adaptable and able to act, even in climate disaster situations. A programme top-up in 2020 with German funds is assisting the Sahel countries in alleviating the socio-economic consequences of the COVID crisis.

b) Relevant national sustainability indicators and targets/measures

1.1.a/b Material deprivation and severe material deprivation



Definition of indicators

Material deprivation refers to the lack of specific consumer goods and the involuntary foregoing of discretionary consumption for financial reasons. The two indicators indicate the proportion of people out of the total population who are deemed to suffer material deprivation (1.1.a) or severe material deprivation (1.1.b). Material deprivation describes the situation of all people whose household meets at least three (four in the case of severe material deprivation) out of nine defined criteria reflecting the financial restrictions on the household.

Targets and intention of the German Government

The material deprivation indicator is also part of the extensive poverty and wealth reporting conducted by the German Government. By identifying individual defi-

ciencies, it is intended to map the types of personal circumstances in which a risk of poverty exists. The aim of the fight against material deprivation is to ensure that the percentages of persons in Germany who are materially deprived and who are severely materially deprived should both be below the average for the European Union.

Content and development of indicators

The data are drawn from the EU-wide harmonised annual Statistics on Income and Living Conditions (EU-SILC), the results of a survey conducted in Germany by the Federal Statistical Office in cooperation with the statistical offices of the various Länder under the title "Living in Europe". This involves some 14,000 private households in Germany, which voluntarily provide information about their income and living conditions annually.

Both indicators show the percentage of the population who, in their own estimation, involuntarily forego consumption or experience shortages in several areas for financial reasons. Purchases of selected lifestyle items considered in Europe to be appropriate, desirable or even essential were used as evaluation criteria. These nine criteria used to define material deprivation are standardised for all countries in which the EU-SILC survey is conducted, which makes EU-wide comparisons possible.

Specifically, the nine attributes are as follows: the lack of a car, a washing machine, a colour TV or a telephone in the household (in each case because the household is unable to afford one), a financial problem paying rent, mortgage or utility bills on time, being unable to provide for adequate heating in the home, being unable to eat meat, fish or an equivalent vegetarian meal every second day, not being able to spend a one-week holiday away from home each year or being unable to meet unexpected expenditure of a specific amount (EUR 1,050 in 2018) from the household budget.

Material deprivation is associated with the problem of social exclusion, because participation in social life is jeopardised by a lack of funds. This measure of severe material deprivation is also part of the “poverty or social exclusion” indicator, which is used to measure progress towards one of the five headline targets of the Europe 2020 strategy (combating poverty and social exclusion).

In 2018, 7.8 % of the population in Germany were classed as materially deprived, while 3.1 % were subject to severe material deprivation. The corresponding values in 2010 were 11.1 % and 4.5 % respectively, and they were even slightly higher in some cases in the years immediately following. The level has thus shown a slight fall over time, similar to that in the EU as a whole. The average values for people in the EU, however, are considerably higher on both counts than the corresponding values for Germany. In 2018, for instance, the materially deprived proportion of the EU population, as estimated by the Statistical Office of the European Union (Eurostat), was 13.1 %, which is more than half times the German figure. A total of 5.9 % were classed as severely materially deprived. This quota is 90 % higher than the corresponding value in Germany.

German Government activities relating to the indicator

Poverty is multi-faceted and there is no simple and clear way of measuring it. In order to deal with this problem, the Federal Government bases its extensive poverty and wealth reporting on a comprehensive analytical approach that describes the risks of poverty and social exclusion in various types of personal circumstances.

The set of poverty-related indicators used in the Poverty and Wealth Report currently comprises eleven highly disaggregated indicators from various areas, such as income distribution, overindebtedness, unemployment, in-work poverty, receipt of income support benefits, material deprivation, housing, health and social participation (see also https://www.armuts-und-reichtumsbericht.de/SharedDocs/Downloads/Service/Studien/the-german-federal-governments-5th-report-on-poverty-and-wealth.pdf?__blob=publicationFile&v=2). The indicator of material deprivation or severe material deprivation, in other words, is thus just one of many measures used to map the types of personal circumstances in which a risk of poverty exists and – like all poverty-related indicators – can, of itself, only portray one facet of reality. In the context of the Sustainable Development Strategy, it functions as a proxy in the identification of individual deficiencies.

As with poverty in general, there are various reasons for material deprivation. The measures taken by the Federal Government to improve education levels (cf. Federal Government measures for SDG 4 and activities for indicator 5a/b), increase employment and raise pay levels (cf. Federal Government measures and activities for SDG 8 and indicator 16a/b as well as SDG 10 and indicator 20) are helping to reduce the percentage of people affected by material deprivation.

2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

a) Main substance and political priorities in the view of the German Government

At the present time, it is estimated that more than two billion people are affected by a lack of essential vitamins and minerals (malnutrition), and about 821 million of these suffer from hunger and chronic undernourishment. In 2019, the number of chronically undernourished (stunted) children under five years of age was about 144 million. More than two billion people are overweight or even obese – and that is even on the rise in developing countries. This means that half of the world's population are not properly fed. The consequences of the COVID-19 pandemic have further increased the pressure on the global food situation. The World Food Programme warned that the number of people acutely affected by food insecurity could double to 265 million by the end of 2020.

Proper nutrition is seen as a multilayered issue, given its implications for health, society, the economy and the environment.

Sustainable and resilient agriculture that is both innovative and productive is the key to global food security. This is why Germany campaigned for the aspects of food security and agriculture to be combined in one SDG.

The associated targets in detail

The targets of SDG 2 are to end hunger (2.1) and to end all forms of malnutrition (2.2). For this purpose, agricultural productivity and the income of small-scale food producers are to be doubled, among other things. The latter are also to be guaranteed safe access to productive resources (2.3). In particular, the sustainability of food production systems is to be ensured, and resilient agricultural practices are to be applied that help maintain ecosystems, resist climate changes, gradually improve soil quality (2.4), maintain genetic diversity, secure access to these resources and allow benefit sharing (2.5). Investments in rural infrastructure and the exchange of knowledge and technology are to help increase food production, in particular in less developed countries (2.a). Trade restrictions and distortions in world agricultural markets are to be corrected, and all forms of agricultural export subsidies with equivalent effect are to be eliminated (2.b) and extreme food price volatility limited (2.c).

Adequate nutrition – a human right

The German Government supports the international human rights-based approach to realisation of the right to adequate food. It regards healthy food in sufficient quantity as a fundamental human entitlement.



The human right to food

The right to food is rooted in international law in Article 25 of the Universal Declaration of Human Rights and in Article 11 of the UN International Covenant on Economic, Social and Cultural Rights. UN International Covenant on Economic, Social and Cultural Rights. Every person should have physical and economic access at all times to adequate, safe and nutritionally balanced food in order to satisfy his or her dietary needs and food preferences and to lead an active and healthy life.

The German Government supports rights-based approaches in the form of standards and guidelines under international law, such as the Voluntary Guidelines on the Right to Food. These are designed to form the framework of reference for national governmental action in the field of nutrition.

Global importance

Agriculture and the food industry as well as national and global agricultural and food policies are facing enormous challenges all over the world. Hunger and malnutrition are often a consequence of multidimensional crises, which are caused or exacerbated by climate change and natural disasters, fragile state structures, inadequate basic welfare provision, unrest and armed conflicts as well as inadequate production and distribution. A total of 98 % of people suffering from hunger live in developing countries. By 2050, the world's population is likely to be well in excess of nine billion. Estimates made by the UN Food and Agriculture Organization (FAO) in 2012, using a 2005–2007 baseline, posit the need for an increase of up to 60 % in food supply by 2050 because of global population growth and changing dietary habits. At the same time, the increasing demand for both animal-based food and for energy and other products derived from renewable resources pose a particular challenge to food systems worldwide. Securing food for the local population must be prioritised here. Furthermore, compliance with human rights, social and environmental standards and the protection of biodiversity must be ensured. Meanwhile, it is essential to pursue the integrated development of agricultural, food, health, environmental and economic policies by means of a holistic approach in the spirit of the 2030 Agenda for Sustainable Development.

When it comes to determining how more than nine billion people can be fed, sustainably increasing agricultural production and productivity will play a key role. The sustainable use of natural resources and their protection are crucial in this respect. Sufficient and available areas of farmland are indispensable conditions for global food security. In practice, however, according to figures from the Federal Environment Agency, some ten million hectares of this essential production factor are lost every year for reasons such as property development or the effects of climate change. Sustainable development therefore depends on curbing the constant loss of farmland throughout the world.

As specified in SDG 2.3, the development potential of smallholdings and family farms in particular must be used to increase productivity sustainably. To this end, it is essential to support diversification and the use of sustainable practices, to reinforce land-use rights and to invest in infrastructure, innovations, general and vocational education and training and agricultural advisory services.

The reduction of food waste and losses at all levels, from production to transport and all the way to the consumer, must also make a contribution. These losses currently account for roughly a third of the global production volume (SDG 12.3). The establishment of a competitive agricultural and food industry in developing countries provides great opportunities for better satisfying the growing demand for food, especially in these countries themselves, and for generating work and income in rural areas at the same time.

The special rights granted unilaterally to developing countries in EU trade agreements or in the generalised scheme of tariff preferences, such as preferential market access or safeguard clauses, are important ways of promoting inclusive agricultural development. The special and preferential treatment accorded to developing countries in the WTO framework is also crucial but must be focused even more sharply in future on the specific needs of developing countries and particularly of the LDCs.

In addition to the availability and accessibility of food, the proper use and digestion of foodstuffs is also essential. If the body is weakened, for example by illness, or if food is not prepared properly, important nutrients cannot be absorbed, and malnutrition can result. In addition to agricultural measures, therefore, the promotion of health, education and social security is also necessary.

According to FAO forecasts, sub-Saharan Africa and parts of Asia will remain hotbeds of hunger and malnutrition. This is why these are the regional focal points of German Government activities in the field of development and agriculture policy for the establishment of sustainable and resilient agriculture and food security. Then there are the countries that are especially hard hit by food insecurity,

whether because of violent conflicts, climate change or other crisis factors. The objective in these countries is to mitigate the effects of crisis-driven food insecurity and to stiffen the resistance of the population to further food crises.

National importance

Both in the 2018 Peer Review of the German Sustainable Development Strategy and in the framework of the dialogue with scientific advisory boards (see Chapter B(VIII) (1)(c)), food and agriculture are highlighted as key areas in the pursuit of numerous goals of the GSDS. In the dialogue with the advisory boards, the need "to seek wide social consensus on aims and reforms" was emphasised.

For Germany, the focus with regard to national pursuit of the SDG 2 targets is not only on promoting sustainable agriculture, but above all on environmentally, economically and socially sustainable, healthy and nutritionally balanced diet.

Against this backdrop, Germany welcomes the line followed by the European Commission in the European Green Deal, involving a holistic approach to climate-related and environmental challenges, and acknowledges that agriculture also has its part to play and that it must be made possible for consumers to feed themselves sustainably. The German Government shares the Commission's view that, to this end, food systems must be considered in their entirety.

Natural resources such as soil, water and air, along with biodiversity, are the oxygen of the food, agriculture, forestry and fisheries sectors. Sustainable and responsible stewardship of these resources is essential, not least in order to ensure the future production of high-quality food.

Within Germany too, the preservation of farmland is a key prerequisite for food security. An important means to this end is the achievement of the German Government's 30-hectare target, which is intended to reduce sharply the use of land for settlements and transport infrastructure and eventually lead to a circular land economy (see also Chapter C, section II, 11).

Another requirement is animal-friendly land use and livestock farming that are accepted and supported by society. The aim is sustainable improvement of animal welfare throughout the territory of Germany and Europe.

In farming as in other sectors, great importance also attaches to the digital transformation. Many farming businesses use digital technology to make more efficient use of resources, to enhance animal welfare and so to achieve sustainable production of higher-quality food products and simplify work processes. With innovative methods in crop production and livestock husbandry, farmers can contrib-

ute significantly to covering the rising demand for sufficient quantities of high-quality food while conserving resources and can better satisfy the changing expectations of society.

German Government activities

I. Measures in Germany

1. Bioeconomy Strategy

On 15 January 2020, the German Government adopted a new National Bioeconomy Strategy. The strategy provides a framework within which the German Government promotes the sustainable development and use of biological resources and green and low-resource production processes in all economic sectors.

A major aim of the National Bioeconomy Strategy is the sustainable production of food and feed products and of renewable raw materials. Plant cultivation, new crop-growing technologies and production systems that conserve soils, water and ecosystems should make it possible to increase yields and so reduce resource input levels. In view of the limited area of farmland, food security always takes priority over the production of biomass for material use or energy generation.

2. Arable Farming Strategy

The Federal Ministry of Food and Agriculture's "2035 Arable Farming Strategy" discussion paper describes the basic conditions for economically viable, environmentally compatible and socially accepted arable farming in Germany. Among the objectives of the Strategy are:

1. Further strengthen soil protection and increase soil fertility
2. Increase crop diversity and extend crop rotations
3. Increase fertiliser efficiency and reduce nutrient surpluses
4. Strengthen integrated plant protection and reduce adverse environmental effects
5. Develop and use resistant and site-adapted species and varieties
6. Make optimum use of arable farming potential through digitalisation
7. Enhance biodiversity in agricultural landscapes

8. Develop climate-smart crop growing concepts

The Strategy also describes many measures to be implemented in the complex arable farming system which are conducive to the achievement of these goals.

3. The Nutri-Score

The introduction of the Nutri-Score in Germany is intended to make it simple to choose the healthy option. The Nutri-Score is an enhanced nutrition label that indicates the nutritional value of a packaged food product by profiling it with scores from A to E, each of the five levels being colour-coded. Consumers can thus see the nutritional ratings of a product on the front of its packaging at a glance and compare the nutritional values of various items in the same product group. In this way the more nutritionally beneficial food item can be more quickly identified by means of a simple comparison. In accordance with European legislation, this form of labelling will initially be voluntary.

4. The Common Agricultural Policy (CAP) of the EU

The essential task of the agricultural sector is, and will remain, to produce food and to contribute to global food security. To achieve these aims, farmers must farm sustainably. For this reason, the German Government is committed to consideration of the SDGs in the implementation of the CAP, the restructuring of which is currently under negotiation. The CAP is an essential instrument for the promotion of sustainable agriculture. This is why, in these negotiations on the update to the CAP, the German Government is arguing, among other things, for a higher level of ambition with regard to environmental and climate action. The fact is that the agricultural sector depends on the preservation of natural resources and of biodiversity to continue producing safe and healthy food in sufficient quantities and to contribute to global food security.

5. Agriculture and the digital transformation

The introduction of digital technology in agriculture can considerably enhance the sustainability of production as well as simplifying work processes and saving time. The ultimate result can be a more efficient and therefore reduced input of fertilisers, plant protection products and energy as well as improvements in animal welfare. In many areas, using digital technology and being able to analyse of large data sets can help, for example, to achieve smart and resource-efficient food production and processing. Better modelling of climate change prognoses with the aid of artificial intelligence, smart observation and smart control as well as foolproof traceability of food value chains can

help to emphasise the worth of sustainable value chains all the way from producers through processors and traders and ultimately to consumers.

With the establishment of digital experimentation fields, supported by the Federal Ministry of Food and Agriculture, the diverse possibilities offered by digital technology in agriculture can be explored and tested in realistic conditions. This development is also supported through the Agricultural Systems of the Future measure of the Federal Ministry of Education and Research.

6. Climate action and climate change adaptation

The Federal Ministry of Food and Agriculture developed a package of ten climate measures for the German Government's 2030 Climate Action Programme. These relate primarily, on the one hand, to the two sectors of agriculture and land use, land-use change and forestry (LULUCF) and are designed to ensure that the climate targets for 2030 are achieved in those areas. On the other hand, they address the issues of climate-friendly diet and avoidance of food waste. The Federal Ministry of Food and Agriculture intends to achieve the climate targets by harnessing synergistic effects between measures of climate action, climate change adaptation, water management, air pollution control, biodiversity conservation and promotion of sustainable and healthy dietary habits. To this end, the Ministry is tapping into work that has already been completed or is still in progress, such as the German Sustainable Development Strategy, the Climate Action Plan 2050, the Strategy for the Future of Organic Farming, the Protein Crop Strategy, the National Air Pollution Control Programme, the Arable Farming Strategy, the Climate Change Adaptation Agenda and the Charter for Wood 2.0. Digital technologies and precision farming should also help to reduce the volume of emissions from agriculture. For the sustainable adaptation of agriculture and forestry to climate change, the Federal Ministry of Food and Agriculture, in cooperation with the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, departmental research establishments and the Länder, drew up an Agenda for the Adaptation of Agriculture and Forestry, Fisheries and Aquaculture to Climate Change, which was formally adopted in 2019 by the Conference of Agriculture Ministers. An accompanying programme of measures was due for adoption in 2020.

II. Measures by Germany

Since 2019, as part of the German Government's National Programme for Sustainable Consumption, the Federal Ministry of Food and Agriculture has been implementing a flagship initiative on sustainable consumption for biodiversity in agriculture and food. The initiative promotes

the cultivation and marketing of regional fruit and vegetable varieties and endangered livestock breeds. The German Government has established a national network for the preservation of genetic resources and operates a central federal gene bank for crops, an institution of international importance. Furthermore, it supports the establishment of European and international networks and global initiatives, for example in the context of the work performed under the Convention on Biological Diversity (CBD), by the United Nations Food and Agriculture Organization (FAO), under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and by the Global Crop Diversity Trust.

In addition, investments for the establishment and development of regional and global gene banks and information systems are promoted with a view to improving the conservation and sustainable use of genetic resources and access to them. These investments make an important contribution to food security and to climate change adaptation. In 2016, for instance, the Federal Republic and its constituent states founded the German Gene Bank for Agricultural Livestock.

Numerous research projects have been conducted as part of the biodiversity conservation research initiative Federal Ministry of Education and Research with a view to enhancing the compatibility of agriculture with biodiversity conservation.

III. Measures with Germany

1. German development cooperation approach: A world without hunger is possible

Germany is one of the largest bilateral donors in the realm of food security. In 2014, the Federal Ministry for Economic Cooperation and Development launched the special initiative ONE WORLD – No Hunger, thereby making food security, agriculture and rural development a priority of German development policy. The aim of the initiative is to overcome hunger and malnutrition in developing countries and create conditions in which the growing global population can provide itself sustainably with an adequate and balanced diet. The special initiative focuses particularly on the most severely affected countries. Since 2015, an annual total of some EUR 1.5 billion from the development cooperation budget has been invested in food security and in support for agriculture and rural development in developing countries; for 2020 and 2021, including extra resources from the emergency Covid programme, an annual total of EUR 2.3 billion has been made available for food security and to deal with the consequences of the pandemic on the basis of the "build back better" principle.

The Bilateral Trust Fund (BTF)

Since 2002, the Federal Ministry of Food and Agriculture, through a Bilateral Trust Fund (BTF), has been supporting FAO projects designed to combat hunger. It assists states in providing for sufficient food of good quality and a balanced diet for their population. Together with the FAO, partner bodies in the countries in question and other international organisations, Germany strives in this way to promote the realisation of the right to food both as a political principle and for the people in those countries.

Research and capacity building

The support programme of the Federal Ministry of Food and Agriculture entitled Research Cooperation for Global Food Security is intended to further intensify the use of

German agricultural and food research findings to improve the global food situation. The programme serves to develop needs-based solutions and to link German researchers into international networks. Its main focal points are agriculture and food in sub-Saharan Africa and South-East Asia.

In both Southern and West Africa, the Federal Ministry of Education and Research has established a centre of excellence on climate change and sustainable land management. With eleven partner countries in West Africa and five in Southern Africa, academic training, capacity building, climate services and research programmes tailored to the respective regions are supported through these centres. This cooperation is carried out in close association with German universities and research establishments.

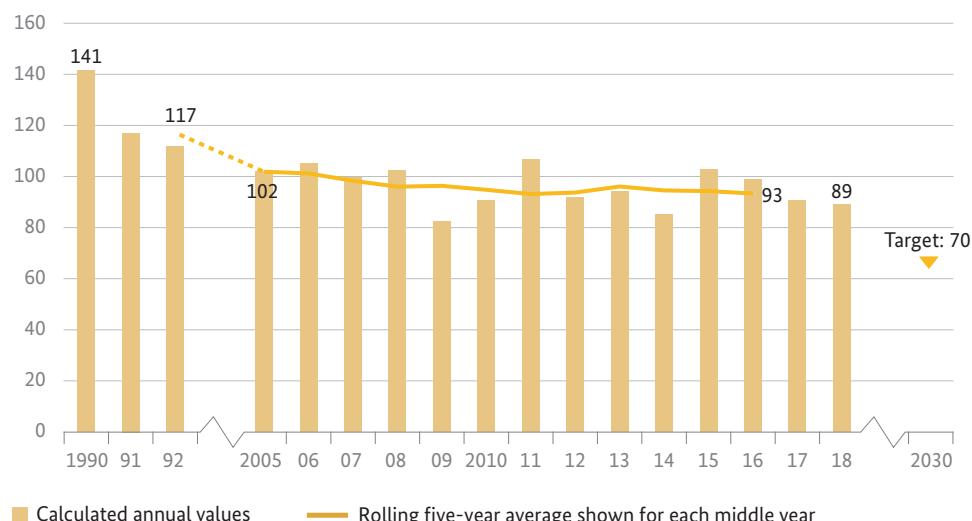
b) Relevant national sustainability indicators and targets/measures

2.1.a Nitrogen surplus in agriculture

Farming – Environmentally sound production in our cultivated landscapes

Nitrogen surplus in agriculture

In kilograms per hectare



Provisional data for 2018

Sources: Institute for Crop and Soil Science, Julius Kühn Institute
Institute of Landscape Ecology and Resources Management, University of Giessen

Destatis
Statistisches Bundesamt

Definition of the indicator

The indicator represents the annual nitrogen surplus for the agriculture sector, calculated as nitrogen input minus removal of nitrogen and expressed in kilograms per hectare of utilised agricultural area.

Targets and intention of the German Government

Excess nitrogen input into the environment causes pollution of groundwater and surface water, the oversupply of nutrients (eutrophication) in inland waters, seas and terrestrial ecosystems, and the formation of greenhouse gases and acidifying air pollutants with adverse consequences for the climate, biodiversity and landscape quality. Overall nitrogen surpluses for Germany to be reduced to 70 kilograms per hectare of utilised agricultural land in the annual average from 2028 to 2032.

Content and development of the indicator

The calculation of the indicator takes account of nitrogen input resulting from fertilisers, from biological fixation, from atmospheric deposition, from seeds and plants and from animal feed. Nitrogen removal takes place through plant and animal market products. The surplus nitrogen may escape in gaseous form into the atmosphere, be enriched in the soil or leach into groundwater. In this way it can ultimately find its way into rivers or other ecosystems too. Here, the nitrogen surplus in agriculture has a direct effect on the trend in indicators 6.1.b (Nitrate in groundwater), 14.1.a (Nitrogen input via the inflows into the North and Baltic Seas) and 15.2 (Eutrophication of ecosystems). In the case of indicator 3.2.a (Emissions of air pollutants), nitrogen is released into the atmosphere as a result of agriculture impacts on the formation of nitrogen dioxides and ammonia.

The indicator is calculated by the Institute for Crop and Soil Science at the Julius Kühn Institute and the Institute of Landscape Ecology and Resources Management at the University of Giessen.

For 2018, fertilisers were found to be the main source of nitrogen input, accounting for 54.5% (94 kg nitrogen per hectare) in the overall nitrogen balance. Other important sources of nitrogen input were animal feed, with 34.1% (59 kg/ha), biological fixation, with 7.6% (13 kg/ha) and non-agricultural emissions, with 1.8% (3 kg/ha). The calculation of the indicator is based on a five-year rolling average, the mean value being obtained from five reference years. The five-year rolling average provides the value for the middle year of the five reference years. The figure thus takes account of year-to-year fluctuations caused by meteorological and market conditions which are beyond the control of farms. The indicator gives no information on the regional distribution of nitrogen surpluses. For the years 2016 and 2017 various input data were retrospectively updated. The calculation method was also revised, and some coefficients were updated. This has given rise to divergences from the indicator values shown in the previous publication.

In the period from 1992 to 2016, the rolling five-year average nitrogen surplus fell by 19.9% from 116.6 to 93.3 kilograms per hectare/year. The reductions in the nitrogen surplus, however, are largely due to developments from the start of the time series until 2011. Since then the nitrogen surplus has stagnated, and it now remains at the 2011 level of 93 kg/ha. If the current trend continues, the aim of a reduction to an annual average of 70 kilograms per hectare of utilised agricultural area by the reference period 2028–2032 will not be achievable. The significant reduction of the nitrogen surplus at the start of the 1990s resulted from reduced use of fertilisers and falling livestock numbers in the new Länder. The comparatively meagre decline over the remainder of the time series stemmed from a slight decline in the use of mineral fertilisers and higher crop yields resulting from technical progress in plant production and cultivation, reflected in more efficient nitrogen usage and in the range of crop varieties. The same period has seen increases in the area given over to high-yield crops, such as maize and wheat, and improvements in feed conversion efficiency in livestock farming.

German Government activities relating to the indicator

The rolling five-year average nitrogen surplus fell in the period from 1992 to 2016 from an overall volume of 116.6 to 93.3 kilograms per hectare/year, a reduction of 19.9%.

Following a sharp reduction in the nitrogen surplus at the start of the time series, particularly because of declining livestock numbers in the new Länder, only a minimal decline has subsequently been recorded. If this trend continues, the aim of reducing the surplus to an annual average of 70 kilograms per hectare of utilised agricultural area by the reference period 2028–2032 will not be achievable.

It would be possible to achieve a further reduction in the nitrogen surplus if, for example, more efficient use were made of the nitrogen from organic fertilisers through adapted management practices and reductions in storage and application losses. This would be a way of saving on mineral nitrogen fertilisers.

Previous measures

National fertiliser legislation was radically amended in 2017, and the Fertiliser Regulation was revised again in 2020 to improve fertilisation efficiency and reduce environmental pollution.

The revised Fertiliser Application Ordinance (*Düngeverordnung*) of 2017 sets out the requirements for good fertilisation practice and specifies how risks relating to fertiliser application, such as nutrient losses, are to be reduced. The more specific rules on fertiliser application planning, the requirements for the reduction of atmospheric nitrogen losses, the further reduction of the permissible nitrogen surplus per hectare, the extension of the closed periods for fertiliser application in autumn and winter and the inclusion of all organic fertilisers in the ceiling of 170 kg nitrogen per ha/year are expected to contribute significantly to further reduction of the nitrogen surplus.

The amendment of the Fertiliser Application Act (*Düngegesetz*) also created the basis for the nutrient balance. The Nutrient Balance Ordinance (*Stoffstrombilanzverordnung*), which has been in force since 2018, covers all nutrient inputs and outputs in farm operations and makes them transparent and verifiable. This is essential as a basis for essential measures to further reduce nutrient surpluses by improving nutrient efficiency and agricultural work processes. The Ordinance applies initially to farms with more than 50 livestock units or more than 30 hectares of utilised agricultural area with a stocking density in excess of 2.5 livestock units per hectare. From 2023 it will apply to all farms with more than 20 hectares of utilised agricultural area. Under section 11a(3) of the Fertiliser Application Act, the effects of compulsory nutrient balance recording are to be evaluated by 31 December 2021 at the latest.

Support for more efficient use of nitrogen, such as assistance for the creation of storage facilities for farmyard manure or for the introduction of low-emission and water-friendly manure-spreading methods, can be obtained as part of the Federal Republic/Länder Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK).

The German Government also supports numerous research projects, the findings of which may lead to further reductions in the nitrogen surplus.

The Ordinance amending the Fertiliser Application Ordinance entered into force on 1 May 2020 and provides for measures designed to bring about further reduction of nitrate inputs into water sources, especially in polluted areas, and ultimately to reduce nitrogen surpluses from agriculture.

Planned measures

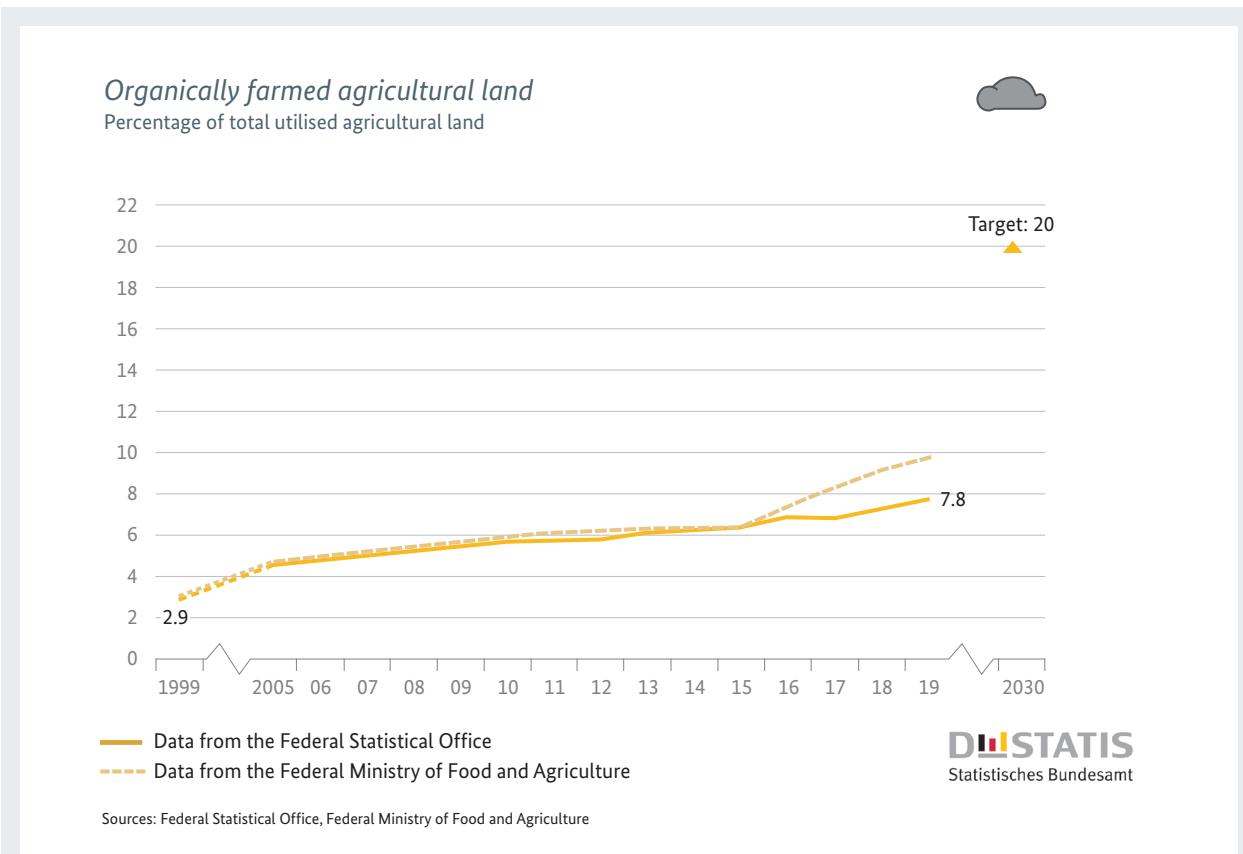
The Nutrient Balance Ordinance for farms with more than 20 hectares of utilised agricultural area or more than 50 livestock units is to apply from 2021, which is two years earlier than originally planned. This will require an amendment to the Fertiliser Application Act.

The content of the National Air Pollution Control Programme includes an identification of measures with the potential to achieve a 29% reduction in ammonia emissions over the period from 2005 to 2030; 95% of these emissions come from agriculture. The identified measures relate to areas such as fertilisation (e.g. rapid incorporation of farmyard manure), low-emission manure storage and livestock-feeding. In the coming years, suitable measures must be taken to reduce ammonia emissions in agriculture.

Support measures to increase nitrogen efficiency and reduce nitrogen losses are being continued and/or further developed in the framework of the Common Agricultural Policy. As part of the Federal Nutrient Management Programme, procedures and projects designed to further increase fertiliser application efficiency and nutrient distribution in Germany are being promoted by the Federal Ministry of Food and Agriculture. In addition, the German Government makes funds available to support investments in emission-reducing technology and installations with a view to increasing the efficiency of nitrogen use and cutting emissions.

2.1.b Organic farming

Farming – Environmentally sound production in our cultivated landscapes



Definition of the indicator

The indicator shows the share of total utilised agricultural land in Germany that is cultivated by organically managed farms subject to the inspection system prescribed by the EU legislation on organic farming (Regulation (EC) No. 834/2007 and the implementing rules). It includes land that has been fully converted to organic management as well as areas still undergoing conversion.

Targets and intention of the German Government

Organic farming preserves and protects natural resources to a particularly high degree. It has a wide range of beneficial effects on nature, the climate and the environment and fosters the production of high-quality food. For this reason, an increase in the proportion of organically farmed agricultural land to 20% is targeted for 2030.

Content and development of the indicator

Data on organic farming is collected by the Federal Office for Agriculture and Food (BLE) on behalf of the Federal Ministry of Food and Agriculture (BMEL) and by the Federal Statistical Office.

The Federal Statistical Office uses various surveys to determine the area of organically farmed land. The reference value in the percentage computation is the total utilised agricultural area determined in the annual land survey. The agriculturally utilised area comprises all surfaces used for agricultural or horticultural purposes. Accordingly, building and farmyard areas of agricultural holdings are not included in the reference value.

The data collected by the BMEL includes details of the amount of organically farmed land reported annually by the organic regulatory authorities of the Länder. The reporting date is 31 December of each year. All reports for a current year are accumulated no later than this reporting date. The values shown in the data held by the Feder-

al Ministry of Food and Agriculture are somewhat higher. One of the reasons for this is that areas not subject to cut-off thresholds are measured against areas to which cut-off thresholds apply. This means that, in the calculation of the percentage, the numerator includes very small plots, whereas only areas of a certain minimum size count towards the denominator.

According to the data held by the Federal Statistical Office, the share of organically farmed land increased from 2.9% to 7.8% of the utilised agricultural area between 1999 and 2019. The figure for 2019 corresponds to an organically farmed area of 1.29 million hectares. The data from the Federal Ministry of Food and Agriculture indicate a higher percentage of organically farmed agricultural land. According to those data the value for 2019 was 9.7% or 1.61 million hectares.

Although the last few years have seen a further increase in the area of organically farmed land, the annual percentage increase from year to year has fluctuated widely. Percentage growth stagnated, for example, between 2016 and 2017 but rose sharply again in the period from 2017 to 2019. On the basis of the figures from the Federal Statistical Office, if the trend of the last five reference years were to continue,

the target of 20% of utilised agricultural area being farmed organically by 2030 would not be achieved.

Germany's organically farmed land was used as follows in 2019: 57.2% as permanent pasture, 46.7% as arable land and 1.8% for other uses. By contrast, the main use in agriculture as a whole was as arable land, with 70.4%, while the share of permanent pasture was 28.5% and other uses accounted for 1.2% of total utilised agricultural area. According to the results of the 2016 agricultural structure survey, Bavaria held the largest share of organically farmed land among all the Länder with around 23%, followed by Brandenburg with 12% and Baden-Württemberg with just under 12%.

The conversion to organic farming is promoted to varying degrees by the individual Länder.

According to Eurostat data, a total area of 13.4 million hectares was organically farmed in the EU-28 states in 2018. This represented 7.5% of the entire utilised agricultural area. The highest ratios of organically farmed land within EU countries were registered for Austria, with 24.1%, followed by Estonia with 20.6%, Sweden with 20.3%, Italy with 15.2% and the Czech Republic with 14.8%.

German Government activities relating to the indicator

The German Government regards organic farming as an essential contribution to achieving the ideal of its agricultural policy. Organic farming is a particularly resource-efficient and environmentally compatible form of agriculture, the products of which are appreciated by a growing number of consumers who accept the higher consumer prices. Given its underlying principles, e.g. circular economy, adherence to stocking density limits and particularly a focus on animal welfare, conversion to this form of agriculture opens up development prospects for the future, especially for small and medium-sized family farms. This is why it is the declared goal of the German Government that 20% of the utilised agricultural area should be organically farmed by 2030. The European Farm to Fork Strategy, moreover, has set the target of at least 25% of agricultural land in the EU being farmed organically by 2030. In 2019, 7.8% of the total agricultural land area was being farmed organically.

Previous measures

On 15 February 2017, the Strategy for the Future of Organic Farming of the Federal Ministry of Food and Agriculture was published. It was developed over two years in a participatory strategizing process designed to identify which national measures could be taken to create the best possible

political conditions for organic farming. Some 200 experts from the business, academic and political communities took part in the process. Agreement was reached on the following five areas of action, which were fleshed out with a total of 24 associated action strategies:

- Designing a viable and coherent legislative framework
- Facilitating access to organic farming
- Fully utilising the demand potential and expanding it further
- Improving the productivity of organic agri-systems
- Providing adequate remuneration for ecological contributions

These areas of action are national keys to more vigorous growth in organic farming. The associated action strategies comprise a broad palette of diverse measures, encompassing support for research in the fields of crops, livestock, environmental protection, nature conservation, food, economics and socio-economics, including activities relating to knowledge transfer, measures to enhance value chains, measures of advisory assistance and vocational education, measures designed to increase the percentage of organic ingredients used in catering establishments and measures to ensure sufficient funding of conversion and maintenance premiums until the end of the current EAFRD programming period and beyond. Support for conversion to organic farming or for the main-

tenance of organic farming through the Länder development programmes (second pillar of the CAP) accounts for the largest amount of funding for organic farming. The Federal Government contributes to this support through the Federal Government/Länder Joint Task for the Improvement of the Agricultural Structure and Coastal Protection.

Planned measures

In December 2019, together with stakeholders from the business, academic, political and administrative communities, the Federal Ministry of Food and Agriculture conducted a first interim review of the Strategy for the Future of Organic Farming. This marked the start of an evaluation phase, during which the task will be to establish which adjustments and reorientations are needed in order to achieve the higher rate of growth in the organically farmed area in Germany that will put the country on track to achieve the 20% target. In addition, other Agriculture Ministry strategies can be expected to generate synergistic effects and stimulate growth in the organically farmed area. Further development of precision farming, for instance, is likely to reduce dramatically the application of plant protection products and fertilisers. The Protein Crop Strategy is delivering important resources to remedy the protein deficit in organic livestock husbandry as in other farming activities. The Strategy generates further beneficial effects through the creation of diverse crop rotations, an increase in biodiversity and the provision of habitats for pest predators. The Arable Farming Strategy and the Livestock Strategy are also expected to inject fresh impetus into organic farming.

Great importance attaches to the close interaction that takes place between the Federal Government and the Länder. The Länder promote organic farming through their own support programmes and, in some cases, through special action plans.

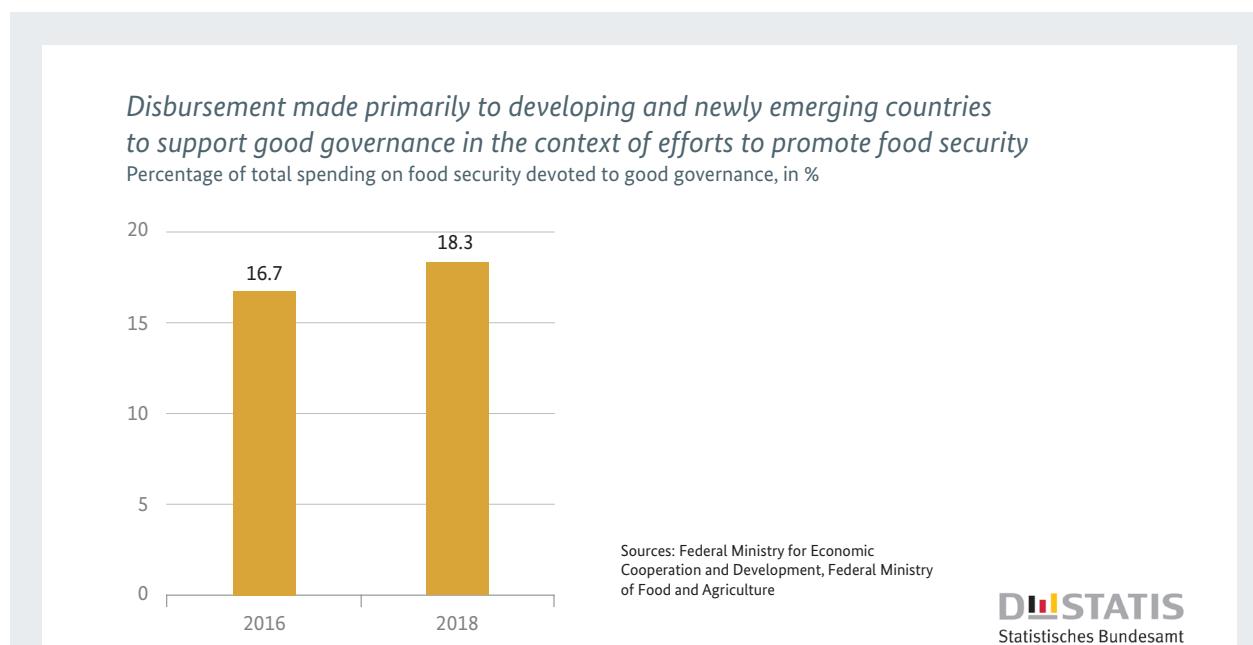
One way in which exchanges between the Federal Government and the Länder are supported is through their joint Organic Farming Platform. The Platform provides the basis for nationwide sharing of knowledge.

More ambitious climate and environmental targets in the CAP may also prove to be a driver of growth in organic farming. In the European Commission's Farm to Fork Strategy, which is part of the European Green Deal, a key role is assigned to organic farming in the pursuit of the objectives of sustainable agriculture. Increasing the area of organically farmed land to least 25 % of total agricultural land in the EU by 2030 is named as an explicit objective. Practical experience of organic farming as a sustainable form of land management that mitigates climate change, protects the environment and conserves biodiversity will play an important role in future throughout the agriculture and food sector.

In addition, beneficial effects are expected from the German Government's 2030 Climate Action Programme. Its aim is to ensure that the targets set for 2030 by the Federal Climate Change Act. Financial support for organic farming from the Special Energy and Climate Fund should also help to increase the organically farmed area and so contribute to the mitigation of climate change, for example through humus accumulation. Key funding instruments for the other support projects forming part of the Strategy for the Future of Organic Farming are the Federal Scheme for Organic Farming and Other Forms of Sustainable Agriculture and the Protein Crop Strategy.

2.2 Support for good governance in attaining appropriate nutrition worldwide

Food security – Realising the right to food worldwide



Definition of the indicator

The indicator measures the funds disbursed for the application of the relevant international standards and recommendations on the realisation of the right to food (defined according to the Global Strategic Framework of the UN Committee on World Food Security (CFS)) as a percentage of total spending on food security.

Targets and intention of the German Government

The indicator is based on the assumption that the promotion of the application of international guidelines and recommendations on food security can improve the food situation and thus make an important contribution to the fulfilment of SDG 2 and the realisation of the right to food.

The indicator measures the German contribution to enhancing good governance in the context of efforts to promote food security. The proportion of funds disbursed for food security that is used for governance is to increase accordingly by 2030.

Content and development of the indicator

The collection of data for the indicator is undertaken by the Federal Ministry of Food and Agriculture (BMEL) and the Federal Ministry for Economic Cooperation and Development (BMZ). To this end, all project and programme documents relating to food security projects are exam-

ined. The initial survey for 2016 was reviewed externally. That validation revealed that the data collection criteria and the definition of good governance needed to be specified in order to ensure comparability of the results. The methodology was subsequently revised.

A project is now counted if the objective, the effect matrix or the project description (a) specifically names a guideline or recommendation of the Global Strategic Framework for Food Security and Nutrition, or (b) a core element of the content of a guideline/recommendation is a substantial part of the project, and the project simultaneously aims to improve legal, institutional or political conditions. There must be congruity with the recording of the related spending as official development assistance (ODA).

In 2016, EUR 148 million of ODA for food security fell under the subheading of governance. On the basis of the revised methodology, this amount corresponds to 16.7% of the total expenditure of EUR 887 million. Both the total expenditure and the expenditure under the subheading of governance are thus considerably lower than the values calculated before the methodology was revised, which put governance expenditure for 2016 at 32% of a total of EUR 1,472 million. This is primarily due to a redefinition of the concept of governance and the use of an additional criterion in the form of the OECD governance indicator or, alternatively, of the governance criteria used in German development cooperation.

This is primarily due to a redefinition of the concept of governance and the use of an additional criterion in the form of the OECD governance indicator or, alternatively, of the governance criteria used in German development cooperation. In 2018, a total of EUR 223 million, or 18.3 % of the total expenditure of EUR 1,215 million on ODA for food security, fell under the subheading of governance. Compared with the total amount of official development assistance, however, the proportions allocated to both governance and food security are small. In 2018, for example, total spending on ODA amounted to EUR 25 billion. Of that amount, 4.9 % went to food security and 0.9 % to good governance within the realm of food secu-

rity. The indicator represents one facet of Germany's contribution to the achievement of SDG 2. In recent years the overall situation in the countries with which Germany engages in development cooperation initially showed a considerable improvement. According to figures from the United Nations Food and Agriculture Organization (FAO), the percentage of people suffering from undernourishment in these partner countries fell from 19 % in the year 2000 to 14 % in 2015. Current FAO estimates, however, indicate that the undernourishment rate has been rising worldwide since 2015 and that 280 million people were undernourished in 2018. That corresponds to 11 % of the world's population.

German Government activities relating to the indicator

Previous measures

The German Government considers that it has a particular obligation to help realise the human right to adequate nutrition.

In 2014, the Federal Ministry for Economic Cooperation and Development, by launching the special initiative ONE WORLD – No Hunger, established the fight against hunger and malnutrition as a political priority and made additional funds available for that purpose.

The improvement of basic institutional, political and legal conditions for the pursuit of food security plays a major role in German development cooperation. To this end, for example, partner governments are assisted in developing and implementing multisectoral nutrition strategies. Creating legal certainty regarding land ownership and utilisation rights establishes important prerequisites for sustainable food security and rural development.

In four countries, a global programme run by German Agro Action and funded by the Federal Ministry for Economic Cooperation and Development, makes a very explicit contribution to the right to food, partly through cooperation with duty bearers and partly through action to make actors in civil society more aware of their rights.

The measures taken by the Federal Ministry of Food and Agriculture are based on its world nutrition strategy. In cooperation with the FAO and the UN Committee on World Food Security (CFS) and by means of its Bilateral Cooperation Programme and research cooperation activities, the Food and Agriculture Ministry strives for food security and for realisation of the right to food. Supported by corresponding commitments under the German presidencies of the G7 and G20, the German

Government has assumed a leading international position in the sphere of food, agriculture and rural development.

Planned measures

The CFS is to play a key role in the framework of the UN Decade of Action on Nutrition by promoting, with the participation of stakeholders and the aid of cross-sectoral procedures, evidence-based political measures to reduce all forms of malnutrition and so addressing all the dimensions of the food system.

Against this backdrop, a decision was taken at the 45th plenary session of the CFS to draw up a set of Voluntary Guidelines on Food Systems and Nutrition for adoption at the 47th plenary session. The basis for this work was a report on food systems and nutrition published by the High-level Panel of Experts on Food Systems and Nutrition (HPEL) of the CFS in 2017.

The purpose of these guidelines is to provide numerous stakeholders, such as governments, private investors, non-governmental organisations and also smallholders, with effective guidance enabling them to take appropriate action to combat hunger.

The Voluntary Guidelines on Food Systems and Nutrition support the UN Decade of Action on Nutrition and its aim of implementing the results of the Second International Conference on Nutrition (ICN2). In the light of the FAO Strategy on Nutrition, the Tokyo Nutrition for Growth Summit of 2020 and the Food Systems Summit scheduled for 2021, the CFS, with its Guidelines, should make a vital contribution to the achievement of SDG 2.

As in the past, the German Government will continue to contribute actively to the international processes in the field of nutrition.

3. Ensure healthy lives and promote well-being for all at all ages

a) Main substance and political priorities in the view of the German Government

Health is not only a prerequisite for prosperity, social cohesion and inclusion but is also a product and indicator of the social, economic and environmental dimensions of sustainable development. Improving the health of all people on Earth is a central concern of the 2030 Agenda. Health is a human right, based on acknowledgement of the right of everyone to an achievable maximum level of physical and mental health, in the pursuit of which no one must be left behind. It includes the availability of a sufficient number of public healthcare facilities that provide adequate care as well as non-discriminatory access to the available healthcare facilities.

The global COVID-19 pandemic reminds us of the horrific effects that such an outbreak can have on every aspect of public and private life and economic activity. Within a very short time, apart from endangering health, the pandemic has come to threaten the very existence of vast numbers of people, organisations, initiatives, businesses and business sectors.

In this respect, SDG 3 is linked not only to SDG 2 (no hunger and better nutrition, SDG 6 (clean water) and SDG 13 (climate action) but to all SDGs and especially SDG 16 (peace, justice and strong institutions).

Structure of the SDG

SDG 3 addresses, on a global scale, the targets of reducing maternal mortality (3.1) and the deaths of newborns and children under five years of age (3.2) and of ending AIDS, tuberculosis, malaria, neglected tropical diseases, hepatitis and other communicable diseases (3.3). In addition, it is focused on premature mortality from non-communicable diseases and on mental health (3.4), on substance abuse (3.5), on deaths and injuries from road traffic accidents (3.6), on universal access to sexual and reproductive health care services, including family planning, information and education (3.7), and on deaths and illnesses from hazardous chemicals and from air, water and soil pollution and contamination (3.9). Special emphasis should be placed on target 3.8, which envisages universal health coverage and access to quality essential health-care services and affordable essential medicines. In the pursuit of SDG 3, the implementation of the World Health Organization (WHO) Framework Convention on Tobacco Control is to be strengthened (3.a), and research and development of vaccines and medicines for diseases that primarily affect developing countries (3.b) is to be supported. Health financing and the recruitment, development, training and

retention of the health workforce in developing countries are to be increased substantially (3.c), and the capacity of all countries for early warning and management of health risks is to be strengthened (3.d).



Future-proofing the German healthcare system

The COVID-19 pandemic is presenting the German system of health care, like other national health systems, with formidable challenges. Everyone involved in the health system is currently engaged in an all-out effort to halt the spread of the virus. This entails close coordination and harmonisation of individual measures between the Federation and the Länder and all stakeholders with a view to acting and reacting appropriately in the prevailing situation.

Particularly in such a scenario, an efficient and resilient health system is an important pole of stability. To equip the health services for the future, the structures of the healthcare system will be further modernised, digitised, inter-linked and tailored to the needs of patients. The German healthcare system is regarded internationally as a model for universal coverage in the event of illness. Both the statutory and the private health insurance schemes offer their members reliable protection covering all essential health services.

Nonetheless, the effectiveness of the healthcare system in Germany must be continuously reviewed and refined. Diverse reforms of the system of health care ensure that it will continue to guarantee high-quality medical and care services with sufficient treatment capacity throughout Germany. By means of appropriate legislative initiatives, care structures are being reinforced, patient services improved and the quality of medical treatment enhanced. The digital transformation and innovation are also playing an important part in this process.

One good example in the specific context of the COVID-19 pandemic is the upgrading of the public health service, which is an indispensable pillar of the healthcare system. To this end, the Federal Government and the Länder, in consultation with the national associations of local authorities, adopted the Pact for the Public Health Service. Its purpose is to strengthen and modernise the public health services in terms of staff and infrastructure across the whole spectrum of their responsibilities and at all administrative levels. The digital transformation plays an important role in these efforts. For this reason, the Pact provides not only for more recruitments but also for comprehensive action to upgrade the technical and digital capacities of the public health services. In 2020, moreover, the German Government already made financial assistance of EUR 50 million available to modernise the tech-

nical resources of the public health services as one of the measures introduced by the Second Civil Protection Act (*Zweites Gesetz zum Schutz der Bevölkerung*), designed to deal with national epidemics.

Promoting health and prevention

Thanks to the numerous advances in medicine and society, people in Germany are now living longer. Health promotion and the prevention of injury and disease are major keys to an active and healthy life and the avoidance of chronic illnesses. To these ends, education and information are needed, for example on communicable diseases such as HIV, hepatitis and other sexually transmissible diseases as well as on the benefits of a healthy diet and exercise and the risks of tobacco, alcohol and drug abuse; such education and information are important elements of preventive health care. Sporting activity in particular promotes mental health and self-confidence, contributes to stress management and hence to physical and mental health. Healthy lifestyles, however, play a decisive role too. Just as relevant in terms of preventive health care are healthy environmental conditions. The same applies to the effects on human health of climate change, such as prolonged heatwaves and greater exposure to UV radiation. Within buildings, growing importance attaches to fulfilment of the heat insulation requirements in summer.

A particular challenge in the pursuit of the SDG 3 targets is posed by demographic change: to counteract poverty, isolation and loss of self-determination in old age, housing and housing complexes must be age-adapted and conducive to social activity, medical care must be decentralised and available on an outpatient basis, and infirmity care should be available in the patient's familiar environment for as long as possible and should remain affordable. Reinforcement of long-term care is a particular objective. Key reforms have been implemented with the Nursing Staff Reinforcement Act (Pflegepersonal-Stärkungsgesetz) of 11 December 2018 and the Concerted Action for Long-term Care scheme. The improvements that these measures have already introduced for nursing staff, the infirm and their families have been continued and considerably extended.

The Cabinet's adoption of the National Dementia Strategy on 1 July 2020 launched a process based on partnership and broad consensus and designed to make short-, medium- and long-term improvements to the lives of people with dementia and their families. The Strategy will be implemented by all partners until 2026, and its progress will be monitored.

Another challenge is posed by multidrug-resistant organisms. It is estimated that, each year, about 700,000 people die of infections caused by antibiotic-resistant bacteria. The fight against antibiotic resistance also plays a part in viral

epidemics, because resistance to antibiotics can complicate the treatment of secondary bacterial infections.

German Government activities

I. Measures in Germany

1. *The concept of prevention embedded in SDG 3 is a priority of German health policy. The Prevention and Health Promotion Act (Präventionsgesetz) supports health promotion and injury and disease prevention, particularly in schools, day nurseries and workplaces, by means of contributions from the health insurance funds and supplements them with services for the early detection of diseases.*

For example, doctors are to inform their patients about recommended vaccinations as part of preventive medical consultations in future. Before children are enrolled in a daycare centre, parents are required to attend a medical briefing on the subject of vaccination. In this context the Bundestag adopted the Protection against Measles Act (Masernschutzgesetz) of 10 February 2020 with a view to protecting public health by ensuring that persons who are looked after in communal facilities, particularly schools, daycare centres and childminding services, or are housed in certain types of communal accommodation or work in such establishments or in medical establishments must provide evidence of sufficient vaccination against or immunity to measles.

2. *A new priority of the measures in Germany lies in the digitalisation of the healthcare system, which is one of the main keys to sustainably improving the quality of medical care in town and country as well as a response to the challenges of demographic change. The aims are, through better communication of medical data, to recognise more clearly any risks involved in the treatment of patients, to avoid unnecessary and onerous duplication of examinations and to initiate the most suitable medical treatment of patients more quickly. To this end, a secure data infrastructure (telematics infrastructure) is being established, linking together all parties involved in health care. The providers of German pensions insurance are also being gradually connected to this infrastructure.*

The main core application is the electronic patient file, which is to be made available by health insurers to all their members from 1 January 2021. It is designed to be maintainable on a voluntary basis by the insured themselves and to provide a means by which comprehensive medical information, for example on previous

medical examinations, diagnoses and clinical findings, interventions and treatment reports, can be made available to practitioners treating the patient. This can be done securely, with the data protected from misuse by unauthorised persons. The insured determines when, to whom and to what extent his or her own data may be disclosed.

The Digital Health Care Act (*Digitale-Versorgungsgesetz*) of 9 December 2019 provides, among other things, for additional support for video consultations.

3. The protection of workers' and consumers' health from harmful substances and emissions in products that contribute to water, soil, air or atmospheric pollution or contamination is ensured by means of numerous national environmental protection regulations.

II. Measures by Germany

1. The German Government's strategy

With a *Global Health Strategy*, the German Government intends to make a targeted response to global changes. The strategy communicates the contribution that Germany is making internationally to the achievement of the health-related Sustainable Development Goals.

2. Improving international crisis management in the event of an epidemic

Effective global health crisis management, in particular being prepared for and dealing with events ranging from local outbreaks of disease to pandemics, is a central concern of the German Government. For this reason, particularly in the wake of the Ebola outbreaks in West Africa from 2013 to 2016 and the outbreak of the novel respiratory disease COVID-19, which grew into a pandemic, the German Government took several initiatives.

These were intended to help *improve international crisis management* and to pave the way for emergency measures to deal with acute health and humanitarian crises. To strengthen the research into and development of vaccines against pathogens that can trigger dangerous epidemics, Germany is participating in the international initiative *Coalition for Epidemic Preparedness Innovations (CEPI)*. The objective of CEPI is to halt epidemics before large-scale health risks arise and lead to humanitarian disasters. CEPI is currently working all-out on the development of vaccines against the novel coronavirus.

The outbreaks of Ebola fever in past years and the spread of COVID-19 have made it patently clear that human and animal health and environmental factors are closely interconnected. For this reason the German Government places special emphasis on wider adoption of the *One Health approach*, for example in German development cooperation programmes. This approach is designed to promote capacity-building in partner countries, particularly with a view to preventing outbreaks of zoonotic diseases, i.e. those which can be transmitted from animals to humans, or halting their spread more quickly, and thus improving global health security.

In addition, in the framework of Germany's presidency of the Council of the European Union, the German Government pressed for diversification, greater transparency and better quality control of pharmaceutical supply chains.

3. Strengthening healthcare systems

Strengthening national systems of health care is at the heart of Germany's development cooperation strategy in the realm of public health. The German Government seeks to help ensure that general health care is available even to the world's poorest people without financial hardship. Functioning healthcare systems are a prerequisite for stability and well-being as well as for safeguarding public health globally, because robust healthcare systems are the only way to ensure that outbreaks of disease do not become epidemics or even pandemics and do not overstretch health services. Only resilient healthcare systems embedded to at least a minimum degree in state ownership can maintain healthcare provision in times of crisis and conflict when state structures are fragile.

The German Government focuses especially on the co-ordination and reinforcement of global players in the field of health policy as a key to more robust national healthcare systems. On the initiative of Germany, Norway and Ghana, the preparation of Global Action Plan for Healthy Lives and Well-being for All (SDG3 GAP) was proposed, and in September 2019 the Action Plan was adopted by the WHO together with eleven other multi-lateral organisations; it describes how better and more targeted cooperation are needed in future to strengthen national healthcare systems.

III. Measures with Germany

1. Strengthening the World Health Organization (WHO)

As the Specialised Agency of the United Nations in the field of health, the WHO plays a key role in the UN system. It sets the regulatory benchmark and the guidelines for global health improvement. It points the way for the work of the other stakeholders in the health system that fund and implement improvements to global health programmes. The WHO also has a leading and coordinating role to play in the implementation of the Global Action Plan for Healthy Lives and Well-being for All. Not least for this reason, Germany advocates political and financial strengthening of the WHO. Several institutions and authorities in Germany, moreover, such as the Robert Koch Institute, the Paul Ehrlich Institute, the Friedrich-Alexander University of Erlangen-Nuremberg and the Federal Environment Agency – known collectively as WHO Collaboration Centres – actively support the work of the WHO.

2. The “unfinished business” of the Millennium Development Goals

In cooperation with developing countries, the following targets linked to the Millennium Development Goals remain priority action areas: improving maternal and child health, achieving universal access to sexual and reproductive health-care services and halting and reversing the spread of communicable diseases. The Rights-Based Family Planning and Maternal Health initiative aims to ensure that every birth in partner countries is wanted and is supervised by a medical professional. Through access to information and sex education, girls and women are given the basic knowledge that they need to protect themselves effectively against unwanted pregnancies and to make their own decisions about their health.

In response to the COVID-19 pandemic, Germany is playing a significant part, along with an international group of partners, in a global platform for multilateral action to accelerate the development, production and equitable access to COVID-19 tests, treatments and vaccines, known as the ACT Accelerator; the initiative stems from a G20 pledge made on 26 March 2020. Within this framework, there will be strategic increases to Germany’s contributions to organisations such as the WHO, as well as to multilateral instruments such as Gavi, The Vaccine Alliance, and the Global Fund to Fight AIDS, Tuberculosis and Malaria. In addition, Germany contributes financially to the Joint United Nations Programme on HIV/AIDS, the Global Polio Eradication Initiative, the Global Financing Facility and the United Nations Population

Fund. In partnership with these well-established international health organisations, Germany has been able to respond quickly to the COVID-19 pandemic and take direct action to combat the outbreaks of COVID-19.

Germany promotes a holistic approach to maternal and child health, which also encompasses sustainable healthy nutrition, access to clean drinking water and sanitation and greater empowerment of women. Through its pledges in connection with a voluntary continuation of the commitments made under the G8 Muskoka Initiative (2010–2015) and with the Initiative on Rights-based Family Planning and Maternal Health (2011–2023) as well as its support for multilateral organisations such as UNFPA and the Global Financing Facility (2020–2021), the German Government is making an important contribution to closing funding gaps in this area. In this context, the German Government also supports the One Health approach in which health, nutrition and other issues are considered together.

3. Health, the environment and climate action

In its bilateral and multilateral cooperation, the Federal Government addresses the huge health impact of environmental pollution and calls attention to their consequences for the economic development of many countries. From an economic perspective, preventive environmental protection is less costly than the subsequent battle against environmental pollution and health-related risks. Here too, the German Government follows the One Health approach. Germany continuously presses at the highest level of the UN for a contractual regime of chemicals and waste management and is working for the adoption, under German presidency, of an ambitious successor to the Strategic Approach to International Chemicals Management (SAICM). At the interface between the environment and health, particular importance increasingly attaches to the effects of climate change. These include the consequences of heat, the more widespread incidence of non-communicable diseases and of infectious diseases transmitted by vectors such as mosquitoes. In this context too, Germany is party to numerous international environmental conventions devoted to health and environmental protection, such as the Montreal Protocol on Substances that Deplete the Ozone Layer, the aim of which is to protect human health and the environment from excessive UV radiation.

4. Research and development

The Federal Ministry of Education and Research has made the research field of global health a major priority. Published in 2015, the support strategy for research into neglected and poverty-related diseases entitled "Global Health in the Focus of Research" pools various research activities designed to improve the health of people in poorer countries. The Federal Ministry of Education and

Research will continue to widen its commitment and to develop its support strategy. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, through its departmental research plan, funds numerous research projects that serve to optimise environmental and environment-related health protection, such as projects relating to the German Strategy for Adaptation to Climate Change (DAS).

b) Relevant national sustainability indicators and targets/measures

3.1 a/b Premature mortality

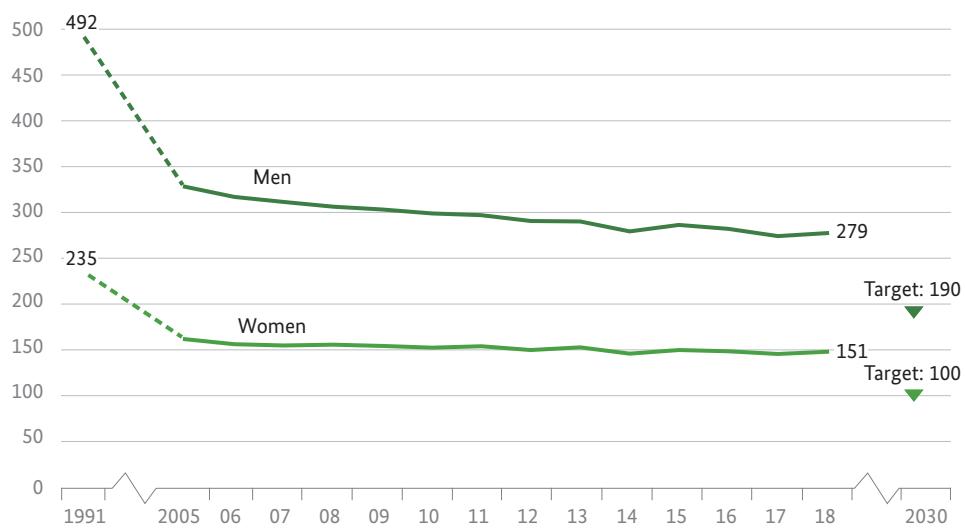
Health and nutrition – Living healthy longer

a) Women

b) Men

Premature mortality

Deaths per 100,000 population below the age of 70 (excluding those less than one year old)



Age-standardised figures based on the old European standard population
Source: Federal Statistical Office

Destatis
Statistisches Bundesamt

Definition of the indicator

The indicator comprises the number of fatalities among females (3.1.a) and males (3.1.b) in the population below 70 years of age per 100,000 of the old European standard population aged under 70 (excluding those less than one year old).

Targets and intention of the German Government

By 2030, premature mortality among women should not exceed 100, and for men it should not exceed 190 fatalities per 100,000 inhabitants.

Content and development of the indicator

The data sources are the cause of death statistics and the population statistics of the Federal Statistical Office. For the cause of death statistics, all official death certificates are recorded and evaluated. The population statistics shows the current population data based on the results of the most recent census. The data relate to the old European standard population. A standard population is a modelled population that makes it possible to compare change rates over time. The cohort under one year of age, and hence infant mortality, is disregarded. The indicator is also part of the health reporting conducted by the Federal Government.

Premature mortality decreased steadily between 1991 and 2018 for both women (-36%) and men (-43%). The larger decline among men has also reduced the gender-specific difference in premature mortality. In 2018, for example, 151 women and 279 men per 100,000 inhabitants died before the age of 70. If the trend of past years remains unchanged, however, the gender-specific targets for 2030 will be missed.

Reflecting the steady decrease in premature mortality, life expectancy in Germany has continued to follow an upward curve. Today's 70-year-old women can, statistically, expect to live another 17.0 years and 60-year-old men another 14.3.

In the period from 2016 to 2018, the average life expectancy for newborn girls was 83.3 years and for boys 78.5 years, which was 4.3 years more for girls and 6.0 years more for boys than in the years 1991 to 1993. Differences in life expectancy between the old Länder and the new Länder (each excluding Berlin) are to be seen only among newborn boys. This difference amounts to 1.4 years.

The main cause of premature mortality in 2018 was malignant tumours, accounting for 37.0% of premature deaths, followed by cardiovascular diseases at 20.1%. At 8.9%, fatalities due to external causes, such as accidents, poisoning and suicide, were also a significant factor. Diseases of the digestive and respiratory systems contributed with figures of 7.0% and 5.9% respectively. Since 1991, the share of malignant tumours and diseases of the respiratory system among all causes of death have increased by 11.2% and 47.1% respectively. In contrast, there have been decreases in the shares of cardiovascular diseases (-35.4%), external causes (-19.0%) and diseases of the digestive system (-8.3%).

Besides factors such as health related behaviour (see, for instance, indicators 3.1.c and 3.1.d on adolescent and adult smoking rates or 3.1.e and 3.1.f on child/adolescent and adult obesity rates), medical care also has an important influence on mortality rates. Health expenditure rose to EUR 391 billion in 2018. This was EUR 15 billion or 4.0% higher than in 2017. This expenditure corresponds to 11.7% of Germany's gross domestic product. It is equivalent to an annual amount of EUR 4,712 per head of population, compared with EUR 4,545 in 2017.

German Government activities relating to the indicator

Previous measures

The indicator of premature mortality is a complex overarching indicator; its favourable development depends on the influence of numerous measures that transcend the field of health as such.

In the area of health policy, particular mention should be made of the ongoing measures

for improving medical care. The German Government has initiated a number of structural reforms that help to guarantee high-quality needs-based care of people throughout Germany for the future, such as the Appointment Service and Healthcare Provision Act (Terminservice- und Versorgungsgesetz) of May 2019. Proposals have also been presented for a reform of emergency care, which would give patients fast access to exactly the care they need. Another project is the enhancement of cross-sectoral care through improved cooperation between out-patient and in-patient services.

A key contribution to greater sustainability in the health-care system is the drive to increase health literacy among the public. To this end, back in 2017 the Federal Ministry of Health, together with the heads of the self-governing bodies in the health sector, formed an Alliance for Health Literacy. Its members have undertaken to contribute to a sustainable increase in health literacy through health education, health information and doctor-patient communication.

The development of the National Health Portal, a product of the coalition agreement, is the core contribution of the Federal Ministry of Health to the Alliance for Health Literacy. Since 1 September 2020, independent high-quality information on diverse health issues has been available to the public online at gesund.bund.de, enabling them to take informed decisions.

3.1.c/d Smoking rate among adolescents

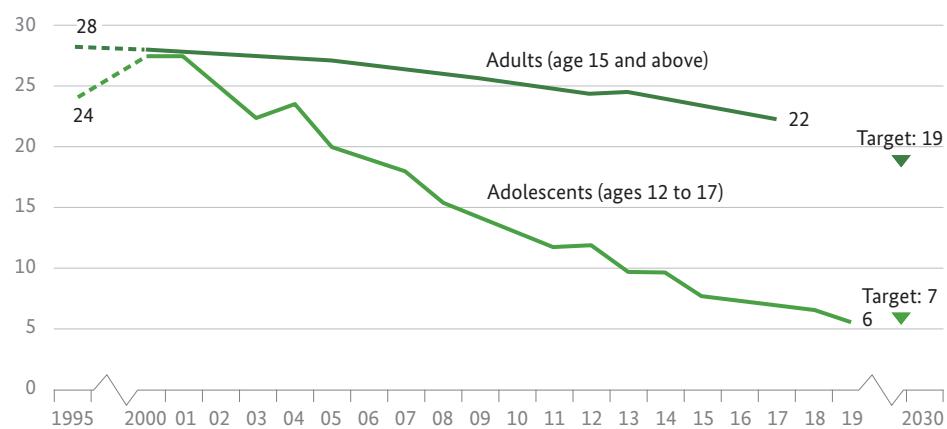
Health and nutrition – Living healthy longer

c) Adolescents ☀

d) Adults ☀

Adolescent and adult smokers

As a % of all persons in each age group



The data for adults were collected in 1995, 1999, 2003, 2005, 2009, 2013 and 2017. The data for the intervening years have been extrapolated.

The data for adolescents have been collected every year since 2003 except for 2006, 2009, 2013 and 2017.

Interpolated data have been used for those years.

Sources: Federal Statistical Office, Federal Centre for Health Education

Planned additional measures

To ensure that the indicator of premature mortality is pushed in the right direction, it is essential to continue pursuing the present policy measures and activities for the improvement of medical care.

The legislative measures designed to guarantee sustainable nationwide, needs-based and easily accessible health care, such as the Appointment Service and Healthcare Provision Act and the measures to improve care, are underpinning this effort.

Definition of indicators

The smoking rate among adolescents (3.1.c) represents the percentage of 12- to 17-year-olds who indicate that they smoke regularly or occasionally. The smoking rate among adults (3.1.d) indicates the percentage of those surveyed aged 15 and above who answered the questions on smoking behaviour in the microcensus and who smoke regularly or occasionally.

Targets and intention of the German Government

Smoking poses a risk of serious damage to health and can cause premature death. This risk is not confined to smokers themselves. Non-smokers exposed to tobacco smoke are not just irritated by the smoke but can also fall ill from it. The Federal Government is pursuing the goal of reducing the percentage of adolescent smokers to 7% and that of all persons aged 15 years and older to 19% by 2030.

Content and development of the indicator

The data for adolescents are collected in surveys on substance consumption among adolescents and young adults which are conducted by means of telephone interviews by the Federal Centre for Health Education. The surveys initially took place at intervals of three to four years, but since 2001 they have been conducted almost every year. In order to ensure that the data are comparable over time, they are weighted on the basis of gender, region and age. The data for years without surveys have been interpolated for inclusion in the time series. The random sample used in 2019 comprised 7,000 adolescents and young adults.

The data for adults is surveyed every four years as part of the microcensus conducted by the Federal Statistical Office. The data for years without surveys have been interpolated for inclusion in the time series for the indicator. The microcensus, which is a sample survey, covers 1% of the whole population and is the largest household survey in Germany and Europe. The responses to the questions regarding smoking habits are voluntary and were provided by 79% of respondents in 2017.

In the group of adolescents between 12 and 17 years of age, the proportion of smokers initially increased from 23.9% (1995) to 28.1% (1997 and 2001), but then declined steadily to 5.6% (5.2% for adolescent girls, 6.0% of adolescent boys) by 2019. Provided that the trend of recent years is maintained, the target value set for 2030 is already achieved.

In 2017, a total of 22.4% of the sample population above the age of 15 indicated that they smoked occasionally or regularly. This compares with a figure of 28.3% for 1995 and 1999. The smoking rate for adults, in other words, has shown only a slight decrease. If the average trend over the last five years is maintained, the target for this sub-indicator can also be achieved.

In 2017, 18.8% of all adult respondents aged 15 years or older considered themselves regular smokers, while 3.7% smoked occasionally. The rate among women (18.6%) was significantly lower than for men (26.4%). While the proportion of women smokers has fallen by 2.9 percentage points since 1995, the proportion of men who smoke has dropped by 9.2 percentage points.

In 2017, 96.2% of the respondent smokers preferred cigarettes. The frequency of tobacco consumption is important when considering the threat to the health of individuals. A total of 10.8% of regular smokers, compared with 17.4% in 1995, fell into the category of heavy smokers with more than 20 cigarettes a day, while 81.4% smoked 5 to 20 a day. Within these figures there were also differences between the sexes. Almost one in seven of the male regular cigarette smokers was a heavy smoker, but only one in thirteen of the female smokers.

Smoking poses a high but avoidable risk to health. In 2018, 4.8% of all deaths (3.4% among women, 6.3% among men) could be attributed to symptomatic diseases for smokers (lung, bronchial, laryngeal and tracheal cancers). In 2018, the average age of those who died of lung, bronchial, and tracheal cancers was 71.1 years, which is more than seven years below the average age at death (78.4 years). Lower smoking rates would therefore help reduce premature mortality.

German Government activities relating to the indicator

Previous measures

The aim is to lower the smoking rate significantly among children and adolescents as well as among adults. This has already been done very successfully in the case of children and adolescents. Prevalence rates among adults are also showing an encouraging trend. Accordingly, a revised health aim of reducing tobacco consumption has been adopted. The following new objectives have been set: 1. adolescents and young adults to remain non-smokers; 2. the number of people who quit smoking to be increased in all age groups; 3. comprehensive protection against passive smoking to be ensured.

Besides statutory federal and Länder measures designed, for example, to afford protection against passive smoking, preventive measures such as the rauchfrei (smoke-free) campaign of the Federal Centre for Health Education (BZgA) have contributed

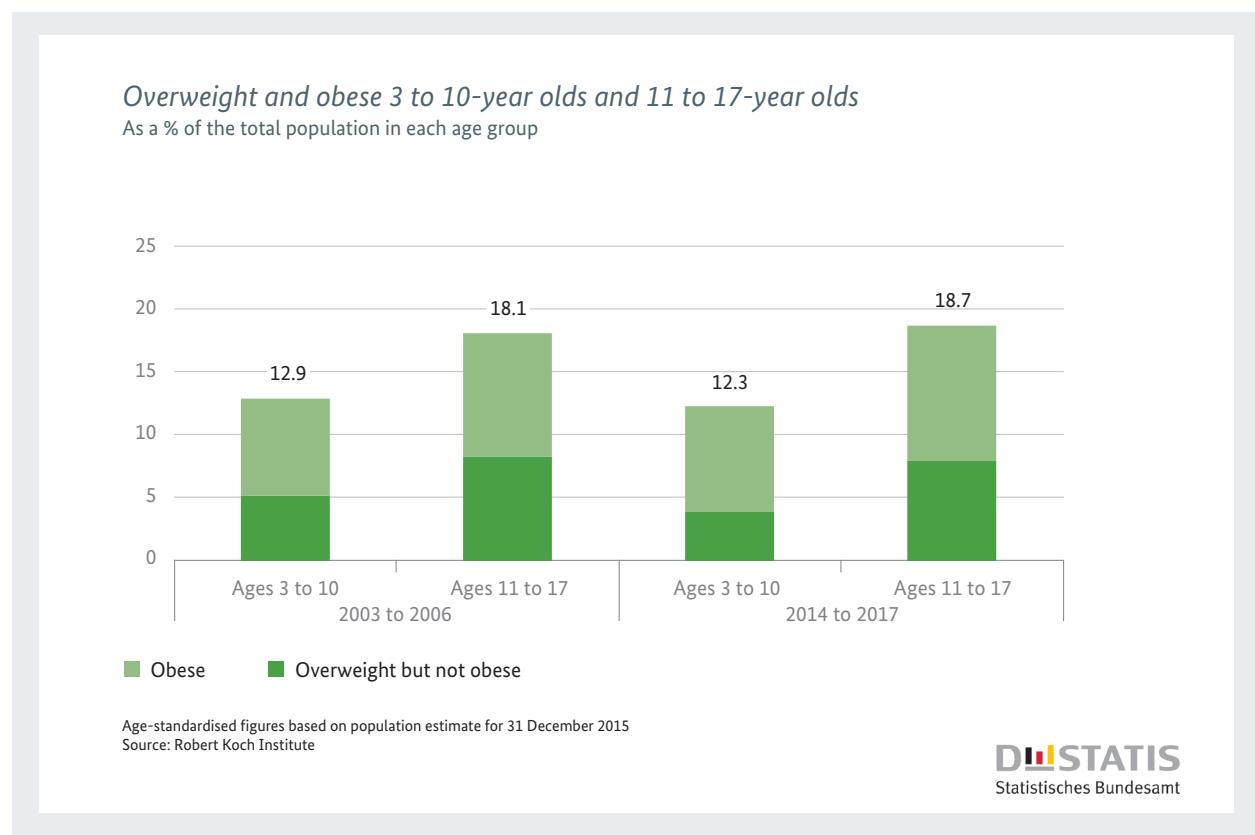
significantly to the successes of tobacco policy. The German Government is focusing its efforts especially on the most vulnerable target groups. These include people from less-favoured social strata as well as pregnant women.

Planned additional measures

As electronic cigarettes (e-cigarettes) and heated tobacco products have become better known and more widely consumed, the German Government has been keeping these items under close observation with a view to assessing any risk potential, addiction potential and other hazards that may be associated with them as a basis for any action that may prove necessary in due course. In a review commissioned by the German Government, the German Cancer Research Centre has already produced a comprehensive overview of the latest state of research into possible effects of using e-cigarettes and heated tobacco products.

3.1.e/f Obesity rates among children and adolescents; adults

Health and nutrition – Living healthy longer



Definition of the indicator

The indicator shows the proportion of 3 to 10-year-olds and of 11 to 17-year-olds affected by obesity.

Targets and intention of the German Government

Obesity among children and adolescents hampers age-appropriate development in those age groups. Exclusion and social withdrawal are the consequences, leading in turn to additional health as well as social problems. A high percentage of the children and adolescents who are already obese will continue to suffer from obesity as adults. For this reason, the proportion of obese children and adolescents in Germany should not increase any further.

Content and development of the indicator

The body mass index (BMI) is a benchmark that is used to identify excess weight and especially obesity. It is calculated by dividing the body weight in kilograms by the square of an individual's height in metres (kg/m^2). This calculation does not take account of age- and gender-specific differences or of an individual's body mass composition. Since the ratio of height to weight constantly changes in children and adolescents, there is no single threshold value for all age groups for the classification of excess weight and obesity. Excess weight and obesity among children and adolescents are defined by using an individual's age and gender to compare his or her BMI with those of a predefined reference population. The percentile reference values proposed by Katrin Kromeyer-Hauschild are used as a comparison, as recommended by the Childhood Obesity Federation (AGA). In this method, children and adolescents are said to be overweight if their BMI is above the 90th age and gender-specific percentile of the reference population ($> \text{P90}$), that is to say if they fall within the range of those 10 % of the reference group with the highest BMIs. A BMI above the 97th percentile of the reference population (i.e. as high as the 3 % of children and adolescents with the highest BMIs) is classified as obesity ($> \text{P97}$). For example, girls and boys aged three with a BMI of $18.8 \text{ kg}/\text{m}^2$ are considered to be obese. These reference values are based on details of body size and weight that were recorded between 1985 and 1998 in various regions of Germany, using different methods.

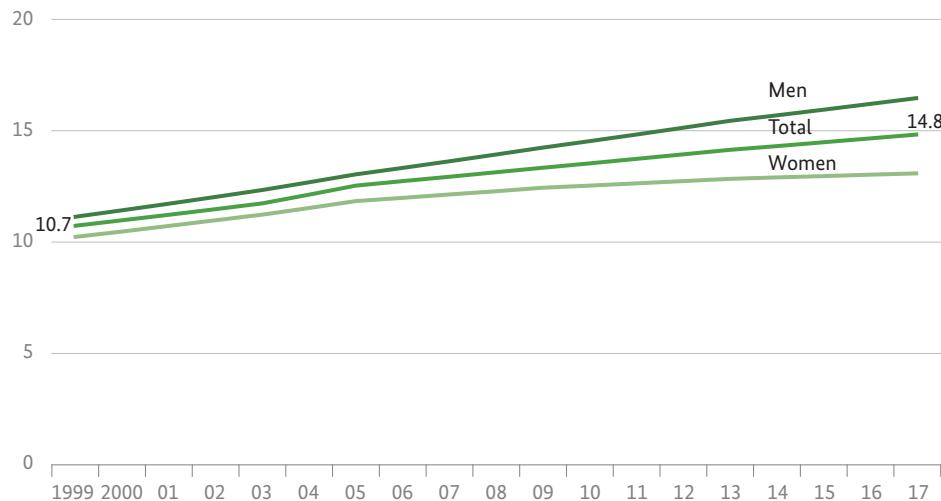
The data for the indicator was collected by the Robert Koch Institute. The German Health Interview and Examination Survey for Children and Adolescents (KiGGS) for the period 2003 to 2006 delivered the first nationwide representative findings. Comparable measurement data are available for the period from 2014 to 2017 from the second follow-up of the KiGGS study (KiGGS Wave 2). To allow proper data comparison, the findings were standardised on the basis of extrapolated population data for 31 December 2015.

For the 2014–2017 period, 3.9 % of the 3 to 10-year-olds and 8.0 % of the 11 to 17-year-olds were classed as obese. While there were no differences between the sexes in the 3–10 age group, the rates for the 11 to 17-year-olds were 7.2 % for girls and 8.7 % for boys. In the period from 2003 to 2006, the proportion of 3 to 10-year-olds with obesity was about 5.2 %; among the 11 to 17-year-olds, it was about 8.3 %. In that period too, girls and boys in the 3–10 age group were equally affected. The figure for the 11–17 age group broke down into 8.2 % of the girls and 8.4 % of the boys. The obesity rate has therefore fallen more sharply among 3 to 10-year-olds than in the 11–17 age group. While it fell by 1.0 percentage point among girls aged 11 to 17, it showed a slight increase of 0.3 of a percentage point among boys in that age group.

The percentage of overweight 11–17-year-olds ($> \text{P90}$) had not changed substantially since the 2003–2006 period, showing a decline of 0.6 of a percentage point to 12.3 % in the 3–10 age group and an increase of 0.6 of a percentage point to 18.7 % among 11 to 17-year-olds.

Key factors in becoming overweight are nutrition and exercise habits, which vary considerably when the findings are examined in the light of socio-economic status (SES). The findings of KiGGS Wave 2 confirm that 3 to 17-year-olds with a low socio-economic status more often have an unhealthy diet and more rarely take part in sport than their contemporaries with a higher socio-economic status. The risk of excess weight and obesity among 3 to 17-year-olds with a low socio-economic status are about three to four times greater than in the high status group; each group comprises about 20 % of the sample population.

Share of adults suffering from obesity
As a % of all adults



The data were collected in 1999, 2003, 2005, 2009, 2013 and 2017. The data for the intervening years have been extrapolated.

Age-standardised figures based on the new European standard population

Source: Federal Statistical Office

Destatis
Statistisches Bundesamt

Definition of the indicator

The indicator shows the proportion of the total adult population (aged 18 and over) who are affected by obesity.

Targets and intention of the German Government

Obesity plays a crucial role in the onset of lifestyle diseases, such as cardiovascular diseases, diabetes and joint disorders. Besides its health implications, excess weight also has onerous economic and social consequences.

The target must therefore be to ensure that the proportion of the population with obesity in Germany does not increase any further.

Content and development of the indicator

The body mass index (BMI) is a benchmark that is used to identify excess weight and especially obesity. It is calculated by dividing the body weight in kilograms by the square of an individual's height in metres (kg/m^2). This calculation does not take account of age- and gender-specific differences or of an individual's body mass composition. People with a BMI of 25 and above are re-

garded as overweight, according to the World Health Organization (WHO) classification, and those with a BMI of 30 as obese.

The data basis for the indicator is the microcensus conducted by the Federal Statistical Office. That sample survey covers 1% of the total population. The questions on health are asked every four years as a rule, and responses to them are voluntary. The indicator is thus based on the proportion of the population with a BMI of 30 and higher who answered the questions concerning body weight and height in the microcensus.

The corresponding data were standardised relative to the European population of 1990 to allow comparisons of data from different years and regions without distortions resulting from diverse age structures. Since the questions on health in the microcensus are not asked annually, the chart data for the intervening years have been interpolated. Where people provide information about themselves, as in the microcensus, body weight is often understated compared with measured values, whereas height is more likely to be overstated. As a result, the BMI calculated on the basis of respondents' own information is lower than a BMI based on measured data.

In 2017, 14.8 % of the population in Germany over the age of 18 were classified as obese. The obesity rate for men in this population, at 16.4 %, was higher than that for women (13.0%). In 1999, 10.7 % of the population were obese. At that time too, the proportion of women affected by obesity (10.2 %) was slightly lower than that of men (11.1%). The obesity rate among adults, in other words, has increased and so is moving away from the goal of the German Sustainable Development Strategy. A further 34.0 % of the population aged 18 and above had a BMI of at least 25 but below 30 in 2017. This means that 48.8 % have a BMI of 25 or more and are therefore considered overweight. Again, the proportion of women (39.0 %) was lower than that of men (58.0%).

The proportion of adults suffering from obesity increases with age and does not decrease until an advanced age is reached. In 2017, 3.4 % of 18- to 19-year-old women were obese. For the 30–34 age group, the figure had already risen to 10.1 %. The obesity rate for women peaked in the 65–69 age group at 21.7 %. In each of the age groups below 75, the obesity rate for men was higher than for women of the same age, the highest rates being recorded in the 60–64 age group, at 24.5 %, and the 65–69 age group, at 25.3 %.

German Government activities relating to the indicator

Previous and planned measures

At the present time a National Overweight Reduction Strategy is being devised; it is intended as a prevention strategy based on a horizontal approach to non-communicable diseases. In addition, the national action plan IN FORM – Germany's national initiative to promote healthy diets and physical activity, which has been supported jointly by the Federal Ministry of Health and the Federal Ministry of Food and Agriculture since 2008, is being further developed. Since 2015 additional funds have been made available by the Federal Ministry of Health for obesity prevention and education; to date these funds have been supporting more than 30 projects. In 2019 a new funding priority – Physical Activity and Physical Activity Promotion – was launched with a view to increasing people's engagement in physical exercise.

There are signs of an encouraging trend, in that the current KiGGS study of children aged 3 to 10 shows a decline in the prevalence of obesity among children of pre-school age. In November 2016 the Federal Ministry of Health, together with the relevant stakeholders from the Federal Government, the Länder, local government, welfare organisations, health insurers, health professions, the public health services and bodies responsible for child daycare centres, schools and facilities for families, as well as other associations, launched a process designed to give young adults the opportunity for a good start in life and for healthy development. The first milestone in this process was the presentation in August 2019 of a brochure entitled *Wegeweiser zum gemeinsamen Verständnis von Gesundheitsförderung und Prävention bei Kindern und Jugendlichen* (Pathways to a common understanding of prevention and health promotion for children and adolescents).

With the National Reduction and Innovation Strategy for Sugar, Fats and Salt in Convenience Foods, adopted in December 2018, the German Government is implementing a key project from the coalition agreement. The aim is to improve the balance in people's energy intake and nutrient supply by 2025, and to reduce the percentage of the population who are overweight and obese.

Authorities within the sphere of responsibility of the Federal Ministries of Health and of Food and Agriculture are also making an important contribution to the promotion of healthy lifestyles. The Federal Centre for Health Education, for example, offers numerous healthy lifestyle measures focused on exercise, nutrition and stress management and provides direct information through the Internet, brochures, films and leaflets.

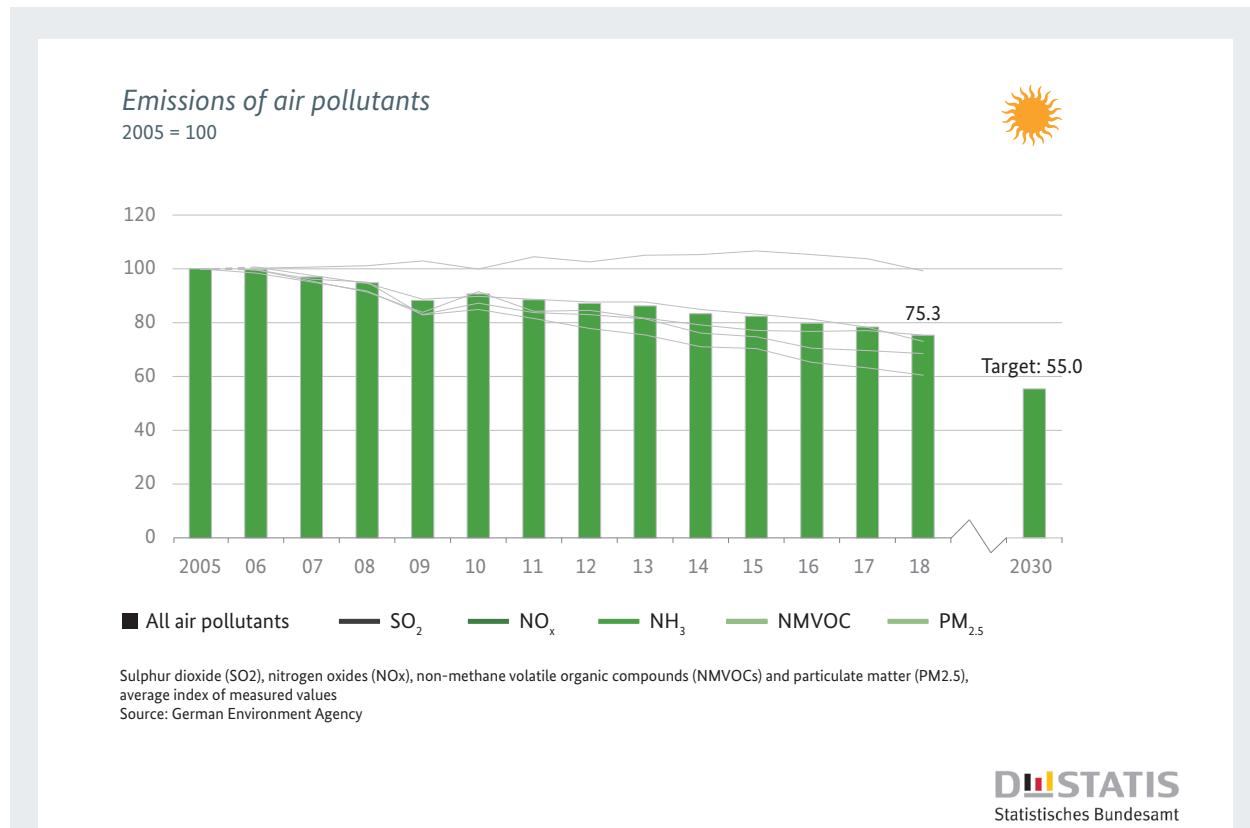
The Federal Centre for Food and Nutrition provides impartial, scientifically based information on a wide range of dietary matters covering the entire age spectrum from newborns to senior citizens and develops education materials on food and nutrition with a view to further raising awareness within society of the importance of balanced and sustainable diets.

The Max Rubner-Institut focuses its research on consumer health protection in the nutrition sector. As part of this research, it also charts the dietary habits of Germany's adult population. The findings of its research across the whole range of products serve as the basis for recommendations on sustainable and healthy nutrition.

The Robert Koch Institute, as well as health reporting, also offers a monitoring programme to track the prevalence of excess weight among children, adolescents and adults as well as the factors that influence it – physical activity and diet – and the relevant protective factors in the case of children and adolescents.

3.2.a Emissions of air pollutants

Air pollution – Keeping the environment healthy



Definition of the indicator

The indicator constitutes the mean value of the indices of national emissions of the five air pollutants sulphur dioxide (SO₂), nitrogen oxides (NO_x), ammonia (NH₃), non-methane volatile organic compounds (NMVOCs) and particulate matter (PM_{2.5}).

Targets and intention of the German Government

Air pollutants impair not only human health but also ecosystems and biodiversity. The targets for 2030 is therefore to reduce the volume of air pollutants by 45 % of their 2005 level. To make it possible to portray the development of pressure on both health and the ecosystem, German emissions of SO₂, NO_x, NH₃, NMVOCs and PM_{2.5} have been combined into a single indicator.

Content and development of the indicator

Germany has made a commitment to the European Union to reduce emissions of air pollutants by 2030 as fol-

lows: Sulphur dioxide by 58 %, nitrogen oxides by 65 %, ammonia by 29 %, volatile organic compounds by 28 % and particulate matter by 43 %. On this basis, the Federal Environment Agency calculated a non-weighted, arithmetic mean of the individual reductions in the specified air pollutants as a target. The rates of change in the individual air pollutants are offset equally against one another. Notwithstanding the separate reduction targets, this means that increasing emissions of individual pollutants covered by this indicator may be offset by higher reductions in the emissions of other pollutants.

The data are computed annually by the Federal Environment Agency from various sources. They serve as a basis for the reporting obligation under the Geneva Convention on Long-Range Transboundary Air Pollution (CLRTAP) and the National Emission Ceilings (NEC) Directive. The data undergo further analysis as part of the environmental economic accounting performed by the Federal Statistical Office. The emissions, for instance, are broken down by origin into various branches of economic activity and private households.

Overall emissions of air pollutants fell by 24.7 % from 2005 to 2018. The indicator has thus moved in the desired direction, and the target for 2030 will be achieved if the trend is maintained. Emissions of individual pollutants changed to varying degrees, however, in the period from 2005 to 2018.

Emissions of non-methane volatile organic compounds (NMVOC)s, which are primarily due to the industrial use of solvents, were reduced by a significant 24.6 % during that period. This means that the targeted reduction of 28 % by 2030 is achievable.

Emissions of particulate matter

(PM_{2.5}) fell by 31.5 % in the aforesaid period. If the annual average trend were maintained, the set reduction target would be achieved for these emissions too. The largest source of particulate emissions in 2018 was industry, which accounted for 29.3 % of the total. Households and small-scale consumers discharged 24.1 %, chiefly from heating systems. Transport accounted for 25.5 % of particulate emissions, which was 10.6 percentage points down on 2005.

Emissions of nitrogen oxides (NO_x) fell by 27.0 % from 2005 to 2018 and so are heading in the desired direction. The average reduction of the past few years, however, would not suffice to meet the target. The majority of nitrogen oxides emitted in 2018 came from transport and the energy industry.

Emissions of sulphur dioxide (SO₂), which are mainly discharged by the energy industry, fell by 39.5 % in the reference period. This trend has moved in the right direction. The average reduction of the past few years would be sufficient to meet the target.

Emissions of ammonia (NH₃) declined by 0.8 % from 2005 to 2018 and so remain persistently high. This stagnation is mainly due to the spreading of fermentation residues from fuel crops. According to calculations by the Federal Environment Agency, 95.3 % of all national ammonia emissions in 2018 originated from agricultural production, particularly livestock farming.

German Government activities relating to the indicator

Emissions of air pollutants have damaging effects on human health, ecosystems and materials and cause considerable economic damage. Air quality control is therefore a priority area of environmental policy, an area with a highly synergistic impact on other environmental policy areas and other policies, in particular transport, agriculture and health policies. This indicator provides information on targets 3.9, 11.6, 15.1 and 15.2.

Previous measures

Thanks to effective EU and national regulatory regimes, emissions of most air pollutants in Germany and Europe have decreased significantly over the last decades. As a considerable proportion of long-range pollution by harmful substances is caused by transboundary emissions, emission reductions must be coordinated within the EU and internationally through the United Nations Economic Commission for Europe (UNECE). At the same time, the potential for reducing emissions varies very widely between countries and sectors. The EU's Seventh Environment Action Programme, for its part, "aims to achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health

and the environment". The programme states that, in particular, this includes striving to reach full compliance with Union air quality legislation and defining essential strategic targets and actions beyond 2020.

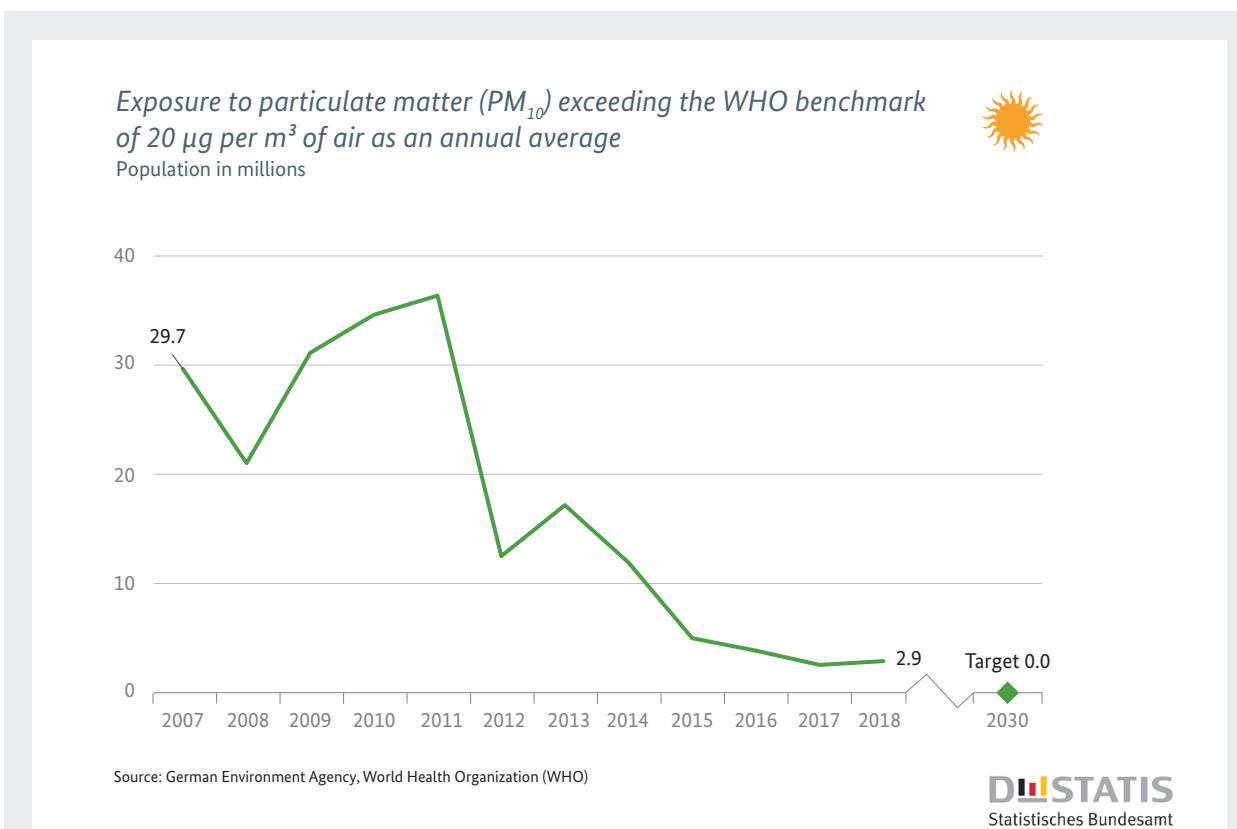
The aim of Directive (EU) 2016/2284 on the reduction of national emissions (the NEC Directive), is to achieve an EU-wide reduction of premature deaths caused by particulate matter by 50 % while considerably reducing the effects of nitrogen and acid inputs into ecosystems as well as ozone pollution. Following the Council's approval of the Directive, Germany is required, under Annex II of the Directive, to achieve by 2030 the following significant reductions in the volumes of the air pollutants designated below that were recorded for the base year 2005.

Planned additional measures

For the fulfilment of these obligations the National Clean Air Programme was drawn up and was adopted by the Federal Cabinet on 22 May 2019. The measures specified in that programme for each tier of government (federal, Land and municipal) are intended to guarantee that the national reduction obligations will be fulfilled.

3.2.b Share of the population with excessive exposure to PM₁₀

Air pollution – Keeping the environment healthy



Definition of the indicator

The indicator shows the number of persons who are exposed at their place of residence to an annual average or more than 20 micrograms (μg) of PM₁₀ particulate matter (dust particles with a diameter not exceeding 10 micrometres (μm) per cubic metre (m^3) of air.

Targets and intention of the German Government

Long-term exposure of humans to particulate matter is especially liable to lead to health problems such as respiratory and cardiovascular disorders as well as increasing the risk of type-2 diabetes and neurodegenerative diseases. Accordingly, to achieve better health protection, the aim is to ensure by 2030 that no one in Germany is exposed at their place of residence to a concentration of particles (PM₁₀) exceeding 20 μg per cubic metre (m^3) of air, averaged over one year. The guideline value of 20 $\mu\text{g}/\text{m}^3$ corresponds to the level recommended by the World Health Organization and is far more stringent than the 40 μg annual mean ceiling that applies in the EU.

Content and development of the indicator

Recognised direct sources of particulate matter are the industrial generation of energy and heat, agriculture, road traffic and heating, particularly with solid fuels and more especially with wood in household fireplaces or stoves. Particulate matter, however, can also occur through the formation of secondary particles as a result of chemical reactions with precursors such as sulphur oxide, nitrogen oxides, ammonia and organic carbon.

The particulate matter (PM₁₀) contained in the air is measured at a total of more than 370 air monitoring sites in both metropolitan and rural areas of Germany. For methodological reasons, the indicator is based only on the readings from the monitoring sites that are not exposed to direct particulate emissions from traffic or to any other significant local sources, because these measure only high localised concentrations (hot spots) and not area-wide particulate air pollution. From a combination of model results with the measured monitoring data on background concentrations, the particulate concentrations for the whole area of Germany are obtained. These

concentrations are combined with information on population distribution to determine the number of persons who are exposed to annual mean particulate pollution of more than 20 micrograms per cubic metre of air at their place of residence. Since the model includes only those monitoring sites which are not exposed to direct particulate emissions from local sources, it may be assumed that the indicator underestimates the actual number of persons whose exposure to particulate matter exceeds the guideline value of the World Health Organization.

Rather than reflecting nationwide adherence to the guideline value, the indicator therefore depicts the level of adherence for the population who live in places remote from sources of high particulate emissions. It says nothing about the exposure level of the population as a whole or about variations in the course of the year. This indicator, moreover, does not take separate account of emissions of finer particulates ($PM_{2.5}$ and $PM_{0.1}$).

Exposure to PM_{10} fell considerably from 2007 to 2018. The average exposure, weighted by population, was still around

18.9 micrograms per cubic metre of air in 2007, it was down to about 15.4 $\mu\text{g}/\text{m}^3$ by 2018. Over the same period there was also a sharp fall in the number of people who were exposed at their place of residence to annual mean concentrations of more than 20 μg of PM_{10} per m^3 . In 2007, there were 29.7 million such persons, but in 2018 there were only about 2.9 million.

Weather also influences the measurements of airborne particulate matter. Part of the reason for the sharp drop in 2011 and subsequent years is presumably that there were relatively few instances of temperature inversion in the winter months, although that curve has flattened out since 2015. Depending on wind speed, direction and air temperature, particulate matter may be transported into other regions and countries or else, during inversions, may become more concentrated at its place of origin.

If the average trend of recent years continues, the target of ensuring that the population nationwide is exposed to an annual mean concentration of less than 20 μg of airborne PM_{10} per cubic metre is likely to be achieved.

German Government activities relating to the indicator

From 1995 to 2017, emissions of particulate matter in Germany fell sharply. Nevertheless, the level of air pollution in certain places still exceeds the WHO recommended standards. Particulate emissions have significant effects on human health, especially as regards respiratory and cardiovascular disorders. Calculations from bodies such as the Federal Environment Agency, the European Environment Agency and the WHO show that about 40,000 to 50,000 premature deaths a year are still due to particulate air pollution. Particulate matter pollution is caused not only by primary emissions, but also by emissions of harmful gases that react in the air to form particulate matter (secondary particulate matter).

Previous measures

Over the past decades, the concentration of particulate matter has been reduced significantly thanks in particular to measures taken at power stations and industrial facilities, in vehicles, including mobile machines, and in heating

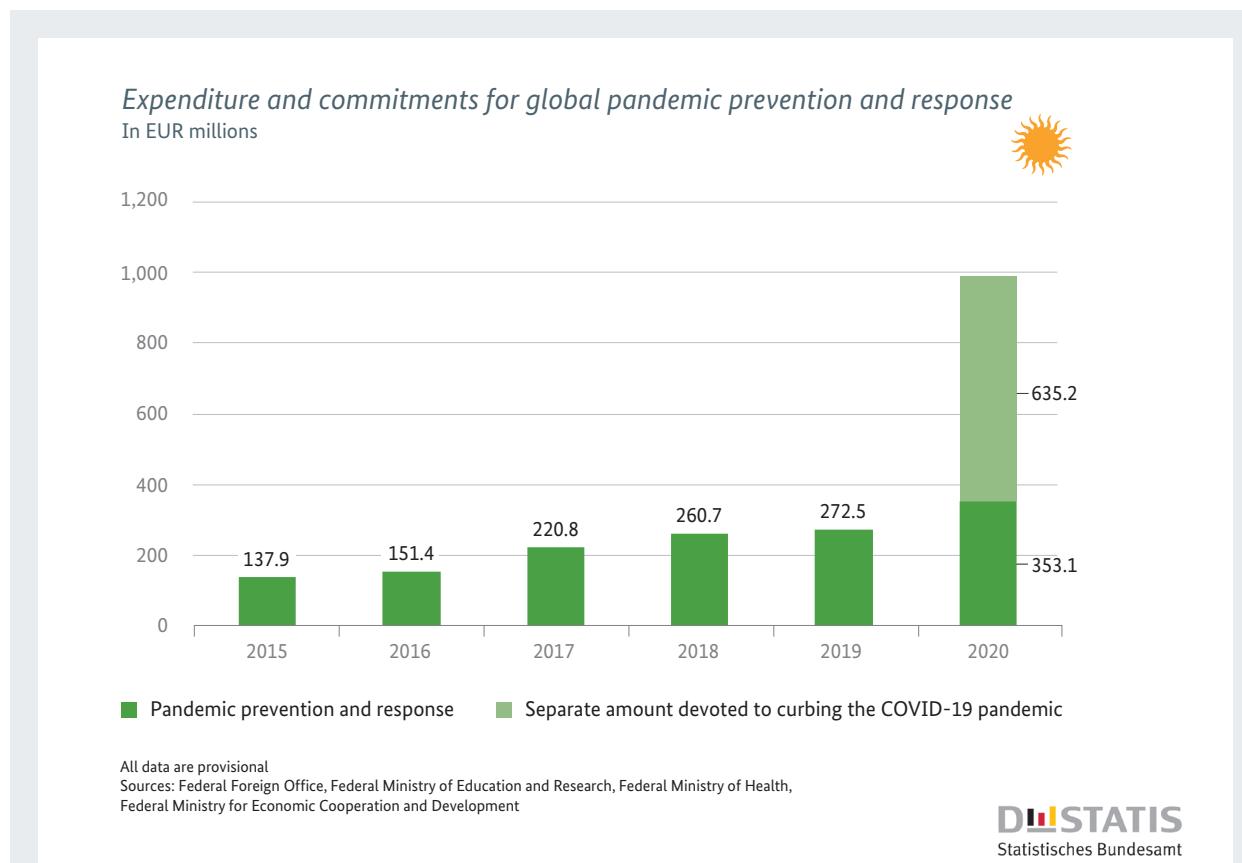
stoves and boilers. In view of the considerable problems still caused by the health effects of particulate matter, the 7th Environment Action Programme of the EU aims to ensure that exposure moves closer to WHO recommended levels. In particular, this means implementing an updated policy on air quality control that takes account of the latest scientific knowledge and developing and executing measures to combat air pollution at source.

Planned additional measures

With a view to moving closer to compliance with the WHO recommendations, provision has been made for additional measures to reduce emissions of primary particulate matter and of precursors of secondary particulate matter. The measures planned for the period up to 2030 are collated in Germany's National Clean Air Programme. That programme fleshes out the emission reduction obligations of Directive (EU) 2016/2284, the National Emission Ceilings (NEC) Directive.

3.3 Germany's contribution to global pandemic prevention and response

Global health – Strengthening the global health architecture



Definition of the indicator

The indicator covers expenditure and pledges made by Germany for global pandemic prevention and response programmes. It excludes programmes designed to contain the COVID-19 pandemic. To make the indicator more informative, its impact will be assessed by the time of the next edition of the German National Sustainability Strategy with a view to developing it into an output indicator.

Targets and intention of the German Government

The COVID-19 pandemic has shown what far-reaching effects cross-border health hazards have on people and economies throughout the world. Accordingly, supporting pandemic prevention and response programmes is a major contribution to global health, particularly in countries of the Global South. The aim is therefore to increase Germany's contribution to global pandemic prevention and response substantially from its 2019 level in the period up to 2030.

Content and development of the indicator

The data for the indicator come from special analyses of the relevant budget headings and commitment appropriations from the Federal Foreign Office, the Federal Ministry of Education and Research, the Federal Ministry of Health and the Federal Ministry for Economic Cooperation and Development. Programmes are taken into account in the analyses if, by dint of their objectives, they fall directly under the heading of pandemic prevention and response or if they are primarily intended to enhance relevant capabilities in the field of health care. The programmes cover matters such as the pandemic prevention and response functions of the World Health Organization (WHO), sanitation, One Health (a holistic approach that recognises the interconnection between human, animal and environmental health), vaccination infrastructure and research and development, both at home and abroad, in so far as the R&D findings and innovations also benefit the countries of the Global South. Additionally, programmes launched in response to the COVID-19 pandemic have also been taken into account.

The latter include WHO programmes and activities, humanitarian aid, vaccine development, crisis response and emergency assistance and loans to help health services in countries of the Global South to respond to the crisis. By definition, expenditure and pledges made in response to the COVID-19 pandemic are excluded from the indicator and shown separately.

As regards the figures, it should be noted that it is not possible to draw hard and fast lines between the content of programmes, since the indicator field is closely interlinked with numerous other areas of the health system. The indicator therefore takes account of a range of programmes, such as Germany's contribution to the WHO to support its emergency programme and to provide flexible initial funding for crisis response measures through the Contingency Fund for Emergencies, support for a vaccination programme for the reduction of child mortality in the East African Community, improvement of drinking water supply and sanitation in Burkina Faso and a biosecurity cooperation programme. Besides the thematic prioritisation, it should also be noted that some of the programmes are focused on general reinforcement of global coordination and organisational capacity and therefore do not exclusively benefit countries of the Global South.

Nor can a precise line be drawn between preventive and reactive measures. Developing preventive capacity may,

for example, enhance responsiveness to a pandemic situation, while reactive measures may contribute to capacity-building in the long term. To avoid a statistical outlier resulting from the response to the COVID-19 pandemic, these expenditure items and pledges are not part of the indicators but are shown separately in the chart.

The amounts of expenditure and pledges that are displayed, moreover, say nothing about the success of the programmes. The indicator represents Germany's monetary contribution to pandemic prevention and response. A more extensive assessment would be needed to gauge the impact of that contribution. In view of the foregoing provisos, therefore, the recorded figures are not by any means a full reflection of the German expenditure and pledges that directly or indirectly influence the pandemic prevention and response effort.

Between the years 2015 and 2020, expenditure and pledges for pandemic prevention and response rose from EUR 137.9 million to EUR 353.1 million (provisional figure for 2020). This represents an average annual increase of EUR 43.1 million over those last five years. If this trend continued, the objective of increasing Germany's contribution substantially from 2019 to 2030 would be achieved. The chart also clearly shows the upsurge of EUR 635.2 million in expenditure and pledges in 2020 to contain the COVID-19 pandemic.

German Government activities relating to the indicator

Previous measures

Effective global health crisis management is a key objective of the German Government. In particular, this entails being prepared for and dealing with events ranging from local outbreaks of disease to pandemics.

For this reason, particularly in the wake of the Ebola outbreaks in West Africa from 2013 to 2016 and the outbreak of the novel respiratory disease COVID-19, which grew into a pandemic, the German Government took several initiatives. These were intended to help improve international crisis management and to pave the way for emergency measures to deal with acute health and humanitarian crises.

Important objectives in this context are to learn the lessons of the COVID-19 pandemic, to prevent any rapid future spread of pathogens with pandemic potential and to be better prepared for future outbreaks of disease.

To this end, Germany engages with the WHO and the World Organisation for Animal Health (OIE) and is committed to numerous other programmes and projects designed to improve worldwide resilience in the face of pandemics, especially in countries of the Global South. For example, since 2015 the Federal Ministry of Health and the Federal Foreign Office have been supporting the WHO Contingency Fund for Emergencies (CFE), while the Health Ministry is also supporting the WHO in its pandemic prevention efforts and in the implementation of the International Health Regulations (IHR). In 2020 the Health Ministry also provided assistance for the WHO COVID-19 Strategic Preparedness and Response Plan and the ACT Accelerator platform.

Also in 2020, the Federal Ministry for Economic Cooperation and Development made One Health a new thematic priority and for several years has been supporting numerous projects for the prevention of pandemics, such as Support to Pandemic Preparedness in the East African Community (EAC) Region and the Pandemic Emergency Financing Facility (PEF). In addition, the same ministry, in

cooperation with the Robert Koch Institute, the Bernhard Nocht Institute for Tropical Medicine, the GIZ and the Charité University Hospital, is supporting the German Epidemic Preparedness Team (SEEG).

The other programmes that underline Germany's global commitment in this field include the Global Health Protection Programme, which encompasses numerous projects in Africa and other parts of the world, financial support for the WHO collaborating centre for the Global Outbreak Alert and Response Network (GOARN) and a contribution to the German Epidemic Preparedness Team (SEEG).

With a view to bolstering vaccine research and development to counteract pathogens that can trigger dangerous epidemics, Germany is participating in the international initiative Coalition for Epidemic Preparedness Innovations (CEPI). The objective of CEPI is to halt epidemics before large-scale health risks arise and lead to humanitarian disasters. CEPI is currently working all-out on the development of vaccines against the novel coronavirus.

The outbreaks of Ebola fever in past years and the spread of the coronavirus have made it patently clear that human and animal health and environmental factors, particularly the destruction of nature and the loss of biodiversity, are closely interconnected. For this reason the German Government places special emphasis on wider adoption of the One Health approach, for example in German development cooperation programmes. This approach is designed to promote capacity-building in partner countries, particularly with a view to preventing outbreaks of zoonotic diseases, i.e. those which can be transmitted from animals to humans, or halting their spread more quickly, and thus improving global health security.

Trade in wild animals and derivative products is a high-risk area for the development and spread of zoonotic disease. In principle, the risk of zoonosis transmission exists in both

legal and illegal trade in wild animals. For this reason, the Federal Ministry for Economic Cooperation and Development and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety have jointly created the International Alliance against Health Risks in Trade in Wild Animals and Wild Animal Products. In addition, many of the programmes and measures on biodiversity that the German Government supports also serve to prevent pandemics, because the global reduction of human environmental interventions, such as changes of land use, agricultural expansion and intensified farming, lowers the risk of pandemics.

In 2019, Germany invested a total of some EUR 250 million in programmes that contribute directly or primarily to improving global pandemic prevention and response. In 2020, the amount spent on these programmes came to about EUR 900 million. This sharp rise is largely attributable to the numerous measures taken in response to the COVID-19 pandemic.

Planned measures

Health experts are agreed that the threat of cross-border disease outbreaks will go on increasing throughout the world. In view of the extensive adverse effects with which the COVID-19 pandemic has confronted us, there is a need for extensive investment in better pandemic prevention and response. Germany therefore wishes to expand its global commitment in this field, especially by helping to enhance the response capability of the WHO and through measures in the Global South. In strengthening the WHO, which is a priority of Germany's planned endeavours, it is also intended to promote the best possible use of existing multilateral structures.

The funding of the relevant programmes in the period up to 2030 is to be substantially increased in relation to the 2019 funding levels.

4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

a) Main substance and political priorities in the view of the German Government

Education is the key to control of one's own life as well as to participation in economic and social activity and political processes. It lays the foundations for well-being and sustainable development.

Education in the widest sense

Education has a key role to play if the global Sustainable Development Goals are to be achieved. In the 2030 Agenda, education is not only enshrined as a goal in its own right in SDG 4. It is also explicitly or implicitly present in other goals and targets. With SDG 4, the international community has undertaken by 2030 to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The measures taken by the German Government support education processes throughout people's lives.

Structure of the SDG

The SDG is based on the concept of lifelong learning and thus covers the entire spectrum from early childhood education, development and care through primary and secondary education to academic and vocational education (4.1–4.4). Gender equality and inclusion (4.5) and universal literacy and numeracy (4.6) are also covered. Education for sustainable development (4.7) is explicitly listed as a separate area of activity. As means of implementation the UN member states have undertaken in particular to build and upgrade education facilities (4.a), to expand substantially the number of higher education scholarships for people from developing countries (4.b) and to increase substantially the supply of qualified teachers (4.c).

National importance

Levels of educational attainment and rates of participation in education in Germany are high in all sectors of the education system. Despite the improvements with regard to equal opportunities, social background still influences young people's educational opportunities and future prospects. An important policy objective for all parts of the education system is the establishment of equal opportunities – a person's origin must not determine his or her educational opportunities. The activities of the German Government cover all stages in the lifelong education process, from early learning to adult education. Schools and universities fall primarily within the sphere of responsibility of the Länder; there are, however, important federal contributions too, for example through the Digital Pact for Schools, through *Qualitätsoffensive Lehrerbildung*, which is a nation-

al programme to improve the quality of teacher training, and through the Higher Education Pact, scholarship awards and grants under the Federal Training Assistance Act.



In view of the constantly changing labour market, it is necessary to create opportunities for a change of career, even for people who are already in work. An increasing number of people are taking advantage of continuing training opportunities and have recognised the value of targeted skills development for their CV. For many continuing training courses there are state funding opportunities that encourage people to develop their knowledge and skills so as to meet the requirements of a changing employment landscape.

In addition, there remains a need to build education for sustainable development (ESD) systematically into the structure of all parts of the education system and to implement the National Action Plan on Education for Sustainable Development.

ESD means education that enables people to think and act sustainably. Participatory capacity, management of uncertainties and risks, systemic thinking and critical reflection are key skills which are fostered by ESD. These are also important as sources of individual and societal resilience for dealing with global crises like COVID-19 or the climate crisis. A key factor for the success of ESD is the creation of networks linking the various stakeholders from administration, civil society, business and culture and from places of formal and informal learning.

German Government activities

I. Measures in Germany

1. Education for Sustainable Development (ESD)

The German Government assigns a key role to ESD in the pursuit of the Sustainable Development Goals. In 2017, in a multi-stakeholder process conducted with more than 300 stakeholders from all areas of government and society under the responsibility of the Federal Ministry of Education and Research, the National Action Plan on Education for Sustainable Development was drawn up and adopted by the National ESD Platform. It is the national route map for the implementation of ESD throughout the education system, including basic, advanced and in-service teacher training and higher education.

By introducing environmental protection and sustainability as a new standard training element for all occupations, the bodies responsible for vocational training are ensur-

ing that appropriate sustainability skills are acquired on every vocational course. In pre-school education the Federal Ministry of Education and Research supports in-service training courses in education for sustainable development for nursery teachers and daycare centre managers, for instance through the Tiny Tots Science Corner Foundation. The continuing training of university lecturers in the framework of in-service teacher training is being reinforced by means of a model project. Since 2017, the ESD Youth Forum (youpaN), supported by the Federal Ministry of Education and Research, has been working to involve young people in the implementation of the National Action Plan on ESD, and it has now become the central forum for youth participation in that implementation process.

Together with the Conference of the Ministers of Education and Cultural Affairs of the Länder, the Federal Ministry for Economic Cooperation and Development is extending its support on the basis of the curriculum framework for lessons in global development in the upper years of secondary school and reinforcing that support with measures such as a competition for schools on development policy. The cooperation with the Länder is also being developed by means of a joint structuring programme for schools.

A first interim review of the National Action Plan shows that progress has been made in all parts of the education system. Of the commitments made under the National Action Plan, 64 % have already been fully met. The scoreboard also shows, however, that fulfilment is not progressing quickly enough. The German Government will therefore step up its efforts accordingly with regard to ESD measures.

2. Education, development and care in early childhood

The foundations for successful learning, and hence for good development, inclusion and advancement prospects, are laid in the first years of children's lives. This is why great importance attaches to mechanisms such as the Education in Speech and Writing development programme, jointly funded by the Federal Government and the Länder, which has been continued since 2020 in a five-year transfer phase. The promotion of the programmes Lesestart – 1-2-3 and Reading is our Future – The Lesestart for Refugee Children Reading Programme is focused on reading ability as a key prerequisite for successful individual education processes. The activities of the Tiny Tots Science Corner (HdkF) Foundation are entirely focused on better early education in the STEM subjects (science, technology, engineering and maths). The Upskilling Initiative for Early Childhood Education and Care Staff (WiFF) supports the improvement of education in daycare centres by enhancing the professionalism of teaching staff. Research into the quality of education

in early childhood is promoted in the Framework Programme for Empirical Educational Research with a view to acquiring knowledge about institutional and staff quality criteria in early education.

The Federal Government assists Länder and local government in increasing the availability and enhancing the quality of day care and in reducing the burden of fees on parents. With the Good Early Childhood Education and Care Act (Gesetz zur Weiterentwicklung der Qualität und zur Teilhabe in der Kindertagesbetreuung), commonly known as the Good Kitas Act, the Federal Government makes an important contribution to higher quality and lower fees in daycare centres and childminding services. The Federal Government has made an amount of some EUR 5.5 billion available to the Länder for this purpose for the years from 2019 to 2022. Through the Childcare Funding investment programmes, more than 450,000 additional childcare places have been made available for children under the age of three. Under the fifth of these investment programmes, an additional total of EUR 1 billion has been allocated in 2020 and 2021 for 90,000 new childcare places in daycare centres and childminding services. The German Government, moreover, through the federal programmes Sprach-Kitas (Language Day Care) and Kita-Einstieg (Day Care Enrolment), promotes the integration of language learning into everyday activity and outreach options for easier access to child daycare as well as assisting the Länder with the drive to recruit and retain specialised staff in early education.

Contact with families is at the heart of the European Social Fund (ESF) programme Opportunities for Parents II – getting families involved in education early on. In this programme, which runs from 2015 bis 2021, specialists in early education throughout Germany are trained to become parental advisers – more than 13,000 parental advisers are now active in family centres, child daycare centres and other parental and family education facilities, providing parents with help and support in matters relating to parenting and their children's education.

3. Education and care for children of school age

To support all-day care for children of primary-school age, the federal treasury is making up to EUR 3.5 billion available in investment funding; to this end, a federal special fund was established in December 2020 by the All-day Education and Care Funding Act (Ganztagsfinanzierungsgesetz). The purpose of the planned financial assistance is to create considerably improved conditions for high-quality education provision and for the reconciliation of work and family life. The federal treasury has earmarked EUR 5 billion for the Digital Pact for

Schools, which entered into force in May 2019. In June 2020, because of the COVID-19 pandemic, an additional amount of EUR 500 million was released at short notice to make laptops available for digital learning and to assist socially disadvantaged pupils; a further sum of EUR 500 million has been allocated to support the employment of IT administrators in schools. The Federal Government and the Länder also intend to top up the Digital Pact for Schools with another EUR 500 million, particularly to enable schools to equip teachers with laptops. For the joint Federation-Länder initiative for the promotion of gifted pupils, Leistung macht Schule (Excellence in School Education), launched in 2018, a ten-year budget of EUR 125 million has been made available. Through the Schule macht stark (School empowers) initiative, the Federal Government and the Länder will jointly endeavour, from 2021, to improve the educational opportunities of pupils who live in socially challenging circumstances. The federal treasury will continue to support the Länder, which are responsible for initial, advanced and in-service teacher training, with up to EUR 500 million in the period up to 2023 in the framework of Qualitätsoffensive Lehrerbildung, a national programme to improve the quality of teacher training,

4. Vocational training

Vocational training offers young people good foundations for starting their working lives. Advanced vocational training then opens up a wide range of attractive career paths. The Federal Government, the Länder and the representative bodies of business and labour (the social partners) are all committed to the continuous improvement and updating of vocational training.

Important initiatives in this context are the update of the Vocational Training Act (Berufsbildungsgesetz), which took effect on 1 January 2020, the Abschluss und Anschluss – Bildungsketten bis zum Ausbildungsabschluss initiative (Qualify and Connect – education chains up to the completion of training), which has been running since 2010, the federal InnoVET competition (Shaping the Future – Innovations for Excellent Vocational Education and Training) and the assignment of funding priority to vocational training for sustainable development (the BBNE programme). Added to this is the JUGEND STÄRKEN im Quartier programme (Encouraging Youth in the Neighbourhood), the BBNE initiative to enable green skills for climate-friendly, resource-efficient action at work, and the federal pilot programme ESF Quereinstieg – Männer und Frauen in Kitas (Career Change - Men and Women in Early Childhood Education and Care).

5. Higher education

Institutions of higher education are key drivers of innovation and help to satisfy the demand for academic specialists. Student numbers are likely to stabilise at a high level. According to the Federal Employment Agency, the unemployment rate for academics stood at about 2.6% in 2020.

The Federal Training Assistance Act, which is the main state instrument for funding individual training, ensures young people's access to the best possible academic qualifications too. In 2015, a comprehensive package of measures was launched for the integration of refugees with academic potential. It includes foundation courses in German, introductory subject courses, academic mentoring and careers guidance as well as social integration measures. More than 20,000 refugees have already been able to start a regular course of higher education, while thousands more are on introductory subject courses.

6. Continuing education – lifelong learning – comprehensive literacy development

Lifelong learning is a key to our economic strength as well as a guarantor of social and occupational inclusion.

Accordingly, the purpose of the National Skills Strategy is to consolidate or expand employability skills and enable employees to advance in their careers. One of the main elements of the strategy is the revision of the Career Development Act. Professional advancement grants under the Federal Training Assistance Act help candidates for occupational promotion of all ages to fund their further training. The two scholarship schemes – Weiterbildungsstipendium (continuing education scholarships) and Aufstiegsstipendium (professional advancement scholarships) – provide access for vocationally qualified persons to targeted courses of further education and continuing training or higher education.

The Continuing Training Helpline assists people throughout Germany in finding the right course. With the National Decade for Literacy and Basic Education (Literacy Decade, 2016–2026), the Federal Government and the Länder are targeting big improvements in the reading and writing abilities of people in Germany with low literacy levels.

For adult immigrants, the German Government's integrated language programme also offers integration courses with a literacy component.

7. Non-formal and informal education

Non-formal and informal education are gaining in importance as pathways to social, cultural and political inclusion.

For children, adolescents and young adults, the services offered by child and youth welfare bodies make an important contribution in this respect. The Child and Youth Plan (KJP) is the central instrument with which the Federal Government performs its assigned tasks in the field of child and youth welfare. With KJP funds, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth supports the provision of opportunities for civic, sports and cultural education and the work of youth associations.

As part of its development work in the field of education, the Federal Ministry for Economic Cooperation and Development focuses especially on programmes for civil society. These make an essential contribution to understanding of global challenges, point to options for dealing with global problems and support the active cooperation of every individual in shaping sustainable development.

Education for older people and for old age is becoming increasingly important in a society where people are living longer. Such education must take account of the particular conditions that are likely to affect people in the second half of their lives and the diversity of the elderly population. The Service Centre on Digitalisation and Education for Older People of the German National Association of Senior Citizens' Organisations (BAGSO) responds to the wishes of many older people to learn and to come to terms with digital media, for example by offering them an online platform.

Cultural education lays important foundations for social cohesion. Cultural education also plays a pivotal role in individuals' personality development. For this reason, Culture is Strength. Education Alliances, a programme of the Federal Ministry of Education and Research, supports non-formal measures of cultural education for educationally underprivileged children and adolescents, who will have had little access to opportunities for cultural education. The measures are implemented all over Germany by local education alliances.

Civic education is provided by a broad, pluralist landscape of independent and public entities, whose activity is largely guaranteed by public funding. They pursue the aims of promoting understanding of political issues, bolstering democratic awareness and nurturing willingness to engage actively in the political process.

The public providers are the Federal Agency for Civic Education (bpb) and 16 Land Agencies for Civic Education. The nationally active independent and autonomous providers and associations include, for example, educational establishments, academies and educational organisations, memorial sites and adult education centres.

The assisted memorial sites and other facilities devoted to the examination of National Socialism and of the Socialist Unity Party (SED) dictatorship as well as the foundations dedicated to the memory of outstanding political leaders in the Federal Republic of Germany all engage in innovative educational work focused on the present.

The Young People Remember programme in particular enables memorial sites and documentation centres in Germany relating to the National Socialist era to develop new education formats. A total of EUR 17 million is available for that purpose for the period from 2019 to 2022. A living culture of remembrance, media competence and effective cultural integration – as described, for example, in the 15 propositions of the Cultural Integration Initiative – are weapons in the battle against anti-Semitism, racism and extremism.

The historical museums supported by the German Government impart knowledge objectively and graphically about the political, economic, cultural and social history of Germany.

The new Humboldt Forum will be a centre for dialogue of equals between diverse world cultures. Its aim is to increase knowledge of other cultures, to highlight the interplay between cultures and to encourage dialogue on that subject. The Haus der Kulturen der Welt (House of World Cultures) in Berlin attaches high priority to the subject of sustainability, staging special series of events focused on the interface between art and science.

For the German Government too, preserving the cultural heritage and providing access to witnesses of history and to the wide diversity of literary works in archives and libraries are part of the enduring task and challenge of conserving and permanently preserving the store of knowledge.

8. Integration through education; inclusive education

The aim of education policy is to offer all people in Germany the best possible educational and developmental opportunities and to unlock their potential, regardless of origin, gender, religion, sexual orientation, physical disabilities and social status.

At every stage of the education process, the Federal Government and the Länder have jointly initiated wide ranges of measures. Particular keys to successful integration are measures such as those for the promotion of language skills, for the transition from school to training and working life (see above), for the recognition of foreign vocational qualifications and for the provision of academic mentoring and careers guidance for students from other countries (see above).

Through the integrated language programme with its integration courses and work-related language courses, the German Government offers adult immigrants measures designed to enhance their command of the language and to convey values. Since the integration courses were introduced in 2005, almost 2.5 million people have benefited from that measure alone. The integration courses are supplemented by the migration advice service for adult immigrants.

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For the transition from school to training and working life, the Career Orientation for Refugees (BOF) scheme is the main measure for young refugees above the minimum school-leaving age who have migration-related support requirements.

The German Government will also continue to press for the implementation of the UN Convention on the Rights of Persons with Disabilities and to support inclusive learning all the way along learners' educational pathways. Measures such as Qualifizierung pädagogischer Fachkräfte für inklusive Bildung (qualification of educational professionals for inclusive education) are being implemented for this purpose.

For the gender equality dimension (SDG 5), please see section 5 below

9. Development of technology-specific skills

In view of the digital transformation, the challenge in the field of education policy is to impart to all people the skills they need to live a self-reliant life in the digital age and to establish the skilled labour base required for a digital economy. For older people too, digital skills are important in keeping them independent and able to act autonomously. STEM education plays a key role in this respect. For this reason, the STEM Action Plan, published in 2019, provides for new interdisciplinary support initiatives and a specialised information campaign. In addition, the German Government has, for example, prepared

technology-specific measures all the way along the education chain – from targeted initiatives for the promotion of competitions for school pupils, for example in the fields of microelectronics (e.g. "Invent a Chip") and computer science, through measures for the targeted training of students, professionals and researchers in the fields of IT security (e.g. CISPA-Stanford Center for Cybersecurity) and artificial intelligence (e.g. upskilling measures in machine learning) to opportunities for the development of operational proficiency.

II. Measures by Germany

Implementation of the UNESCO Global Action Programme on Education for Sustainable Development and the new UNESCO programme ESD for 2030

The German Government is a key partner of UNESCO in the implementation of the Global Action Programme for Sustainable Development (GAP on ESD).

For example, the German Government is participating in the implementation of the 2020-launched UNESCO programme Education for Sustainable Development: Towards Achieving the SDGs, known for short as ESD for 2030, focusing on how ESD can help to achieve the Sustainable Development Goals.

Further priorities of the GAP include totally transforming the learning and teaching environment, upskilling teachers and multipliers, empowering and mobilising young people and promoting sustainable development at a local level. Germany, through the Federal Ministry of Education and Research, will be hosting the UNESCO World Conference on ESD, where the new ESD for 2030 programme will be officially launched.

III. Measures with Germany

1. Education strategy for German development cooperation

Education is a core element of German development cooperation. On the basis of the education strategy of the Federal Ministry for Economic Cooperation and Development, published in July 2015 and entitled Creating equitable opportunities for quality education, partner countries are assisted in the areas of extended basic education, vocational education and training and higher education.

In the field of vocational training, Germany is the world's largest bilateral donor. In that context, the Federal Ministry for Economic Cooperation and Development relies

on close cooperation between government and business to assist partner countries in establishing high-quality inclusive vocational training systems based on operational practice and the needs of the labour market. The priorities of the Ministry's activity in this field, the main regional focus of which is Africa, are to develop skills in a context of displacement, migration and fragile state structures, in the informal economy and for new employment environments and to promote vocational training for girls and women.

In the area of basic education, the Ministry assists its partner bodies in initial and in-service teacher training, in curriculum development, in the development of teaching and learning materials and in the improvement of school management. The Ministry also provides funding for the construction, refurbishment and equipping of classrooms as well as of training centres for teachers and provides teaching and learning materials. It will also step up its future involvement in basic education through multilateral initiatives. As a member of the Global Partnership for Education (GPE) and through the German regional project German BACKUP Initiative – Education in Africa, the Ministry supports the reinforcement of education systems, particularly basic education systems, in almost 70 partner countries. Through the Education Cannot Wait (ECW) fund, the Ministry finances education programmes for children and adolescents caught up in emergency and crisis situations in up to 26 countries. Of the EUR 75 million allocated to the Global Partnership for Education for 2020, the Ministry is devoting EUR 25 million to the Fund's COVID-19 financing window so as to support efforts in partner countries to alleviate the crisis and deal with its consequences. It is also supporting the continuity of education through remote teaching and digital learning resources.

The focus in higher education is on training highly qualified skilled workers and managers who act as "agents of change" and help to initiate and implement sustainable change processes. Measures range from support for individuals through scholarship programmes offered by the German Academic Exchange Service (DAAD) and the Alexander von Humboldt Foundation (AvH) to university partnerships and the establishment of university infrastructure as well as the provision of advice on quality standards.

To these are added an application-focused and internationally aligned research component, consisting, for instance, in cooperation between African and German universities and research establishments. A current example are the Partnerships for sustainable solutions with sub-Saharan Africa – measures for research and integrat-

ed postgraduate training and continuing education of the Federal Ministry of Education and Research.

2. Special support for equal opportunities

The realisation of education based on equality of opportunity is a core aspect of SDG 4 and therefore also of the education strategy pursued in the framework of German development cooperation. By supporting education in refugee camps and host communities, Germany is making a substantial contribution to realisation of the human right to education, even under difficult circumstances. In the context of the Syria crisis, for example, the BMZ is supporting bilateral and multilateral educational measures, e.g. in Turkey, Lebanon, Jordan and Iraq. Through its contribution to the Education Cannot Wait fund, Germany is enabling children and adolescents in crisis-hit areas throughout the world to obtain access to education.

To promote equal opportunities, the Development Ministry also strives to ensure full participation of children and others with disabilities as well as inclusively designed education systems. The Ministry assists partner countries on their path to inclusive education systems, for example through inclusiveness strategies like the one underlying the education project in Jordan.

Equal opportunities in vocational training are promoted by means of support for marginalised sections of the population and targeted support for girls and women. Germany also makes important contributions to equal opportunities in its multilateral cooperation, some of them in collaboration with the Malala Fund. Germany's presidency of the G20 in 2017 saw the start of the #eSkills4Girls initiative, which supports the development of digital skills of women and girls, partly in the context of vocational training. One of the targets of the G7 initiative Economic Empowerment of Women for 2030 is to increase by one third the number of women and girls in developing countries who have successfully completed vocational training. An example of this approach is the New Partnership for Africa's Development/Comprehensive Africa Agriculture Development Programme (CAADP), in which the Federal Ministry for Economic Cooperation and Development supports the development of the vocational skills of women in agriculture in rural areas of Africa. Germany is also a party to the G7 initiative Gender at the Centre, which assists African partner countries in enabling more girls to obtain access to high-quality education.

In the framework of the Programme Advocating Women Scientists in STEM, the Federal Ministry of Educa-

tion and Research supports young female scientists and promotes the representation of women in top academic posts. The promotion of women is also a mainstream aim of the Ministry's Africa Strategy.

The UNESCO Institute for Lifelong Learning (UIL) in Hamburg, which is funded by the Federal Foreign Office, also develops resources and programmes to promote literacy and lifelong learning, focusing especially on less-favoured women and their families in sub-Saharan Africa. The Family and Intergenerational Literacy and Learning project (FILL, 2017–2019) was another such measure, reaching families in the Gambia, Ethiopia and Senegal.

The German Government also sees digital progress as a potential driver of equal opportunities in education. Accordingly, the Federal Ministry for Economic Cooperation and Development is pursuing a strategy built on the following three pillars: (1) development of ICT infrastructure; (2) support for digital training opportunities; (3) development of the skills required for the digital transformation. For example, the BMZ uses ICT in the education sector to train teachers, establish innovative learning formats and enable a more efficient, data-supported educational policy. Examples of its efforts in this direction are the upgrading of digital skills of women and girls through the #eSkills4Girls initiative and the training of workers in the ICT sector through the Digital Skills Accelerator Africa (DSAA) project.

3. Foreign cultural and education policy

The Federal Foreign Office works alongside UNESCO on the task of coordinating and pursuing the global effort to achieve SDG 4 by 2030. As part of this work, Germany was involved in the development of the Education 2030 Framework for Action. The Framework, which was adopted at the 38th General Conference of UNESCO in 2015, remains the definitive guide, setting out the implementation, coordination, funding and monitoring options. Germany is working together with other nations in the Technical Cooperation Group to develop internationally comparable indicators for SDG 4. Since 2018 Germany has been represented on the SDG-Education 2030 Steering Committee, which promotes and synchronises UN-wide efforts to achieve the global education goal.

The UNESCO Global Education Monitoring Report is the key instrument for reviewing progress towards the achievement of SDG 4. In 2018 the Federal Foreign Office, together with UNESCO, the Federal Ministry for Economic Cooperation and Development and the German Commission for UNESCO, organised the international launch

of the report in Germany. The annual edition of the report is co-financed by the German Development Ministry. In addition, the Federal Foreign Office supports the UNESCO Institute for Lifelong Learning (UIL, see above), which provides states with advice on the reform of education systems, focusing on adult education, literacy and non-formal basic education.

The German Government is promoting educational biographies together with its intermediary organisations. Among the cornerstones of a sustainability-focused foreign cultural and education policy are the networks established under the schools partnership initiative PASCH (Schools: Partners for the Future), which include the German schools abroad, the UNESCO Associated Schools Project Network, the international cultural voluntary service Kulturweit, the comprehensive DAAD scholarship programmes, the political foundations and the German-American Fulbright Commission as well as Bread for the World, the Catholic Academic Exchange Service (KAAD), the Ernst Ludwig Erhrlisch Scholarship Fund (ELES), the Avicenna scholarship scheme for Muslim students and researchers, the exchanges of excellent researchers arranged by the Alexander von Humboldt Foundation and the linguistic and cultural work of the Goethe-Institut centres. In addition, even more use is to be made of existing networks, such as the network of UNESCO World Heritage Sites, as national and international learning spaces within the meaning of the 2030 Agenda.

In the worldwide network of some 2,000 schools of the PASCH initiative, more than 600,000 pupils in 120 partner countries are learning German and thereby forging close links with our country. PASCH, moreover, as an international learning community, fosters intercultural dialogue and mutual understanding. There are about 200 German schools in the UNESCO Associated Schools Project Network; These, too, regard themselves as an innovative network that seeks to spark adolescents' interest in global issues and encourage involvement in civil society through participatory approaches.

4. Global cooperation with schools

Through the Development Policy School Exchange Programme (ENSA), the Federal Ministry for Economic Cooperation and Development supports existing and new partnerships between general and vocational secondary schools in Germany and those in countries of Africa, Asia, Latin America and South-east Europe. Fifty school partnerships a year are supported through exchange visits to the partner country and to Germany. The purpose of the reciprocal exchange visits is to enable pupils to gain insight into global relationships, pass on their knowledge

and campaign in school and in everyday life for sustainable development.

5. Cooperation in the field of higher education

The German Government supports cooperation in the field of higher education in many ways. For example, since 2009 the Federal Foreign Office has been supporting five centres of excellence as flagships of German research abroad, including the German-Colombian Peace Institute in Bogotá, Colombia (CAPAZ), which combines research, educational and advisory activities, and the German-Southeast Asian Center of Excellence for Public Policy and Good Governance (CPG) in Bangkok, Thailand. With these centres of excellence an international network is being expeditiously woven, especially as regards the training of the next generation. In addition, with the African Excellence programme, the Federal Foreign Office supports the training of future leaders for society and academic institutions. In addition to offering largely interdisciplinary academic training, all of the centres of excellence provide study opportunities in good governance, administration, soft skills and German language and culture, as well as running scholarship programmes. These centres also form the core of the African-German Network for Synergies in Research, Transfer and Innovation, which is part of the effort to create prospects in Africa, one of the priority areas of German foreign policy.

The Federal Ministry for Economic Cooperation and Development, by supporting the new DAAD excellence programme Bilateral SDG Graduate Schools, aims to enable institutions of higher education in developing countries to perform their role as major drivers of global and local sustainable development. Within the seven supported SDG graduate schools, institutions of higher education in Germany and developing countries are jointly developing high-quality courses in interdisciplinary research fields connected with the SDGs on which specialists and managers as well as future university lecturers will be trained to Master's, doctorate and post-doctorate levels.

In addition, the German Government funds bilateral projects with partner countries with a view to enhancing the capacities of those countries' higher education systems in the long term. For example, in the higher education programme on renewable energies and energy efficiency in Senegal, students as well as teaching and administrative staff have been receiving additional training on starting up a business. In Palestine, universities are now cooperating successfully with more than 200 local businesses to provide practical dual courses of study. This makes it easier for young people to contribute to their country's sustainable development after completing their studies.

6. Higher education support for refugee and threatened academics

With its commitment to higher education for refugees, Germany plays a pioneering role on the international stage. Since 1992, the Federal Foreign Office has enabled more than 18,000 refugees all over the world to study at a university or equivalent institution through Albert Einstein German Academic Refugee Initiative (DAFI) scholarships, awarded by UNHCR. To this day, a DAFI scholarship represents the only possibility for refugees in many countries to study at a university. In 2019, more than 8,300 young people, sponsored for an average of three to four years, were studying in 54 countries. Through this programme, Germany is assisting UNHCR in pursuing its target of enabling 15 % of college-eligible refugees to enrol in tertiary education by 2030. At the present time, only about 3 % of young refugees have that opportunity.

The Turkish-German University (TDU) Syria programme of the DAAD gives qualified course applicants from migrant backgrounds the opportunity to study for a Bachelor of Engineering degree at the Turkish-German University.

In 2015, the Federal Foreign Office launched the Philipp Schwartz Initiative (PSI), which is administered on behalf of its donors by the Alexander von Humboldt Foundation (AvH). The Initiative was the first special programme in Germany for the reception and integration of threatened academics at German universities and research establishment and remains the largest programme of its kind. To date, 223 PSI scholarships have been awarded. The PSI, moreover, has already become a widely acclaimed platform – nationally, Europe-wide and globally – for exchanges on academic freedom. The Alexander von Humboldt Foundation, through the PSI, also functions as the German section of the Scholars at Risk network.

7. Funding

The annual funding gap in developing and newly industrialised countries between the available national resources and the resources required for achieving universal high-quality pre-school, primary and secondary education is estimated at an average annual amount of USD 39 billion in the period from 2015 to 2030. Commitments for education have more than doubled since 2014. The sum of bilateral commitments, grant awards and multilateral contributions rose from about EUR 480 million in 2014 to about EUR 1 billion in 2019. From the launch of the PASCH initiative in 2008 up to and including 2019, the Federal Foreign Office has invested some EUR 560 million in PASCH, and the PASCH network has a significant leverage ef-

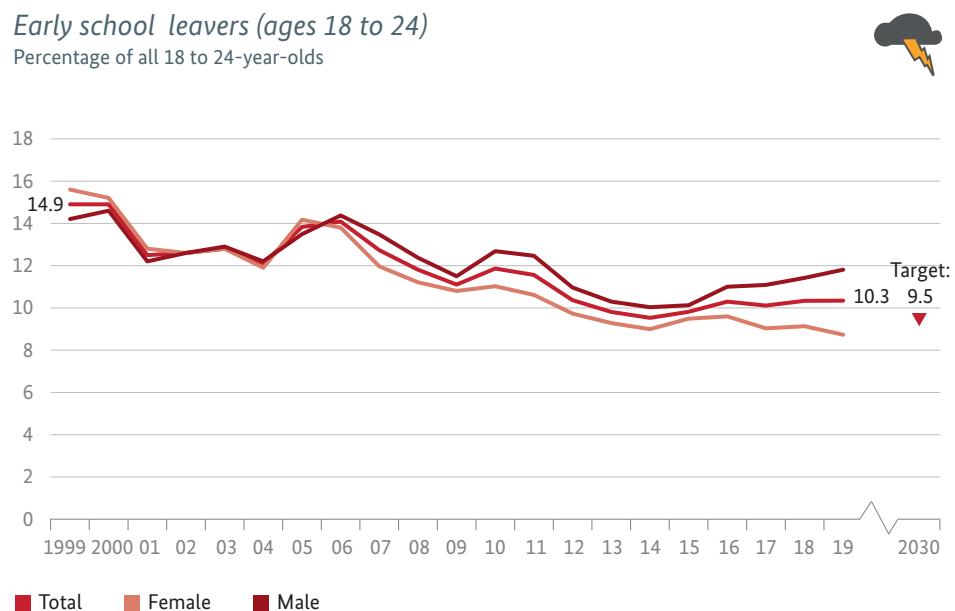
fect, for example by laying the foundations for international education biographies. The continuing development of the bridge between school and higher education or working life involves the work of partner bodies that are funded by the Federal Foreign Office. The German language, cultural co-operation, international knowledge exchange and digital public spaces, the promotion of civil society, Europe: these are some of the strategic objectives of the institutional funding allocated to the Goethe-Institut in the realm of cultural

and educational cooperation. Expenditure for this purpose in 2018 amounted to some EUR 284 million. The German Academic Exchange Service (DAAD) and the Alexander von Humboldt Foundation received a combined total of about EUR 561.1 million in 2020 for the promotion of academic activity in and with newly industrialised and developing countries; this amount also covered support measures, both in Germany and in neighbouring countries, for academics and students from regions in crisis and conflict zones.

b) Relevant national sustainability indicators and targets/measures

4.1.a Early school leavers

Education – Continuously improving education and vocational training



DIESTATIS
Statistisches Bundesamt

Definition of the indicator

The indicator shows the percentage of all people in the 18 to 24 age group who neither possess a university entrance qualification, such as an *Abitur* or *Fachhochschulreife* (*entrance qualification for universities of applied sciences*), nor have completed a course of vocational training and who are not currently undergoing training or continuing education.

Targets and intention of the German Government

The state education system and the dual system of vocational training are the cornerstones of a forward-looking qualifications regime for young people in Germany. The absence of educational and vocational training certificates implies an increased risk of poverty and hence a greater strain on social welfare systems. The target for 2030 is to lower the percentage of early school leavers to 9.5 %.

Content and development of the indicator

The term "early school leavers" does not refer to young "high-flyers" who achieve a school leaving certificate before the end of the normal period of schooling. Nor should the term be confused with school drop-outs. On the contrary, it refers to people between 18 and 24 years of age who neither possess a university entrance qualification, such as an *Abitur* or *Fachhochschulreife*, nor have completed a course of vocational training and who are not currently undergoing training or continuing education. This means that even those young people who, for example, have successfully completed lower secondary education at a *Hauptschule* or intermediate secondary education at a *Realschule* but are no longer in the education process are counted as early school leavers.

The data for this indicator originate from the microcensus, which is based on an annual sample survey covering 1% of the population. It cannot be elicited from the indicator when respondents last attended an educational establishment or what type of establishment it was. Additional information is provided by the annual school statistics, coordinated by the Länder statistics that are published by the Federal Statistical Office.

In 2019, the indicator value was 10.3 %. This corresponds to a total of 625,000 young people who had not successfully completed upper secondary school and who were not, or were no longer, undergoing education or training. The indicator value had risen slightly since 2014, when it was 9.5 %, and so the trend had moved in the wrong di-

rection. If the current trend were to continue, the target of 9.5 % for 2030 would not be met.

As for gender-specific indicator rates, there were no systematic differences between men and women for the period between 1999 and 2005. Since 2006, the rate for women has been lower than that for men. The values in 2019, for instance, were 8.7 % for women and 11.8 % for men.

According to the school statistics, a total of some 53,000 young people, or 7 % of the resident population in the relevant age group, left school in 2019 without a certificate of lower secondary education. Compared with 1999, this equates to a reduction by more than a third. By this measure too, the proportion remains markedly lower among young women (5.0 %) than among young men (9.0 %).

By contrast, 17.4 % (132,429) of the resident population of the same age obtained a certificate of lower secondary education from a *Hauptschule* in 2019, 44.5 % (337,578) obtained a certificate of intermediate secondary education, 32.1 % (227,308) obtained a general university entrance qualification, and 0.1 % (624) obtained a certificate qualifying them to enter a university of applied sciences. The period from 1999 to 2019 saw particularly significant changes for two types of certificate. One was the *Hauptschule* certificate of lower secondary education, the share of which fell by 8.7 percentage points, while the proportion of school leavers obtaining the general university entrance qualification rose by 7.4 percentage points (each figure relates to the population of the same age).

German Government activities relating to the indicator

Previous measures

The extent to which measures taken by the Federal Ministry of Education and Research or other federal authorities can influence the indicator showing the percentage of early school leavers is very limited. The percentages, moreover, show wide regional variations. Under the federal system of government in Germany, responsibility for school leaving certificates lies with the Länder. The Federal Government has taken measures within the scope of its powers to assist the Länder in reducing the percentage of early school leavers. Measures taken by the Federal Government to increase the proportion of young adults successfully completing vocational training include the initiative entitled Qualify and Connect – the education chain up to qualification, which was launched for the purpose of developing the potential of young people while they are still at school.

Another example is the *Schule macht stark* (School empowers) initiative, which was jointly launched by the Federal

Government and the Länder to support schools in areas of social deprivation. The initiative is intended to improve the educational opportunities of pupils living in socially challenging circumstances.

Schools in deprived areas often have disproportionately high numbers of children and adolescents who have fallen significantly behind in their schoolwork.

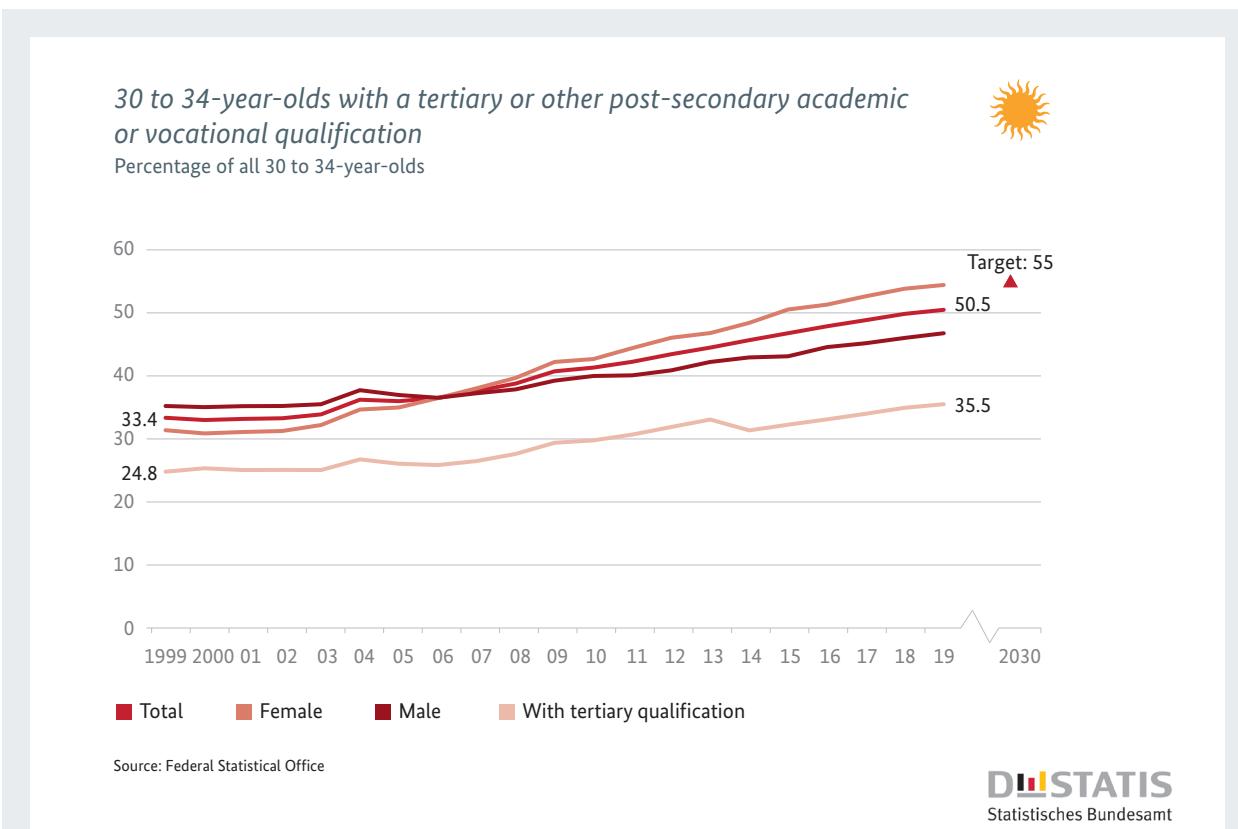
Besides the measures cited above, please refer to those described in Chapter 4(a), particularly points I.3 and I.8, the wider purpose of which is also to reduce the percentage of early school leavers.

Planned additional measures

There is continuous dialogue between the Federal Government and the Länder for the coordination and implementation of necessary measures for further improvements in their respective areas of responsibility.

4.1.b Persons with an academic or higher vocational qualification

Education – Continuously improving education and vocational training



Definition of the indicator

The indicator specifies the proportion of 30 to 34-year-olds who hold a certificate from the tertiary education sector (levels 5 to 8 of ISCED 2011) or a post-secondary non-tertiary certificate (ISCED level 4).

Targets and intention of the German Government

Developed economies like Germany's, in which the service sector and the demand for knowledge and expertise are becoming increasingly important, need a highly skilled labour force. According to the updated national sustainable development targets, 55 % of 30 to 34-year-olds are to possess a tertiary or other post-secondary qualification by 2030.

Content and development of the indicator

The definition of the indicator is linked to the tradition of a dual system of vocational training in Germany. Besides the tertiary diplomas awarded by universities, uni-

versities of applied sciences, colleges of public administration, vocational academies, technical colleges and specialised academies and master craftsmen's and technician's diplomas, there are numerous post-secondary non-tertiary certificates nationwide. In general terms, these include all certificates awarded on completion of post-Abitur vocational courses but also qualifications in health professions obtained by students who do not have an Abitur, for example on completion of training as a medical laboratory technician.

The International Standard Classification of Education (ISCED) serves as the basis for international comparison of statistics and indicators regarding educational certificates. Certificates regarded as equivalents are assigned to the same ISCED level. The indicator therefore covers both the tertiary diplomas corresponding to ISCED levels 5 to 8 and the post-secondary non-tertiary certificates corresponding to ISCED level 4.

The data used for the indicator are obtained from the microcensus, which is based on an annual sample survey

covering 1% of the population. Additional information is provided by the higher education statistics, which are likewise compiled by the Federal Statistical Office.

From 33.4 % in 1999, the indicator rose 17.1 percentage points to 50.5 % by 2019. If the average growth rate of the last five reference years is maintained, the target value of 55 % could be achieved considerably earlier than 2030. The relation between the gender-specific percentages has changed over time. In 1999, the indicator for men was 3.8 percentage points higher than for women. In 2006, the values were the same for both sexes. Since 2007, the percentage of women with a tertiary or post-secondary non-tertiary qualification has been higher than that of men. If the average trend of the past five reference years is examined for these figures too, it emerges that the proportion of women qualified to these levels, having reached 54.4 % in 2019, may well have exceeded the 55 % target in 2020, while the proportion of men, which was 46.8 % in 2019, might take a long time to catch up.

In many other countries there are no post-secondary non-tertiary qualifications. For this reason, the indicator used for the Europe 2020 strategy of the European Union is more narrowly defined and takes only tertiary diplomas (ISCED levels 5 to 8) into account.

Following a steady increase since 2005, the indicator for the EU-28 reached a total of 41.6 % in 2019. When this more narrowly defined indicator is applied to Germany, the figure for 2019 comes to 35.5 %, which is 6.1 percentage points below the EU value. In 2019, the proportion of women, at 36.0 %, was slightly higher than that of men (35.1 %).

The total number of graduates of institutions of higher education in 2019 was 512,285. This was more than twice as many as in 1999. They included 131,989 engineering graduates (three times as many as in 1999) and 55,555 graduates in mathematics and science (70.7 % more than in 1999).

German Government activities relating to the indicator

Previous measures

The 2020 Higher Education Pact is a key instrument with which the Federal Government and the Länder can provide institutions of higher education with targeted assistance at a time when student intake numbers are rising sharply. Throughout all of the three programming periods of the Higher Education Pact from 2007 to 2023, a total of more than EUR 20 billion in federal funds and more than EUR 18 billion from the Länder will have flowed into the institutions of higher education. This, according to provisional figures from the Federal Statistical Office's flash estimate of 2018, enabled some 1.5 million more aspiring students to embark on higher education than would have been the case without the provision of extra course places. In addition, the programme for improved conditions for studying and more quality in teaching (Quality Pact for Teaching) agreed by the Federal Government and the Länder in 2010 provides financial support to 156 universities in all 16 Länder.

The Federal Government assumed full responsibility for the provision of funding under the Federal Training Assistance Act (BAföG) from 2015. This permanently reduces the burden on the Länder and gives them additional leeway for funding education, especially institutions of higher education. In 2019 and 2020, the 26th Federal Training Assistance Amendment Act increased the tuition and subsistence elements of the training grant by a total of 7%, the maximum support rate by more than 17% and the non-assessable in-

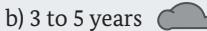
come allowances by 10 % as well as improving the substantive structure of the Act.

Planned additional measures

Zukunftsvertrag Studium und Lehre stärken (Future Contract for Strengthening Studying and Teaching in Higher Education) follows on from the 2020 Higher Education Pact. It stems from the conviction of the Federal Government and the Länder that, following the rapid development of capacity in recent years, the focus must now turn to improving the quality of courses and teaching across our entire higher education landscape. The intake capacity established by the Higher Education Pact is to be preserved and is to remain tailored to future needs. With the complementary Agreement on Innovation in Higher Education Teaching, the Federal Government and the Länder have institutionalised the promotion of innovative teaching for the first time within the academic system by creating a dedicated organisational unit. The aim is to create incentives for renewal in tertiary teaching, for the development of new teaching formats and for more nationwide exchanges and networking between teaching staff in the realm of higher education.

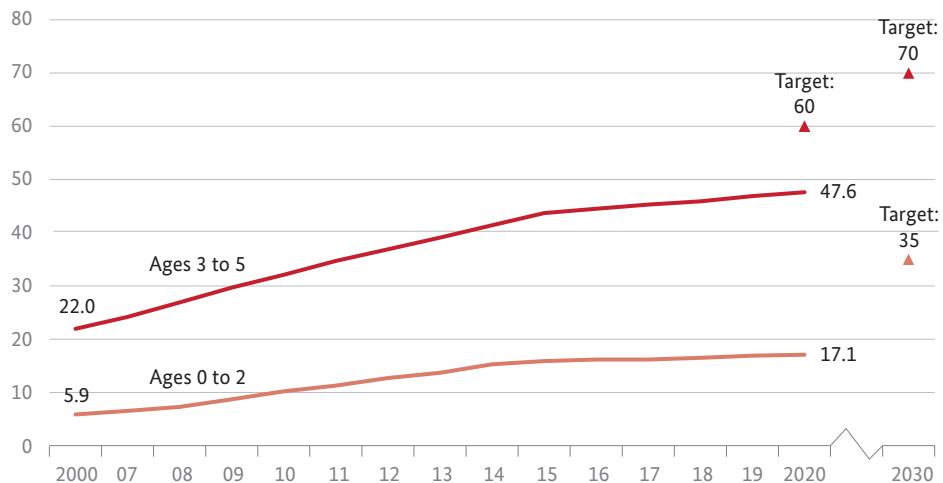
4.2.a/b All-day care provision for children

Prospects for families – Improving the compatibility of work and family life

a) 0 to 2 years  b) 3 to 5 years 

Children in all-day care in child daycare centres

Percentage of all 30 to 34-year-olds



Care period of more than seven hours in child daycare centres, excluding home-based care
Source: Federal Statistical Office

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Statistisches Bundesamt

Definition of the indicator

The indicators show the children who were in all-day care as of 1 March as a percentage of all children who were in the relevant age group on 31 December of the preceding year. All-day care means an uninterrupted contractually agreed care period exceeding seven hours per care day; day care at private homes and the care of schoolchildren are not taken into account. Indicator 4.2.a refers to the group of 0 to 2-year old children, indicator 4.2.b to 3 to 5-year olds.

Targets and intention of the German Government

Provision of all-day care for at least 35 % of children aged 0 to 2 by 2030 is the target for indicator 4.2.a. For 3 to 5-year-olds (indicator 4.2.b), the target is an increase to at least 60 % by 2020 and at least 70 % by 2030. An increase in the proportion of children attending all-day care is desirable because the availability of childcare options that meet needs of today's families improve the compatibility

of family life and work. It also makes an important contribution to equal opportunities, gender equality and

Content and development of indicators

The indicator shows the proportion of children for whom daily care of more than seven hours' duration has been arranged. This defined length of time may differ from the actual duration of care of which parents avail themselves. Contractually agreed childcare provision of seven hours and less, which can likewise make work and family life more compatible, and additional types of care such as day care at private homes are not included in the indicator. Information about childcare services for children aged six and older is also relevant to this topic. Such supplementary information is provided, for example, by data from the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (see the last section).

The information for these indicators is taken from the annual statistics of the Federal Statistical Office on children and employees in child daycare centres. In 2020, all-day care in child daycare centres had been arranged for 47.6% of children aged 3 to 5 (kindergarten age). This means that the proportion of 3 to 5-year old children receiving all-day care increased by 25.6 percentage points since 2006 and had therefore more than doubled. The target of 60% which was set for 2020 was not achieved. For children under three (nursery age), the proportion is about 17.1%. All-day care provision for children under three years of age, in other words, increased by 11.2 percentage points from 2006 to 2020 and hence almost trebled.

The absolute number of children below the age of six receiving all-day care in child daycare centres came to about 1.53 million in 2020. Another 67,385 children below six years of age were receiving publicly subsidised childminder care; like those five-year-old children who are already at school, they are not covered by the indicator. In addition, in 2020 some 1.3 million children were receiving part-time care of seven hours or less.

More than a quarter of the children aged below six receiving care in daycare centres or publicly subsidised childminder care in 2019 had a migration background, meaning that they had at least one parent of foreign origin. The care rate for these children was 50%, while the rate for children with no migration background was around 70%.

The percentages of children enrolled in daycare centres differs sharply between the old Länder and the new Länder. The highest full-time care rates for 0 to 2-year-olds are recorded in the new Länder and in Berlin. The figures range from 50.3% in Thuringia to 9.9% in Baden-Württemberg. For 3 to 5-year-olds, the highest percentage of all-day care – 92.2% – is also found in Thuringia, while Baden-Württemberg has the lowest ratio of 25.2% (both 2020).

In terms of childcare facilities for schoolchildren, after-school care centres and all-day schools also play an important. In 2020, a total of 20,200 children between 5 and 13 years of age were cared for on an all-day basis in after-school care centres, while about 492,600 children received part-time care in those centres; classroom time is not counted as care time. In 2018/2019 school year, of all pupils enrolled in schools providing a general education, 45.0% were in school all day. This figure, however, encompasses pupils at all stages of schooling, including pupils who are older than 13. In the same school year, 42.2% of the children in primary schools received all-day care. In comparison with 2006, the number of all-day pupils had risen sharply by 2018, from almost 1.5 million to 3.3 million in all schools providing a general education and from 400,000 to around 1.2 million in primary schools alone.

German Government activities relating to the indicator

Indicators 4.2.a and 4.2.b – all-day care provision for children – show that the availability of places in child daycare centres has been steadily increased in recent years. In 2020, all-day care in child daycare centres had been arranged for 47.6% of children aged 3 to 5. For children under three (nursery age), the proportion was about 17.1%. This means that the proportion of 3 to 5-year-old children receiving all-day care had increased by 25.6 percentage points since 2006 and had therefore more than doubled. All-day care provision for children under three years of age increased by 11.2 percentage points from 2006 to 2019 and hence almost trebled. The indicators show that the German Government is meeting parental needs for longer and more flexible care provision.

Previous measures

The Federal Government's investment programme and other federal programmes as well as the permanent part-funding of operating costs by the federal treasury are helping the Länder and local government to meet the demand for child day care and to fulfil the legal entitlement to day care for all children who have reached their first birthday.

The year 2008 saw the launch of the first of five investment programmes designed to advance the development of child daycare centres. With the first three investment programmes the Federal Government contributed a total of EUR 3.28 billion in the years from 2008 to 2018 to the drive to increase the number of places in day care for children below the age of three. As a result, more than 450,000 places in day care have been created in recent years for children under the age of three. The aim of the fourth investment programme for childcare funding was to create another

100,000 pre-school childcare places. The Federal Government undertook to contribute EUR 1.126 billion to this project in the years from 2017 to 2020. Under the Economic Stimulus Package that has been adopted to deal with the consequences of the COVID-19 pandemic, the Federal Government is making an extra EUR 1 billion available in 2020 and 2021. This makes it possible to create up to 90,000 new places in child daycare centres and with childminders for pre-school children.

In Germany almost all children between the ages of three and six attend a daycare centre. Kitas, as these centres are called, have thus established themselves as important educational facilities. It is there that the foundations are laid for equal opportunities. The Upskilling Initiative for Early Childhood Education and Care Staff (WiFF) is dedicated to the aim of reinforcing pre-school education as the basis of the education system. To this end, the quality of educational work must be further developed, and there must be a system that operates flexibly. The key to achieving these objectives is professionalisation of teaching staff and of the system of child day care. The Upskilling Initiative promotes professionalism in various ways. It makes research-based specialised knowledge available on topical matters relating to early education, thereby putting relevant issues on the agenda. It promotes skills-based in-service training for career development and provides training materials based on research findings. It uses empirical research to observe and analyse the professionalisation of early education and care. It also connects stakeholders from the academic world and from the realms of education policy, education and training and so actively encourages debate on quality and professionalism in early education.

To meet the growing demand for child daycare services and to increase the appeal of pre-school teaching as a profession, the federal programme *Fachkräfteoffensive für Erzieherinnen und Erzieher: Nachwuchs gewinnen, Profis binden* (pre-school teacher recruitment and retention drive) was launched in the 2019/2020 training year. Through this programme, 2,500 additional paid on-the-job training places will be funded, the quality of on-the-job training will be enhanced, and professional development prospects will be created for experienced staff.

Along with the increase in the number of childcare places and the training of staff, the quality of the childcare services on offer also contributes significantly to equality of opportunity. All children, regardless of where they live, should be able to benefit from high-quality education, care and upbringing. This is the aim of the Good Early Childhood Education and Care Act, commonly known as the Good Kitas Act, which entered into force on 1 January 2019.

With the Good Kitas Act, the federal treasury is to allocate a total of about EUR 5.5 billion to the Länder in the period up to 2022 for measures designed to develop the quality of child day care and to improve participation in child day care. Among the eligible measures are those which fall under the headings of "needs-based services" and "recruitment and development of skilled staff", such as measures to extend opening hours or to improve staffing levels in child day care. Under the Cabinet decision of 10 July 2019 concerning the Commission for Equivalent Living Conditions, the Federal Government will continue to exercise its responsibility for the ongoing development of quality and participation in child day care beyond 2022.

Planned additional measures

The coalition agreement for the 19th electoral term provides for the creation, in Book VIII of the German Social Code, of a legal entitlement to all-day care for children of primary school age by 2025. The coalition agreement commits the Federal Government to make EUR 2 billion available for investments in education and care services for children of primary school age.

To this end, on 13 November 2019 the German Government adopted a bill for the establishment of a special fund for the development of all-day education and care services for children of primary school age, which became the All-day Education and Care Funding Act (*Ganztagsfinanzierungsgesetz*).

An additional amount of up to EUR 1.5 billion has been made available from the is being made available from the Economic Stimulus Package adopted for the purpose of combating the consequences of COVID-19, safeguarding prosperity and fostering sustainability.

5. Achieve gender equality and empower all women and girls

a) Main substance and political priorities in the view of the German Government

Worldwide enforcement of the rights of women and girls is a major lever for sustainable development.

Gender equality as a separate goal and mainstream issue of the 2030 Agenda

During the negotiations on the 2030 Agenda, the German Government pressed for gender equality and the empowerment of all women and girls to be firmly enshrined as an SDG in its own right and to be mainstreamed throughout the agenda. This, and the commitment of the 2030 Agenda to realising the human rights of all and of women and girls in particular (Preamble, paragraphs 18–20), represents decisive progress.

The associated targets in detail

The focus of SDG 5 is on ending all forms of discrimination (5.1), eliminating violence against all women and girls (5.2) and eliminating all harmful practices such as child marriage and female genital mutilation (5.3). Other targets include recognising unpaid care and domestic work (5.4), ensuring women's full participation and equal opportunities for leadership (5.5) and ensuring universal access to sexual and reproductive health and reproductive rights (5.6). The targeted means of implementation are reforms to give women equal rights to economic resources as well as access to ownership and control over land and other forms of property (5.a), enhanced use of information and communications technology (5.b) and enforceable legislation (5.c) for the promotion of gender equality and the empowerment of all women and girls. Other SDGs also contain important gender-specific targets (for example SDGs 1, 3, 4 and 8).

National importance

Priorities of German equal opportunities policy are women's equal participation in the labour market, prevention of violence against women and victim support and improvement of the relevant aid structures. In addition, the conditions for fair sharing of breadwinning and care responsibilities between women and men are to be created, and the development and implementation of equal opportunities policy are to be accelerated. The principle of leaving no one behind also involves the inclusion of all people regardless of gender, particularly individuals and groups who are marginalised and subject to multiple forms of discrimination. Gender equality must not be considered in isolation, because it interacts with other aspects of people's identity, such as sexual identity, sexual orientation, age, religious affiliation and disability.

The German Government will continue to cooperate closely with its international partners, the Länder and the commissioners for women's affairs and equal opportunities of the local authorities, as well as labour and business organisations, women's and men's associations and the academic community.



Even now, 25 years after the Fourth UN World Conference on Women and the adoption of the Beijing Platform for Action, violence against women and girls and the uneven distribution of income and wealth, as well as limited control over material assets, inadequate participation in private and public decisions, unevenly distributed care responsibilities and gender stereotypes can prevent women and girls from leading self-determined lives and realising their potential for the good of society. The COVID-19 epidemic has provided a clear reminder of the need to consolidate and advance the political efforts to guarantee equal opportunities.

Gender-based violence against women adversely affects the development of their children too. Violence against women and girls is a violation of human rights; it results in high direct and indirect costs for society and occurs in all social classes. According to studies of unreported crime, every third woman in Germany has been subjected to violence at least once in her life. Women with disabilities are subjected even more often to violence than women without disabilities. The Federal Government therefore attaches great importance to combating gender-specific violence against women and girls and fighting human trafficking.

German Government activities

I. Measures in Germany

Priorities of the German equal opportunities policy

Through the *Act for the Equal Participation of Women and Men in Management Positions in the Private Sector and Public Service* (*Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst*), a binding gender quota was established for the first time for supervisory boards of listed companies and of fully co-determined companies, i.e. companies with equal representation of management and labour on their supervisory board; the Act has led to a significant increase in the percentage of women on these boards. The assessment of the Act that was presented in November 2020 revealed the need for further action. On 6 January 2021 the German Government adopted the bill for a *Second Gender Equality (Management Positions) Act*, the purpose of

which is to develop the existing rules further and increase their impact. The bill implements arrangements made in the coalition agreement as well as the decisions of a working group appointed by the coalition committee. Among the provisions is the introduction of a minimum quota for the participation of women on the management boards of listed companies and of companies with parity-based co-determination. The Federal Government has set itself the target of equal representation of women by the end of 2025 in management posts in entities covered by the Federal Gender Equality Act (Bundesgleichstellungsgesetz).

One reason for the gender pay gap is the lack of transparency of pay structures. With the Act to Promote Transparency in Wage Structures among Women and Men (Entgelttransparenzgesetz) of 2017 the principle of equal pay for equal or equivalent work was put on a clear legal footing. In addition, reporting obligations were introduced for larger enterprises along with an individual information right for employees. Larger undertakings are also encouraged to conduct internal audits of their pay structures. In July 2019 the German Government presented its first report on the impact of the Act. The next assessment is due to take place in 2023. The Family Affairs Ministry has also launched a programme entitled Entgeltgleichheit fördern. Unternehmen beraten, begleiten, stärken (Promoting equal pay – advising, supporting and empowering enterprises).

Since women are under-represented in the Bundestag, in the Land parliaments and in local politics, the German Government is striving to promote equal participation of women and girls in shaping society and in political decision-making. It is also securing the long-term future of the Helene Weber Prize, which is awarded to women serving as elected members of local councils. The Helene Weber College, the first nationwide, cross-party platform for women in politics, is also to be put on a permanent footing. Through institutional support for the Digital German Women's Archive (DDF), the achievements of the German women's movement were to be made permanently visible from 2020. In order to improve gender equality in culture and the media, the Federal Government Commissioner for Culture and the Media appoints her decision-making bodies and judging panels on the basis of parity as a matter of principle, ensures that her funding mechanisms operate in a family-friendly manner and supports a mentoring programme through the Women in Culture and the Media Project Office at the German Culture Council.

One of the objectives of the Gender Equality (Management Positions) Act moreover, is to have equal rep-

resentation of men and women on decision-making bodies wherever the Federal Government has the power to appoint members of those bodies. For supervisory boards and key bodies to which the Federal Government appoints at least three members, rules are laid down for the gradual achievement of that objective.

With the departmental report on the 2030 agenda and sustainable family policy, available in German at <https://www.bmfsfj.de/bmfsfj/service/publikationen/agenda-2030---nachhaltige-familienpolitik/142630>, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth has, for the first time, set long-term, specific and verifiable sustainability targets for family policy for the period up to 2030. Underlying them is a desire to improve opportunities for families systematically in future. Sustainable family policy is defined by three overarching progress objectives, namely reconciliation of work and family life, partnership and economic stability. Within these progress objectives, the Family Affairs Ministry has formulated 13 targets that are to be achieved by 2030.

8. Consistently combating violence against women and girls

In order to better protect women and girls against all forms of violence, Germany ratified the Council of Europe Convention of 2011 on preventing and combating violence against women and domestic violence (the Istanbul Convention). The Convention has been in force in Germany since 1 February 2018.

The German Government presses, and will continue to press, for effective fulfilment of the obligations arising from the Istanbul Convention. To this end it has launched an action programme, which includes a round table where representatives of the Federal Government, the Länder and local government cooperate on the needs-based development and financial protection of the work of women's shelters and of non-residential help centres and care facilities. With the federal support programme Ending Violence against Women Together, which is also part of the action programme, the Federal Government has undertaken to provide a total of more than EUR 140 million from 2019 to 2023, within the scope of its funding powers, to assist the Länder and local government in further developing their aid structures in line with needs and to kick-start the testing of new support services for women affected by violence.

The German Government is currently examining which structures should be created nationally to enable it in future to improve its fulfilment of obligations under the Council of Europe Convention on preventing and com-

bating violence against women and domestic violence (the Istanbul Convention) and under the Council of Europe Convention on Action against Trafficking in Human Beings.

In this context, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth is presently funding a project of the German Institute for Human Rights in which a blueprint is being developed for the establishment of one or more independent national reporting and monitoring agencies on gender-based violence and on human trafficking. An important role in the aid system for women affected by violence is played by the Violence against women telephone support hotline (08000 116 016), which offers free confidential advice in 18 languages around the clock every day of the year. The government-funded coordination offices of the Association of Women's Shelters (FHK), the Federal Association of Women's Counselling and Rape Crisis Programmes – Women against Violence (bff) and the German NGO Network against Trafficking In Human Beings (KOK) also provide targeted support for women victims.

As a consequence of the #MeToo debate, the Federal Government Commissioner for Culture and the Media has established an independent cross-sectoral confidential reporting point for sexual harassment and violence.

Protection of children in particular is the aim of the Child Marriages Suppression Act (*Gesetz zur Bekämpfung von Kinderehen*), which entered into force in 2017; it declares any marriage with a person under 16 years of age to be invalid and so is intended to protect children from the implications, which can be far-reaching, of entering into a marriage.

To support men who are victims of domestic violence, funding is also given to the Federal Centre for the Protection of Men against Violence, which is to drive forward the establishment of shelter facilities for men.

9. Equal educational opportunities

To promote equal occupation of top posts in the education system, the federal-Länder female professors programme, for example, is receiving a total of EUR 500 million between 2008 and 2022 to promote the inclusion of female excellence in the academic system. In addition, the National Pact for Women in STEM Careers (science, technology, engineering and mathematics) connects more than 330 participants from the fields of politics, business, academic institutions and the media in networks with a view to increasing the percentages of young women in scientific and technical careers. A funding

stream devoted to *Erfolg mit MINT – Neue Chancen für Frauen* (Success with STEM – New Prospects for Women) from 2016 to 2021 is providing a total of some EUR 20.5 million to support the pursuit of the aims of the National Pact for Women in STEM Careers.

Girls' Day (about two million participants since 2001) and Boys' Day (almost 290,000 participants since 2011) give girls and boys insights into careers that are dominated by the opposite sex. The nationwide *Klischeefrei* (Cliché-Free) initiative brings together organisations from education, politics, business and research with a view to encouraging careers guidance and advice focused on individuals' aptitude and needs and not on their gender. To harness the innovative potential of gender research and to realise equality of opportunity in professional life and society, the Federal Government provided a total of about EUR 6.7 million in funding for networks and transfer measures over the period from 2013 to 2020 to establish equal opportunities for women in education and research.

10. The digital transformation and equality

The Expert Commission for the Third Gender Equality Report of the German Government has been dealing, under the heading of *Gleiche Verwirklichungschancen von Frauen und Männern in der digitalen Wirtschaft* (equal self-fulfilment opportunities for women and men in the digital economy), with matters such as equality issues in the context of the digital transformation. The German Government is also monitoring and supporting measures in the EU and Council of Europe frameworks.

II. Measures by Germany

International equal opportunities policy with strong partners

The Federal Government is continuing to implement UN Security Council Resolution 1325 and its follow-up resolutions on women, peace and security. The resolutions deal with the role of women in peace and security processes and call for greater participation of women in preventing crises, resolving conflicts and building up post-conflict societies as well as better protection against sexual and gender-based violence in armed conflicts. Women, peace and security was one of the priority themes of Germany's membership of the UN Security Council in 2019/20. In 2019, on the initiative of Germany, Resolution 2467 on sexual violence in conflict was adopted. During the German presidency of the UN Security Council in April 2019, the German Government also organised an open debate in the UN Security Council on women in

peacekeeping, and is currently involved in the implementation of specific measures to increase the percentage of women in UN peacekeeping missions.

Through its active participation in the work of multilateral forums and institutions such as UN Women, the UN Commission on the Status of Women, the UN Human Rights Council and the Third Committee of the UN General Assembly, the German Government strives for the realisation of women's rights and the continuing development of the regulatory framework governing women's rights. In addition to its multilateral engagement, the German Government also supports the realisation of women's rights by funding projects. In 2020, in response to the COVID-19 pandemic, the German Government increased its contributions to UN Women from EUR 9 million to EUR 14 million and to UNFPA from EUR 40 million to EUR 70 million.

The UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) is one of the most important international instruments for the protection of the human rights of women. Germany will present its ninth CEDAW country report in 2021.

During Germany's presidency of the Council of the EU in the second half of 2020, the German Government focused on two substantive priorities in the field of gender equality:

1. Violence against women In accordance with the Istanbul Convention, the German Government is committed to high standards of protection throughout Europe and seeks to improve access to protection and counselling as well as to promote the sharing of best practices in this field among EU member states. At an informal meeting of the EU ministers responsible for gender equality, Germany, along with 21 other EU member states, launched an initiative for the establishment of an EU-wide telephone number connecting to the existing national domestic abuse helplines.

2. Gender equality at work The aim of the German Government is to reduce the gender pay gap. The gender gap in unpaid care work is still a barrier in very many cases to equal employment and pay opportunities for women in Europe. In this context, the member states of the European Union adopted Council Conclusions on the valuation and distribution of paid work and unpaid care work between women and men. The Council Conclusions contain political recommendations as to how social standards, the institutional framework and political measures can be influenced or shaped in such a way that they support and promote equal sharing of paid work and unpaid care work between women and men and so help to reduce the gender pay gap.

During the German presidency of the Council of the EU in 2020, presidency conclusions on gender justice in culture were also adopted. These were backed by 24 member states. Germany, with the support of 23 other EU member states, presented presidency conclusions on the new EU Gender Action Plan (EU GAP III) for gender equality and women's empowerment in EU external action after the adoption of prepared Council Conclusions had been blocked by the opposition of three member states.

III. Measures with Germany

1. Equality as a basic principle of German development cooperation

The realisation of equal rights, obligations and opportunities for women and men is an explicit goal of German development cooperation and is being achieved by means of a Development Policy Action Plan. German development cooperation in this field is based on a cross-sectoral strategy for gender equality in development policy which follows a three-track approach:

- Integration of a gender perspective in all development policy-related strategies and projects (gender mainstreaming),
- Targeted projects designed to eliminate discrimination against women and girls and to promote women's rights,
- Systematic embedding of women's rights and equal rights in our development policy dialogue with partner countries.

2. Project priorities

The following are the thematic priorities of the German Government's commitment to gender equality in its development cooperation:

- Access to justice and legal services for women and girls, political participation, voice and leadership in all areas,
- Rural development, agriculture and food security,
- Violence against women and girls, including in the context of measures to combat the COVID-19 pandemic,
- Armed conflicts, peacekeeping and displacement,
- Education, gainful employment and economic empowerment,

- Health, including sexual and reproductive health and rights (SRHR),
- Water and sanitation, energy, climate change, disaster risk management, sustainable development and urban and municipal development.

3. Implementation of G7 and G20 agreements since 2015

Over the past few years the German Government has focused sharply on the work of international bodies and has allocated resources accordingly. The initiative for strengthening women's economic empowerment agreed under Germany's G7 presidency in 2015 is intended to increase the number of women and girls with professional qualifications in developing countries by one third by 2030. Under Germany's presidency of the G20 in 2017 the Women's Entrepreneurship Facility was launched glob-

ally to assist women entrepreneurs. Germany is the largest donor, contributing EUR 50 million to the multi-donor facility. With a view to mitigating the adverse effects of the COVID-19 pandemic on women entrepreneurs, the funds are to be topped up by EUR 25 million in the coming years. In 2019 Germany again showed its commitment to the empowerment of women and girls internationally by pledging EUR 30 million to the Affirmative Finance Action for Women in Africa programme in the framework of France's presidency of the G7.

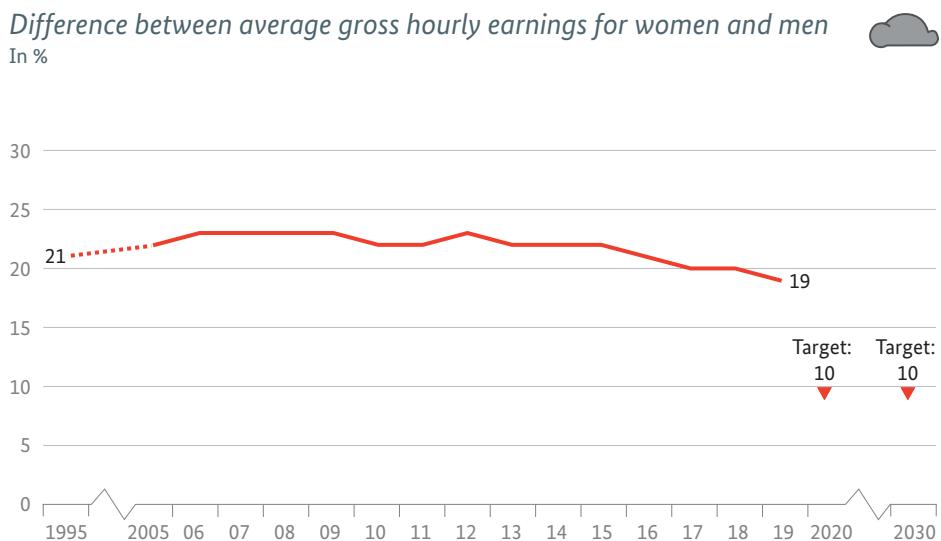
4. Corona

Germany has paid a total of EUR 3.5 million into the COVID Emergency Response Window of the Women's Peace and Humanitarian Fund (WPHF). This has enabled the WPHF to help alleviate the impact of the COVID-19 pandemic on women and women's organisations.

b) Relevant national sustainability indicators and targets/measures

5.1.a Gender pay gap

Equality – Promoting equality and a partnership-based division of responsibilities



Definition of the indicator

The indicator is a percentage figure showing the gender pay gap as the ratio of the average gross hourly earnings for women to the average gross hourly wage of men.

Targets and intention of the German Government

Differences in pay between men and women in modern working societies are a sign of social inequality. A narrowing of pay disparities is an indicator of progress on the road to equality. The German Government has therefore been pursuing the target of reducing the pay gap to 10 % by 2020 and maintaining it until 2030.

Content and development of the indicator

The indicator presented here shows the unadjusted gender pay gap. It simply uses the percentage ratio between the average gross hourly rates of pay. Factors such as qualification levels, hours worked and occupational experience profiles are not taken into account.

The data for the indicator are based on the four-yearly wage structure survey conducted by the statistical offices of the Länder in the form of a representative sample survey with a disclosure obligation covering a maximum total of 60,000 businesses. On the basis of these data, results are calculated, broken down by age group, education level, performance group, activity category, collective agreement coverage, company size class and economic sector, and the resulting adjusted gender pay gap (GPG) is published. For the interim years, the rates of change from the quarterly wage survey are used to extrapolate the unadjusted GPG. When the adjusted and the unadjusted GPG are calculated, the EU categorisation is used, in which employees in agriculture, forestry and fishing and in public administration, defence and compulsory social security as well as employees of microenterprises are not taken into account.

According to provisional figures, the average unadjusted gender pay gap between women and men in 2019 was 19 %. This means that the average gross hourly pay

earned by women was about a fifth lower than that earned by men. Over the longer term, a slow but steady narrowing of the unadjusted gender pay gap is evident in the whole of Germany. It stood at 22 % in 2014, which is three percentage points higher than in 2019. If the trend recorded over the last five years continues, the target will not be achieved in 2020 or in 2030.

At the same time, the picture for Germany is not a uniform one. There are considerable differences between Länder: the highest unadjusted GPG in 2019 was 25 % in Bremen, while in Mecklenburg-Western Pomerania and in Thuringia the gap was only 6 %. Pay levels generally, however, were lower in Mecklenburg-Western Pomerania and Thuringia than in Bremen.

Investigations into the causal factors behind the GPG can be conducted every four years on the basis of the detailed results of the wage structure survey. The latest available findings date from 2018. The factors that determine pay differentials are subject to long-term evolution processes and are therefore fairly stable over the course of time. The findings show that structural causes account for 71 % of the gender pay gap, in other words the differences are partly due to the fact that women often work in sectors and occupations where pay rates are low, and they more rarely attain managerial positions. They are also more likely than men to work part-time or to have mini-jobs. The remaining 29 % of the pay differential corresponds to the adjusted GPG of 6 % in 2018. Compared with the unadjusted GPG, the adjusted GPG figure is considerably more uniform across the Länder. In 2018, the adjusted gap ranged from 4 % in Berlin to 7 % in Baden-Württemberg, Bavaria, Bremen, Hamburg and Saxony.

Comparative figures for the European Union are also available for 2018. At 20 %, the unadjusted gender pay gap in Germany for 2018 lay considerably above the provisional European Union average of 15 %. Of the 28 EU states in 2018, only Estonia, with 22 % had a higher gender pay gap. The countries with the lowest gender differentials in gross hourly pay were Luxembourg, with 1 %, and Romania, with 2 %.

Previous measures

In order to reduce pay inequality between women and men, the German Government pursues a holistic political approach that focuses on the various causes. Important measures that help to reduce the gender pay gap: are the introduction of the statutory minimum wage, introduction of the Gender Equality (Management Positions) Act and the Act on the Further Development of the Right to Part-time Work – Introduction of Bridging Part-time Employment (*Gesetz zur Weiterentwicklung des Teilzeitrechts – Einführung einer Brückenteilzeit*), the provisions on caregiver leave and family caregiver leave, the improvement of conditions for the reconciliation of family and working life through parental allowance and parental allowance plus and the development and improvement of child day care.

Mention should also be made of the action taken to upgrade social occupations, such as the Nursing Profession Act (*Pflegeberufegesetz*), and the initiatives designed to promote non-stereotypical career choices based on individual interests and aptitude.

The Act to Promote Transparency in Wage Structures among Women and Men (Transparency in Wage Structures Act, *Entgelttransparenzgesetz*), which entered into force in 2017, improved the legal framework for the full attainment of wage equality in the sense of equal pay for equal or equivalent work between women and men. The Act promotes transparency through pay rules and gender-specific pay structures, making it possible to detect and eliminate even indirect, concealed wage discrimination. In general terms, this promotes non-discriminatory assessment of skills and aptitude, individual pay negotiations on an equal footing and an open, respectful corporate culture in company pay structures. The Transparency in Wage Structures Act has undergone impact assessment (on this point, see also Bundestag printed paper 19/11470).

Mentoring programmes such as the one offered by the Women in Culture and the Media Project Office at the German Culture Council, which is supported by the Federal Government Commissioner for Culture and the Media, also help to narrow the gender pay gap.

Planned additional measures

The aims remain to advance equality of opportunity for men and women in the labour market and to narrow the gender pay gap. Higher wages in sectors dominated by women are one of the keys to more equal pay. The introduction of the general minimum wage and its gradual increase to the present level of EUR 9.50 an hour, which is set to increase to EUR 10.45 on 1 July 2022, as well as an increase in the percentage of the workforce covered by collective agreements can contribute to the pursuit of that objective. One example is care of the elderly, where the overwhelming majority of employees are women. The Nursing Wages Improvement Act

(*Pflegelöhneverbesserungsgesetz*), which entered into force on 29 November 2019, creates the legal framework for the improvement of pay levels for nursing staff. On the one hand, it strengthens the powers of the National Care Commission, which on 28 January 2020 reached agreement on higher minimum wages for employees in care homes for the elderly. In the agreement, it set different minimum wages for nursing assistants, qualified nursing assistants and nurses. On the other hand, the Nursing Wages Improvement Act makes it easier to extend the coverage of a national collective agreement to the whole of Germany under the Posted Workers Act (*Arbeitnehmerentsendegesetz*).

The German Government is assessing the recommendations for action made in the evaluation of the Transparency in Wage Structures Act and will continue to support the application of its provisions. In the coming years the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth will continue to support the Equal Pay Day campaign. It performs an important function by informing the public about the background to the gender pay gap and by highlighting potential solutions and actions. The Family Affairs Ministry has also launched a programme entitled *Entgeltgleichheit fördern. Unternehmen beraten, begleiten, stärken* (Promoting equal pay – advising, supporting and empowering enterprises). The programme provides for dialogue with and support for businesses regarding the creation of transparent pay structures as well as for the development and implementation of equality-focused strategies in personnel management and in staff remuneration.

The German Government, moreover, will continue with the measures described above, which means, for example, maintaining its commitment to non-stereotypical career choices and the upgrading of social occupations, the systemic importance of which has become even more obvious in the wake of the COVID-19 pandemic. The availability of all-day education and care services strengthens children and helps parents to reconcile their work and family responsibilities. For this reason, in the coalition agreement the governing parties undertook to establish a legal right to all-day care for children of primary school age by 2025. To this end the German Government has made up to EUR 3.5 billion available for investments in the present legislative term. A study conducted by the German Institute for Economic Research (DIW) shows that this investment will be partly self-funding, because it will increase paid employment for mothers.

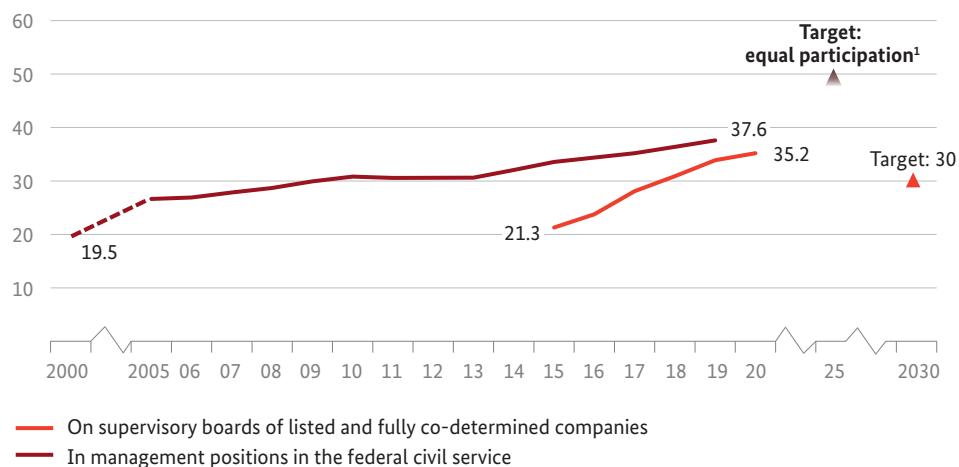
In the context of Germany's presidency of the Council of the EU in the second half of 2020 the German Government, together with the other member states of the European Union, adopted Council Conclusions on the valuation and distribution of paid work and unpaid care work between women and men and their effects on equality in working life. In this respect the COVID-19 pandemic has heavily underlined the economic and social importance of care work.

5.1.b/c Women in management positions in business and in the federal civil service

Equality – Promoting equality and a partnership-based division of responsibilities

b) Business  c) The federal civil service 

Women in management positions
Percentage of management positions held by women



¹ Approximate numerical equality

Women on supervisory boards: figures as at January each year, 2015 to 2020.

Women in management positions in the federal civil service: figures as at 30 June each year.

Data for 2016 and 2018 interpolated; provisional data for 2019

Sources: Frauen in die Aufsichtsräte e.V., Federal Statistical Office

DSTATIS
Statistisches Bundesamt

Definition of indicators

Indicator 5.1.b shows the percentage of women on supervisory boards of listed and fully co-determined companies. Indicator 5.1.c shows the percentage of women in management positions in the federal civil service.

Targets and intention of the German Government

Women are as highly qualified as men, yet they are under-represented in management positions in German business, particularly at senior management level. The same applies to the percentage of women in management positions in the federal civil service. For this reason, the share of women on supervisory boards of listed and fully co-determined companies is to be increased to 30% by 2030. Under the bill for a Second Gender Equality (Management Positions) Act, which the Cabinet adopted on 6 January 2021, equal representation of women and men in management positions in the civil service is to be achieved by 2025. This will fulfil one of the commitments made in the coalition agreement of 2018.

Content and development of the indicators

Percentage of women on supervisory boards of listed and fully co-determined companies.

The indicator records the percentage of women on the supervisory boards of joint-stock companies and partnerships limited by shares with more than 2,000 employees plus European companies (SEs) and listed companies with full co-determination. The data basis for the indicator comprises the publications of listed and fully co-determined companies, which are analysed by the *Frauen in die Aufsichtsräte* (Women on Board) association and published in the form of a WOB index.

In January 2020, women's share of positions on the supervisory boards of these companies came to about 35.2%. In January 2015, it was still only 21.3%. The target of 30% was reached in 2018, which was twelve years in advance of the deadline set in the German Sustainable Development Strategy. The Gender Equality (Management Positions) Act prescribed that, in cases where elections were held

for positions on the supervisory boards of the companies defined above in or after 2016, at least 30 % of the seats on those boards must be occupied by women, and so compliance with the Act could be expected to yield this increase.

Given the definition used for the indicator, most of the businesses in Germany and the majority of management positions in the private sector are not taken into account. At the present time, the reported and analysed data relate to a group of 105 companies. The positions on supervisory boards that the WOB association has examined to date, fewer than 1,600 in number, are but a small fraction of the total of 882,000 management positions in the private sector identified by the pay structure survey in 2018. The figures show clearly that focusing on the supervisory board of a company reveals only some of the management positions in that company.

According to the International Standard Classification of Occupations (ISCO), managers are all persons who plan, direct, coordinate and evaluate the overall activities of enterprises, governments and other organisations, or of organisational units within them, and formulate and review their policies, laws, rules and regulations. This definition includes the activities of supervisory boards. If the ISCO classification is used as a basis, 22 % of the 882,000 management positions in businesses were held by women in 2018. This figure is reached by considering all businesses with at least one employee for whom compulsory social insurance contributions are payable, excluding entities in sector O – Public administration and defence; compulsory social security – and parts of sector P – Education. Compared with 2014, the year of the previous pay structure survey, this represents an increase of 1.2 percentage points.

Percentage of women in management positions in the federal civil service

The data basis for this indicator comprises the internal gender equality statistics collected by all offices of the federal government pursuant to the Federal Gender Equality Act. Since 2015, these statistics have been compiled every second year, updated to 30 June, by the Federal Statistical Office on behalf of the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth. Before then they were compiled annually.

In 2019, according to preliminary data, the proportion of women in management positions in the federal civil service was about 37.6 %. In 2000, the indicator value was 19.5 %. This represents a 92.8 % increase in the proportion of women since 2000. If the trend of the last five years were maintained, the target of virtual numerical equality in management positions in the federal civil service by 2025 would be narrowly missed.

The indicator is focused on the employees in management positions in all departments of the federal government. Their number includes all persons employed on a full-time or part-time basis as well as those who have been given leave of absence on grounds of family or care responsibilities or have been entirely released from their normal duties. The departments of the federal civil service encompass the supreme federal authorities, the subordinate federal authorities and courts and the corporations, agencies and foundations established under federal public law.

The concept of management positions that is used in the federal gender equality statistics differs from the aforementioned ISCO definition. There is therefore only limited scope for comparisons between the different statistics.

In the gender equality statistics, managers have hitherto comprised those persons who have command and leadership duties in departments of the civil service. In order to ensure a certain degree of consistency and to enable comparability of the figures, only employees with supervisory and management duties in the senior civil service are recorded in the federal ministries, irrespective of whether employees in the senior or midlevel civil service also perform such duties in these departments. As a rule, such functions, ranging from heads of division to state secretaries, are performed by staff in the higher service. In other departments, moreover, management positions may be delegated to staff in the higher intermediate or intermediate service.

The Second Gender Equality (Management Positions) Act (*Zweites Führungspositionengesetz*) has specified which positions are to be included in the future statistics, which will be compiled in accordance with section 3 of the Ordinance on Equal Opportunities Statistics (*Gleichstellungsstatistikverordnung*).

German Government activities relating to the indicator

The aim of the German Government is to increase further the percentage of women in management positions in business so as to promote gender equality in positions of responsibility. In pursuing this aim, it is obeying the pre-script of Article 3 (2) of the Basic Law to promote the actual implementation of equal rights for women and men and take steps to eliminate disadvantages that now exist.

Previous measures

In the past, corporate voluntary commitments of companies did not achieve the desired effect and did not sufficiently increase the percentage of women on supervisory boards. Accordingly, through the Act for the Equal Participation of Women and Men in Management Positions in the Private Sector and Public Service (Gender Equality (Management Positions) Act), which took effect on 1 May 2015, a binding gender quota was established in law for the first time; the quota of 30 % applies to supervisory boards of listed and fully co-determined companies. The proportion of women on the supervisory boards of the companies concerned rose by more than 13 percentage points to 35 % in

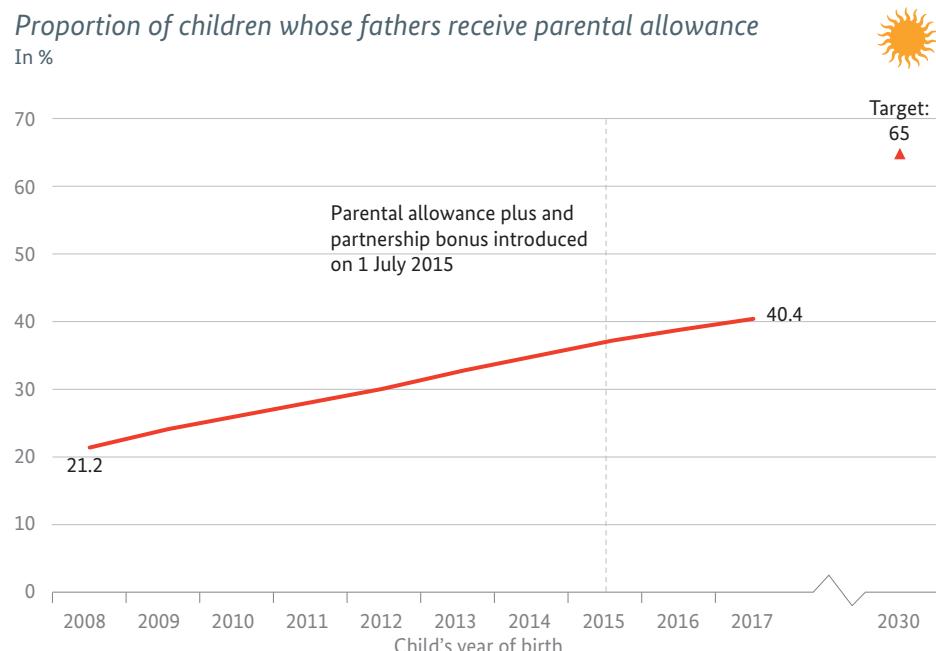
the period from 2015 to 2020. On the basis of developments to date, the German Government assumes that the percentage of women will continue to rise in each of the coming years. The Gender Equality (Management Positions) Act has been evaluated as prescribed by its Article 23 (3). The German Government adopted the evaluation report at a Cabinet meeting on 18 November 2020. The report revealed that the fixed quota for supervisory boards had delivered successes but that action was still needed, particularly with regard to the percentage of women on corporate boards of management and in management positions in the civil service.

Planned additional measures

Under the bill for a Second Gender Equality (Management Positions) Act, which the Cabinet adopted on 6 January 2021, equal representation of women and men in management positions in the civil service is to be achieved by 2025. This will fulfil one of the commitments made in the coalition agreement of 2018. An annual monitoring process and an evaluation after five years will serve to scrutinise the trends for the private sector and civil service indicators and make them transparent.

5.1.d Proportion of fathers receiving parental allowance

Equality – Promoting equality and a partnership-based division of responsibilities



Definition of the indicator

The indicator shows the percentage of children whose fathers receiving parental allowance.

Targets and intention of the German Government

Parental allowance is intended to assist mothers and fathers in sharing their tasks in a spirit of partnership and in successfully reconciling work and family life. The introduction of parental allowance plus (*ElterngeldPlus*) and the partnership bonus (*Partnerschaftsbonus*) in particular are intended to keep driving social change in the stereotypical role models for mothers and fathers and ultimately to promote equality of opportunity in the labour market. For that reason, the German Government has set itself the target of increasing the proportion of fathers receiving parental allowance to 65 % by 2030.

Content and development of the indicator

The Federal Parental Allowance and Parental Leave Act (*Bundeselterngeld- und Elternzeitgesetz*) introduced parental allowance as a family benefit in respect of children born on or after 1 January 2007. To be eligible, claimants must have a permanent or common residence in Germany, live in the same household as their child, look after and bring up that child themselves and not engage in paid employment or, as the case may be, in full-time paid employment. Mothers and fathers are equally entitled.

Even if the child is not his or her natural child, the spouse or civil partner of the natural mother or father may receive parental allowance if both spouses or partners live in the same household. In more than 99 % of cases, however, the beneficiaries are the biological parents, so that in the following simplified reference is made to mothers and fathers..

The figure for fathers receiving a share of parental allowance represents the percentage of children whose fathers received parental allowance as a percentage of all children born in a particular year for whom parental allowance was received. For the children born in 2008, fathers received parental allowance in 21.2 % of cases, and this figure rose to 40.4 % by 2017. The proportion of children whose mothers received parental allowance in the same period was far higher, amounting to about 98 % in every year.

Although the percentage of fathers receiving parental allowance increased over time, the average period for which they received the allowance declined slightly from 3.7 months for children born in 2008 to 3.4 months for children born in 2017.

These two effects also impacted on the development of the overall average period for which parental allowance was received by all fathers, i.e. including those who did not receive any allowance. At the same time, the increase in the percentage of fathers receiving the allowance outweighed the decline in the period of receipt. The average period for which fathers in general obtained parental allowance increased from 0.8 of a month for children born in 2008 to 1.4 months for those born in 2017. By comparison, the average period for which mothers in general received parental allowance rose from 11.5 months for children born in 2008 to 13.2 months for those born in 2017.

The indicator is based on data from the parental allowance statistics, in which all payments of personal allowance are recorded on a quarterly basis. The figures relate in each case to the year of birth of the child for whom the allowance has been granted. The figure used to calculate the value of the indicator is the number of children for whom parental allowance was actually granted, not the total number of children born in Germany. This is intended to avoid the inclusion in the calculation of children for whom there is no entitlement to parental allowance, such as the children of foreign asylum-seekers.

It is not yet possible to differentiate precisely on the basis of the parental allowance statistics between types of partnership in which the eligible persons are living, i.e. whether it is a same-sex partnership. Therefore, for the purpose of calculating the indicator, it is assumed for simplification that exactly one father is entitled to benefits for each child.

For children born before 1 July 2015, the maximum period for which parental allowance could be received was 14 months. Parents whose children were born on or after 1 July 2015 are able to choose between basic parental allowance, parental allowance plus or a combination of both and can also obtain an additional partnership bonus in the form of four extra monthly payments of parental allowance plus. As a result, the period of receipt can be considerably extended.

German Government activities relating to the indicator

The family policy of the German Government is designed to assist mothers and fathers in sharing their tasks in a spirit of partnership and in successfully reconciling work and family life for both. In particular, the policy includes measures and initiatives such as parental allowance, parental allowance plus and the partnership bonus, investments in the quantity and quality of child daycare places and measures to promote a family-friendly working world and to create a corporate culture in which fathers' engagement in family life is encouraged.

Previous measures

The German Government assumes that the briefer career interruptions for mothers since the introduction of the parental allowance and the stronger support of burden-sharing and partnership provided by parental allowance plus and the partnership bonus will keep driving social change in the stereotypical role models for mothers and fathers as well as promoting equality of opportunity in the labour market. These benefits help to satisfy parents' wishes for

more time with their children, for time for their careers and also for equal sharing of childcare. They encourage parents to devote time to their children.

Planned additional measures

The German Government report of 10 January 2018 on the impact of the provisions on parental allowance plus and the partnership bonus as well as on parental leave (Bundestag printed paper 19/400, in German) shows that the partnership bonus has been particularly well received among fathers.

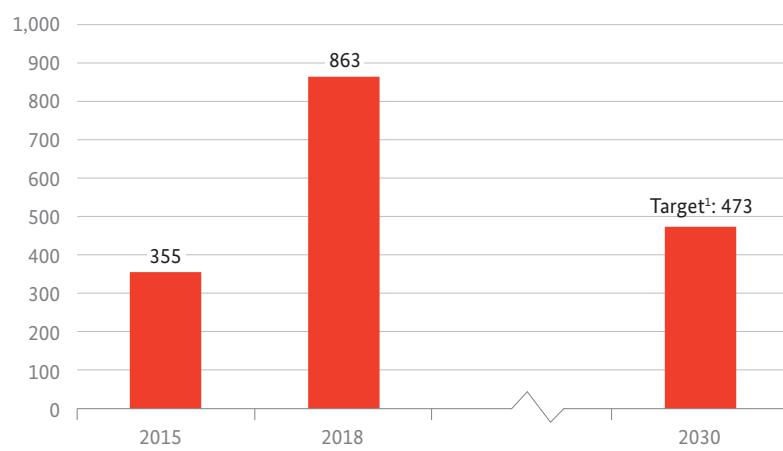
In the framework of its revision of the Federal Parental Allowance and Parental Leave Act and on the basis of the evaluation report on parental allowance plus, the German Government will give special consideration to the possibility of making the partnership bonus simpler and more flexible to match it even more closely to the needs of parents in general and fathers in particular. The German Government assumes that the proportion of fathers receiving parental allowance will keep rising over the coming years and will reach 65 % by 2030.

5.1.e Vocational qualification of women and girls through German development cooperation

Equality – Strengthening the economic participation of women globally

Women and girls reached by vocational qualification measures through German development assistance

In thousands



¹ This figure represents a one-third increase since 2015.

Sources: Federal Ministry for Economic Cooperation and Development, Centrum für Evaluation GmbH, Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH

Definition of the indicator

The indicator shows the number of women and girls in developing and emerging countries who were reached by vocational qualification measures through German development cooperation.

Targets and intention of the German Government

The economic participation of girls and women in developing and emerging countries is to be increased. To this end, the number of girls and women in developing and emerging countries who obtain vocational qualifications through German development cooperation is to be gradually increased by one third over the period from 2015 to 2030.

Content and development of the indicator

Information provided by the Federal Ministry for Economic Cooperation and Development (BMZ) on supported projects that entered the implementation phase in 2015 served as a data source. The measures taken into account include all short-, medium- and long-term formal and non-formal vocational training measures in developing and emerging countries. The measures are financed entirely by funds from the federal budget and from market funds provided through the Kreditanstalt für Wiederaufbau (KfW). The data were collected for the first time in 2015 on behalf of the Ministry of Development by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Centrum für Evaluation GmbH, and are updated at three-annual intervals. This means that it is not yet possible to gauge the prospects of meeting the target on the basis of the methodology set out in the Indicator Report.

In 2018, some 863,000 women and girls were reached by skills development measures. This is 243% higher than 2015, the first year for which data were collected. Of these women and girls, 26.5 % were reached directly through in-

dividual vocational training. A total of 31.6 % of the women and girls were reached through institutional funding and 41.8 % through measures in specific policy fields. Of all these women and girls, 93.0 % were reached through financial cooperation.

Because women and girls in developing and emerging countries are reached by German development cooperation by three different levels, the data were searched for each of those levels. (1) In the case of individualised measures, the number of women and girls who received vocational training and continuing education or participated in individualised extension measures can be recorded directly. When it comes to (2) the funding of institutions and (3) the allocation of funds to specific policy fields, the number of beneficiaries reached in the supported training and further education facilities has to be estimated. In this case, the total number of female trainees and students in each of the funded education and training establishments as well as all women and girls receiving education or training in the relevant policy field are assumed to be beneficiaries of German development cooperation. As a result, there can be overestimates and duplication, especially in the figures for policy fields. Furthermore, in the case of follow-on projects or when two or more projects are implemented simultaneously in the same region, the possibility of double counting some of the beneficiary women and girls cannot be ruled out.

The value of the indicator depends heavily on the funding level, as funding through institutions or policy fields generally reaches more women and girls than individual measures. The indicator does not provide any information on the success, scope and quality of the qualification measures, which can vary considerably. The measures designed to promote the vocational skills of women and girls are part of overall official development assistance. The total amount of ODA is shown in indicator 17.1.

German Government activities relating to the indicator

Women and girls all over the world are still confronted with numerous legal obstacles and social prejudices. According to the World Bank, there are 90 countries with at least one of the restrictions that impede women in their choice of career. This discrimination results in high social and economic costs. When women are given the opportunity to develop their economic potential, everyone benefits: not only is the economy strengthened by the education of women and girls, but they themselves also reap the rewards along with their families and the whole of society. Their

education demonstrably reduces child mortality and the number of unwanted pregnancies.

High-quality education and vocational training are essential for reducing poverty worldwide. They promote democracy and social and economic inclusion as well as bolstering human rights and nurturing personal development. They are essential conditions for sustainable economic growth. A society can develop and exploit its full potential only if men and women alike are granted equal opportunities to access education and vocational training.

This is why, at their summit held in Elmau in June 2015 under Germany's presidency, the G7 states made a commitment to increase the number of women and girls technically and vocationally educated and trained in developing countries through G7 measures by one third by 2030.

Previous measures

Germany further reinforced its commitment to implementing the 2030 Agenda with the Second Development Policy Action Plan on Gender Equality 2016–2020 (GAP II). Vocational training of women and girls is a priority of the Action Plan. Equal access to education is an essential aspect of the Federal Ministry for Economic Development and Cooperation's education strategy, entitled Creating Equitable Opportunities for Quality Education, and of the Ministry's position paper on vocational education and training in German development cooperation.

As part of the G7 initiative Economic Empowerment of Women, the Ministry conducts a survey every three years to establish the number of women and girls who are supported by vocational training measures provided through German development cooperation. The last survey was conducted in 2019 and found that in 2018 the Ministry had funded vocational training measures for almost 863,000 women and girls.

Planned additional measures

The German Government intends to continue the G7 Deauville Partnership process with its focus on the economic empowerment of women. The German Government's international commitment to the intensification of efforts to promote gender equality is also reflected in the practicalities of education and vocational training projects to be implemented in the context of development cooperation. Proven measures are to be continued, and new measures with a focus on the economic empowerment of women and girls are to be devised. One of the measures to be taken as part of GAP II is the regional flagship project providing vocational support for women in rural Africa. Innovative programmes specifically for girls and women such as the #eSkills4Girls initiative impart digital skills and enhance the educational and employment prospects of girls and women in an increasingly digitised world. In targeted cooperation with the private sector, at least 17,300 women in eight African partner countries are expected to have benefited by 2022 from training and upskilling measures forming part of the Special Training and Employment Initiative of the Federal Ministry for Economic Cooperation and Development.

6. Ensure availability and sustainable management of water and sanitation for all

a) Main substance and political priorities in the view of the German Government

This sustainability goal of the 2030 Agenda relating to water and sanitation is the first international development goal that focuses both on access to drinking water, sanitation and hygiene for all and on wastewater management, protection of hydrological systems, long-term availability of water, efficient use of water and promotion of integrated water resource management. It thus combines development policy considerations with environmental and climate challenges.

Water is our most vital resource. The welfare of humanity depends directly on how we manage our water resources now and in the future. Good water conditions help to preserve health and protect habitats. Water is essential, not only for supplying people directly with drinking water but also for agricultural production and industrial growth as well as for the preservation and sustainable use of semi-natural ecosystems such as forests. Accordingly, if natural and semi-natural water cycles are to be preserved and a permanent supply of water ensured, water resources must be protected from pollution and overuse. This is made all the more imperative by the increase in seasonal and/or regional water shortages which has resulted from climate change and which must be expected to worsen. Water management in Germany therefore influences other German sustainability targets directly or indirectly and has a cross-sectoral impact on sustainable development in Germany.

Safe access to safe drinking water as well as adequate sanitation are human rights and are essential to a healthy and decent life.

The availability of water for all uses – particularly for drinking, for hygiene and for producing and processing food – can be the key to well-being and good health. Global trends such as population growth, urbanisation and climate change and the associated rising demand for water are increasing the already high pressure on global water resources and aquatic ecosystems. Consumption behaviour and attitudes to the use of scarce water resources also affect their availability, which varies extremely widely between regions. Water shortages, flooding and increasingly variable precipitation patterns threaten the livelihoods of many people throughout the world as well as contributing to conflicts, displacements and migratory movements.

The SDG in detail

SDG 6 covers six indicator fields: access to clean and affordable drinking water for all (6.1) and to adequate sanitation and hygiene for all, paying special attention to the needs of women and girls (6.2), improvement of water quality (6.3), efficient use and sustainable withdrawals of water across all

sectors (6.4), implementation of integrated water resources management (6.5) and protection and restoration of water-related ecosystems (6.6). Achieving these targets is also very important for other SDGs, especially health (SDG 3), gender equality (SDG 5), energy (SDG 7), economies and industry (SDGs 8 and 9), cities and human settlements (SDG 11) and nutrition, agriculture and forestry (SDGs 2 and 15).



Global importance

Although access to safe drinking water and basic sanitation was previously addressed by United Nations Millennium Development Goal 7 (Ensure environmental sustainability), 2.2 billion people still have no access to safe and affordable drinking water. 4.2 billion people have no access to adequate sanitation. Inadequate access to a reliable water supply and sanitation and the absence of sanitary facilities and hygiene requirements such as handwashing facilities as well as of adequate sewage treatment are still the core causes of poverty, malnutrition, disease and even migration in many places. Demand for clean fresh water has been increasing twice as fast as the global population over the last few years. More than two billion people live in countries with high levels of water stress. Overuse of water resources and the accompanying water shortage are already a reality in many places today. Pressure on aquatic ecosystems will continue to grow, chiefly as a result of increased demand in sectors such as energy and food production and of climate change. At the same time, the loss of ecosystems that regenerate water resources is increasing this pressure.

National importance

In Germany, public service provision guarantees the achievement of the drinking water and sanitation targets of SDG 6 both now and in the future. When it comes to water quality (6.3), however, there is room for improvement. Further efforts are still needed here. The European Water Framework Directive (EU-WFD) has already laid down objectives for the quality of surface water and groundwater in the EU, and these were transposed into national law in the Federal Water Act (Wasserhaushaltsgesetz) and several ordinances. The targets must be met by 2027 at the latest.

A major challenge in Germany is posed by the inputs of nitrates and phosphorus into our water resources. They pollute aquatic systems and restrict biodiversity. Ensuring that substances do not enter groundwater keeps down the cost of purifying drinking water. In this way, drinking water can be supplied to end users at a reasonable charge. It is therefore an aim of the German Sustainable Development Strategy to reduce the phosphorus and nitrate inputs into groundwater and surface water. Besides phosphorus and nitrates there are other factors that affect water quality, such as the presence of aquatic species and habitats, pollution

with substances such as medicinal products, heavy metals or plant protection products and changes in the water table.

Despite considerable progress in the protection of water resources, almost all of the 9,900 bodies of surface water and more than a third of the 1,000 bodies of groundwater in Germany have not achieved good ecological status or good ecological potential within the meaning of the Water Framework Directive. This is due to nutrient loads, which in watercourses result primarily from phosphates, as well as from pollution with ubiquitously occurring substances like mercury, the limit value for which is exceeded in all waters; these loads have led collectively to a nationwide failure to achieve good chemical status. The main reasons that bodies of surface water are not achieving good ecological status are overbuilding, straightening and transverse structures interrupting the flow of watercourses. The chemical status of some 25 % of the bodies of groundwater in Germany is bad, judged by the standards of the Water Framework Directive, because of high nitrate values. All bodies of transitional and coastal waters also fail to meet the requirements for good ecological status as a result of excessive nutrient inputs.

In this context, the German Conference of Environment Ministers, meeting in Bremen from 7 to 9 November 2018, along with the environment ministries of the other EU member states confirmed additional proposals designed to ensure achievement of the objectives of the EU Water Framework Directive by 2027. The proposals contain measures to be implemented by the EU, the Federal Government and the Länder. Foremost among the national measures are the intended revision of the Wastewater Charges Act (Abwasserabgabengesetz) and the latest update of the Fertiliser Application Ordinance, which took effect in the spring of 2020. Since most of the nutrients are generated by agricultural fertilisation, that is the main focus of the measures. Back in 2017, the restrictions on phosphorus and nitrogen fertilisation were tightened when the Fertiliser Application Ordinance was revised. Following a judgment delivered by the European Court of Justice on 21 June 2018, a new amendment of the Fertiliser Application Ordinance was required in 2020. The additional provisions will result in a further reduction in the volume of nutrient inputs into water. A system of close monitoring with annual reporting has been established to keep regular tabs on the impact of the requirements imposed by the new version of the Fertiliser Application Ordinance. In addition, a revision of European Directive 91/271/EEC concerning urban waste-water treatment is expected in the coming years, and that will also contribute to improvement and to the achievement of good water status.

German Government activities

I. Measures in Germany

The comprehensive quality and management targets of the EU Water Framework Directive and its Daughter Directives

are implemented on a national level in the Federal Water Act and other regulations. They are enforced by the Länder.

The wider range of responsibilities associated with the European Water Framework Directive, however, such as preservation and restoration of river continuity and implementation of water-management measures, have widened the scope for the Federal Waterways and Shipping Administration to make active use of its expertise and capabilities in the pursuit of environmental objectives.

With the revision of the Fertiliser Application Ordinance the German Government has made a major contribution to preventive action to protect groundwater, surface water and coastal waters from the damaging effects of nutrient inputs.

Wastewater must not enter a water body or watercourse unless its volume and harmfulness can be kept as low as the state of the art in water purification permits. The provisions on water purification are continuously adapted to the latest state of the art. For many industrial and commercial sectors, uniform European standards are currently being set in the form of conclusions on the best available techniques (BAT conclusions). Other BAT conclusions from the European Union are shortly to be transposed into national law for observance by industrial and commercial operators. These relate essentially to the chemical industry, wood-based panels production, non-ferrous metal manufacture, large combustion plants, ferrous metals processing, waste treatment and incineration and the food, drink and milk industries.

Numerous chemicals find their way into water through wastewater and other pathways. Although these substances occur only in low concentrations, some of their effects in water are still unknown or unexplained. Regulatory moves to reduce their release are a source of controversy among the various actors and interest groups. Against this backdrop, from the autumn of 2016 to the spring of 2019 the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety conducted a dialogue with stakeholders on the planned Trace Substance Strategy. Recommendations were made and fleshed out. On completion of the dialogue, a one-year pilot phase was agreed to test and subsequently evaluate the recommended and agreed measures.

Since 1 February 2017, legal provisions on fracking have been in force. For reasons of water resource protection they impose limits on the use of fracking technology in Germany. There is a general ban on the practice known as unconventional fracking. The Länder may authorise a maximum of four exploratory trials in Germany's territory as a whole for scientific purposes only. In addition, the use of water-contaminant substances in fracking as well as fracking activities in protected areas are prohibited. Projects must also undergo an environmental impact assessment. Similarly, a list of substances used in fracking must be available for public perusal.

Climate change, demographic trends, changes in land use, technological innovations and changes in consumer behaviour are transforming water management in ways that cannot be addressed by action in specific sectors or locations. The German water infrastructure is geared to long-term security of supply. It requires a high degree of forward planning and considerable financial investment. Great efforts are needed to protect the nation's valuable water resources in the long term. For this reason the Environment Ministry is conducting a national water dialogue as part of the UN Water Action Decade. In that context, the essential strategic goals and enabling options are developed and discussed with stakeholders. On the basis of the outcome and the Ministry's own research work, a National Water Strategy is currently being drafted in the Environment Ministry. The strategy is intended to set out a long-term route map and framework for sustainable management of water resources.

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II. Measures by Germany

For the German Government, the focus of the global implementation of SDG 6 is on improving the supply of water and sanitation and improving the quality and safety of water as well as on efficient water use and efficient resource distribution through integrated water resource management in the developing and newly industrialised countries. The German Government pursues these priorities in the framework of United Nations and regional processes and initiatives and through strategic partnerships with individual countries. Its activities include:

- Assisting the UN coordinating body, UN-Water, with a view to reinforcing global monitoring and the reporting system on SDG 6;*

- Hosting the UN-Habitat Global Water Operators' Partnerships Alliance (GWOPA) in Bonn and implementing joint measures to bolster utility companies and so enable them to maintain their services during the COVID-19 pandemic;*
- Participating in the development of a global indicator-based monitoring system for water quality and water resource management;*
- Introducing targeted improvements to municipal, industrial and commercial wastewater treatment through the application of European rules;*
- Managing and further developing a global database for water quality data as part of the UNEP programme GEMS/Water;*
- Supporting the Global Water Partnership (GWP) with a view to reinforcing worldwide implementation of the principle of integrated water resource management;*
- Promoting the integrative approach of the SDG with its nexus of water, energy and food security;*
- Sponsoring resolutions in the UN framework (Human Rights Council and Third Committee of the General Assembly) on the human rights to safe drinking water and adequate sanitation*
- Developing and testing sunrise technologies and viable strategies for sustainable management of water resources through the Federal Education and Research Ministry funding measures Global Resource Water (GRoW), future-oriented technologies and concepts to increase water availability by water reuse and desalination (WavE) and Water Technologies: Reuse;*
- Supporting cross-border water cooperation in various regions;*
- Actively collaborating and assisting in the implementation of the UNECE Water Convention, which has now gone global, supporting the accession of other states to the UNECE Water Convention and to the UN Watercourses Convention in order to promote cross-border cooperation;*

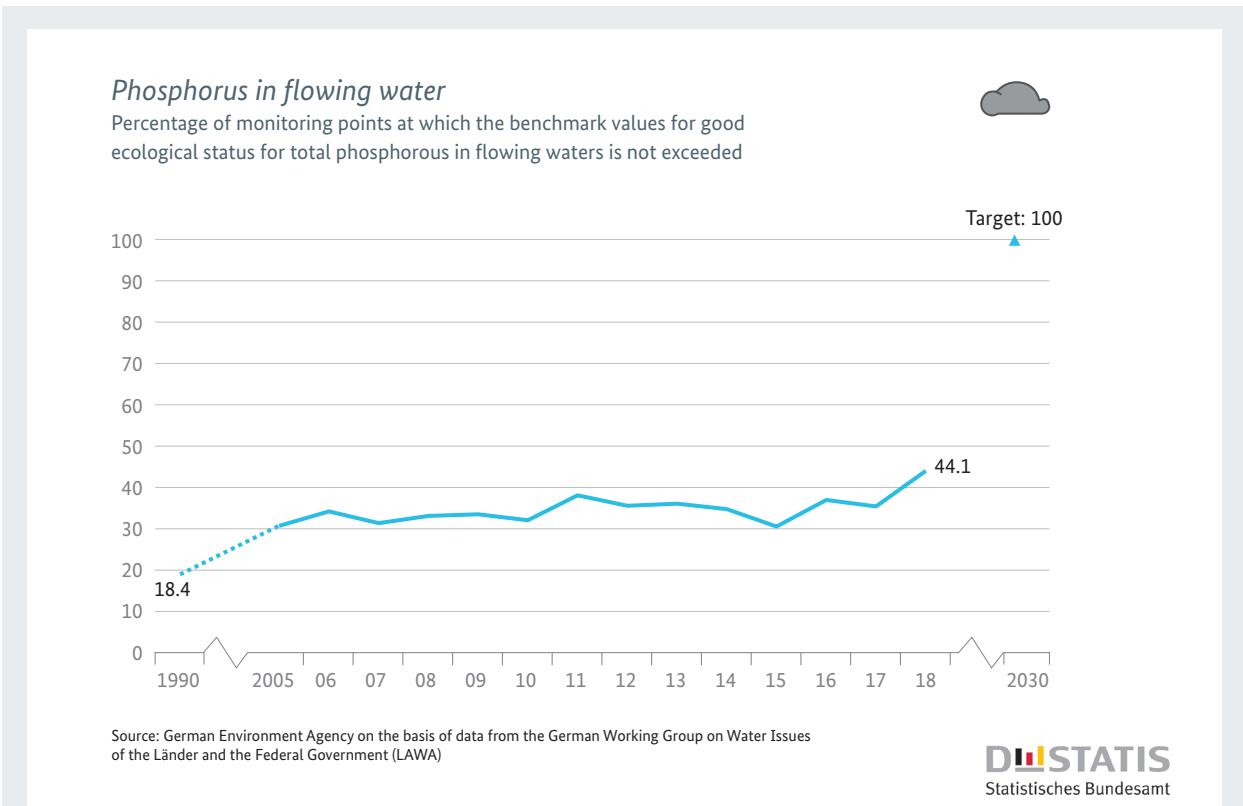
III. Measures with Germany

The German Government is the world's second-largest bilateral donor to development cooperation in the water sector. Water is a priority of bilateral development cooperation in more than 20 partner countries.

b) Relevant national sustainability indicators and targets/measures

6.1.a Phosphorus in flowing waters

Water quality – Reduction of substance pollution in water



Definition of the indicator

The indicator shows the percentage of monitoring sites at which the benchmark values for good ecological status are achieved for the relevant water types with regard to phosphorus in flowing waters.

Targets and intention of the German Government

Roughly half of the phosphorus entering flowing water in Germany today comes from agriculture, and the other half is from cities (municipal water treatment plants and rainwater run-off). Together with nitrate pollution, it is one of the reasons why a surfeit of nutrients (eutrophication) occurs in rivers, lakes and seas. The consequences of this are algae growth, oxygen depletion and even fish mortality or the growth of toxic blue-green algae. For this reason, adherence at all monitoring sites to the benchmark values indicated in the Ordinance on the Protection of Surface Waters (*Oberflächengewässerverordnung*) for the relevant water types was defined as a goal for 2030.

Content and development of the indicator

Since the diverse water types differ in their degree of sensitivity to nutrients such as phosphorus, the precise benchmark value varies. The benchmark value of 0.1 milligrams of phosphorus per litre is used for the vast majority of flowing waters. For rivers classed as predominantly organic ("organisch geprägt"), the benchmark value is 0.15 mg/l, for marshland waters it is 0.3 mg/l, and for tidal transitional waters 0.054 mg/l.

The indicators of phosphorous and nitrate content (6.1.a and 6.1.b) cover two key aspects of water quality. There are, however, other components such as the existence of natural and semi-natural habitats in and around water and its exposure to harmful substances, such as pesticides, metals and medicines, which also impact on water quality. Phosphorous generally enters water through discharges of phosphates.

In 2018, the annual average at 44 % of the monitoring sites at rivers was below the benchmark value. A total of 50 % of the monitoring sites recorded medium concentrations, that is to say up to double the benchmark value, while

figures from 4% of the monitoring sites were in the next higher bracket – up to four times the benchmark value (not shown in the chart). The remaining 2% showed even higher concentrations. When viewed over time, the proportion of monitoring sites where the benchmark value is adhered to has steadily increased and has more than doubled since 1990. However, the percentage rate of monitoring sites with concentrations of up to double the benchmark value has almost tripled over the same period.

Conversely, the percentage of monitoring sites with even higher values has fallen significantly since the early 1990s. Above all, the introduction of phosphate-free detergents and of limit values for the incorporation of treated waste water have sharply reduced phosphorus concentration levels. An analysis of the average trend for the last five years shows that the indicator has registered a slight improvement. The goal of adherence to the relevant threshold values for all monitoring sites, however, is still a long way off.

German Government activities relating to the indicator

The consequences of over-enrichment of rivers and lakes with nutrients (eutrophication), such as algae growth, oxygen depletion and even fish mortality and the occurrence of toxic blue algae, are primarily due to phosphorus concentrations in water. Total phosphorus emissions decreased by 70 % between the 1980s and 2010. Nevertheless, many bodies of water still exhibit considerable levels of pollution. Further reduction of phosphorus concentrations in rivers and lakes is therefore an aim of the German Government.

Previous and planned measures

The introduction of phosphate-free detergents and the practice of phosphate precipitation in water treatment plants following the setting of limit values have significantly reduced pollution levels.

Provision has been made for more far-reaching measures in the agri-environmental programmes of the Länder and in their programmes for the implementation of the Water Framework Directive. The sharper focus on phosphorus in the Fertiliser Application Ordinance 2020 can contribute in the coming years to further reduction of phosphorus discharges from agricultural sources.

The Fertiliser Application Ordinance of 2017, for example, already limited the use of phosphorus for the fertilisation of soils with a high or very high phosphate content to the volume of phosphate removal and provided for additional optional measures on the part of the

Länder to reduce phosphate input into slow-flowing or standing surface waters in eutrophic areas, subject to proof that the inputs are from agricultural sources.

The fertiliser rules were revised in 2020. For example, the revised Fertiliser Application Ordinance introduced wider waterside buffer strips, longer embargo periods for the application of certain fertilisers, including those with significant phosphate content, and a parcel-by-parcel recording obligation for fertilisation measures.

Many of the more advanced wastewater treatment technologies specifically reduce the phosphorus content in wastewater if they include a filtration stage. The present state of the art in phosphate removal technology in small water treatment plants permits lower run-off values than those currently prescribed. In general terms there is also potential for conserving scarce resources by recovering substances such as phosphorus.

From 2029, the new Sewage Sludge Ordinance (*Klärschlammverordnung*) of 2017 requires operators of wastewater treatment plants, as sewage sludge producers, and operators of sewage sludge co-incineration plants, in principle, to recover the phosphorus contained in sludges and sludge incineration ashes or to arrange for the recycling of incineration ashes containing phosphorus to recover the P content.

In a parallel move, soil-based recycling is severely restricted for reasons of water and soil protection and from 1 January 2029 will be permissible only for sewage sludge from plants treating up to 100,000 population equivalent (pe) and from 1 January 2032 only from plants treating up to 50,000 pe. Regardless of the requirements of the Sewage Sludge Ordinance, the recovery of phosphorus may also take place as part of the wastewater treatment, in other words before sewage sludge is produced. The recovery of phosphorus from wastewater and the recovery of phosphorus from sewage sludge, which is to be compulsory from 2029, are intended to help conserve scarce global phosphorus resources in the long term.

In addition, in cooperation with the Länder, technological standards at municipal sewage treatment plants are to be reviewed in the light of the nutrient-related requirements of the Wastewater Ordinance and, where necessary, upgraded.

The anticipated revision of the European Directive concerning urban waste-water treatment may necessitate an adjustment of the requirements relating to nutrient emissions into water bodies.

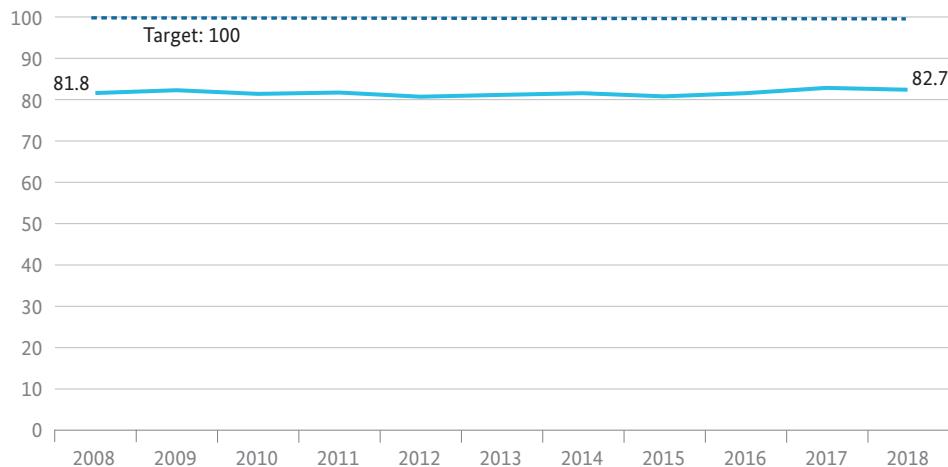
With the Regional Phosphorus Recycling (RePhoR) funding measure, the Federal Ministry of Education and Research supports innovative cost-effective approaches to the recycling of phosphorus and of sewage sludge and so makes an implementation-focused contribution to compliance with the Sewage Sludge Ordinance.

6.1.b Nitrate in groundwater

Water quality – Reduction of substance pollution in water

Nitrate in groundwater

Percentage of monitoring points at which the threshold¹ is not exceeded



¹ Basis: EEA monitoring network; the threshold is an annual average of 50 mg nitrate per litre of groundwater.
Sources: German Environment Agency and Länder Initiative for a Core Set of Indicators, on the basis of data from the German Working Group on Water Issues of the Länder and the Federal Government (LAWA)

Destatis
Statistisches Bundesamt

Definition of the indicator

The indicator shows the percentage of monitoring sites at which the average annual average concentration of nitrate in groundwater does not exceed the threshold of 50 milligrams per litre.

Targets and intention of the German Government

Groundwater is a key element of the ecosystem. It is part of the water cycle and performs important ecological functions. Groundwater is also Germany's most important drinking water resource. However, elevated nitrate content impairs the ecology of bodies of water. The threshold of 50 mg/l of nitrate in groundwater specified in the Ground Water Ordinance and in the Surface Waters Ordinance are therefore to be observed at all monitoring sites by 2030.

Content and development of the indicator

The nitrate content in groundwater is collected by the Länder for the purpose of reporting on the status of

groundwater in Germany to the European Environment Agency (EEA). The monitoring sites used for this purpose together form the so-called EEA monitoring network. The EEA monitoring network comprises a total of 1214 monitoring sites and provides a representative picture of Germany. The data are compiled by the Federal Environment Agency from information provided by the German Working Group on Water Issues of the Länder and the Federal Government (LAWA).

Like the indicator of phosphorus content in flowing waters, the nitrate indicator does not reveal how far above or below the threshold the readings have been. The indicator merely records how many of all the monitoring sites complied with the prescribed threshold. The nitrate load may have fallen sharply at some monitoring sites. Nevertheless, if the concentration remains above the maximum of 50 mg/l, the reduction will not be reflected in the indicator.

The same applies to nitrate loads that have increased but are still below the threshold. The interpretation must also take into account that measures to reduce nitrate pollution

may have a delayed effect, since the period of infiltration from the surface to the groundwater can take several years.

The naturally occurring level of nitrate lies between 0 and 10 mg/l. Concentrations between 10 and 25 mg/l indicate minor to medium loads. Concentrations between 25 and 50 milligrams per liter indicate severe groundwater contamination. Figures above the threshold of 50 mg/l which is set in the Ground Water Ordinance and which also underlies this indicator mean that the groundwater has a poor chemical status and cannot be used as drinking water without treatment.

In 2018 the target of less than 50 mg of nitrate per litre was met at 82.7 of all monitoring sites. Since 2008, the percentage of monitoring sites at which this target is met has remained virtually unchanged. This means that the goal of recording concentrations below the threshold at all monitoring sites has not been achieved and that the indicator value is not recognisably moving in that direction. Conversely, in 2018 the nitrate threshold of 50 mg/l was exceeded at 17.3 % of the groundwater monitoring sites in the EEA monitoring network. Consequently, the groundwater at these locations cannot be used for drinking-water supplies without treatment. At 17.3 % of the monitoring

sites the nitrate value lay between 25 and 50 mg/l, which still indicates an elevated degree of pollution. This percentage rate also remained virtually unchanged over the years.

The pollution of groundwater with nitrate is caused primarily by the leaching of nitrate from various nitrogen fertilisers. Besides farmyard manures such as liquid manure and slurry, these also include the mineral fertilisers that are used in intensive crop-farming. The last few years have also seen an increase in the use of digestate, which occurs as a by-product of biogas power plants, as an agricultural fertiliser. All of these things can contribute to higher nitrate values in groundwater if fertilisation is not matched to specific crop requirements. Accordingly, the development of indicator 2.1.a – Nitrogen surplus in agriculture – influences the nitrate load in groundwater.

In order to measure the actual influence of agricultural activity on the nitrate load of waters, there is a separate system of nitrate reporting to the EU. For this report, the monitoring sites for waters in predominantly agricultural catchment areas are selected from the EEA site network. The nitrate load in that specific part of the monitoring network is therefore above the average for indicator 6.1.b.

German Government activities relating to the indicator

Cases of nitrate pollution of groundwater are observable in Germany. High nitrate content is a major cause of eutrophication of inland surface waters as well as coastal waters and seas. Given that a considerable proportion of drinking water in Germany is obtained from groundwater, nitrate pollution ultimately threatens the sources of drinking water supply.

As shown by the current monitoring data from the representative monitoring network for reporting to the European Environment Agency (EEA monitoring network), in the period from 2012 to 2014 the quality standard of no more than 50 mg/l specified in the Ground Water Ordinance was breached at 18.1 % of all groundwater monitoring sites.

The naturally occurring values for nitrate are between zero and a maximum of 10 mg/l. Contents between 10 and 25 mg/l are signs of minor to medium pollution. Nitrate concentrations between 25 and 50 mg/l or above indicate significantly loaded groundwater.

In these cases, the chemical status of the groundwater is poor, and measures must be taken to reduce the load, as is also the case when a trend towards deterioration is observable.

One of the causes of groundwater pollution is nitrogen fertilisation in volumes that exceed specific crop requirements. High nitrate loads often occur in regions with large livestock populations and in regions with low rates of groundwater recharge. In regions with large livestock populations the high percentages of surplus farmyard manure, such as liquid manure and slurry, can lead to high nitrogen inputs and so contribute to nitrate pollution. In areas with intensive arable farming, moreover – especially areas sown with specialised crops – high nitrate concentrations in groundwater can also result from overapplication of mineral fertilisers. The volume of digestate from biogas plants used in agriculture has also increased significantly over the last ten years. This digestate is also a significant potential source of localised nitrogen input.

Previous and planned measures

In order to reduce the nitrate load in groundwater, it is essential to adhere consistently to the rules on fertilising in accordance with local conditions and the needs of the crop, to improve efficiency in the use of farmyard manure of animal and plant origin and to make considerable reductions in regional nitrogen surpluses, for example by ensuring that farmyard manures are used in regions with nitrogen deficiency.

A special focus is placed on areas where nitrate loads are the main problem. Important steps have been the revisions of fertiliser application legislation in 2017 and 2020 (see also the sections on SDG 2 and SDG 15), which may be expected to yield more efficient and resource-saving use of nitrogen, as well as consistent enforcement and surveillance.

These steps have served to limit nitrogen fertilisation more strictly, for example through:

- Extension of the closed periods for fertiliser application;
- Inclusion of biogas digestate in the maximum permissible application volume of 170 kg N per hectare/year for nitrogen from organic and organo-mineral fertilisers, including farmyard manures;
- Additional measures taken by the Länder to reduce nitrogen input into groundwater in areas which have particularly high nitrate loads or in which eutrophication has occurred.

The continuous provision of advice and training to farmers, both in organic and conventional agriculture, is another important measure.

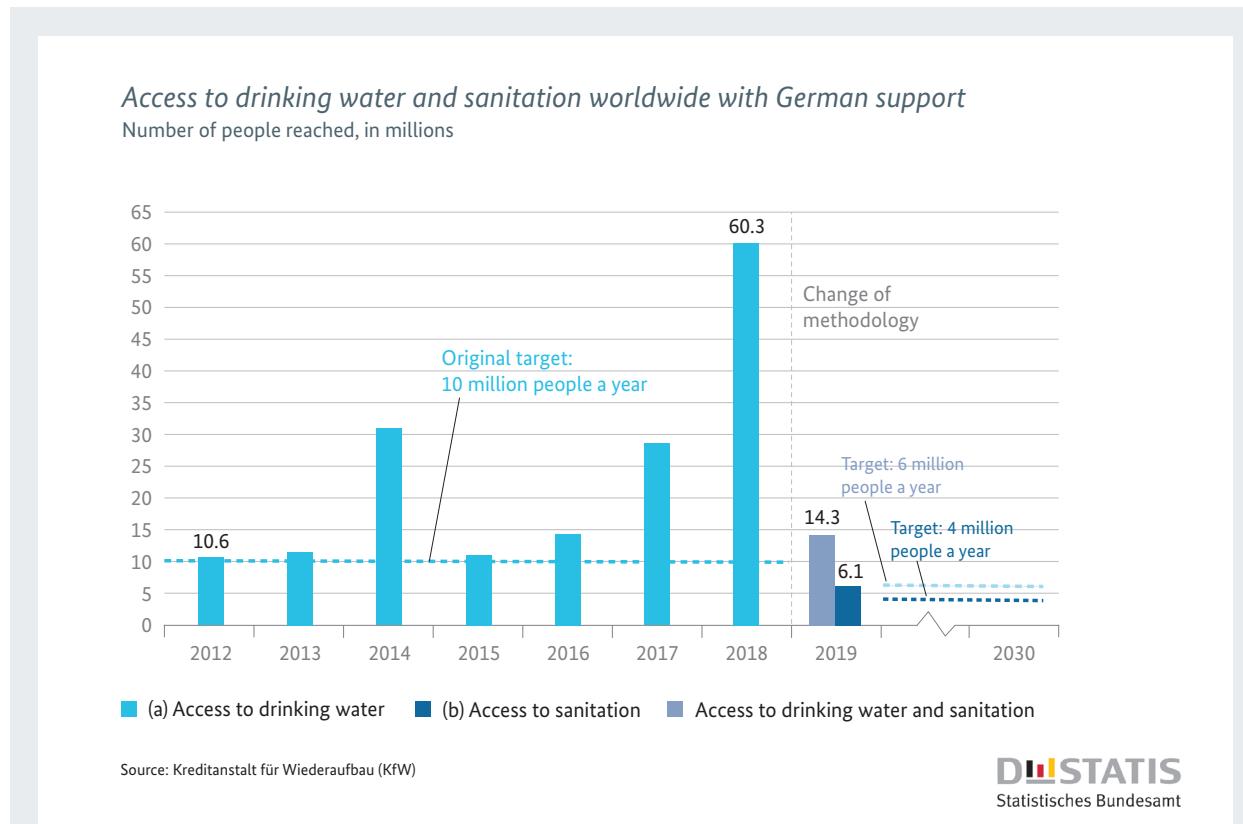
The amendment of the Fertiliser Application Ordinance in 2020 has enhanced requirements for fertilisation, for instance by introducing an improved compulsory system of fertilisation records for each parcel. In areas where nitrate loads in groundwater are especially high, additional mandatory countermeasures have been introduced. The nutrient balance is evaluated here, for example.

In addition, in cooperation with the Länder the technological standard of municipal sewage treatment plants is to be reviewed in the light of the nutrient-related requirements of the Waste Water Ordinance and, where necessary, upgraded.

The Federal Ministry of Education and Research is currently preparing a funding measure devoted to groundwater, focusing on blueprints for sustainable farming and ecosystem protection that take due account of nutrients and harmful substances.

6.2.a/b Development cooperation for access to drinking water and sanitation

Drinking water and sanitation – Better access to drinking water and sanitation worldwide, higher (safer) quality



Definition of indicators

The indicator shows the number of people in the relevant reference year who obtained first-time or improved access to drinking water (6.2.a) and/or sanitation (6.2.b) as a direct result of German support.

Targets and intention of the German Government

Inadequate provision of drinking water and sanitary facilities has far-reaching consequences for human nutrition and health. The target of the German Government is that ten million people worldwide should, with German support, obtain access to drinking water and sanitation each year up to 2030. This target has now been further refined, and now six million people worldwide are to obtain access to drinking water with German support each year until 2030, while four million people in the world are to obtain access to sanitation each year with German support.

Content and development of indicators

The indicator is based on data from the Kreditanstalt für Wiederaufbau (KfW) and only measures the number of people reached through its support. Measures taken by other parties, such as the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Länder and private aid agencies, are not taken into account. The indicator is based exclusively on the planned scope of new funding commitments for drinking water and sanitation projects at the time of submission of the programme proposal to the Federal Ministry for Economic Cooperation and Development. The KfW assesses the number of people who, following completion of the construction projects, will have obtained first-time or improved access to drinking water and sanitation or will be able to benefit from the constructed facilities. Whether people are actually reached cannot be estimated in practice until the infrastructure has become operational, and this is not what the indicator shows. Since a person may obtain first-time or improved access to both drinking water and sanita-

tion, double counting is possible between the two indicators and between two years.

The funding granted by the KfW comprises grants and loans financed from the federal budget and funds raised in the financial markets. The recipients are generally developing and emerging countries, which means that this indicator is related to indicator 17.1 – official development assistance as a proportion of gross national income.

In 2019 the data collection method was revised. Whereas the indicator previously counted people who were reached either directly, e.g. by domestic connections, or indirectly, e.g. the entire population of a country supported by a sectoral reform programme, it now covers only those people who are reached directly. In 2017, for instance, of the total of 28.6 million recorded beneficiaries, 9.5 million were reached indirectly. In 2018, 45.1 million out of a total of 60.3 million were indirect beneficiaries. In 2017 and 2018 the indirectly reached target group represented 33.2% and 74.8% respectively of the total number of beneficiaries. Another change lies in the fact that the figure is based only on the proportion of beneficiaries who have been reached by German-funded

share of measures. Contributions made by other donors and the efforts of the host country itself are not counted. Similarly, no consideration is given to energy-efficiency measures, improvements to operational processes or renewals of pumping stations, since these do not lead directly to improved access for the target group.

In recent years, the planned numbers of people who were to obtain access to drinking water and sanitation with German support have always been above the target of ten million. Under the revised methodology, the planned numbers of people who were to obtain first-time or improved access in 2019 were about 14.3 million for drinking water and 6.1 million for wastewater and sanitation.

The commitments made by the KfW with regard to drinking water and sanitation rose by 26.0% from 2012 to 2018 to more than EUR 1 billion. By contrast with the commitments, disbursements have steadily declined since 2015 to the most recent figure of EUR 424.9 million. One of the main reasons for this lies in the time lag between commitments and payments.

German Government activities relating to the indicator

Previous measures

Together with partner countries, the German Government is committed to the provision of the population with safe, affordable and constant access to drinking water and sanitation and follows a human rights-based approach in pursuit of that aim. From 2013 to 2017, Germany assisted partner countries with ODA funds totalling more than EUR 3.3 billion for this purpose. Numerous partner countries are supported in the framework of financial and technical development cooperation, chiefly for urban access schemes but also for rural schemes. The German Government is currently assisting 50 partner countries through official development cooperation, primarily in sub-Saharan Africa and in the Middle East and North Africa (MENA) region.

In its development cooperation programmes the German Government has made ample use of opportunities to respond rapidly and flexibly to the COVID-19 pandemic. Its efforts have focused particularly on water, sanitation and hygiene. In countries such as the Congo, Tanzania, Uganda, Pakistan and the Philippines, the response capacity of local actors is being reinforced. Schools and healthcare establishments in particular are benefiting from knowledge sharing and infrastructure measures such as the adaptation and use of affordable group hand-washing facilities.

Planned additional measures

In the framework of the Round Table on the Internationalisation of Education, Science and Research, an interdepartmental research and education programme entitled Water Security in Africa (WASA) was prepared for launch in 2020. Led by the Federal Ministry of Education and Research, the programme addresses the issues of water resource management, water technology and infrastructure and hydrological forecasting as a contribution to the pursuit of the UN sustainability goals in sub-Saharan Africa.

Germany's partners are assisted in shaping and implementing their national policies and plans with a pro-poor focus and in responding to health threats such as the COVID-19 pandemic. One of the key aims is economically sustainable yet socially acceptable funding. This means that efficient providers not only guarantee the sustainable operation of technical and organisational capacities but also gradually extend their services to those with no provision or insufficient provision. In this programme, wide-impact business models are to help ensure access for poorer strata of the population. German development cooperation supports context-sensitive assistance for the establishment and expansion of centralised, semi-centralised and decentralised supply systems.

German development cooperation will be a source of increasing support for partner countries to help connect households to the water system and to ensure the operation, maintenance and management of the pipeline networks. Funding that is both economically sustainable and socially acceptable is a key requirement in this context.

Successful approaches in areas such as cooperation at schools with the education and health services, are being further developed. In those countries affected by refugee and migratory movements in the MENA region and in sub-Saharan Africa in particular, Germany will take measures to improve the water and sanitation infrastructure in refugee camps and in host communities and so to help prevent crises.

[Planned measures relating to access to drinking water \(6.2.a\)](#)

As an effective and efficient contribution to the national implementation of the 2030 Agenda and in view of the SDG monitoring criteria, Germany is stepping up its support of its development cooperation partners' efforts to connect households to the water network and to ensure water treatment and the operation, maintenance and management of pipelines and installations. On the way to nationwide pipeline networks with domestic connections, interim solutions may be required. These include, for example, communal standpipes or water kiosks, which represent a significant advance by providing people with treated clean and safe water to drink. Similarly, support is being provided for the creation and operation of pro-poor funding mechanisms and the reinforcement of the local tier of government, measures that enable institutions (water companies) and individuals to learn continuously.

To this end, there is increased support both for capacity-building measures for good governance in the water sector – focusing, for example, on regulation and supervision and on monitoring – as a prerequisite for sustainable provision and for targeted action to increase the economic efficiency of supply undertakings. The latter aim is achieved, for example, by reducing water losses or by improving the collection of water charges.

[Planned measures relating to sanitation and wastewater management \(6.2.b\)](#)

German development cooperation contributes to access to adequate and equitable sanitation and hygiene for all within the meaning of SDG 6.2 and to improved wastewater management (SDG 6.3). The Federal Ministry for Economic Cooperation and Development supports measures across the entire technological spectrum, from localised sewage treatment systems to central treatment works. The aim of sustainable management of faecal waste and sewage sludge is already built into programmes at the design stage.

In the realm of sanitation, German development cooperation is guided by the principle of the circular economy. This means that sanitation is seen as part of a whole cycle in which, on the basis of human needs, every part of the process is taken into account, from toilets to the collection and transport of wastewater and faeces to treatment and recycling or disposal.

It is equally important to support the establishment and development of professional service providers that are sustainably financed and able to extend their service provision to those with no sanitary facilities. Lastly, in the context of the COVID-19 pandemic, particular relevance attaches to hygiene measures that support behavioural changes and provide the conditions for such changes, such as the installation of hand-washing facilities.

7. Ensure access to affordable, reliable, sustainable and modern energy for all

a) Main substance and political priorities in the view of the German Government

SDG 7 identifies the essential requirements for the development of a global sustainable energy supply that is based to a great extent on the three objectives of the Sustainable Energy for All initiative (SE4ALL) established by the Secretary-General of the United Nations. SDG 7 is closely connected with such topics as poverty (SDG 1), health (SDG 3), water (SDG 6), economy (SDG 8), cities (SDG 11) and climate change (SDG 13).

Struktur des SDGs

SDG 7 addresses universal access to affordable, reliable and modern energy services (7.1), a substantial increase in the share of renewable energies in the global energy mix (SE4ALL initiative: double the share of renewable energies in the global energy mix) (7.2) and doubling of the global rate of improvement in energy efficiency (7.3).

National importance

The national implementation of SDG 7 coincides with the energy transition, which sets the framework in Germany for a sustainable and socially balanced energy policy with long-term goals. Germany wants to preserve the natural foundations of life and, as a means to this end, is radically transforming its energy supply system. With the energy transition, Germany is embarking on a journey towards a sustainable energy supply that is built on the cornerstones of efficient energy use, a reduction of energy consumption and the further expansion of energy generation from renewable sources. The energy transition is thus making an important contribution to the pursuit of national, European and global climate targets. The main guiding principle of energy policy remains the triad of security of supply, environmental compatibility and affordability. The German energy transition is embedded in the EU energy transition and the European internal market. It is conditioned and supplemented by European legislation. This generates significant synergy in the drive to meet not only national and common European but also global objectives and obligations.

In recent decades Germany has succeeded in reducing energy consumption while increasing economic output and also considerably increasing the share of renewable energy in gross final energy consumption. Thanks to the increasing supply of renewable energy and greater efficiency, net dependence on fossil energy imports has also decreased. The transformation of the energy system is also creating new value-creation potential for industry and commerce

located in Germany. The aim of greenhouse gas neutrality in 2050 and the associated requirement to decarbonise energy supplies by 2050 at the latest is an important benchmark for national and European climate and energy policies and for energy-related foreign and development policies. Successes in the field of climate and energy policy have been due to an appropriate mix of instruments and an early focus on sustainable energy technologies. The promotion of renewable energies in Germany has helped to plot a learning curve and to reduce energy technology costs, even on a global scale. Now other countries can also benefit from these effects.



Nationally, in the EU and globally, the German Government is committed to the reduction of subsidies for fossil fuels with a view to creating a level playing field for all energy sources and promoting the goal of decarbonisation.

The energy transition is also a key element of German climate policy (cf. SDG 13).

Political priorities

In October 2019, by adopting the 2030 Climate Action Programme, the German Government took the fundamental decisions that were required to implement the Climate Action Plan 2050 on the basis of legally binding obligations and to achieve the European climate targets for 2030 by which Germany is bound. The Climate Action Programme contains a comprehensive package of measures for all sectors. In particular, from 2021 a national emissions trading scheme has introduced blanket pricing of CO₂ emissions from heating and transport. Proceeds from the sale of emission certificates are reinvested in climate measures or returned in full to individuals and companies in the form of concessions, for example by lowering of the levy payable under the Renewable Energy Sources Act. The German Government will also press for the introduction in the long term of a Europe-wide system of certificate trading covering all sectors. In addition, the abandonment of coal-fired power generation by 2038 at the latest will make a major contribution to the reduction of CO₂ emissions in the energy sector.

Efficient energy use

Saving energy and using it more efficiently are keys to achievement of the climate goals. Energy efficiency also contributes to growth and prosperity in Germany, whether through the cost savings it brings for private and industrial consumers or through the associated investments and the development of particularly energy-efficient products and processes.

Accordingly, Germany has set itself ambitious energy-efficiency targets, for example in the Energy Concept, its blueprint for energy policy, and in the Energy Efficiency Strategy 2050, and has already achieved a great deal. Nevertheless, great scope for savings and requirements for further action still remain. By means of a broad-based public information campaign, a wide range of information on the subject of energy efficiency has been communicated, focused especially on energy renovation measures in buildings, with a view to harnessing potential for efficiency savings and for the use of renewable energy.

Developing renewable energies efficiently

Alongside the replacement of coal-fired by gas-fired combined heat and power plants, and the phasing out of coal-based power generation in general, the targeted and efficient development of renewable energies, synchronised with grid capacity and increasingly market-based, is a crucial milestone on the route to the climate goals in the energy sector. With the 2017 reform of the Renewable Energy Sources Act, support for renewables was switched in principle to an auction system. This paradigm shift away from state-administered to competitively determined support rates has essentially made renewables development more efficient and hence less expensive. The prerequisite is effective competition between bidders with sufficient approved sites for wind turbines and photovoltaic systems.

The 2021 revision of the Renewable Energy Sources Act sets the objective of zero net emissions of greenhouse gases from the generation and consumption of electricity in Germany, to be achieved before 2050. It also lays down the volume of electricity from each renewable energy source for which bids will be invited each year until 2030 and so sets out the route map for the development of renewable energy. With the latest revision of the Combined Heat and Power Act (*Kraft-Wärme-Kopplungsgesetz*), the German Government has created a legal framework to accompany the abandonment of coal. Flexibilisation and decarbonisation are the leitmotifs of the revised Act.

German Government activities

I. Measures in Germany

1. Increasing energy efficiency

By 2020, Germany's primary energy consumption is to be 20 % lower than in 2008; by 2030, a 30 % reduction is targeted and by 2050 a 50 % reduction. The German Government's aim is to reduce gross electricity consumption by around 10 % of its 2008 level by 2020, and to achieve a 25 % reduction by 2050. In the transport sector, final en-

ergy consumption is to be cut by roughly 10 % of its 2005 level by 2020 and by around 40 % by 2050. The Long-term Renovation Strategy (LTRS) of the German Government sets out a route map for efficiency gains in the national building stock, the target being a reduction to 2,000 petajoules (PJ) of non-renewable primary energy consumption by 2030, a decrease of 55 % compared with 2008. In this way the buildings sector will make a commensurate contribution to the targeted 30 % reduction in primary energy consumption.

With a view to harnessing even more of the potential for efficiency gains in the buildings sector, the Climate Action Programme provides for a coordinated mix of instruments, focusing particularly on higher funding, carbon pricing and information. With the Energy Efficiency Strategy 2050, the German Government has devised an ambitious cross-sectoral strategy and further developed the National Action Plan for Energy Efficiency (NAPE 2.0). NAPE 2.0 pools numerous measures from the Climate Action Programme that relate to energy efficiency, accompanying them with supplementary measures which cover all demand sectors.

2. Increasing the share of renewable energy

Germany has set itself the target of increasing the share of renewable energy in gross final energy consumption to 60 % by 2050. The intermediate targets are increases of 18 % by 2020, 30 % by 2030 and 45 % by 2040. These targets are consistent with SDG target 7.2. In 2019, the share of renewable energy in gross final energy consumption was 17.5 %.

As far as electricity production is concerned, the German Government has decided to phase out coal- and lignite-fired power generation completely by 2038 while continuing to forge ahead with the development of energy generation from renewable sources. In 2019, renewable energies already accounted for about 42 % of gross electricity consumption, and the aim is to increase this proportion to 65 % by 2030.

Further efforts need to be made in the transport sector to promote the use of energy from renewable sources. In 2018, the share of renewable energy in gross final energy consumption in the transport sector was 5.6 %.

In the heating and buildings sector, the main instruments to promote market penetration of renewable heating technologies and increase their market share are the Market Incentive Programme for the Use of Renewable Energy in the Heating Market and, from 1 January 2021, the Federal Funding for Efficient Buildings

scheme. Through these and other measures referred to in the Long-term Renovation Strategy of the German Government, the buildings sector will make a commensurate contribution to the achievement by 2030 of the targeted 27% share of renewables in heating energy.

3. Energy research and development

With the Seventh Energy Research Programme, Germany has systematically channelled its energy research towards the energy transition. The programme focuses on technology and innovation transfer through the living labs of the energy transition. Besides renewables and energy efficiency, the programme adds a new emphasis on cross-sectoral and cross-system issues relating to the energy transition, such as digitalisation, sector coupling and community-focused energy transition research. For the period from 2018 to 2022, the German Government has earmarked a total of some EUR 6.4 billion for the Seventh Energy Research Programme. This represents an increase of about 45 % in support for energy research over the previous funding period of 2013 to 2017.

The core objective of the Seventh Energy Research Programme is to develop innovative holistic responses to the challenges of the energy transition and to bring them rapidly to the market in order to ensure a sustainable, affordable and environment-friendly supply of energy. The funding covers the entire innovation process from application-focused basic research to commercialisation. As well as the technical dimension of the energy transition, the focus is also on its non-technical dimensions, such as social processes, pro-innovation conditions and interaction between the two.

Outside the scope of its Seventh Energy Research Programme too, the German Government is supporting innovative technologies that contribute to the energy transition. For example, the German Government's new Framework Programme for Research and Innovation for 2021 to 2024, entitled Microelectronics. Trustworthy and Sustainable. For Germany and Europe, focuses on research and development in the field of energy-efficient electronics for applications such as energy transmission and conversion, partly through the Green ICT initiative.

II. Measures by Germany

The German Government is active in numerous multi-lateral organisations, forums and initiatives, helping to shape the international dialogue on energy policy for the future:

1. G7/G20

Resolutions designed to promote closer cooperation in this field are adopted at G7 and G20 Energy Ministers' Meetings and at G7 Science and Technology Ministers' Meetings. Under Germany's G7 presidency, the heads of state and government resolved in the summer of 2015 to decarbonise the global economy in the course of the century and transform their energy sectors by 2050. The Africa Renewable Energy Initiative (AREI) of the African Union, for example, the aim of which is a large-scale expansion of renewable energy in Africa, was also politically reaffirmed at the G7 summit in Elmau. At the climate summit in Paris, the G7 states and other donors pledged a total of more than USD 10 billion for the implementation of AREI. Germany's pledge amounted to EUR 3 billion.

Under Germany's presidency of the G20 in 2017, the G20 nations, except for the United States, adopted the Hamburg Climate and Energy Action Plan for Growth, which provides for vigorous measures for the implementation of the Paris Agreement and the initiation of a global energy transition in accordance with the goals of the 2030 Agenda for Sustainable Development.

2. Active membership of international energy organisations

The German Government is a member of numerous international organisations in the energy sector. It avails itself of the International Energy Agency (IEA) and of contacts with the Agency's 29 other member states to share experience, discuss policy matters and engage in technological cooperation. The German Government also provides substantial support to the International Renewable Energy Agency (IRENA), which was founded in Bonn in 2009 on Germany's initiative for the purpose of promoting the global expansion of renewable energy. By conducting analyses on financing, the political climate and cost trends for renewable energies and providing specific policy advice, IRENA makes important contributions to security of energy supply, economic development and climate action all over the world.

In order to assist German companies in gaining market access and in distributing their climate-friendly energy technologies and services, the German Government implements the German Energy Solutions Initiative. Through the projects that are executed throughout the world with this support, considerable volumes of CO₂ savings are made every year.

3. Regional and international networks and forums

The German Government is involved in regional and international energy policy networks and forums such as the SE4ALL initiative, the Africa-EU Energy Partnership (AEEP), the International Renewable Energy Conferences (IRECs) and the Renewable Energy Policy Network for the 21st Century (REN21). In addition, the German Government supports the Energy Sector Management Assistance Programme (ESMAP) of the World Bank.

III. Measures with Germany

Side by side with the international community, the German Government engages as a leading donor in the Energising Development (EnDev) partnership. Between 2005 and 2019 EnDev enabled more than 22 million people worldwide to access sustainable energy in the form of electricity or modern stoves for low-energy cooking. By 2030, the aim is to enable 100 million more people to access sustainable energy.

1. Energy partnerships

Internationally, the German Government intends to foster understanding of the energy transition and help create the conditions in which it can take place so that sustainable energy supply can become a global reality. Formalised energy partnerships with strategically important partner countries are the key element of bilateral energy cooperation. These partnerships involve high-level intergovernmental energy dialogues that address specific challenges, promote international experience sharing on matters relating to the energy transition and offer German companies a platform to cooperate with companies and institutions in partner countries in a way that gains acceptance for the pursuit of sustainability. One of the current activities in the framework of research and innovation support is the development of universally deployable energy storage systems for domestic use, particularly in hitherto underserved parts of the world. The potential for the establishment of a green hydrogen economy, including the expansion of renewable energies and export logistics, is being explored and developed in cooperation with various countries of West and Southern Africa.

2. Financial resources

The German Government is committed to promoting, for example through energy partnerships and bilateral development cooperation, the achievement of energy efficiency by means of cutting-edge technology; to this end, for instance, it hosts international trade fairs that help to make sustainable technology from Germany available for target markets.

The Federal Government is supporting the establishment of sustainable energy systems in 70 partner countries through technical and financial cooperation. Energy is a focus of the bilateral cooperation in 23 of these countries. In 2019, funding committed to financial cooperation in the field of energy within the ambit of the Federal Ministry for Economic Cooperation and Development amounted to EUR 2.03 billion, while the total volume of funding committed to current energy projects in the realm of technical cooperation ran to about EUR 690 million, including cofinancing commitments. Within this framework the German Government supports the expansion of infrastructure for energy access and the establishment of modern energy systems through technical and financial cooperation.

As part of its development policy, the German Government is also supporting energy projects in least-developed countries (LDCs), for example by developing sustainable energy blueprints based on renewables, especially solar and wind power, in the framework of the Bilateral Trust Fund (BTF). The German Government is supporting the fight against energy poverty in LDCs on the African continent through multilateral initiatives such as the African Renewable Energy Initiative (AREI) and projects such as Energising Development and the Renewable Energy Cooperation Programme (RECP).

The German Government is supporting the mobilisation of private capital through various made-to-measure funding instruments, such as the GET FiT programme, geothermal energy risk facilities and the RECP; RE Devco and the Regional Liquidity Support Facility are at the planning stage. In addition, the German Government is pressing for the reduction of inefficient subsidies for fossil fuels in order to create a fair competitive environment for all energy sources..

3. Communicating the energy transition

The German Government seeks to win over other countries for a global energy transition. To this end, it organises international conferences such as the Berlin Energy Transition Dialogue, makes available a travelling exhibition entitled Energy in Transition – Powering Tomorrow, which tours the world, makes active use of social media, sends experts to conferences abroad and produces information material with wide public appeal such as the Baedeker travel guide Germany – Experience Renewable Energy.

b) Relevant national sustainability indicators and targets/measures

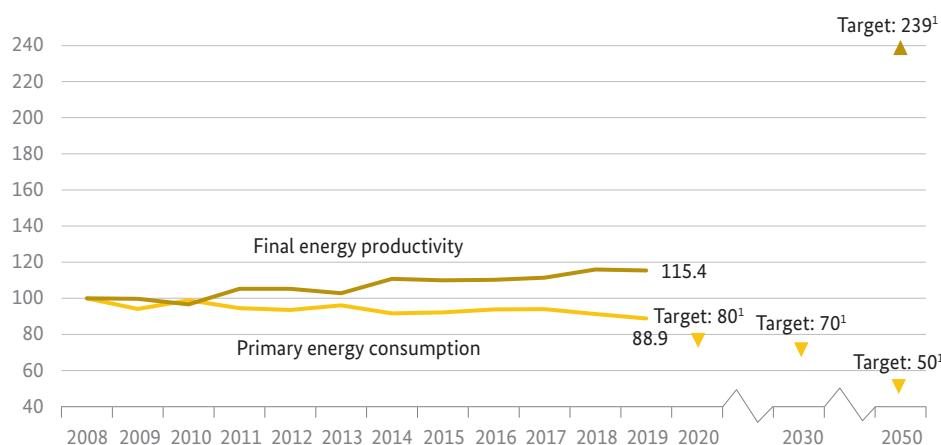
7.1.a/b Final energy productivity and primary energy consumption

Resource conservation – Using resources economically and efficiently

a) Final energy productivity  b) Primary energy consumption 

Final energy productivity and primary energy consumption

2008 = 100



Provisional data for 2019

¹ The target represents an annual increase of 2.1 % in final energy productivity from 2008 to 2050 and a reduction of primary energy consumption by 20 % compared to 2008 in 2020, by 30 % to 2008 in 2030 or by 50 % compared to 2008 in 2050 (energy concept).

Sources: Federal Statistical Office, Energy Balance Association

DSTATIS
Statistisches Bundesamt

Definition of the indicator

The final energy productivity indicator shows the trend of value added for each unit of final energy used. "Final energy" refers to the part of the energy that is available as thermal or electrical energy for the manufacture of goods or for use by households.

The primary energy consumption indicator shows how much energy has been consumed in a country, on the one hand for transformation by the energy industries and on the other hand in industry, households and transport.

Targets and intention of the German Government

After the promotion of renewable energies, the reduction of energy consumption through increased energy efficiency is the second pillar of the energy transition. The

aim is to achieve a high level of economic output while using as little energy as possible. Energy saving protects the climate and the environment and helps to improve the security of supply and industrial competitiveness.

According to the German Government's energy blueprint, final energy productivity is to be increased by 2.1 % annually from 2008 to 2050. At the same time, primary energy consumption is to be reduced by 20 % from its 2008 level by 2020, 30 % by 2030 and 50 % by 2050.

Content and development of indicators

Final energy consumption and primary energy consumption are directly related to one another. Final energy consumption is primary energy consumption less total losses from transformation, flaring and distribution and the statistical difference.

Primary energy consumption is the sum of domestically extracted primary energy sources, use of stocks and all imported energy sources minus storage, energy exports and marine bunkers. The main basis for the calculation of energy consumption comprises the data on energy balances from the Energy Balance Association (AGEB), which are supplemented with data from other sources.

Final energy productivity means how much added value accrues from each unit of final energy used. It constitutes a measurement of energy efficiency in the production of goods and in household energy use. However, estimates of energy efficiency in the transformation process (plant efficiency) or in the transmission of energy (elimination of leakages, improved heat insulation, etc.) cannot be directly inferred from the indicator.

According to provisional findings, final energy productivity in the period from 2008 to 2019 increased by 15.4 %, which equates to an average annual increase of about 1.4 %. This means that the goal of an annual increase of 2.1 % on average up to 2050 is not yet being achieved. In 2019, energy productivity showed a slight year-on-year decline of 0.6 percentage points.

Primary energy consumption registered a year-on-year decline in 2019. Provisional findings indicate that primary energy consumption fell by 11.1 % in the period from 2008 to 2019. Accordingly, if the trend of past years were to remain unchanged, the target value for 2020 would not be achieved.

German Government activities relating to the indicator

Together with the reported gross domestic product, the increase in energy productivity and the reduction in primary energy consumption are important indicators of the degree of success in breaking the link between economic growth and the use of natural resources. Accordingly, these indicators play a key role in the Sustainable Development Strategy.

Previous and planned measures

Back in 2014, the German Government launched the National Action Plan for Energy Efficiency (NAPE), a comprehensive strategy for making more efficient use of energy. NAPE, in conjunction with the Climate Action Programme 2020, defines immediate measures and progressive work processes that lead towards the national energy-efficiency and climate goals. NAPE is supplemented by programmes based on decisions adopted on 1 July 2015 by the chairs of the parties in the governing coalition – the CDU, CSU and SPD.

With a view to further enhancing the impact and efficiency of the support programmes, the Federal Ministry for Economic Affairs and Energy launched a funding strategy for energy efficiency and heat from renewables and radically reformed consultancy and investment support mechanisms. In the period from 2017 to 2020, the funding programmes were gradually restructured, grouped together thematically and aligned with the needs of their target groups.

The aims are, and will remain, to achieve the energy-efficiency targets as quickly as possible, to generate real GDP

with the lowest possible final energy input and to avoid unnecessary energy consumption.

In pursuit of these goals, the German Government adopted EffSTRA, the Energy Efficiency Strategy 2050, at the end of 2019. In so doing, the German Government is fulfilling the undertaking made in the coalition agreement to devise an ambitious cross-sectoral strategy and further develop the National Action Plan for Energy Efficiency.

EffSTRA sets an energy-efficiency goal for 2030 of a 30 % reduction in the 2008 level of primary energy consumption. In accordance with the EU Regulation on the Governance of the Energy Union and Climate Action, the German Government has notified this goal to the Commission in the integrated national energy and climate plan as a contribution to the achievement of the Energy Union targets for 2030.

1. Carbon pricing

With effect from 1 January 2021, the German Government introduced carbon pricing for the transport sector and for the parts of the heating market not covered by the EU Emissions Trading System by applying a national emissions trading scheme to fuels placed on the market. The national scheme covers emissions from the combustion of fossil heating and motor fuels, particularly – in the initial stages – heating oil, liquid gas, natural gas, petrol and diesel. As far as heating is concerned, the system applies to emissions from heat generation in buildings and energy generation and industrial plants that are not covered by the EU Emissions Trading System (EU ETS). In the transport sector, the scheme likewise applies to emissions from the combustion of fossil motor fuels but not to air transport, which is subject to the EU ETS.

2. Federal Funding for Efficient Buildings (BEG)

The newly devised Federal Funding for Efficient Buildings (BEG) scheme combines the existing funding programmes for investment in buildings into a single, comprehensive, substantively improved and modernised support instrument. In this way the user-friendliness and appeal of funding options have been greatly enhanced, there is a sharper focus on ambitious measures, and the application procedures have been greatly simplified. The funding allocation to the existing programmes has been increased. Higher incentives are offered for comprehensive renovations and new builds to the KfW Effizienzhaus (efficient building) standard. The BEG scheme, which includes support from the KfW, ensures that more owners' investments can be funded by means of grants. This reduces the complexity of the funding landscape and creates even stronger incentives for investments in energy efficiency and renewable energy. That, in turn, will help to ensure that the 2030 energy and climate targets for buildings are achieved.

3. Scrappage premium for oil-fired heating systems

To speed up the rate at which oil-fired heating systems are replaced, a scrappage premium was established back in 1 January 2020 that provides up to 45 % of the cost of a new, more efficient heating system under a market incentive, programme. The aim of the new funding strategy is to provide an attractive incentive to switch to renewable heating energy or, where that is not possible, to efficient hybrid heating systems involving gas boilers with a percentage input of renewable energy. In addition, from 2026 it will no longer be possible, in principle, to install purely oil-fired heating systems in buildings in which heat could be generated in a climate-friendlier way.

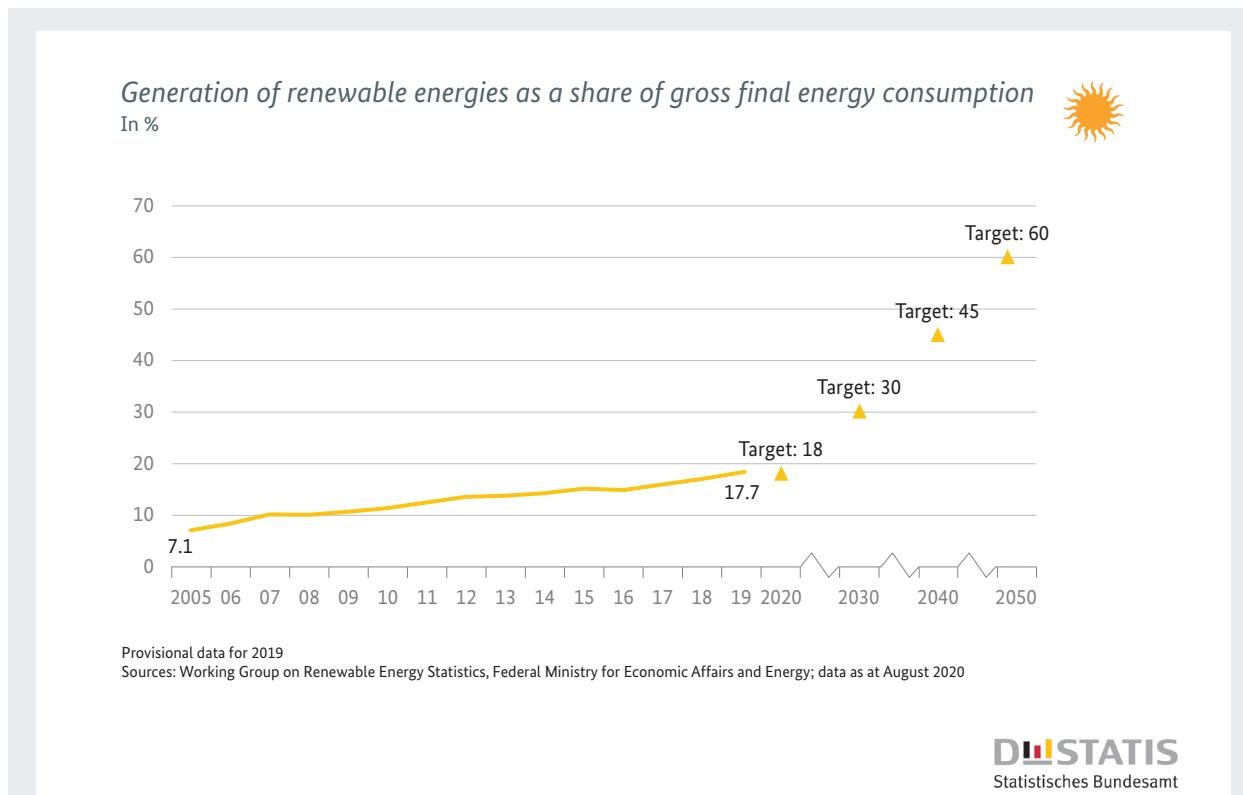
4. Fiscal support for energy renovation of buildings

Fiscal support for the energy renovation of buildings was introduced with effect from 2020 in addition to the existing range of funding mechanisms. This scheme provides for a reduction of tax liability over a three-year period and so ensures that numerous taxpayers who own residential property can benefit simply and without red tape. As an alternative to the other support programmes, property owners can obtain funding for individual renovation works or for phased complete renovations that are classed as eligible for funding in the existing renovation support programmes. In other words, the minimum requirements for fiscal support correspond to those for the relevant investment funding programmes.

EffSTRA, moreover, set in motion a process of dialogue with the stakeholders of the Energy Efficiency Platform. In thematic working groups, devoted to industry, the digital transformation, skilled labour, etc., ways of harnessing untapped potential for energy efficiency savings are explored. At the end of this two-year process, proposals for new measures are to be incorporated into the ongoing update of NAPE 2.0. In addition, a road map is to be drawn up in which the development path for energy efficiency policy beyond 2030 is to be traced.

7.2.a/b Share of renewable energies in gross final energy consumption and share of electricity from renewable sources in gross electricity consumption

Renewable energies – Strengthening a sustainable energy supply



Definition of the indicator

The indicator shows the energy generated from renewable sources as a percentage of gross final energy consumption. Gross final energy consumption encompasses the energy used by final consumers, transmission losses and the energy generation sectors' own energy consumption.

Targets and intention of the German Government

Reserves of fossil fuels such as oil and gas are limited. Their use, moreover, entails the emission of greenhouse gases. Switching to renewables, natural energy sources that constantly regenerate, serves to reduce energy-related emissions and hence the extent of climate change. In addition, it reduces dependence on energy imports and consumption of resources and promotes technological innovation. For this reason, the target of the German Government is to increase the share of renewable energy in gross final energy consumption to 18% by 2020, to 30% by 2030, to 45% by 2040 and to 60% by 2050.

Content and development of the indicator

For this indicator, the electricity generated from renewable sources, which include hydro power, onshore and offshore wind power and solar power, the heat generated from sources such as geothermal energy, biomass and biogenic waste and the consumption of regenerative motor fuels are presented as a percentage of the energy generated from all sources that is consumed in Germany. Besides renewables, these sources also include imported electricity and fossil fuels such as coal and lignite, oil and gas.

The indicator is calculated by AGEE-Stat, the Working Group on Renewable Energy Statistics. In contrast to the reporting under the Renewable Energy Directive of the European Union (Directive 2009/28/EC), uses an average value for hydro and wind power over several years to smooth the effects of varying supply, this indicator takes account of the volumes of electricity actually generated from wind and hydro power (German Government Energy Concept).

With regard to the method used to calculate the indicator, it should be noted that imports and exports of electricity are not included in full in the consumption of energy from renewable sources, whereas they are factored into gross final energy consumption. Accordingly, the indicator may overstate or underestimate the ratio of energy from renewable sources to gross final energy consumption, depending on the balance of trade. If there were an export surplus for electricity – as has been the case since 2001 – the actual percentage of renewables in the energy mix would be lower than the level represented by the indicator.

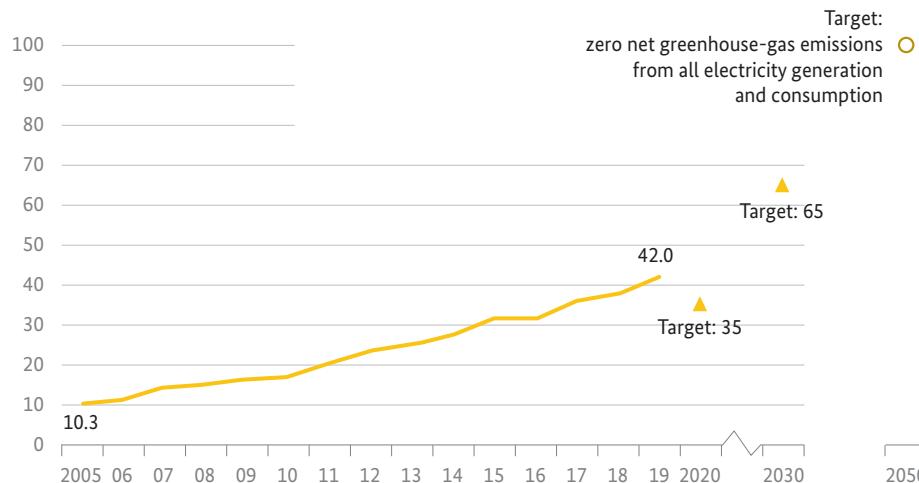
Between 2005 and 2019, the share of renewable energy in gross final energy consumption rose from 7.1% to 17.7%. If the trend continues at the average pace seen in the past few years, the goal for 2020 will be achieved.

The use of renewables varies widely between sectors. In 2019, the share accounted for 42.0% of gross electricity generation, 15.0% of final energy consumption for heating and cooling and 5.6% in the transport sector. Among renewable energies, biomass, with a share of 58.8% and wind power, which accounts for 24.1%, play the greatest part in primary energy consumption.

The indicator has dependencies with indicator 13.1.a (Greenhouse gas emissions), as well as with indicators 3.2.a (Emissions of air pollutants) and 7.2.b (Share of electricity from renewable energies in gross electricity consumption).

Electricity from renewable sources

As a % of gross electricity consumption



Provisional data for 2019

Sources: Working Group on Renewable Energy Statistics, Federal Ministry for Economic Affairs and Energy;
data as at December 2020

DISTATIS
Statistisches Bundesamt

Definition of the indicator

The indicator reflects the share of electricity from renewable energy sources in gross electricity consumption.

Targets and intention of the German Government

Switching to renewables, natural energy sources that constantly regenerate, can reduce demand for fossil fuels.

As a result, dependence on imports of conventional fuels would be reduced, as would the release of energy-related emissions, which would limit the extent of climate change. The German Government had therefore set itself the aim of increasing the share of electricity from renewable sources in gross electricity consumption to at least 35 % by 2020 and at least 65 % by 2030.

Before 2050, the generation and consumption of electricity in Germany are to produce zero net greenhouse gas emissions.

Content and development of the indicator

The indicator is calculated by the Working Group on Renewable Energy Statistics (AGEE-Stat) from various official and unofficial sources. Gross electricity consumption is the sum of all generated and imported electricity minus the volume of exported electricity. It therefore comprises the electricity generated in Germany, the balance of exchanges across national borders, power stations' own electricity consumption and network losses. The following are considered to be renewable energies: wind power, hydro power, solar radiation energy, geothermal energy and biomass including biogas, biomethane, landfill gas and sludge gas as well as the biodegradable proportion of waste from households and industry.

Over the period from 2005 to 2019, the share of renewable energies in electricity consumption increased from 10.3 % to 42.0 %. This means that the target set by the German Government in its energy policy blueprint of at least 35 % by 2020 was already achieved in 2017. This trend was accelerated by legal measures such as the Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz). Among other things, the Act requires grid operators to give priority to energy from renewable sources for electricity feed-in. If the trend of past years continues, the target for 2030 is also likely to be achieved.

As in the case of indicator 7.2.a, with regard to the calculation method it should be noted that external trade in electricity directly influences the denominator of the indicator but not the numerator.⁴ Regardless of whether electricity is produced from renewable sources, net exports reduce gross electricity consumption, while net imports increase gross electricity consumption. Since 2003, Germany has increasingly been a net exporter of electricity, which means that the indicator has been overstating the actual share of renewable energies in gross electricity consumption over the subsequent period.

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Since 2005, the share of renewable energies in electricity generation has risen, particularly because of the increased use of wind power, photovoltaics and biomass. Between 2005 and 2019, declining electricity generation from conventional energy sources was offset by an increase of almost 180 terawatt-hours in the production of electricity from renewable sources. In particular, onshore and offshore electricity generation from wind power soared from 27.8 TWh in 2005 to 126 TWh in 2019. Offshore wind farms contributed about 24.7 TWh of the total in 2019. Electricity generation from photovoltaics rose between 2005 and 2019 from 1.3 TWh to 46.4 TWh. Electricity generation from biomass more than trebled in the same period to 50.2 TWh.

German Government activities relating to the indicator

The increased use of renewable energies serves to ensure the sustainable development of energy supply. Energy consumption requirements are to be met to an increasing extent from renewable sources, and the percentage of fossil fuels is to be reduced accordingly. This is one of the two strategic objectives of the German Government's blueprint for a reliable, green and affordable supply of energy.

Previous measures

Electricity sector: The key reference instrument for funding the development of renewables in the electricity sector is the Renewable Energy Sources Act. Since 2017 the amount of funding has been determined on a competitive basis, in principle, through the use of auctions. This system is advancing the market integration of renewables as well as increasing cost-efficiency.

In the heating sector, the existing federal support programmes are having an effect; as a result, the target for 2020 (14 % share of renewables in the energy used for heating and cooling) has already been achieved since 2018.

In the transport sector, the reference instrument is the greenhouse gas reduction quota established by the Federal Emission Control Act (*Bundes-Immissionsschutzgesetz*). Anyone placing fossil petrol and diesel fuels on the market is required to make a 6 % contribution (4 % prior to 2020) to the reduction of greenhouse gas emissions; several compliance options are available, such as the use of sustainable biofuels or electricity-based fuels or of electricity in the case of road vehicles with an electric motor.

⁴ This is a purely mathematical effect and does not imply any correlation between the trade balance and gross electricity consumption.

Planned additional measures

In the electricity sector, the aim of the German Government is to achieve a 65 % share of renewables in gross electricity consumption by 2030. This cannot happen without the targeted and efficient development of these renewable sources of energy, synchronised with grid capacity and increasingly market based. To achieve the 65 % target, the 2021 revision of the Renewable Energy Sources Act will prescribe the annual volumes to be put up for auction for the various technologies, thereby mapping out their development paths up to 2030. It will also set the long-term expansion target of zero net greenhouse gas emissions from all electricity generated or consumed in Germany, which is to be attained before 2050. By extending innovation tenders and topping up their funding, the revised Act will stimulate innovation and promote cost-efficiency. Innovations both in the design of the auctioning process and in technical features, such as combinations with energy storage solutions, will be tested. The revision of the Offshore Wind Energy Act (*Windenergie-auf-See-Gesetz*) provides for a considerable increase in the installed capacity target for offshore wind power for 2030 as well as for an ambitious long-term development target. Lastly, the revision of the Federal Requirements Plan Act (*Bundesbedarfsplangesetz*) lays down rules for the development of electricity grids, thereby helping ensure that the development of renewables is synchronised with the requisite expansion of the supply grids. Increasing importance also attaches to integrated development of the electricity, heating and transport sectors.

The use of hydrogen will assume a key role as an alternative to fossil sources of energy and mineral resources. In the view of the German Government, only hydrogen produced on the basis of renewable energies ("green" hydrogen) is sustainable in the long term. The National Hydrogen Strategy of the German Government is the starting point for the development of a market for hydrogen and hydrogen technology. With the strategy, the German Government has created a framework for the future production, transport, use and recycling of hydrogen.

It also defines the steps that are necessary to achieve the climate goals and to further develop international energy cooperation. The main element of the National Hydrogen Strategy is a national action plan with 38 measures designed to support the launch of the hydrogen market and so, for example, reduce production costs through economies of scale.

Particularly with a view to reinvigorating the growth of on-shore wind power, which has stalled at the present time, the German Government is working with stakeholders and the Länder on measures to improve site availability and the approval situation and so eliminate existing obstacles.

For the heating and transport sectors, a comprehensive system of carbon pricing has been operational since the start of 2021, based on an emissions trading scheme. The German Government has thus introduced a quantitative instrument based on market economics (see above) that also covers the heating and transport sectors, which are not part of the European Union Emissions Trading System (EU-ETS). In this way, emissions of greenhouse gases can be reduced at minimal cost to the economy.

In the heating sector, moreover, existing support programmes forming part of the funding strategy for energy efficiency and heat from renewables are undergoing further development. The German Government is working on the transposition of the European Renewable Energy Directive (RED II).

The existing funding programmes for the improvement of energy efficiency and the promotion of renewable energy in buildings are currently being merged into the new *Federal Funding for Efficient Buildings* scheme and thereby optimised, simplified and expanded in scope. The reshaping of the funding landscape for buildings serves in particular to transpose RED II and its requirement that member states take measures with a view to achieving an indicative increase of 1.3 percentage points a year in the share of renewable energy in the heating and cooling sector.

In the transport sector, under the 2030 Climate Action Programme support is to be provided for liquid and gaseous synthetic fuel production plants with a view to scaling up to large-volume electrolysis and refinery processes as well as for measures to scale up biogas plants for large-volume production. Additional efforts are to be made to increase the use of alternative drive systems in rail passenger transport and in local public transport. To this end, commitment appropriations to the Special Energy and Climate Fund for alternative drive systems in rail transport were increased in 2020 by almost EUR 198 million.

8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

a) Main substance and political priorities in the view of the German Government

The 2030 Agenda describes the vision of a world “in which every country enjoys sustained, inclusive and sustainable economic growth and decent work for all” (Declaration, point 9). This vision is reflected in SDG 8.

The 2030 Agenda also emphasises the economic importance of businesses as agents of sustainable development and their task with regard to innovations: “Private business activity, investment and innovation are major drivers of productivity, inclusive economic growth and job creation. We acknowledge the diversity of the private sector, ranging from micro-enterprises to cooperatives to multinationals. We call on all businesses to apply their creativity and innovation to solving sustainable development challenges.”

In the 2030 Agenda, SDG 8, with its highly heterogeneous targets, sets primarily economic and social priorities: economic growth (8.1), economic productivity (8.2), entrepreneurship (8.3), resource efficiency (8.4), full employment and decent work (8.5), youth employment (8.6), eradication of forced labour and elimination of child labour (8.7), worker protection (8.8), promotion of sustainable tourism (8.9) and access to financial services (8.10).

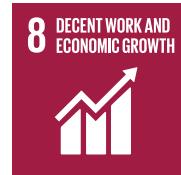
The German Government embraces its responsibility to contribute to the achievement of these targets both nationally and internationally. Sustainable economic growth, stable public budgets, decent work, a high employment rate, sustainable supply chains and resource conservation are all priorities of the German Government that relate to SDG 8. They are also reflected in the indicators for SDG 8.

There are numerous overlaps with the other SDGs, especially with SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure), SDG 12 (responsible consumption and production), SDG 13 (climate action) and SDG 17 (partnerships for the goals), as well as with SDG 1 (no poverty) and SDG 10 (reduced inequalities).

Sustainable economic activity

Sustainable economic activity in the context of a market economy simultaneously pursues four aims, namely economic success, social cohesion, conservation of natural resources and the exercise of global responsibility. It is focused on striking an enduringly solid balance between these aims and so increasing the well-being of society in its entirety. Sustainable economic activity is based on responsible management of all resources, such as air, water,

soil, biodiversity and ecosystems, raw materials, labour and capital.



Economic growth makes a vital contribution to a society’s prosperity and its quality of life. It is an essential foundation for rising wages, new and secure jobs and an effective welfare state and increases the manoeuvrability of the public authorities. Economic growth accompanied by a high level of employment and competitive businesses also facilitates the necessary transition to a climate-neutral economy, because it increases the requisite popular and corporate acceptance of the transition and creates the essential technical and financial capacity to make the transition.

Statements from the dialogue on the GSDS

“The Federal Government rightly observes that economic growth accompanied by a high level of employment and competitive businesses facilitates the necessary transition to a climate-neutral economy. We therefore support the aim of qualitative growth, the objectives of which are not only economic but also social and environmental. At the same time, we call on politicians to create even better conditions in future that strengthen industry, and particularly small and medium-sized enterprises, and promote innovations.

ZVEI – German Electrical and Electronic Manufacturers’ Association,
30 October 2020

Economic growth is essentially the product of innovation and investment. It is a reflection of economic activity and of efforts to improve and keep developing business models, processes and products. Without innovation and technical progress the challenges facing us would prove insurmountable. That applies especially to the green transition of the economy and society.

Economic growth is important for many reasons. The German Government, however, does not focus on quantitative growth but on qualitative growth that pays equal heed to planetary boundaries and social concerns.

- The social objective is to combine entrepreneurial freedom and effective competition with social compensation and social security. That is the ideal of the social market economy. With the aid of the principles of social market economics, such as fair competition, corporate responsibility, partnership between management and labour, codetermination and fair distribution of the fruits of economic activity, the foundations are laid for our continuing growth, prosperity and employment.

- The environmental objective is to break the link between economic growth on the one hand and resource consumption and harmful emissions on the other and so achieve a resource-saving and climate-neutral economy. The social market economy must now be developed into a green social market economy. To make this happen, the German Government sees the need for an alliance of society, business and government for climate-neutrality and prosperity and regards the European Commission's Green Deal as a unique opportunity for climate action, sustainability and the economy to be moved forward together.

Accordingly, the goal of economic policy is to strengthen the forces for growth while remaining focused on the social and environmental objectives. This is how the German Government ensures fair, pro-growth conditions for businesses, strengthens industry and SMEs and promotes innovations and business start-ups. At the same time it is shaping the necessary transformation of the economy, for instance through the 2030 Climate Action Programme (see SDG 13), the development of renewable energies (see SDG 7), energy-efficiency measures (see SDG 7) and resource productivity (see indicator 8.1) as well as by promoting new technology in areas such as lightweighting, hydrogen and the bioeconomy (see SDG 12).

These efforts create a wide range of opportunities for Germany as a business location and as a source of innovation and employment, for with such technology, the industrial sector can make an important contribution to climate action worldwide, as well as enhancing Germany's clout as an exporter of cutting-edge technology.

Germany's innovative strength and the openness of its economy give it the potential to foster sustainable economic activity on a global scale too.

Statements from the dialogue on the GSDS

"What is very welcome is the Federal Government's commitment to the social market economy, to sustainable growth and to reinforcement of growth factors, and in this context the focus must be on pro-growth conditions and a level playing field for all businesses."

Central Association of German Craft Industries and Trades (ZDH),
30 October 2020

In this respect, particular importance attaches to businesses as producers and providers of goods and services, as drivers of research and development, as creators of demand for raw materials and semi-manufactures, as employers, as providers of in-house training, as promoters of equality and of a

work-life balance and as bearers of great responsibility for the achievement of sustainable development goals within their own regions.

National accounts as a reflection of economic activity

The aim of national accounts is to paint the most comprehensive as well as detailed quantitative picture as possible of a country's entire economic activity. Since gross domestic product (GDP) as a measure of national economic output is calculated on the basis of international standards, it constitutes an internationally comparable statistical reference value. National accounts serve in particular as a means of analysing cyclical economic trends and are also the basis for tax revenue estimates and for budgetary and financial planning on the part of national, regional and local authorities.

Target 17.19 of the 2030 Agenda is, by 2030, to build on existing initiatives to develop measurements of progress on sustainable development that complement GDP. The German Government will examine how GDP can be further extended to include a focus on other criteria of well-being.

GDP is not designed to portray all of the social aspects that can be included in a measurement of overall well-being. If these aspects are to be measured too, more indicators will be needed, indicators that must be specially constructed for these purposes. These include environmental economic accounts that portray the interactions between the economy and the environment.

In addition, differentiated sustainability indicators – such as those in the German Sustainable Development Strategy – underpin a modern economic policy geared to sustainable development, since they are designed to anticipate and assess developments more effectively, including their environmental and social dimensions. The German Government therefore endeavours to ensure that the indicators used nationally, in Europe and globally to measure progress towards the goals are developed as coherently as possible and coordinated with each other wherever possible. It is also closely involved in the national and international academic debates on these matters.

Some of the Länder use the National Welfare Index (NWI) for a fuller assessment of social development.

Internationally, the Better Life Index of the OECD measures the well-being of societies in eleven key areas, bringing into the equation not only material but also social and environmental factors. In the UN and EU frameworks too, data on SDG indicators are available in the UN Global Indicators Database and from Eurostat. There is still a good deal of basic research to be done in this area, however.

Such accounts can serve as the basis for indicators that supplement the findings from the national accounts to create a combined information basis for various policy areas. These additional accounts, being complementary in nature, do not affect the core content of the national accounts.

The digital transformation

Like sustainable development, the digital revolution is also a crucial transition process for the political, business and academic communities and for society in general. Both processes touch on almost every area of public and private life and present opportunities to develop innovative ways of addressing problems but also pose new challenges. They affect companies and employees, create new occupations and business sectors but also lead to structural changes, requiring business and society to adapt accordingly.

The digital transformation and sustainable development, however, not only show similarities but are even mutually dependent. For example, the use of digital technology and the analysis of large data sets can effect a real sea change in many areas by allowing sustainable production, value-chain mapping, efficient use of resources, smart grid control, decentralised energy supply and so on.

The German Government is monitoring and supporting these processes with a wide range of measures. In so doing, it also keeps an eye on the critical side of the digital transformation, such as the consumption of energy and raw materials arising from the adoption of digital technology and – what is particularly relevant to SDG 8 – its impact on the labour market and competition. The aim is to grasp the sustainable development opportunities offered by the digital transformation while making its risks manageable.

Public budgets and financial markets

By means of sound fiscal policies Germany has steadily reduced the government debt ratio in recent years. This contributes to long-term governmental flexibility and establishes a basis for sustainable economic development. In addition, by putting federal investments on a permanent footing, the German Government is reinforcing Germany's macroeconomic foundations, thereby ensuring that future generations will inherit both sound public finances and a functioning society. It is also supporting the green transition of the German economy and society through its pursuit of sustainable and inclusive economic growth as well as through its fiscal policies.

For the German Government, moreover, sustainable finance is a major element of its Sustainable Development

Strategy, an element that can underpin the transition of the real economy. Sustainable finance means financial market operators being better able to identify, address and manage risks and opportunities relating to sustainability factors, including environmental and climate risks but also social issues.

The intention is, through the creation of favourable conditions and cooperation with voluntary initiatives emanating from the financial sector, to align flows of private and public capital with the Sustainable Development Goals and to bolster the stability of the financial markets in the face of long-term transition processes and risks such as those posed by climate change. In particular, the German Government is working on transparency with a view to sharpening investors' focus on sustainability and so achieving a higher overall level of sustainability.

This approach should also help to achieve the goals of the United Nations' 2030 Agenda, of the Paris Climate Agreement and of the UN Guiding Principles on Business and Human Rights.

Social responsibility – decent work

Sustainable economic growth and inclusive economic activity are essential foundations for decent work, fair earnings and secure jobs as well as for a stable, peaceful and cohesive society based on solidarity (see SDG 1 and SDG 10 but also SDG 16). It follows that economic development must also serve to distribute economic prosperity fairly and to preserve and promote the development opportunities of all people and the effectiveness of the welfare state. Promoting partnership between management and labour and reinforcing collective agreements support this process.

The German Government aims to ensure that all people can lead self-determined and secure lives by virtue of their work. Besides employment itself, great importance also attaches to adequate pay, workers' rights, social protection and good and decent working conditions. Structurally weak regions also need special support so that high-quality jobs can be created there.

Ensuring and expanding the supply of skilled labour

Reducing unemployment, especially long-term unemployment, remains a high priority. At the same time, the aim of ensuring and expanding the supply of skilled labour is also gaining in importance. As a result of demographic trends and an already high level of employment in Germany, businesses in some sectors and regions are increasingly suffering from a shortage of skilled labour. It is therefore gratifying to note that the percentage of young adults who are not in employment, education or training, known as the NEET rate, has been falling. The proportion of males aged

15 to 24 in this category fell from 7.5 % in 2008 to 5.2 % in 2019, while the reduction in the female NEET rate was even sharper, from 9.5 % in 2008 to 6.2 % in 2019.

The German Government is nevertheless taking a wide range of measures in a bid to ensure that the labour market of the future will be able to supply the skilled workers who are needed. This will promote competitiveness, safeguard prosperity, strengthen the social market economy and stabilise the social security system. To this end, the German Government has developed a Skilled Labour Strategy, a cross-sectoral approach focused on ensuring and expanding the supply of skilled labour from Germany and from countries inside and outside the EU. The essential groundwork for recruiting the next generation of skilled labour also entails improving early childhood education and reducing the number of pupils who leave school with no formal qualifications (cf. SDG 4).

Corporate responsibility – sustainable supply chains

The German Government is committed to helping ensure that businesses throughout global supply chains fulfil their responsibilities.

The National Action Plan on Business and Human Rights (NAP), adopted in 2016, sets out the expectation of the German Government that all businesses exercise corporate due diligence with regard to respect for human rights throughout their supply and value chains.

The expectation made of all businesses is that they implement the five core elements of the due diligence process defined in the NAP, namely a policy statement, a risk assessment, measures, reporting and a grievance mechanism. The target that 50 % of all enterprises based in Germany with more than 500 employees would have incorporated the core elements of human rights due diligence into their corporate processes by 2020 was not achieved. For this reason the German Government, acting in accordance with the NAP and with the coalition agreement, is preparing a national Corporate Due Diligence in Supply Chains Bill and is pressing for corresponding EU legislation. Numerous measures are taken to assist businesses in shaping their entire supply chains sustainably and in making corporate social responsibility (CSR) a firm fixture in their ministerial policies.

German Government activities

I. Measures in Germany

Under section 2 of the Promotion of Economic Stability and Growth Act (Gesetz zur Förderung der Stabilität und des Wachstums der Wirtschaft), each January the German Government presents the Bundestag and the Bundesrat with an annual economic report; besides the annual projection, the report also sets out the planned economic and fiscal policies for the coming year along with the associated measures. The report also refers to the targets of the German Sustainable Development Strategy and can be accessed on the website of the Federal Ministry for Economic Affairs and Energy.

With a wide range of funding mechanisms the German Government supports small and medium-sized enterprises (SMEs) as well as self-employed professionals, prospective entrepreneurs and innovative start-up businesses with a view to enabling them to launch new projects, products, processes and services. In particular, a number of instruments for start-up and growth funding have been set up. In addition, by means of the Fund Location Act (Fondsstandortgesetz), the German Government seeks to advance the development of Germany's position as a location for providers of venture capital. The Fund Location Act provides for the consolidation of regulatory and tax measures with a view to reinforcing Germany's role as a location for venture capital firms. Besides harmonising German provisions with those of EU legislation, the Bill also contains new proposals for enhancing the appeal of Germany as a location for funding providers. Among other things, the Fund Location Act provides for improvement of the fiscal treatment of employee shareholdings, which will be of particular benefit to employees of start-up businesses. In addition, exemption from turnover taxes is extended to the administration of venture capital funds.

The Industry 4.0 platform unites some 350 stakeholders from business, associations, academic and research institutions, trade unions and politics, who jointly devise solutions to problems and formulate recommendations for action. The 2030 Vision for Industry 4.0, published in 2019, identifies autonomy, interoperability and sustainability as strategic requirements for the digital ecosystems of the future. The main elements of the sustainability pillar are named there as decent work and education, climate action and the circular economy and social participation. In addition, a discussion paper on environmental sustainability with policy ideas, a presentation of the role of Industry 4.0 and numerous examples of best practice has been drawn up and published online.

Mittelstand-Digital informs small and medium-sized enterprises (SMEs) about the opportunities and challenges presented by the digital transformation. Twenty-six Mittelstand 4.0 Centres of Excellence help and support SMEs with expert knowledge, demonstration centres, examples of best practice and specific implementation projects. The eStandards Centre of Excellence analyses potential changes to the environment, to social conditions and to the long-term economic stability of a business that may result from digitised processes along the whole value chain. Within the network an interactive guide has also been developed to assist SMEs in analysing for themselves the environmental and social challenges facing their particular enterprise; the guide includes examples of best practice relating, for example, to the application of sustainability standards along value chains. From 2021, support options for SMEs on topics such as sustainability (resource efficiency and the circular economy), resilience, change management, skilled labour and lifelong learning are to be developed in digitised form with a view to ensuring that SMEs are fit for the future.

The aim of Shaping Digitalization, the implementation strategy of the German Government comprising a total of five areas for action – digital competence, infrastructure and equipment, innovation and digital transformation, society in digital transformation and modern government – is to focus digitalisation projects more sharply than hitherto on their benefits to individuals and businesses. All of the projects of the implementation strategy are catalogued in the Shaping Digitalization brochure, available at <https://www.bundesregierung.de/resource/blob/998194/1605342/284988700922725d63a0fb95db824024/digitalisierung-gestalten-englisch-download-bpa-data.pdf?download=1>

As part of the High-Tech Strategy 2025, the mission of shaping technology for the people consists in using technological change for the benefit of people in society as a whole and in the world of work. To this end, the opportunities and risks presented by new technology and by the social innovations that bring it about are explored and assessed, and support is provided for the transfer of knowledge in businesses and within social groups. The mission of creating sustainable circular economies described in the High-Tech Strategy 2025 involves making the transition from the traditional linear economy to a resource-efficient, environmentally rational circular economy. The pursuit of this mission will be significantly supported by the research strategy of the Federal Ministry of Education and Research for a resource-efficient circular economy, which forms part of the ministry's Research for Sustainability (FONA) Strategy.

Since 2014, through the framework funding programme Innovations for Tomorrow's Production, Services and Work, the German Government has been supporting research into and development of practicable technical and social innovations to keep wealth creation and jobs in Germany, to make work processes cost-efficient and socially acceptable and to shape production and service provision processes in efficient and environmentally acceptable ways. The programme is currently undergoing further development.

In 2018 the German Government appointed the Commission for Equivalent Living Conditions with a view to preserving and creating jobs in structurally weak regions and in regions affected by structural change (see also SDG 10). Since then specific plans have been prepared and initial implementation steps taken to provide employment opportunities for qualified persons by bringing new federal authorities and departmental research establishments and spin-offs from existing ones to structurally weak regions. The German Government has pledged to create 5,000 jobs within the next ten years in the coalfield areas alone.

The Government wishes to upgrade sustainable finance in Germany and has appointed the Sustainable Finance Committee to advise it on that matter. In its interim report, published in March 2020, the Committee presented its first set of specific recommendations for action, which can serve to reinforce Germany's position as a business and financial services location and to promote sustainable economic activity. An important step towards the funding of sustainable finance in Germany has been the issue of federal green bonds since 2020. These are intended, for example, to provide market capital for measures designed to address climate change, to support the development of sustainable finance markets and to increase transparency regarding the impact of budgetary expenditure on sustainable development. In addition, a sustainability blueprint has been adopted for certain facilities closely linked to the federal authorities.

The German Government endorses the plans of the Federal Financial Supervisory Authority (BaFin) to place greater emphasis on sustainability risks in its supervision of financial institutions. BaFin broke new ground in this respect with its Guidance Notice on Dealing with Sustainability Risks, published in December 2019. As a leading member of the Coalition of Finance Ministers for Climate Action (CFMCA) initiative, the Federal Ministry of Finance is also involved; it organised, for example, a joint workshop on risk management and stress testing for the CFMCA and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). There

are now plans to develop the cooperation between these global initiatives. One of the aims is to create conditions and incentive structures that take due account of the special role of the financial sector in channelling financial flows and help to meet the challenges of climate change.

Decent work goes hand in hand with high occupational health and safety standards. Through the Occupational Safety and Health Inspection Act (*Arbeitsschutzkontrollgesetz*) a nationwide minimum standard has been introduced for inspections conducted by the occupational health and safety authorities of the Länder. The aim is that a comparable degree of oversight will be achieved in all sectors and regions.

One of the foundations for decent, adequately paid work in good conditions is vocational training. The German Government has devised various models and measures that help to mentor and support young people so as to ensure their permanent integration and inclusion.

With the Skills Development Opportunities Act (*Qualifizierungschancengesetz*), which entered into force on 1 January 2019, the Federal Ministry of Labour and Social Affairs, as well as improving the provision of advice on continuing training and skills development, has increased funding for continuing training of employees whose occupational activities are liable to be automated, who are otherwise affected by structural change or who seek continuing training in an occupation in which there is a shortage of skilled labour.

In spite of the encouraging trend in the number of people with disabilities in the labour market, the German Government is still aiming for further increases in the employment rate for people with disabilities. The Ministry of Labour and Social Affairs has launched numerous initiatives for that purpose.

The Skilled Immigration Act (*Fachkräfteeinwanderungsgesetz*), which entered into force on 1 March 2020, provides for simplified labour market access, particularly for vocationally qualified nationals on non-EU countries. The Act provides, for example, for improvements to administrative procedures and to procedures for the recognition of foreign vocational qualifications as well as for a joint strategy with business for targeted recruitment of skilled labour and better marketing.

The Employment of Foreigners Promotion Act (*Ausländerbeschäftigungsförderungsgesetz*), which entered into force on 1 August 2019, regulated and considerably simplified access to training support for people from other countries, largely irrespective of the requirements of residence legislation.

The German Resource Efficiency Programme, the National Programme for Sustainable Consumption, the Waste Prevention Programme and the further development of the circular economy serve to help the German economy become one of the most efficient and eco-friendly in the world. They also enable Germany to discharge its international responsibility in the field of resource policy.

Since 2013, through Unternehmen Biologische Vielfalt 2020 (Enterprise Biological Diversity 2020), a platform for associations, the Federal Environment Ministry has been conducting a constructive dialogue with conservation and business associations on measures for corporate implementation of the National Strategy on Biological Diversity. The main substantive theme of this dialogue, besides the greening of company sites and conservation law, particularly the Temporary Nature (*Natur auf Zeit*) scheme, is the establishment of biodiversity considerations as an element of business management. For the period after 2020, the platform structures are being further developed with a view to creating wider awareness of specific access aids and examples of good practice for businesses and to developing the existing rudimentary principles of corporate biodiversity management and promoting their wider application.

The German Government is helping to reduce the skills shortage and promote gender equality by supporting working parents and making work and family life more compatible (see also SDGs 4 and 5).

With regard to the compatibility of work with caring responsibilities, in the event of an acute care situation, employees are entitled to stay off work for up to ten working days. They may apply for a carer's grant for that period.

The Caregiver Leave Act (*Pflegezeitgesetz*) provides for the full or partial release of employees from their duties for a period of up to six months; this leave can also be taken to care for closely related invalidated minors, even outside the employee's home. Employees are entitled to up to three months' leave to attend to a close relative who is terminally ill. The Family Caregiver Leave Act (*Familienpflegezeitgesetz*) provides an entitlement to up to 24 months' continuous release from work for employees with a minimum working week of 15 hours; this leave can also be taken to care for closely related invalidated minors, even outside the employee's home. An interest-free loan is available to cushion the impact of loss of income during the period of release from work. The national care helpline provided by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth answers questions on all aspects of care.

The Family Ministry's project entitled Pausentaste – Wer anderen hilft, braucht manchmal selber Hilfe (Hit Pause – Care for Carers) is a service for children and young people who look after their families. In addition, a networking meeting has been established, at which initiatives discuss matters relating to caregiving children and adolescents.

In April 2019, the Federal Cabinet adopted a set of core principles for a national tourism strategy. The aims are to strengthen the role of tourism as an economic factor and to prepare the entire sector, in all its diversity, as well as possible for the future. The national tourism strategy is focused on three overarching political aims: the first is to increase national added value and so stimulate economic growth; the second is to sustainably enhance the quality of life of the population in Germany; the third is to ensure that tourism contributes to international stability.

The Federal Government Commissioner for Culture and the Media commissioned the German Culture Council to draw up a report on the social and economic situation of artists and members of the creative professions, devoting particular attention to issues of gender justice. The report updates and analyses evaluations of the available data on the social and economic situation of these groups and focuses especially on gender justice. The publication appeared in June 2020 under the title Frauen und Männer im Kulturmarkt: Bericht zur wirtschaftlichen und sozialen Lage (Women and men in the culture market: report on the economic and social situation).

The aim of the National Bioeconomy Strategy is a sustainable, organically based, circular and innovative German economy. With this new strategy the German Government is building a framework for the successful development of the bioeconomy in the coming years. Future research funding will be focused on the expansion of biological knowledge and the use of biological processes and systems. In conjunction with the digital transformation and cutting-edge technologies across all disciplines, the strategy is intended to uncover new potential for sustainable economic activity.

The government bill refining legislation governing recovery and insolvency provides, among other things, for a restructuring procedure designed to avert insolvency, which is also intended to help deal with the economic consequences of the COVID-19 pandemic.

II. Measures by Germany

Among the elements at the heart of the corporate social responsibility (CSR) activities of the Federal Ministry of

Labour and Social Affairs are the inception and conduct of sectoral dialogues in the context of the National Action Plan on Business and Human Rights, support services for companies, such as the collation and analysis of good practices on the Government's central CSR information gateway and the staging of the competition for the CSR Award of the German Government for the purpose of publicising good examples.

As a result of the regional SME workshop days sponsored by the Labour Ministry and devoted to the subject of responsible and transparent supply chain management (2015–2018), a Web portal is available for SMEs. It serves to assist them in exercising corporate due diligence in accordance with the National Action Plan on Business and Human Rights and in fulfilling their CSR reporting obligation.

The NAP Help Desk of the Agency for Business and Economic Development is an advisory service helping businesses to apply the UN Guiding Principles on Business and Human Rights and/or the National Action Plan on Business and Human Rights (NAP). Besides answering questions on the implementation of the NAP, the help desk can also introduce businesses to relevant partner bodies and to support and funding instruments of German development cooperation. Through events in various formats, the NAP Help Desk also promotes exchanges between participants from business, politics and civil society.

To promote sustainability in global supply chains, the German Government also avails itself of multi-stakeholder partnerships drawn from the worlds of politics, business and civil society. The German Government supports several of these partnerships, such as the Partnership for Sustainable Textiles, the Forum for Sustainable Palm Oil the German Initiative on Sustainable Cocoa and the Sustainable Agricultural Supply Chain Initiative (INA).

The National Contact Point for the OECD Guidelines for Multinational Enterprises (NCP) has been established at the Federal Ministry for Economic Affairs and Energy to raise awareness of the OECD Guidelines among enterprises and trade unions and within civil society. The NCP is also a contact and mediation point when there are problems with the application of the Guidelines. The OECD Guidelines contain internationally recognised principles relating to a broad spectrum of issues, including issues in the realms of human rights, workers' rights and environmental protection.

The government-run Grüner Knopf (Green Button) certification scheme makes sustainably produced textiles visible in shops. It is attached directly to the product, making it easier to find – a reliable and consumer-friendly seal of approval. Verification of compliance with requirements for textiles entails an examination of the entire enterprise. The seal is awarded by the Federal Ministry for Economic Cooperation and Development.

Under the European Eco-Management and Audit Scheme EMAS it is now possible, following amendments to the legal framework in 2017 and 2018, to place greater emphasis on sustainability factors in environmental audits. Accordingly, the training of state-registered environmental verifiers was extended with effect from 1 January 2020 to include knowledge of sustainable corporate governance within the scope of their respective accreditations.

Research and model projects for sustainable tourism emphasise the promotion of environmentally and socially compatible tourism in Germany and abroad.

Germany supports the diversification of tourism value chains to include new local cultural products and services.

As part of the Corporate Digital Responsibility (CDR) Initiative, the Federal Ministry of Justice and Consumer Protection, together with a number of enterprises – 15 at the present time – is formulating a set of principles and guidelines on corporate digital responsibility. In the framework of a learning partnership, the aim is to shape the digital transformation in a people-friendly and value-based manner, going beyond what the law prescribes.

III. Measures with Germany

Germany supports the reinforcement of the multilateral, rules-based trade system centred on the WTO and the worldwide elimination of tariff and non-tariff trade barriers through bilateral as well as multilateral trade agreements.

Germany is campaigning worldwide – through the G20 Global Partnership for Financial Inclusion, for example – for improved access to adequate financial services, especially for poorer sections of society and for micro- and small enterprises.

In the trade sector, Germany is contributing about EUR 4 billion a year to support the establishment of was launched; entitled Free and fair trade as a driver for development – the German strategy for Aid for Trade, which is systematically aligned with the SDGs.

Moreover, in the course of Germany's presidency of the G7 in 2015 and of the G20 in 2017, the German Government proposed major international initiatives on sustainable global supply chains, the future of work, raising the quality of women's employment and integration of migrants and recognised refugees into the labour market. The Federal Ministry of Labour and Social Affairs continues to pursue these initiatives, both in the G7 and G20 bodies and in the context of bilateral cooperation.

In addition, the Vision Zero Fund was launched by the G7 for the purpose of preventing occupational accidents and diseases. Its aim is to reinforce the application of occupational health and safety and welfare standards in global supply chains. The fund is managed by the ILO with funding from the Federal Ministry of Labour and Social Affairs and the governments of other countries.

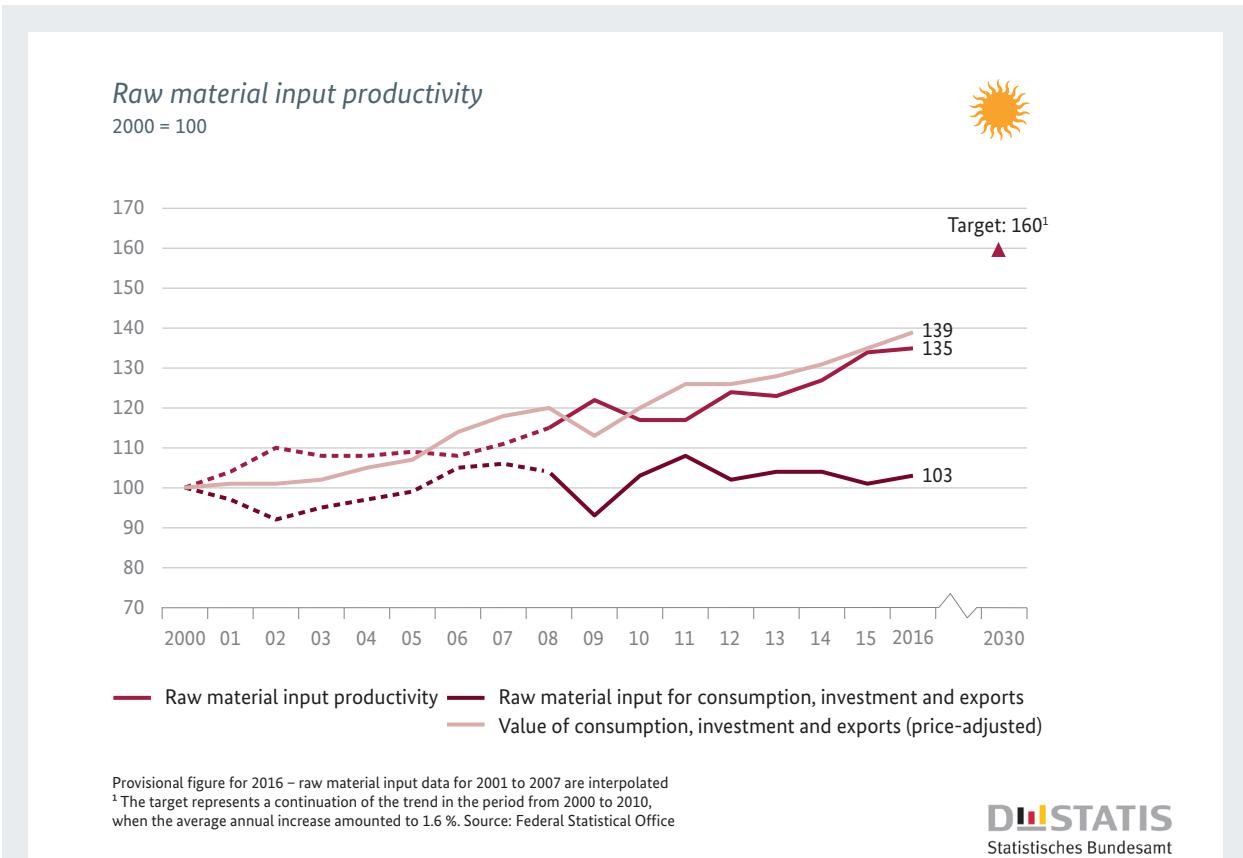
The German Government is endeavouring to embed the issue of sustainability in global supply chains even more firmly in the global agenda, for example through the EU, where the subject of corporate responsibility will be put on the table, in the OECD, in the Asia-Europe Meeting (ASEM) framework and in the UN Human Rights Council.

The Federal Government supports the UN Global Compact, the world's largest initiative for corporate responsibility and sustainability. The office of the German Global Compact Network, which is financed by the Federal Ministry for Economic Cooperation and Development, assists the German signatories of the Global Compact, more than 500 representatives of business, politics and civil society, in matters relating to business and human rights, environment and climate and corruption prevention as well as in implementing the 2030 Agenda. In developing countries the German Government assists its partners in meeting the challenges posed by the COVID-19 pandemic and climate change. This includes, for example, support for economic reforms designed to promote environmentally and socially acceptable growth and for measures to help the private sector adapt to climate change so as to secure employment and income within our planetary boundaries

b) Relevant national sustainability indicators and targets/measures

8.1 Raw material input productivity

Resource conservation – Using resources economically and efficiently



Definition of the indicator

The indicator for raw material input productivity relates the value of all goods released for final use (in EUR, price-adjusted) to the mass of the raw materials used domestically and abroad for their production (in tonnes). Final use covers both domestic consumption and domestic investment as well as export.

The denominator of the indicator takes into account abiotic and biotic resources extracted from the environment as well as plant materials produced by farming and forestry. In the graph, the development of the indicator itself and of both the numerator and the denominator are traced separately.

Targets and intention of the German Government

The extraction of raw materials always entails some impairment of the natural environment. Owing to the

growing demand for raw materials, raw material deposits in all parts of the world are increasingly being extracted in areas that are particularly sensitive to human intervention. For this reason, back in 2016, in the German Resource Efficiency Programme (ProgRes) II, the German Government set itself the goal of ensuring a continuing rise in raw material input productivity. In the years 2000 to 2010, raw material input productivity was already increasing at an average rate of around 1.6 % annually. The aim is to maintain this kind of positive trend up to 2030..

Content and development of the indicator

To calculate this indicator, it is necessary to determine, among other things, the mass of all raw materials required to produce the country's imports. The calculation of this variable, designated as imports in raw material equivalents, is based on a complex model that employs data from various official and unofficial sources.

By considering imports in terms of both monetary value and mass, the indicator takes into account the value added and the raw material input along the entire domestic and foreign production chain. In this way, it also takes full account of the degree of economic interdependence with other countries. The raw material input reflected in the indicator covers not only domestic final use but also export. Accordingly, it should not be confused with a resource footprint for Germany.

Besides non-renewable resources – mineral resources and fossil fuels – the indicator also covers plant products from agriculture and forestry. As a result, there are a very few instances of double counting. For example, both the mass of a harvested agricultural product and that of the mineral fertiliser used to produce it are recorded.

According to preliminary data, the value of the indicator increased by 35 % from 2000 to 2016. This increase results in particular from the growth of the numerator, that is to say the value of final use (domestic consumption and domestic investment plus exports), which rose by 39 % during the reference period. Domestic extraction of raw materials fell to a moderate extent between 2000 and

2016; at the same time, however, the mass of imports in raw material equivalents increased, resulting in a slight increase of approximately 3 % in the indicator denominator.

The export – or re-export – of domestically extracted and imported raw materials also increased. Consequently, the denominator of this indicator does not point to increased global raw material extraction for consumption and investment in Germany but reflects a generally closer interdependence between the German economy and the rest of the world.

Because of the exceptional economic situation during the European financial and economic crisis, the year 2009 should be regarded as an outlier. In 2010 and 2011, investments and exports, as well as the associated input of raw materials, rose sharply again. This marked a resumption of the trend that had been seen in the period up to 2008. From 2013 to 2014, the value of the indicator rose by 4 %, from 2014 to 2015 it rose by 7 %, and from 2015 to 2016 it rose by 1 %; the upward trend of the preceding years was thus maintained.

German Government activities relating to the indicator

“Raw material input productivity” serves as a production-based indicator for the raw material efficiency of the German economy. It is an enhancement of the raw material productivity indicator previously listed in the Sustainable Development Strategy. Unlike the previous indicator, raw material input productivity includes biotic raw materials (materials that originate from living organisms) alongside abiotic materials. The focus on the efficient and economical use of the former is thus extended. This is an important signal, as biotic raw materials are not intrinsically more resource-efficient or environment-friendly. On the contrary, they must be regarded in the context of their cultivation, including land use and its consequences, their use and exploitation and the associated social and environmental impact.

Raw material input productivity indicator looks at not just the tonnage of imported goods but the entire associated primary raw material input. This ensures that relocations of material-intensive processes abroad cannot be recorded domestically as productivity increases. This is especially important because the volume of goods imported into Germany has increased significantly over recent years. The processes required for the production of these imports are associated with inputs of materials and energy and the accompanying environmental impact abroad. For a realistic

picture, these flows of energy and materials are now fed into the equation. It is important to make those as green and efficient as possible too. The aim is for Germany to maintain or improve its competitiveness in the long term and to fulfil its environmental responsibility both nationally and internationally.

In the German Resource Efficiency Programme ProgRess II, it was agreed that raw material input productivity indicator was to serve as a guide and that the Federal Government did not intend to derive any direct legal provisions from it. It is, however, the aim to ensure that the upward trend of the years 2000 to 2010 is reproduced in the period up to 2030.

Previous measures

With the German Resource Efficiency Programme (ProgRess) and its successors (ProgRess II and ProgRess III), the German Government, with the Environment Ministry in the lead role, has created an important framework for progress with regard to the indicator. The programme pools the numerous activities of the Federal Government, the Länder, the business world and civil society, identifies the need for further action and describes approaches and measures for increasing resource efficiency. Examples of such measures include the expansion of advisory services for small and medium-sized enterprises, support for environmental management sys-

tems, procurement of more resource-efficient products and services by the public authorities, improved consumer information and more technology and knowledge transfer to developing and newly industrialised countries.

In addition, Germany also discharges its international responsibility. Under Germany's G7 presidency in 2015, for example, resolutions were passed on resource efficiency for the first time, and a G7 Alliance on Resource Efficiency was founded.

Planned additional measures

The German Resource Efficiency Programme is to be consistently implemented and ambitiously updated.

The German Government will focus public procurement more sharply on resource-efficient products and services,

provide households and businesses with more extensive information on resource-efficient alternative, embed the issue more firmly in all areas of education and continue promoting research, development and innovative pilot projects for resource conservation in all sectors, including integrated urban development and sustainable building. In particular, the potential of digitisation as a means of reducing resource consumption and the potential of resource efficiency as a means of cutting greenhouse gas emissions will henceforth be key aspects of the German Government's resource-efficiency policy. In addition, refinement of the existing legal framework will be under continuous consideration with a view to improving Germany's resource efficiency.

The German Government will also forge ahead in other international forums such as the G20 with its international activities for the improvement of resource efficiency.

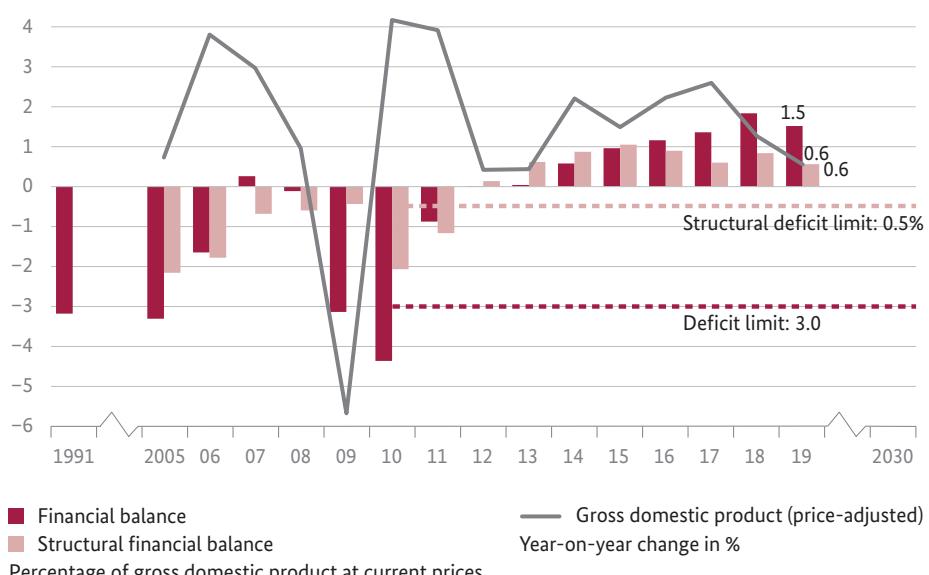
8.2.a/b Government deficit, structural deficit

Government debt – Consolidating public finances – creating intergenerational equity

a) Government deficit ☀

b) Structural deficit ☁

Financial balance and structural financial balance of general government



Previous years' prices chain-linked, 2015 = 100

Sources: Federal Statistical Office, data as at August 2020; Federal Ministry of Finance, data as at October 2020.

Definition of indicators

The indicators show the financial balance of general government (deficit or surplus) and the structural financial balance as a percentage of gross domestic product (GDP) at current prices. The public financial balance is calculated as government revenue minus government expenditure, measured on a national accounts basis. The annual structural balance refers to the part of the financial balance that is not attributable to cyclical fluctuations and temporary effects.

Targets and intention of the German Government

Sound public finances are an essential element of a sustainable fiscal policy. A policy that relies too heavily on borrowing to fund current public expenditure and then passes this debt on to future generations is simply not sustainable.

According to the convergence criteria for the European Union, known as the Maastricht criteria, the annual government deficit should be less than 3 % of GDP. The structural deficit must not exceed 0.5 % of GDP. These are the stipulations of the European Stability and Growth Pact. The guiding principle of the structurally balanced budget has also been enshrined in Germany's Basic Law since 2009 (Article 109, referred to as the debt brake).

Content and development of indicators

The method used to calculate GDP and the financial balance of general government is laid down in the European System of National and Regional Accounts (ESA) and is applied by the Federal Statistical Office. The structural financial balance, on the other hand, is determined by the Federal Ministry of Finance. The calculation of government net borrowing takes into account the finances of the public authorities, that is to say the Federal Government, the Länder and local government, and the finances of the social insurance system.

In contrast to the previous indicator report, the national accounts calculations were reviewed and revised in 2019 as part of their periodic major revision, and the reference year was changed to 2015. As a result, nominal GDP figures are slightly lower on average than they were before the major revision of 2019. The overall economic picture, however, has remained largely unchanged.

In 2012, the Government achieved an overall surplus of EUR 0.3 billion, which was the first positive balance since the financial and economic crisis of 2008/2009. In 2019, the financial surplus amounted to EUR 52.5 billion and 1.5 % of GDP (preliminary data). The federal surplus came to EUR 22.7 billion. At the same time, Länder yet again recorded an aggregate surplus (EUR 16.4 billion). The balances for local government

(EUR 5.1 billion) and the social insurance fund (EUR 8.7 billion) were also positive. The national budget in 2019 showed a structural surplus of 0.6 % of GDP (preliminary data). This meant that the EU convergence criteria for both the government deficit and the structural deficit had been met ever since 2012.

Given the economic repercussions of the COVID-19 pandemic and the government support measures, however, bodies such as the German Council of Economic Experts are already forecasting a negative financial balance in the forthcoming accounts for the 2020 and 2021 reporting years. This development has not yet been factored into the current status calculation and so has had no bearing on the displayed weather symbol. A valid assessment will not be possible until the figures for 2020 have been presented.

Over the entire period from 1991 to 2019 the growth of government revenue (134.7 %) exceeded that of GDP (117.5 %) at current prices as well as expenditure growth (111.4 %). Government revenue as a proportion of GDP therefore increased from 43.3 % to 46.7 %.

The largest item on the expenditure side of the national accounts is monetary social benefits. These rose by 131.5 % from 1991 to 2019, thus exceeding the GDP growth rate of 117.5 %. Around 70 % of monetary social benefits fall under the heading of social insurance, primarily in the form of pensions and unemployment benefits. As a proportion of GDP, monetary social benefits fell from 18.5 % in 2003 to 15.8 % in 2019, which is chiefly due to a steep decline in payments from the unemployment insurance fund. These payments fell by about EUR 22.6 billion between 2003 and 2019 as a result of the Hartz welfare legislation and an upturn in the job market.

German Government activities relating to the indicator

Previous measures

The Stability and Growth Pact (SGP) of the European Union requires member states to bring their national budgets almost into balance and to set themselves binding targets for this purpose. In addition, the Pact prescribes budget deficit and debt ceilings. Compliance with these targets and limits preserves the financial flexibility of each individual member state of the Economic and Monetary Union.

Germany once again met the SGP requirements in full in 2019. It fell comfortably below the budgetary deficit ceiling of 3 % of nominal GDP. In fact, the financial balance of the overall national budget (covering the Federation, Länder, local government and social insurance schemes, including their extra budgets) showed a surplus of 1.5 % of GDP in 2019. In that year the national budget also registered a structural surplus amounting to 0.6 % of GDP.

In response to the economic consequences of the COVID-19 pandemic, on 20 March 2020, in a Communication seeking to activate the general escape clause of the Stability and Growth Pact (SGP), the European Commission declared that, in view of the expected severe economic downturn, the current conditions permitted activation of the general escape clause. It also stated that the general escape clause did not suspend the procedures of the Stability and Growth Pact. On 23 March 2020, the Ecofin Council endorsed the view of the European Commission that the conditions for application of the general escape clause of the EU fiscal framework – a severe economic downturn in the euro area or the Union as a whole – were fulfilled. The activation of the clause, it said, would temporarily enable the member states to depart from the budgetary requirements that would normally apply in the EU fiscal framework and to take all necessary measures to tackle the economic consequences of the pandemic. Decisive action was needed to ensure that the shock remained as short and as limited as possible and did not create permanent damage to national economies and therefore to the sustainability of public finances in the medium term. The Ecofin Council also stressed that its members remained fully committed to respecting the Stability and Growth Pact.

On 16 March 2020, the EU member states agreed on a common response to the coronavirus crisis. The German Government is acting on that decision and is taking resolute action to tackle the crisis, which includes the use of fiscal policy mechanisms. In order to protect public health, support jobs and businesses and preserve social cohesion, it initiated a rescue package of historic dimensions. The prolonged economic upsurge and the sound fiscal policy of recent years have steadily increased the resilience of Germany's public finances. The German Government is therefore

able to provide people and businesses with rapid targeted financial support during this acute crisis as well as to inject vigorous economic impetus for a fast and sustainable economic recovery when the crisis subsides.

With two supplementary budgets to the 2020 federal budget the Federal Government has been authorised to borrow up to about EUR 218 billion in new loans. To this end the Bundestag, invoking the exemption provision for unusual emergency situations contained in Article 115 (2) of the Basic Law, empowered the Federal Government to exceed, in 2020, the credit ceiling by which it was normally bound by the debt brake rule.

The first supplementary budget was approved by the Bundestag on 25 March 2020. It authorises the Federal Government to take out an amount of up to approximately EUR 156 billion in new loans. Its purpose is to fund the Corona-Schutzschild für Deutschland (COVID shield for Germany) rescue package. Besides numerous healthcare measures to tackle the acute pandemic, it contained extensive measures designed to protect employees, businesses and self-employed persons. The aim was to preserve the productive potential of the German economy beyond the crisis.

On 2 July 2020 the Bundestag adopted a second supplementary budget. It contained a further borrowing authorisation of about EUR 62 billion. A considerable part of the funding of the Economic Stimulus Package adopted by the coalition on 3 June 2020 is thus ensured. The stimulus plan is divided into two parts – the Economic Stimulus and Crisis Management Package and the Future Technologies Package.⁵

Planned additional measures

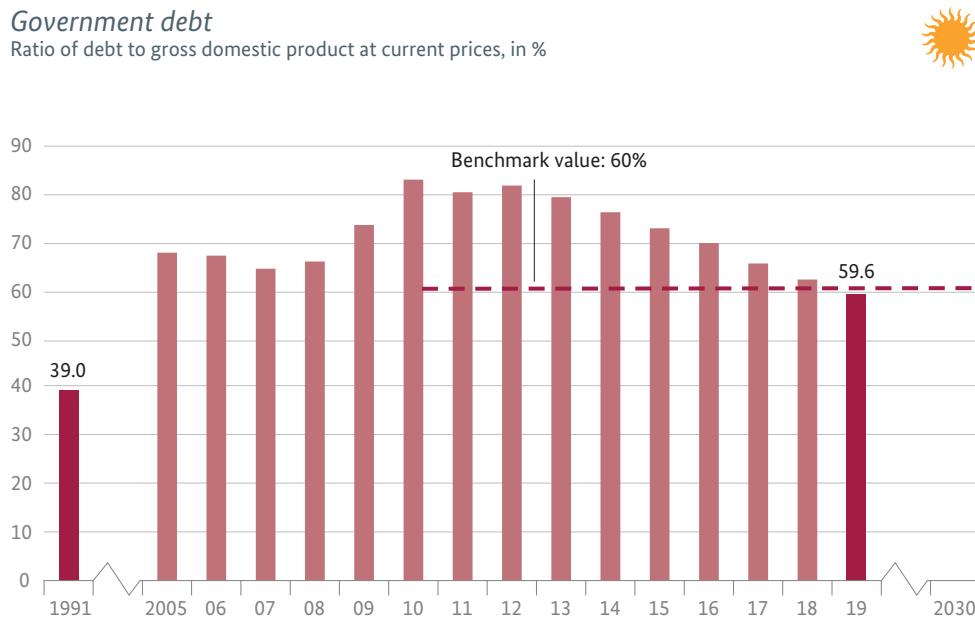
With a volume of some EUR 50 billion, the Future Technologies Package comprises numerous measures for 2021 and beyond which pave the way for a sustainable modernisation of the country by means of investments in important strategic areas, particularly climate action, mobility, education and the digital transformation.

With due regard to the fiscal effects of the aforementioned federal measures and other measures, including their impact on the other tiers of government – the Länder and local government – and on the social insurance schemes, the national budget will be well in deficit in 2020 and 2021. As of December 2020, the Stability Council was forecasting deficits of 5 % and 7 % respectively.

⁵ See also Federal Ministry of Finance (2020), Deutsche Haushaltplanung (German Draft Budgetary Plan) 2021, pp. 7–8 and 24–26.

8.2.c Government debt

Government debt – Consolidating public finances – creating intergenerational equity



Sources: Federal Statistical Office, Deutsche Bundesbank; data as at October 2020



Destatis
Statistisches Bundesamt

Definition of the indicator

The indicator shows the government debt defined in the Maastricht Treaty as a percentage of gross domestic product (GDP) at current prices. The indicator therefore serves as a measure of government debt.

Targets and intention of the German Government

The Stability and Growth Pact of the European Union specifies a reference value of 60 % as the maximum debt-to-GDP ratio. That is also the targeted national threshold for this indicator.

Content and development of the indicator

The national debt is determined by the Bundesbank twice annually in accordance with the requirements of the Maastricht Treaty on the basis of calculations performed by the Federal Statistical Office. Gross domestic product (GDP) at current prices is determined as part of the nation

al accounts by the Federal Statistical Office and published as a provisional figure in January of the following year. As part of the major revision of the national accounts in 2019 the calculations underwent thorough review and revision. As a result, nominal GDP figures are slightly lower on average than they were before the major revision of 2019. The overall economic picture, however, has remained largely unchanged.

The debt-to-GDP ratio is influenced by the state of the public budgets and by economic development in general. The indicator measures a stock, namely the volume of debt, against a flow, namely the value of GDP. With this formula, if the level of debt is constant, the faster GDP grows the more sharply the ratio will fall. In the event of an economic upswing, then, the debt-to-GDP ratio will fall even if absolute total public debt does not. Conversely, the debt ratio may rise even though absolute debt decreases if GDP falls faster than the volume of debt.

The indicator, moreover, does not include implicit government debt, in other words future financial commitments for which funds are yet to be disbursed.

Between 2003 and 2018, Germany's debt-to-GDP ratio was above the prescribed EU-wide reference level. Following budgetary consolidation measures, the ratio fell from 67.3 % in 2005 to 64.0 % in 2007, but then it rose again to peak at 82.3 % in 2010. This increase must be seen in the context of the financial and economic crisis. In that period, Germany's public debt rose by EUR 511 billion from EUR 1,600 billion to EUR 2,111 billion.

Over the last eight years the debt ratio steadily declined, reaching 59.6 % in 2019, the first year since 2002 in which it had fallen below the 60 % reference value prescribed by the Maastricht Treaty. The German Bundesbank, however, expects that government debt will have increased sharply in 2020 as a result of the COVID-19 pandemic and that the debt ratio will again have risen considerably higher than the reference value. This development has not yet been factored into the current status calculation and so has had no bearing on the displayed weather symbol. A valid assessment will not be possible until the figures for 2020 have been disseminated.

The Federal Government reduced its debt for the first time in 2015, lowering it by EUR 24.3 billion to EUR 1,372 billion. In 2019, the volume of federal debt stood at about

EUR 1,299 billion. The debts of the Länder fell from their high point in 2012 by EUR 75.1 billion to EUR 609 billion in 2019. Local government debt had continued to fall since 2017, reaching EUR 165 billion in 2019. Between 2010 and 2019 the social insurance funds were able to reduce their debts by EUR 651 million to EUR 695 million. Of the total amount of government debt in 2019, about 62.6 % was federal debt, while some 29.4 % was owed by the Länder and 8.0 % by local government.

In the balance sheet, government debts are balanced against assets, both financial and non-financial. The largest items on the assets side are state-owned infrastructural properties, such as roads, schools and public buildings. According to the balance sheet drawn up by the Federal Statistical Office, these assets had a written-down value of EUR 1,418 billion in 2018. Financial assets were valued in 2018 at EUR 1,291 billion. Securities are the largest of the financial assets.

German Government activities relating to the indicator

Besides the general government deficit, government debt is also an important indicator of the soundness of public finances. Public finances are sustainable if the state can plausibly demonstrate that it will cover its debts and its future expenditure over a virtually infinite period by means of future receipts. There is no fixed debt ceiling up to which public finances may be regarded as sustainable. This depends on other factors, such as the development of a country's economic strength.

One major long-term challenge to the sustainability of public finances in Germany is posed by demographic trends. Because of the gradual ageing of society, the ratio of state age-related welfare payments to GDP will rise steadily. Beginning with the imminent retirement of the baby-boom generation, public expenditure on statutory pensions and long-term care provision will show the steepest rises. This will increase the burden on taxpayers and social insurance contributors.

The BMF publishes more in-depth analyses of the long-term development of government finances and their sustainability once per legislative period in its Report on the Sustainability of Public Finances. The fifth of these Finance Ministry reports appeared in March 2020, just before the outbreak of the COVID-19 pandemic in Germany, and can be accessed in English at [Fiscal-Sustainability-Report-2020](#).

Previous measures

The Maastricht debt-to-GDP ratio has fallen continuously since peaking at 82.3 % in 2010 in the wake of the financial and economic crisis. By the end of 2019 it had dropped to 59.6 % of GDP and so was just below the Maastricht ceiling of 60 %. The lower debt ratio increases long-term government flexibility; in particular, it ensures greater resilience in any future crisis. What is more, the German Government is strengthening the country's macroeconomic basis, for example by helping to guarantee the continuity of public investments, and is thus ensuring that future generations will inherit both sound public finances and a functioning society. The improvement of the fiscal starting position over recent years is also helping to guide Germany through the current crisis and to mobilise essential resources.

To counteract the demographically driven decrease in the volume of work and in productivity, conditions for harnessing untapped employment potential have been improved, for example through the Skilled Labour Strategy, the National Skills Strategy and the introduction of the flexi-pension and *Brückenteilzeit* – the right to switch to part-time work for a fixed bridging period.

In addition, in the years from 2021 to 2024 an annual amount of EUR 2 billion has been earmarked to build up a demographic pension reserve so as to close, by 2025, a funding gap in the general pensions insurance fund resulting from the contribution rate. By means of a long-term care provision fund, greater intergenerational equity in the funding of social long-term care insurance will be ensured.

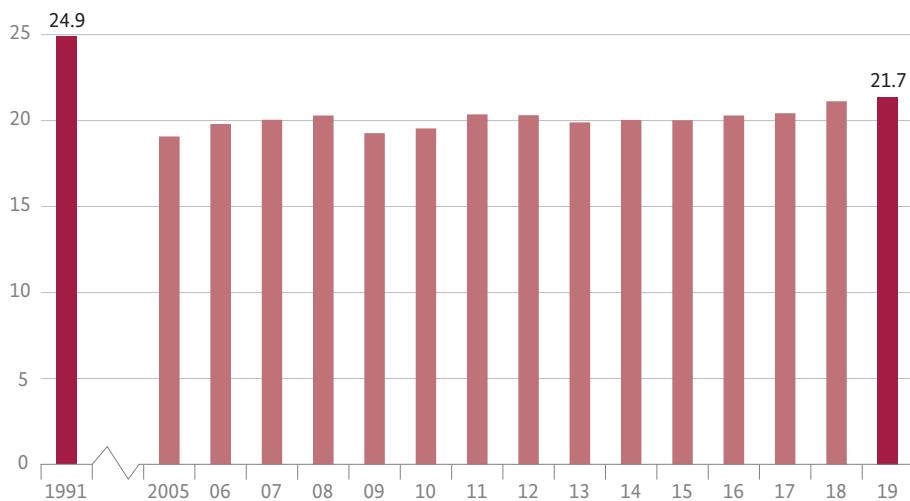
Planned additional measures

Fiscal policy must safeguard the viability of the welfare systems and further strengthen their macroeconomic basis by means of investments as well as creating better conditions for harnessing the employment potential of women, older people and people from migrant backgrounds. This can serve to compensate partly for the retirement of the baby-boom generation from working life and to create greater intergenerational equity. It also remains a permanent task of all state institutions to increase the efficiency of public expenditure and focus it more sharply on results.

8.3 Gross fixed capital formation in relation to GDP

Provision for future economic stability – Creating favourable investment conditions – securing long-term prosperity

Gross fixed capital formation
As a percentage of gross domestic product at current prices



Source: Federal Statistical Office; data as at September 2020

DSTATIS
Statistisches Bundesamt

Definition of the indicator

The indicator shows the ratio of gross fixed capital formation to nominal gross domestic product (which means at current prices). This is also referred to as the investment ratio.

Targets and intention of the German Government

The future strength and competitiveness of an economy depend crucially on corporate and governmental investments. For this reason, the target of the German Government is to promote appropriate development of

the ratio of gross fixed capital formation to gross domestic product (GDP).

Content and development of the indicator

The value of gross fixed capital formation is determined by the Federal Statistical Office. Gross fixed capital formation comprises resident producers' net acquisitions, i.e. acquisitions less disposals, of fixed assets, excluding depreciation. Fixed assets are non-financial produced assets that are to be used repeatedly or continuously for more than a year in the production process. These include building structures, machinery and equipment (machines, vehicles and apparatus), military weapon systems and other systems (intellectual property such as investments in research and development, software, copyrights and mineral exploration as well as livestock and crops). They also include major improvements to existing stocks of fixed assets. Gross fixed capital formation is determined within the framework of the national accounts, which are compiled in accordance with harmonised European rules and are based on all available relevant data sources. As part of the major revision of 2019 the national accounts calculations were thoroughly reviewed and revised, and the reference year was changed to 2015. As a result, nominal GDP figures are slightly lower on average than they were before the major revision of 2019. The overall economic picture, however, has remained largely unchanged.

In 2019 the ratio of gross fixed capital formation to GDP was about 21.7%, which was 3.2 percentage points below the initial value for 1991 for the entire federal territory and 1.4 percentage points lower than in the year 2000. In the short and medium term, the indicator has been moving in the right direction, with a slight increase recorded from 2015 (20.0%) to 2019 (21.7%). The price-adjusted ratio in 2019 stood at about 21.2%. The average investment ratio in Germany over the years 2009 to 2018, at 20.1%, was lower than the investment ratio for the entire OECD region (21.0%). The difference is smaller than in the period between 1999 and 2008 (-2.1 percentage points).

The time series reveals an undulating trend in the investment ratio with a slump at the start of the millennium and, after a slight recovery, another slump in 2009 following the financial and economic crisis of 2008/2009. By 2011 investment activity had recovered, and gross fixed capital formation once again exceeded the level of the pre-crisis year. In the years from 2014 to 2019, gross fixed capital formation soared by a total of 27.5%, reaching EUR 774 billion. Since the increase in nominal GDP was somewhat lower, at 17.8%, the investment ratio increased slightly from 20.0% to 21.7%.

With regard to investments in building projects, housing construction has recorded strong nominal growth (+69.4%) since 2010, while the growth of investments in non-residential construction, including civil engineering, in the same period was less pronounced (+41.2%) and even dipped slightly in 2012 and 2015. Investments in tangible fixed assets at current prices showed year-on-year increases of 4.9% in 2018 and 1.9% in 2019. The highest growth rates for the period from 1991 were recorded for investments in research and development as well as in software and databases. Between 1991 and 2019, their volume more than trebled.

The period from 1991 to 2018 witnessed a strong shift in investment activity from the manufacturing sector to the service sector. Whereas 30.4% of new capital investments were still being made by manufacturing companies in 1991, by 2019 this figure had fallen to just 23.5%. In 2019, 75.2% of capital investments were made by companies in the service sector; in 1991, the figure had been 67.9%. The largest single investment area was that of property and housing. In 2019, this sector alone accounted for 31.6% of all new capital investments. In 2019, 11.4% of total gross fixed capital formation was attributable to the government sector, whose investment activity is distributed among various activity classifications.

German Government activities relating to the indicator

Investments are a prerequisite for future economic growth. Private and public investments have been on an upward curve since 2015 and 2014 respectively. Planned total federal investment for the period from 2019 to 2023 inclusive, compiled on a fiscal statistics basis, amounts to about EUR 200 billion, which is about 30% higher than expenditure for that five-year period. The German Government intends to further improve the framework for private investments, for example by means of tax measures (cf. Annual Economic Report of the Federal Government, 2020).

Previous and planned measures

The German Government's investment priorities lie in the areas of digital technology, infrastructure, education, research and social housing construction. One of the main investment targets is the digital infrastructure (broadband and mobile telephony), for which a special fund has been established, fed in part from the proceeds of the 5G frequency auctions. From this special fund the Federal Government provides the Länder and the local government with resources for the Digital Pact for Schools and for the development of gigabit and mobile-phone networks. Then there are the investments under the 2030 Climate Action Programme for purposes such as local public transport, rail infrastructure and the development of the network of charging stations for electric vehicles. The Federal Government also earmarks funds for the promotion of social housing. Lastly, the Federal Transport Infrastructure Plan 2030 provides for transport investments of about EUR 270 billion in the period from 2016 to 2030. The German Government's Future Technologies Package, which is part of the Economic Stimulus Package, also provides for a number of investment measures, particularly in the fields of sustainable mobility and digital infrastructure (see Chapter A.3.a).

When it comes to macroeconomic investment activity, important roles are played not only by the Federal Government but by the Länder and local authorities too. In 2018, some two thirds of public capital investments were made by the Länder and local government, the latter alone accounting for 34% of total public fixed capital formation. The Federal Government makes considerable amounts of financial assistance available to Länder and local government, including an EUR 7-billion investment fund for cash-strapped municipalities. The Federal Government will continue to provide the Länder and local government with scope for investment. To this end, for example, at the start of 2020 the German Government created the pan-German funding system for structurally weak regions to provide all such regions nationwide with support for their future development and to create equivalent living conditions throughout Germany. The Federal Government will also

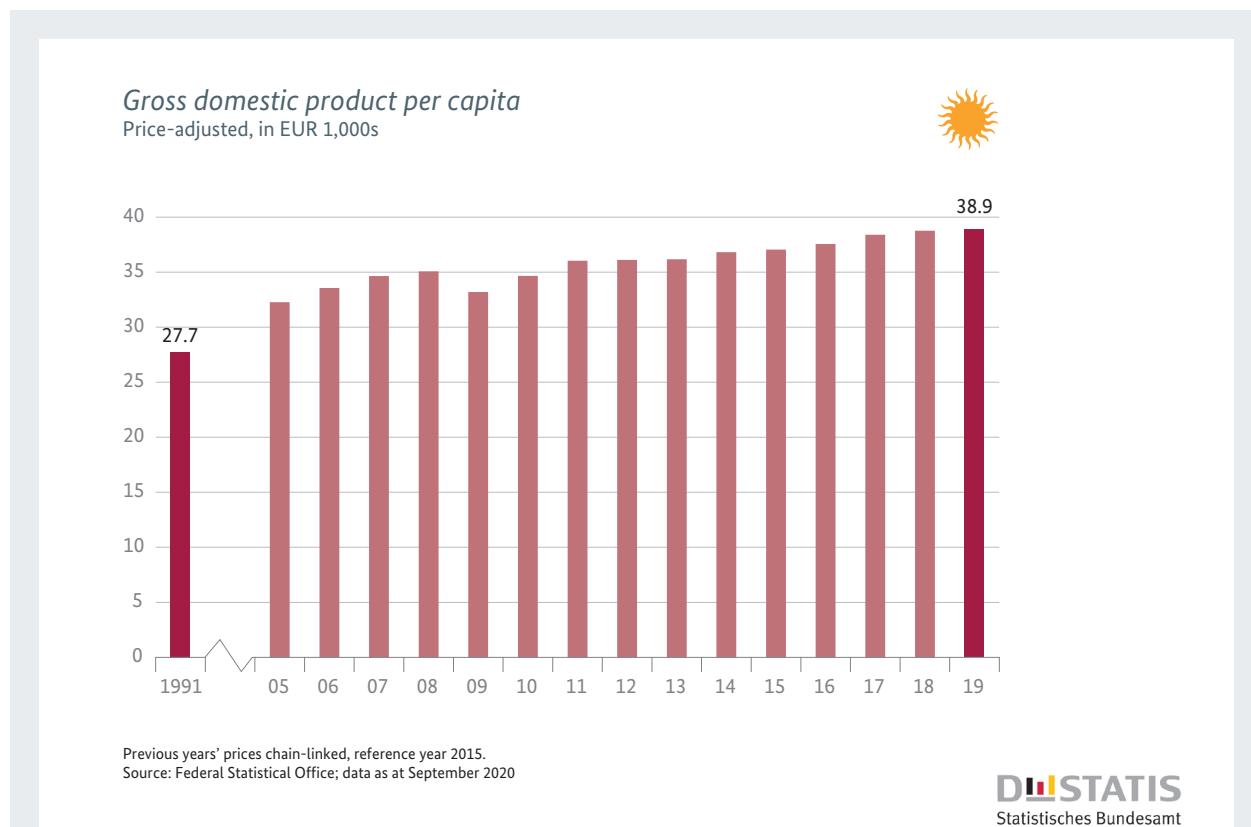
make financial assistance available for the Länder that are affected by the abandonment of coal and will implement other measures under existing federal programmes. In this way, funding of up to EUR 40 billion is to be made available for the coal-mining regions over a period ending in 2038 at the latest. With various measures in the Economic Stimulus Package, the Federal Government is assisting local government in dealing with the consequences of the COVID-19 epidemic (see Chapter A. 3. a.).

A flourishing economy needs dynamic entrepreneurs. With a view to creating incentives and scope for enterprising business activity, the German Government will review the basic conditions for business operations and initiate discussions on the subject in the European framework. In addition, on the basis of the Third Bureaucracy Reduction Act (*Bürokratieentlastungsgesetz III*), the German Government will continue to press ahead with the reduction of red tape while safeguarding existing protection standards; in this way too it will improve the conditions for investments and innovations. Business start-ups are also to be made easier; to this end the German Government will further develop the start-up funding scheme and access to venture capital in Germany.

Various measures contribute to better investment and innovation conditions, such as the introduction of tax benefits for research. The German Government has initiated further improvements through the Economic Stimulus Package, including a tax incentive comprising the temporary introduction of degressive depreciation rates on movable assets. The German Government, moreover, keeps corporation tax legislation under constant review for adjustment requirements in response to changes in national and international conditions, particularly those that apply to smaller and medium-sized enterprises. Another important component is the partial abolition of the solidarity surcharge. In 2019, the German Government decided that 90% of taxpayers would no longer be required to pay the solidarity surcharge with effect from 2021.

8.4 Gross domestic product per capita

Economic performance – Combining greater economic output with environmental and social responsibility



Definition of the indicator

The indicator shows price-adjusted gross domestic product (GDP) per capita (inhabitants) in Germany at 2015 prices. GDP measures the value of all goods and services produced in the domestic economy; inhabitants means all persons whose permanent residence is in Germany.

Targets and intention of the German Government

GDP expresses the value of total economic output produced within the country in a reference period. It focuses primarily on market goods and services and public goods and services. The value of GDP is determined quarterly and annually by the Federal Statistical Office on the basis of internationally harmonised rules and standards, such as the European System of National and Regional Accounts (ESA). Because of the early calculation dates, many of the essential basic data are not available in time for the first publication date. Accordingly, the initial publication is still based to a considerable extent on indicators and estimates. Missing information is initially estimated or extrapolated.

Content and development of the indicator

GDP expresses the value of total economic output produced within the country in a reference period. It focuses primarily on market goods and services and public goods and services. The value of GDP is determined quarterly and annually by the Federal Statistical Office on the basis of internationally harmonised rules and standards, such as the European System of National and Regional Accounts (ESA). Because of the early calculation dates, many of the essential basic data are not available in time for the first publication date. Accordingly, the initial publication is still based to a considerable extent on indicators and estimates. Missing information is initially estimated or extrapolated.

The data basis is subsequently improved with additional statistics, which are successively incorporated into the calculations. It takes about four years until almost all of the baseline statistics are available, at which point the data are classified as final.

GDP is a key variable in the national accounts. The national accounts are the consolidation of several accounts

that portray the economic activity of a given period. The results are recorded in the form of a closed sequence of accounts and presented in tables. The national accounts calculations were last reviewed and revised in 2019 as part of their periodic major revision, and the reference year was changed to 2015. This resulted in new rates of change for real gross domestic product as a whole.. The overall economic picture, however, has remained largely unchanged.

GDP is not designed to portray all of the social aspects that can be included in a measurement of overall well-being. If these variables are to be measured too, Additional indicators are needed that are specifically designed for these purposes.

This includes e.g. environmental economic accounts that portray the interactions between the economy and the environment and indicators showing, for example, the volume of unpaid work in households. Furthermore, the distribution of income and assets among different population groups is not shown by GDP either.

Stock changes are not reflected in GDP, except in the case of capital stock resulting from the calculation of investments and depreciation.

Key economic variables like quantities and qualities of human capital, such as education and health, of social capital, such as security and integration, and of natural capital, such as resources and ecosystems, are not factored into GDP. It is therefore impossible to conclude whether GDP and its growth have served to preserve capital in the fullest sense. This means that GDP cannot be used to gauge the sustainability of economic growth.

The basis for the calculation of per capita GDP comprise the average population figures interpolated and extrapolated by the Federal Statistical Office from the 2011 census data.

Between 1991 and 2019, price-adjusted GDP per head of population increased by a total of 40.2 %. Following vigorous year-on-year GDP growth averaging 2.8 % per annum over the period from 2005 to 2008, per capita GDP fell by 5.4 % from 2008 to 2009 as a result of the global financial and economic crisis. Economic output then recovered, and by 2011 GDP had regained and exceeded its 2008 level. In the last five years of the time series, the indicator has been on an upward trajectory, with an average annual increase of 1.2 %. In 2019, the value of GDP was EUR 39,000 per head of population.

German Government activities relating to the indicator

Germany and Europe are facing formidable challenges: the digital transformation is radically transforming the world of business and employment; demographic change has created a need for more proactive efforts to recruit skilled labour and is posing challenges for social security systems; climate change has made innovations and investment necessary but is also presenting new opportunities for wealth creation. At the same time, the global economic environment is fragile. The global COVID-19 pandemic has had hugely detrimental effects on economic activity and is damaging economies worldwide. Against this backdrop, it is all the more important to strengthen the innovation and growth potential of the social market economy and to adapt and further improve the framework for economic activity. Germany can look back on a full decade of continuous economic growth. For the future, its production potential is likely to continue growing substantially. It is expected, however, that the rate of growth in that potential will decline, as a result of demographic change, from 1.1 % in 2020 to 0.9 % in 2024. The German Government will therefore continue to pursue a policy focused on sustainable, long-term growth (see also section 8.3 above and the 2020 Annual Economic Report of the Federal Government).

Previous and planned measures

Regional structural funding is injecting targeted impetus into the quest for sustainable growth. The German Government has created a pan-German funding system, focused on research, innovation, skilled labour force development, the digital transformation and technical and social infrastructure, to strengthen all structurally weak regions. With the Structural Reinforcement Act (*Strukturstärkungsgesetz*), the German Government is opening the door to brighter long-term prospects for coal-mining regions affected by structural change. The Structural Funds of the European Union, moreover, make an important contribution to the promotion of economically and financially weak regions.

The German Government has been making major strides towards a pro-growth and socially just tax policy. The tax relief measures for the years 2019 to 2021 that were adopted up to the beginning of March 2020 alone will release a volume of well over EUR 25 billion in the course of each year, which will mostly benefit families and those in the lower and middle income brackets. In addition the Federal Government's support measures and Economic Stimulus Package designed to mitigate the consequences of the COVID-19 epidemic also provides tax relief for businesses and individuals.

Small and medium-sized enterprises, as drivers of investment and as employers and training providers, are synonymous with economic sustainability. For this reason, the German Government is committed to improving the conditions for SMEs.

The German Government, moreover, has already generated significant momentum for innovations in key strategic areas, for instance with the Artificial Intelligence Strategy and the Climate Action Innovation Pact. In the Economic Stimulus Package too, the German Government focuses on the promotion of public and private investments in trailblazing technologies and sunrise industries.

With the 2030 Climate Action Programme and the Federal Climate Change Act of 2019, the German Government made important choices in favour of sustainable growth, for example by introducing a national system of trading in emissions from heating and transport fuels. The German Government will consistently implement the measures that have been adopted and will take care to ensure that they are framed in a socially acceptable manner and, in particular, that cash-strapped households are not excessively burdened.

Energy efficiency also contributes to growth and prosperity in Germany, whether through the cost savings it brings for private and industrial consumers or through the associated investments and the development of particularly energy-efficient products and processes. This is why the German Government presented its Energy Efficiency Strategy 2050.

It is also necessary to maintain the international competitiveness of German and European business when the cost of emitting greenhouse gases varies around the world. The German Government is therefore committed to securing effective protection against carbon leakage. At the same time, a pioneering role in low-emission technology and innovations for the reduction of greenhouse gas emissions can also develop into a competitive edge.

The open borders of the European internal market, the euro as the common currency in the euro area and freedom of movement within the EU promote business exchanges within Europe and increase the growth potential of all EU member states. These opportunities must be more and more firmly grasped.

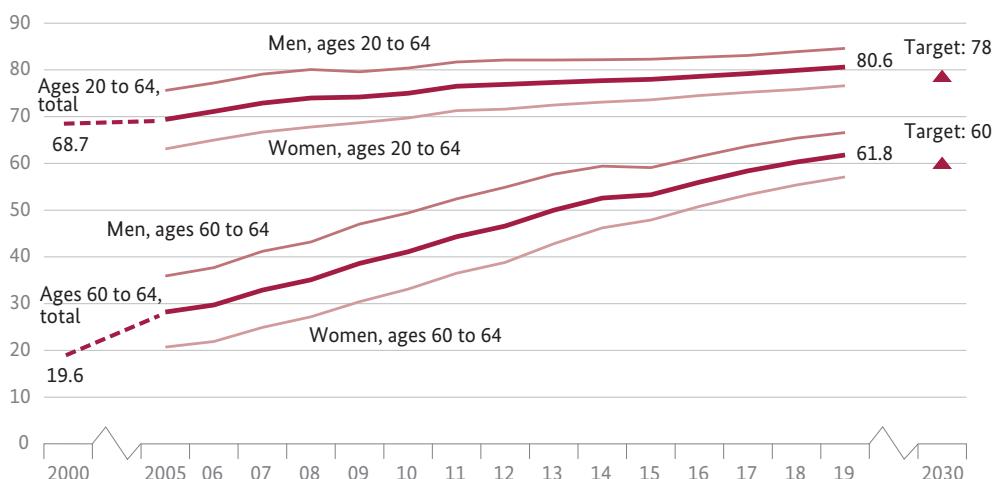
8.5.a/b Employment rate

Employment – Boosting employment levels

a) Total (20–64-year-olds) ☼ b) Older people (60–64 years-old) ☼

Employment rate

Employed persons as a percentage of the population in the same age category



Sources: Federal Statistical Office, Eurostat

Destatis
Statistisches Bundesamt

Definition of indicators

The indicators show the employment rate among the total population aged between 20 and 64 (8.5.a) and the employment rate among the population aged 60 to 64 (8.5.b), measured in each case as a share of the total population of the same age group.

Targets and intention of the German Government

Because of demographic changes, a shortage of skilled labour may occur in Germany in the long term. At the same time, the social security system faces a growing threat of underfunding. The potential pool of labour must therefore be used more effectively in future. The employment rate in the employable age group (20 to 64-year-olds) is to be increased to 78 % by 2030. Another objective of the German Government is an employment rate of 60 % among older people (60 to 64-year-olds) by 2030.

Content and development of indicators

The data source for the indicators is the EU Labour Force Survey, which is integrated into the microcensus in Germany. The Labour Force Survey is conducted throughout each year and is initially summarised by Eurostat in the form of quarterly findings, which are then consolidated into annual average values. It covers the population living in private households but excludes people living in shared accommodation. The available labour force potential in the Labour Force Survey comprises persons who have reached the age of 15 and who, for at least one hour during the reference week, have performed paid work or have acted as unpaid family workers. The survey also includes persons who temporarily did not work, because they were absent, for example because of leave or illness.

It should also be noted that annual average findings have been used for the employment rates since 2005. In previous years, the calculations were based on one fixed reporting week per year. From 2011 onwards, the interviewing was redesigned in order to improve the recording of employment, and the extrapolation factor for pop-

ulation estimates based on the intercensal population updates was adapted in the light of the 2011 census. From the 2016 reference year the sampling frame was updated on the basis of the 2011 census.

The employment rate overall (20 to 64-year-olds) rose by 11.9 percentage points from 68.7 % in 2000 to 80.6 % in 2019, which means that the target value of 78.0 % for 2030 has already been achieved.

The employment rate for among older people (60 to 64-year-olds) rose by 42.2 percentage points from 19.6 % in 2000 to 61.8 % in 2019. The employment rate for men in that age group had more than doubled, rising by 39.4 percentage points to 66.6 %. The rate for women even increased almost fivefold to 57.1 %. And so the targeted 60 % employment rate for older people in employment was likewise reached ahead of the deadline set in the German Sustainable Development Strategy.

The overall employment rates for women and men have developed in the same direction since 2000 but at different rates. The rate for 20 to 64-year-old men rose in the period under review by 8.1 percentage points to 84.6 %, whereas in the case of women it rose by 15.9 percentage points to 76.6 %, which was a far more rapid rise, albeit from a lower starting point. When assessing the increase in the employment rate for women, it should be taken into account that this growth was accompanied by an increase in part-time employment. In the year 2000, 61.5 % of employed women worked full-time, while 38.5 % worked part-time. In 2019 the breakdown was 52.9 % full-time and 47.1 % part-time. By way of comparison, the proportion of the male workforce in full-time employment dropped from 95.7 % in 2000 to 90.5 % in 2019.

A breakdown into age groups shows diverse employment rate trends. Among 20 to 24-year-olds, the rate rose from 2000 to 2019 by 2.5 percentage points to 67.3 %. Their lower rate of employment compared with the 25- to 59-year-olds is partly due to average periods of training in colleges and universities, which delays their entry into working life. Among 25- to 59-year-olds, by contrast, the employment rate rose to 84.8 %, an increase of 8.6 percentage points from 2000 to 2019.

German Government activities relating to the indicator

A high rate of employment among the employable population is of great importance as a source of social cohesion and reflects the wishes of many people. In the context of current demographic trends too, a further increase in the level of employment and in the employment of women, older people, people from migrant backgrounds and people with disabilities is an important political goal.

The spread of COVID-19 will pose huge challenges in the labour market in the immediate future. The extent of the impact on the labour market cannot yet be gauged in numerical terms.

If high employment rates are to be achievable, improving individual employability and combating unemployment remain the central challenges. Accordingly, at the heart of an active employment policy are the upskilling of employees and the training and integration of low-skilled and long-term unemployed people. In the German skilled labour market, the development of skills is crucial to a person's recruitment and employment prospects.

Equally relevant is the need to increase the extent of women's participation in economic life, since that is what enables women to secure their own livelihood and prevent age-related poverty.

Previous measures

With the Skills Development Opportunities Act (*Qualifizierungschancengesetz*), which entered into force on 1 January 2019, improvements were made to the funding of continuing training for employees.

Building on experience from the strategy entitled *Chancen eröffnen – soziale Teilhabe sichern* (Opening up Opportunities – Safeguarding Social Participation) and from the two federal programmes for the reduction of long-term unemployment, the *MitArbeit* master plan is designed to promote skills development, placement, integration and reintegration and to enhance the employability of long-term unemployed persons by providing intensive individual mentoring and advice as well as effective financial support and offering specific job opportunities.

People who have already been unemployed for a very long time are to be given a new prospect of re-entering the labour market. To achieve this aim, the Participation Opportunities Act (*Teilhabechancengesetz*), which entered into effect on 1 January 2019, incorporated two new funding instruments into Book Two of the German Social Code (SGB II) with effect from 1 January 2019. The *Teilhabe am Arbeitsmarkt* (Participation in the Labour Market) instrument enshrined in section 16i of SGB II is intended to provide individuals at the very margins of the labour market with a longer-term prospect of a job with compulsory social insurance coverage and so open the door to their full participation in society.

The instrument provides public funding of a post for up to five years, accompanied by holistic coaching of the employee and opportunities for skills development. In addition, for the integration of long-term unemployed persons who, though not yet so remote from the labour market, still require special assistance, in the *Eingliederung von Arbeitslosen* (Integration of the Long-term Unemployed) funding scheme enshrined in section 16e of SGB II a new wage-cost subsidy has been created for jobs in the mainstream labour market, which is also accompanied by holistic coaching of the employee.

In addition, employers can receive wage payment subsidies if they hire jobseekers whose placement is difficult and who require support for their workplace integration. The subsidies are intended to compensate for working capacity limitations that may arise, for example, from lengthy unemployment, a disability, a lack of skills or age.

With a view to preserving as many jobs as possible despite the harmful economic effects of the COVID-19 pandemic and so safeguard high employment, since March 2020 the German Government has adopted several special fixed-term arrangements to facilitate access to short-time working allowance and to support employers. In addition, the limit for non-reckonable supplementary earnings has been raised, and the short-time working allowance has been increased in stages on a temporary basis. The German Government has essentially set 31 December 2021 as the expiry date for the pandemic-related special arrangements for reduced working hours.

Planned measures

The digital transformation presents businesses and employees with both opportunities and risks. The aim of the German Government is to grasp the opportunities offered by digital progress while creating the security required for a decent life, in other words to strike a balance between opportunities and protection. In the digital age too, we intend to preserve the principle of decent working arrangements and to ensure that paid employment remains compatible with people's lives. In the digital working world, continuing training is the key to skilled labour force development. The substantive focus of domestic skilled labour force development is the implementation of the National Skills Strategy with its ten specific objectives for action, which the Federal Government, through the joint lead ministries – the Federal Ministry of Labour and Social Affairs and the Federal Ministry of Education and Research – and the social partners developed in 2019 in close consultation with the Länder and in liaison with other stakeholders.

The aim of the strategy is to reform, systematise and reinforce a skills development policy that supports lifelong learning and makes it easier for large sections of the population to develop their vocational skills or to take up a new career. At its heart is the aim of developing skills, competence and employability. To this end, the focus is on continuing vocational education and training.

With the aid of the National Skills Strategy, the content of the continuing education and training programmes of the Federal Government and the Länder is pooled and tailored to the needs of employees and businesses. The overarching aim is the establishment of a new skills culture.

Structural change in industry, particularly the changes resulting from the digital transition and the requirements of climate policy, have changed the skill requirements for employees. This is likewise generating a considerable demand

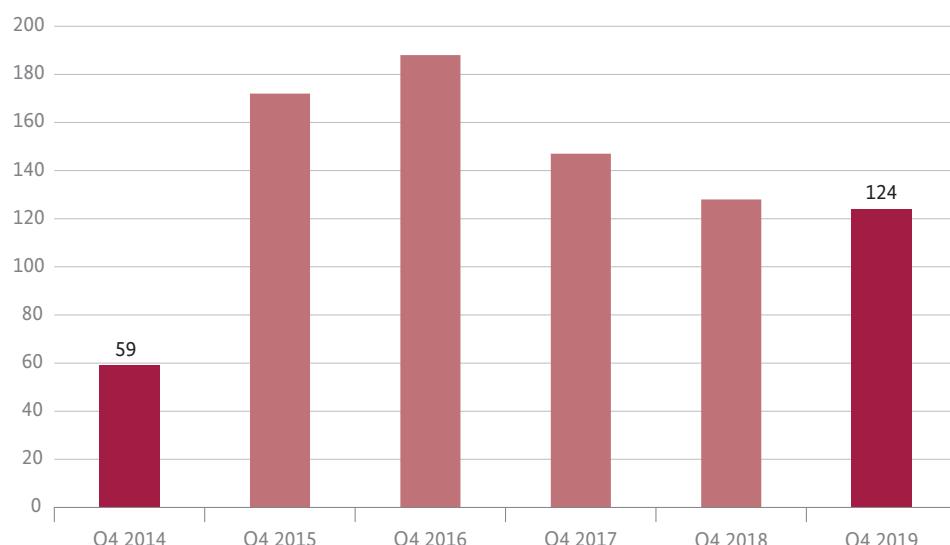
for continuing education and training. One of the aims of the Act for the Promotion of Continuing Vocational Education and Training during Times of Structural Change and for the Further Development of the Promotion of Vocational Training (*Gesetz zur Förderung der beruflichen Weiterbildung im Strukturwandel und zur Weiterentwicklung der Ausbildungsförderung*) is to make further improvements to the provision of support for the development of employees' skills through training.

8.6 Members of the Textiles Partnership

Global supply chains – Enabling decent work worldwide

Partnership for Sustainable Textiles

Number of members



Source: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

DSTATIS
Statistisches Bundesamt

Definition of the indicator

The indicator shows the number of members of the Partnership for Sustainable Textiles (the Textiles Partnership). The Textiles Partnership comprises ordinary, advisory and associate members. The ordinary membership is subdivided into what are known as stakeholder groups: the businesses (initiatives and associations), unions, non-governmental organisations, standards organisations and the German Federal Government. A standards organisation is

a body that offers or develops non-commercial standards for sustainable textiles. Membership of the Textiles Partnership is voluntary and is obtained by application.

Targets and intention of the German Government

The Partnership for Sustainable Textiles is a multi-stakeholder initiative that was founded in 2014. The Textiles Partnership aims to improve the underlying social, ecological and economic conditions in the producer coun-

tries. Membership numbers should therefore be increased significantly by 2030.

Content and development of the indicator

The indicator shows the number of members of the Textiles Partnership. Being a multi-stakeholder initiative, the Textiles Partnership has more than just business enterprises in its ranks. On the basis of jointly defined Partnership objectives, each company, by joining the Textiles Partnership, pledges to implement measures for continuous improvement of conditions and for compliance with social and environmental objectives of the Partnership throughout the company's supply chain. To this end, since 2017 all members are bound to draw up individual action plans known as road maps. These road maps are then reviewed for plausibility by an external service provider.

In its founding year of 2014, 59 members joined the Textiles Partnership. The end of 2016 saw membership reach its peak, having more than trebled to 188. Since the introduction of the compulsory plans of action, however, there have been expulsions and several withdrawals from the Textiles Partnership. On the one hand, some members were expelled for non-fulfilment of their reporting obligations. On the other hand, some members withdrew,

citing compliance costs or insufficient relevance, which meant that total membership stood at 124 at the end of December 2019. Of the original founding members that joined in October or November 2014, there were still 30 in the Partnership at the end of December 2019. Over that five-year period there was an overall downward trend in the number of members.

At the end of December 2019, 75 out of 124 members (60%) were classed as companies; eight of them did not have their registered office in Germany. If a company is a member of the Textiles Partnership, this does not necessarily mean that its main economic activity is in the field of textiles and/or clothing manufacture. According to the statistical business register of the Federal Statistical Office, some 70% of the member companies operated primarily in the manufacture, wholesaling or retailing of textiles and/or clothing in 2019. Their aggregate turnover in 2019 amounted to EUR 17.4 billion. According to the trade statistics of the Federal Statistical Office, total retail turnover for the whole of 2018 amounted to EUR 579.6 billion, while total wholesale turnover came to EUR 1,325.6 billion. About 4.8% of these amounts were earned by companies primarily assigned to the wholesale and retail sector through sales of clothing, textiles and curtains, excluding footwear, leather goods and carpets.

German Government activities relating to the indicator

Previous measures

Supply chains are increasingly global and highly complex. Production often takes place in countries with low social and environmental standards. Compliance with sustainability standards helps to ensure that quality and sustainability requirements are met, reduces risks in supply chains and improves local working and living conditions. For consumers, sustainability standards perform a communication and guidance function.

The German Government therefore promotes the propagation of sustainability standards in global supply chains and adherence to those standards, for example through multi-stakeholder initiatives. Only in alliance with business, civil society, trade unions and governments can the global challenges be met.

The Partnership for Sustainable Textiles is explicitly committed to the improvement of environmental and social standards along the entire textile supply chain. The requirements laid down in the Textiles Partnership are based on the core elements of corporate due diligence that are en-

shrined in the UN Guiding Principles and spelled out in the OECD Due Diligence Guidance. By becoming members, companies are also able to provide evidence, through their reports, that they are exercising responsibility in their supply chains. The Textiles Partnership assists its members in jointly achieving local improvements in matters such as living wages, working conditions or environmental and chemicals management. Through a learning and experience-sharing platform members receive assistance in the form of training opportunities, practical guides and other useful instruments. Through cooperation with international sustainability initiatives members obtain access to the expertise of these initiatives in matters such as grievance mechanisms, chemicals management and fibres, and in this way advances are also made towards harmonisation of the requirements for companies.

The Sustainable Agricultural Supply Chains Initiative (INA) was founded in November 2019. It is an open platform that currently comprises about 80 stakeholders from the farming and food industry as well as from retailing, civil society and politics. INA operates with a cross-commodity approach. INA harnesses synergy and pools the abilities of participants with a view to devising holistic solutions to problems such as guaranteeing living incomes and wages

and providing protection against deforestation. One of the German Government's activities within this initiative is the provision of funding for a working group of the German retail trade which signed a voluntary commitment in January 2020 to living incomes and wages in global agricultural supply chains. By promoting fair and decent remuneration, this commitment contributes to the realisation of human rights.

Another important initiative in the realm of global supply chains is the Forum for Sustainable Palm Oil (FONAP), which is an organisation of some 50 companies, associations, non-governmental organisations and two government ministries – the Federal Ministry of Food and Agriculture and the Federal Ministry for Economic Cooperation and Development. The Forum is supported by the Federal Ministry of Food and Agriculture through the Agency for Renewable Resources (FNR). FONAP aims to ensure that 100% of palm oil used in Germany is certified sustainable. The members of the Forum have made a voluntary commitment to that effect. Another aim of FONAP is to further improve the accredited certification systems and to increase the use of certified palm oil both nationally and internationally.

Planned additional measures

As part of the review process in the Textiles Partnership, simplifications for businesses were devised, and these are being piloted in 2021. The longer reporting cycle and the financial concessions to small businesses in connection with the assessment meeting are incentives that should permit more involvement in the Partnership, particularly on the part of SMEs. Because of the structure of the industry in Germany, which mainly comprises SMEs, many of them small businesses with fewer than 50 employees, an

increase in membership from this key part of the German textile industry is essential if the Sustainable Development Goals are to be achieved in this sector. Through *Unternehmen Biologische Vielfalt 2020* (Enterprise Biological Diversity 2020), a platform for associations, the Federal Environment Ministry will promote the development, testing and widespread roll-out of effective management measures to address the impact of business activity on biodiversity throughout supply chains together with business and nature conservation associations.

The German Initiative on Sustainable Cocoa (*Forum Nachhaltiger Kakao*) pursues the goal of, by the end of 2025, at least 85 % of the cocoa contained in final products sold by its members in Germany having been certified in accordance with sustainability standards or subjected to equivalent independent verification. Through the new monitoring system that began in the 2020 reporting year, more transparency, regular reporting and a sharper focus on results should be achieved. The same purpose is served by the planned harmonisation of large parts of the monitoring frameworks of the European cocoa platforms of Switzerland, Belgium and the Netherlands.

9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

a) Main substance and political priorities in the view of the German Government

A focus on sustainability in the three closely interlinked elements of SDG 9 – infrastructure, industrialisation and innovation – serves as an important foundation for other SDGs too, such as sustainable agriculture (SDG 2), sustainable economic growth (SDG 8), sustainable cities (SDG 11), sustainable consumption and production patterns (SDG 12), and climate action (SDG 13).

Sustainable infrastructures

Infrastructures include both technical infrastructure (transport, energy, water/sewage, information and communication technology/broadband, air-quality control, waste management) and societal infrastructure (education, healthcare, public administration, etc.). There are clear regional differences in infrastructure provision.

Nationally and internationally, the requirements of health, noise and air-quality control, climate-change mitigation and adaptation, and protection of natural resources and biodiversity must be taken into consideration when infrastructure is still in the planning stages, as do, for example, equal rights to participate in society and economic life. The way infrastructure is designed plays a key role in the processes of transformation required in such sectors as transport and energy. Developing high-quality, reliable, sustainable and resilient transport infrastructure is one of the core objectives and perennial responsibilities of transport policy. The strategic development of that core objective is served by federal transport infrastructure planning.

Germany needs mobile communications infrastructure that sustainably supports the digital transformation in the economic and social spheres and makes Germany more attractive to business. The aim of the German Government's Mobile Communications Strategy is to make Germany a world leader in public mobile communications on the basis of nationwide LTE coverage. In so doing, Germany is also fulfilling an important precondition for the swift roll-out of 5G, another area in which it intends to consolidate its internationally leading roles in, for example, *Industry 4.0* and *Digital Farming*.

Sustainable industrialisation

Targets 9.2 (inclusive industrialisation, significant rise in industry's share of employment) and 9.3 (access of small-scale industrial and other enterprises to financial services) are primarily global in their focus.

For Germany, they mean enhancing the competitiveness of industrial enterprises in Germany for the long term in the face of huge structural changes caused by, for example, automation and digitalisation, the challenges of climate change, and other countries' protectionist economic and trade policy. To this end, the German Government's industrial policy is stimulating, sustainable and guided by the long view.



In light of climate change and the potential environmental impact of raw material extraction, target 9.4 is intended to make industrial production cleaner and more resource efficient. Successful technological reform brings with it a multitude of opportunities for Germany as a place to do business, pursue innovation and find work. It enables Germany to consolidate its position as an innovative and leading provider of and market for climate-friendly technology. With such technology, the industrial sector can make an important contribution to climate action worldwide as well as enhancing Germany's clout as an exporter of cutting-edge technology.

Science, research and innovation for a sustainable future

Science and research (target 9.5) are the foundations of an innovative society, progress and prosperity. A productive and independent science sector, a culture of openness to innovation, and the effective sharing of knowledge and ideas in the economic and social arenas are therefore important objectives for the German Government. They provide strategic underpinning for the target, as amended in 2018, of increasing public and private expenditure on research and development in Germany from 3.1 % of GDP in 2018 to 3.5 % by 2025.

On its way towards a sustainable future, Germany has a tremendous amount of innovation to undertake. It is the view of the German Government that science and research have an important role in driving the implementation of all 17 SDGs. They generate the knowledge required to build evidence-based provision for the future in such fields as combating climate change, extinction and widespread diseases like cancer, channelling the digital transformation towards sustainability, and transitioning to a sustainable economy and sustainable ways of working. At the same time, research is supplying pioneering ideas for products, processes and services to help resolve those challenges.

The German Government has also set itself the objective to consistently take the SDGs into consideration from the very beginning of any process of innovation, particularly in the context of digitalisation. As a result, the SDGs themselves increasingly form the starting point of research and development projects. Opportunities for sustainable de-

velopment can thus be exploited and risks to humans and the environment averted. In many areas, the use of digital technology and analysis of large data sets can serve to bring about a genuine shift towards greater sustainability and simultaneously enhance Germany's role in the avant-garde of innovative green technology.

As such, the German Government sees sustainable development in part as an opportunity to enhance competitiveness and Germany's attractiveness as a place to do business. Similarly, sustainable innovations are an important factor in the economic development of the Global South.

In this context, the German Government understands innovation in the extended sense as encompassing not only technological but also social and structural innovation with society as a key stakeholder. This understanding of innovation upholds the precautionary principle as well as existing protection standards and identifies innovations that also help to reduce risks for people and the environment.

Particularly in pursuit of non-technological innovation, new approaches are needed to strengthen the overlap between science and research on the one side and business and society on the other. To that end, the Scientific Platform for Sustainability 2030 (wpn2030), initiated in 2017 under the previous edition of the German Sustainable Development Strategy, put forward a number of specific proposals as to the future evolution of that strategy in late 2019.

In its reflection paper *Bitte wenden! Wissen(schaft) für eine nachhaltige Entwicklung Deutschlands*, the platform recommends raising demand for and promotion of an integrative approach to sustainability to a new level. It also highlights the importance of strengthening transformative science and using the German Sustainable Development Strategy as a testing ground for new information-sharing and processing formats, such as its "labs".

The German Government has responded to these recommendations by, for example, placing greater emphasis in its research policy on the pursuit of particular missions: intensifying interministerial dialogue on specific missions and supporting research in line with named, traceable goals that are jointly pursued by stakeholders from politics, business, academia and civil society.

Living labs play an increasingly important role in this context. A living lab, in such fields as innovative mobility and logistics, Industry 4.0, transport, medicine or energy, provides the most authentic possible conditions in which new ideas can be tried out, developed further and successively implemented. It is indispensable here for the researchers to maintain a close dialogue with stakeholders outside academia, such as businesses, members of the public, local

authorities and politicians. The German Government supports that dialogue by specifically funding interdisciplinary and transdisciplinary research as well as establishing multi-stakeholder platforms. Living labs are also used in connection with regulatory frameworks. For instance, they provide valuable empirical findings about how the potential of digital technology can be tapped for sustainable solutions without important protection standards being undermined (c.f. the regulatory sandbox strategy of the Federal Ministry for Economic Affairs and Energy).

German Government activities

I. Measures in Germany

1. Transport infrastructure

The current Federal Transport Infrastructure Plan (FTIP 2030) covers a planning horizon from 2016 to 2030. It encompasses not only maintenance and replacement investment but also upgrading and new construction projects for the road, rail and waterway transport networks within the federal remit, with a total budget of EUR 269.6 billion. It is guided by the principle that maintenance has priority over upgrading and new construction. FTIP 2030 is the first Federal Transport Infrastructure Plan to have been drafted and developed in collaboration with the public. Beyond the FTIP, the Federal Government funds infrastructure for public transport and cycling as well as the interconnection and intermodal use of means of transport on the basis of their respective strengths. Over and above this, it fosters experience-sharing among local authorities in the interests of identifying transferable solutions.

2. Broadband infrastructure and mobile data transmission

Due to changing production conditions (Industry 4.0) and demographic change, access to information and the automated and flexible management of infrastructure, among other things, are becoming more important. The right conditions for this need to be created all over Germany. To supplement the private sector broadband roll-out, over EUR 8 billion in federal funds have been granted as part of the German Government's broadband support scheme since 2016.

In the interests of establishing full gigabit-capable broadband coverage throughout Germany by 2025, the existing support scheme for broadband, which applies to "white areas" (i. e. areas with data speeds below 30 Mbps), was amended to pursue the objective of gigabit speeds. Existing projects were retroactively upgraded so

that they had gigabit speeds as their objective. The next step will see a new support scheme in which areas with broadband speeds slower than 100 Mbps will be eligible for funding, assuming private sector provision is not to be expected. Furthermore, the German Government set up a special digital-infrastructure fund in 2018 for the roll-out of gigabit networks, especially in rural areas, and financial assistance to fund educational digital infrastructure for schools.

In addition to wired broadband infrastructure, mobile data transmission is also becoming ever more important. The introduction of fifth-generation mobile communications technology (5G) not only opens the door to more sophisticated mass-market applications; the focus is now shifting to industrial sectors above all. 5G will become the backbone of industrial connectivity through smart networks and real-time applications. 5G is potentially a catalyst for new productivity boosts in areas like smart mobility, Industry 4.0, smart utilities grids, smart logistics, e-health and digital farming. It was with this aim in the foreground that the German Government adopted its Mobile Communications Strategy on 18 November 2019. Implementing the strategy is intended to swiftly ensure nationwide provision of mobile telephony and data services (LTE/4G), which the additional roll-out of 5G can build on – in rural as well as populous areas. The measures contained in the Mobile Communications Strategy will achieve coverage across at least 97.5 % of German territory and in 99.95 % of households.

3. High-Tech Strategy

In many fields, research and innovation are the key to advancing development that is economically, socially and environmentally sound.

In its High-Tech Strategy, the German Government presents its strategy for research and development at the beginning of each legislative term. The Federal Cabinet adopted the 2025 High-Tech Strategy (HTS 2025) in 2018. The objective is to shape our economy and our lifestyle in such a way that they can combine competitiveness, preservation of life-sustaining natural resources and social equity. There are three areas for action:

- 1) Tackling the grand challenges facing society in the fields of health and care; sustainability, climate action and energy; mobility; urban and rural areas; safety and security; and the economy and work
- 2) Developing the capabilities required for the future
- 3) Establishing an open innovation and venture culture.

In all three, HTS 2025 places people-centred research front and centre. It also treats digitalisation as a cross-cutting issue rather than a separate area.

The High-Tech Strategy established a new strategic instrument in the form of “missions”. Missions serve to improve coordination between existing activities, bring in new stakeholders from business, academia, politics and society, and encourage additional activities in pursuit of the mission goals. Such missions as greenhouse gas neutrality in industry, plastic reduction, the circular economy, preservation of biodiversity and clean mobility are guided by sustainable development as a core objective.

Many points of connection arise between these efforts and the research agendas of the EU and many of its member states, which also work on the basis of missions. Research activities at the national level are supplemented by Horizon 2020, the EU framework programme for research and innovation.

As an adaptive strategy, HTS 2025 is intended to respond swiftly and tactically to trends within the innovation system. This is why the German Government places great emphasis in the implementation of HTS 2025 on the involvement of a broad range of stakeholders. To that end, the implementation and development of the strategy is guided and supported by the High-Tech Forum (HTF) comprising representatives of academia, business and society.

4. Research for Sustainability (FONA)

Through the FONA Strategy, its framework programme on research for sustainable development, the Federal Ministry of Education and Research has been providing the foundations of forward-looking decisions and delivering innovative solutions for a sustainable society since 2005. Almost all the SDGs are directly or indirectly addressed by FONA activities. The main areas of research are energy (SDG 7), the climate (SDG 13), biodiversity (SDGs 14 and 15), sustainable cities and communities (SDG 11), and the circular economy and bioeconomy (SDGs 2, 6 and 12). The FONA Strategy has firmly embedded sustainability in Germany's research landscape. An independent evaluation of the previous FONA Strategy, concluded in 2020, affirmed its positive impact in taking academia, business and society in the direction of greater sustainability. This success is not least due to the close liaison between those conducting the research and those active in the relevant fields in the private sector and broader society. For example, businesses report a rise in their capacity for innovation and their standing in the market. This is particularly true of small and me-

dium-sized enterprises (SMEs). Additionally, the FONA Strategy in conjunction with the Sustainability in Science Initiative (SISI) is also playing a role in universities and research institutions making their own research and operational procedures more sustainable.

5. Ensuring technological sovereignty

Technological sovereignty, meaning the right and capability to generate key technologies and technological innovations, is indispensable if we are to achieve the Sustainable Development Goals.

The German Government therefore promotes the study, development and application of key technologies such as artificial intelligence, microelectronics, and communications, quantum and battery technology, as well as the creation and roll-out of infrastructure and training for the required specialists. As part of the Economic Stimulus Package, the German Government is investing more than EUR 6 billion in the above areas, e.g. building infrastructure for AI, funding quantum technologies and the development of quantum computers, piloting a quantum communications network and researching 6G.

6. Digitalisation and sustainability

The use of digital technology can underpin and accelerate sustainable development in many areas, whether through data-driven efficiency boosts or digital innovations to advance, for instance, the circular economy or Germany's energy reforms. On the other hand, the rising use of digital technology is associated with steadily growth in the consumption of energy and resources as well as alterations in patterns of consumer behaviour. The chief priorities of current research policy are therefore the sustainability of digital technologies – ranging from sensor apparatus and digital electronics to server farms and the concomitant communications technology – and their use in pursuit of the SDGs. For example, the initiative Green ICT – Grüne IKT is focusing more strongly on the development of technological solutions to reduce energy consumption and CO₂ emissions in information processing and storage. It is part of Natural. Digital. Sustainable, the action plan of the Federal Ministry of Education and Research, which brings together the ideas of digitalisation and sustainable development and develops them in combination – as does the German Government's new research and innovation framework programme for 2021–2024 entitled Microelectronics. Trustworthy and Sustainable. For Germany and Europe.

In addition, the Digital Policy Agenda for the Environment is the first comprehensive strategy of its kind to embed pro-

tection of the environment, climate and natural world in policy on digital affairs.

7. Shift to a bio-based economy

With its National Bioeconomy Strategy, the German Government has reaffirmed its commitment to the vision of a sustainable bio-based economy founded on natural material cycles. A bioeconomy uses biological resources, processes and systems to create a synergy of ecological and economic concerns. It contributes significantly to the attainment of the SDGs, directly addressing about a dozen of them. Research is an important key to unlocking the potential of the bioeconomy. Funding for bioeconomy research goes to studies on agriculture, soil, plants, ecosystems, biotechnology, industrial applications and socioeconomic matters.

The strategy draws all the relevant political activity together within a coherent framework and establishes the principles and objectives of the German Government's bioeconomy policy. The aim is to strengthen Germany's leading role in creating the bioeconomy and to develop the technologies and jobs of tomorrow.

8. Eco-innovation Action Plan

The priority measures to implement targets 9.4 and 9.5 also include the implementation of the 2020 Climate Action Programme. Promoting environmentally friendly modes of transport and developing networking and control technology creates the conditions for more environmentally sound and resource-efficient mobility. The German Government will also establish a national action plan for eco-innovation to buttress the EU's Eco-Innovation Action Plan at the domestic level.

9. Innovation pact for climate action

Under the aegis of a new innovation pact for climate action, the German Government is working with the private sector and the scientific community to develop and implement additional ideas for reducing greenhouse gases in industry. The innovation pact for climate action is intended to coordinate the relevant support schemes and create a framework for the development of innovative technology.

II. Measures by Germany

Germany is supporting sustainable infrastructure investment at the bilateral and multilateral levels, including as a shareholder of multilateral development banks, in international forums such as the G7 and G20, and

with its own financing. With regard to public and private sector infrastructure investment, Germany places the chief emphasis on quality and sustainability. The idea of climate-resilient infrastructure plays an important role in this respect. Germany joined the Coalition for Disaster Resilient Infrastructure (CDRI), an Indian initiative, in 2020.

On the basis of latest assessment by the German Advisory Council on Global Change, which concluded that the 2030 Agenda SDGs would be achieved more quickly, effectively and sustainably using digital technology, it is a priority for Germany's development cooperation to advance sustainable and climate-friendly digitalisation – and it will remain so.

In the context of the UN Climate Action Summit of September 2019, Germany was actively involved in the Infrastructure, Cities and Local Action (ICLA) track and launched two initiatives: Action towards Climate-friendly Transport (ACT) and Leadership for Urban Climate Investment (LUCI)

III. Measures with Germany

The 17 SDGs of the United Nations 2030 Agenda, like the Paris Climate Agreement, can only be fulfilled if sustainable infrastructure solutions find a place particularly in the rapidly growing cities of developing and newly industrialised countries. These issues play an important role in Germany's development cooperation. Next to directly supporting city and local administrations, this means, for example, advising and/or financing basic local infrastructure like water supply, waste management, transport and energy. Between 2016 and 2020, around EUR 2.1 billion were made available for sustainable urban transport through the Transformative Urban Mobility Initiative (TUMI).

Germany furthermore supports the development and propagation of different ideas for creating and rolling out sustainable infrastructure in developing and newly industrialised countries through, for example, the Cities Climate Finance Leadership Alliance (CCFLA), the C40 Cities Finance Facility (CFF) and the Cities Development Initiative for Asia (CDIA). TUMIVolt, a project run by the Federal Ministry for Economic Development, specifically assists cities in Germany's development-cooperation partner countries with the establishment of sustainable e-mobility in their public transport systems and innovative shared-mobility schemes.

Additionally, the COVID-19 pandemic is forcing a change of thinking in ongoing projects of German devel-

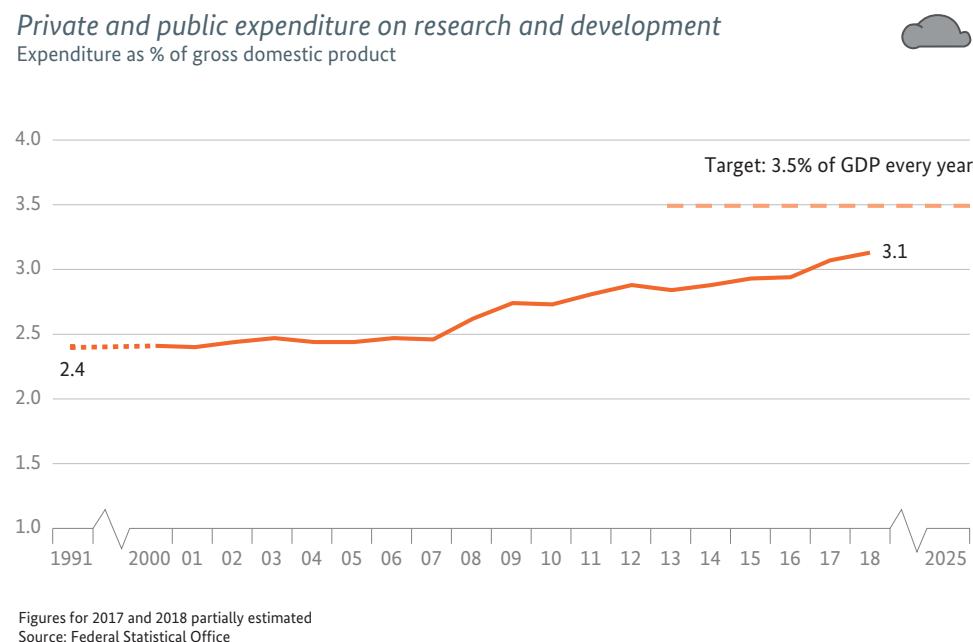
opment cooperation. Under the CFF, for example, city administrations receive support and training for the move to digital tools and formats. Events like the annual TUMI conference were held in a fully virtual format for the first time so that, in spite of the travel restrictions, participants could exchange ideas about short-term measures to fight the pandemic in the arena of transport as well as long-term recovery strategies for the sector to build back better.

Digitalisation offers a host of opportunities, not least for developing countries. It creates new markets and new sources of income for local populations. That being said, digital transformation does also entail risks. Many developing countries currently lack access to global digital markets as well as experience and the regulatory standards that would allow them to compete on the world stage. That is why the German Government is funding education and training measures, some specifically for women and girls, the development of innovative digital ecosystems on the ground, and support for an African data economy or pan-African ecommerce initiative. German development cooperation is thereby seeking to lay the right foundations for employment rates in partner countries to rise, lost jobs to be replaced and international cooperation in the digital sector to be strengthened.

b) Relevant national sustainability indicators and targets/measures

9.1.a Private and public expenditure on research and development

Innovation – Shaping the future sustainably with new solutions



Destatis
Statistisches Bundesamt

Definition of the indicator

This indicator shows expenditure on research and development by the private sector, the state and institutions of higher education in relation to gross domestic product.

Targets and intention of the German Government

Expenditure on research and development (R&D) is a crucial parameter, albeit not the sole determining factor, in setting the pace of innovation of an economy. The higher the spending, the greater the likelihood of more dynamic gains in productivity, stronger economic growth and improved competitiveness. The German Government will leave no stone unturned in pursuit of its policy objective to raise private and public R&D spending – an important determinant of the pace of an economy's innovation – to at least 3.5 % of GDP annually by 2025.

Content and development of the indicator

Research and development are scientific activities and are defined as creative and systematic work with the goal of expanding knowledge – including knowledge of humankind, culture and society – as well as developing new applications on the basis of existing knowledge. The main criterion that differentiates R&D from related activities is the existence of an appreciable element of novelty or advancement from a previous position.

The Federal Statistical Office annually calculates how much has been spent on research and development as a proportion of gross domestic product. Overall spending on research and development comprises expenditure by the public sector (including private non-profit research institutions), businesses and institutions of higher education. The data-gathering and calculations adhere to the recommended methodologies of the OECD Frascati Manual on statistics about research and development, which enables international comparisons.

Overall R&D expenditure in Germany in 2018 amounted to EUR 104.7 billion, equivalent to 3.1% of GDP. It was thus 0.4 percentage points below the target set for 2025 of at least 3.5 % of GDP annually. The intended target has not been reached.

Since 2000, spending on research and development in Germany has risen by about 0.7 percentage points as a proportion of GDP. The indicator has shown the strongest growth since 2007. While the figure increased by an average of 0.01 percentage points per annum between 2000 and 2007, it grew by an annual 0.06 percentage points on average from 2007 until 2018.

As an international comparison, Germany is ahead of the United States with its 2.8 % and the EU 28 region with its

2.0%. On the other hand, several countries are ahead of Germany, including Sweden and Japan (both at 3.3%).

In 2018, the private sector accounted for by far the largest share of R&D expenditure in Germany at 68.9%, with 17.6% spent by institutions of higher education and a further 13.5% by public and private non-profit research institutions. Staff employed in R&D comprised around 708,000 full-time equivalents, a figure that includes only the share of their working hours actually spent on R&D work. Some 63.7% of these employees work in the private sector, 20.8% in institutions of higher education and 15.5% in public or private non-profit research institutions.

German Government activities relating to the indicator

Previous measures

The German Government is making an additional EUR 2 billion available in the present legislative term in pursuit of the aim of investing 3.5 % of GDP in research and development, in collaboration with the Länder and the private sector, by 2025.

Currently, the German Government's Economic Stimulus Package agreed by the coalition committee on 3 June 2020, with its EUR 50 billion Future Technologies Package, demonstrates the Government's determination to remain committed to enhancing R&D and to the 3.5 % target particularly in economically difficult times.

Under the Research Allowance Act (*Forschungszulagengesetz*) which came into force in 2020, companies can receive up to EUR 1 billion in tax credits a year to support their research and development activities. This fiscal measure creates new incentives for business to invest more in R&D. Start-ups and companies below the profitability threshold can also benefit from this fiscal research incentive. The financial impact of the law has been quantified at around EUR 1.5 billion per annum.

The approach taken by the Federal Ministry for Economic Affairs and Energy has four pillars, innovative start-ups, companies' capacity for innovation, pre-competitive research, and market-oriented R&D for innovative products and processes. The different needs and stages of each business – from the spark of an idea to putting it on the market – are thus covered by perfectly tailored instruments. The programmes are thematically and technologically non-specific, as the decision about what technology to invest in should lie with the businesses themselves. The support concentrates largely on SMEs since, given their scarcity of resources, they have less funding available for investment in research and development than larger organisations. They therefore need reliable, tailored state support schemes to balance out their competitive disadvantage. One of the largest instruments for implementing new ideas in Germany is the Central Innovation Programme for SMEs. Throughout Germany, it serves to kick-start several thousand projects run by innovative SMEs, and by research institutions collaborating with them, every year.

Planned additional measures

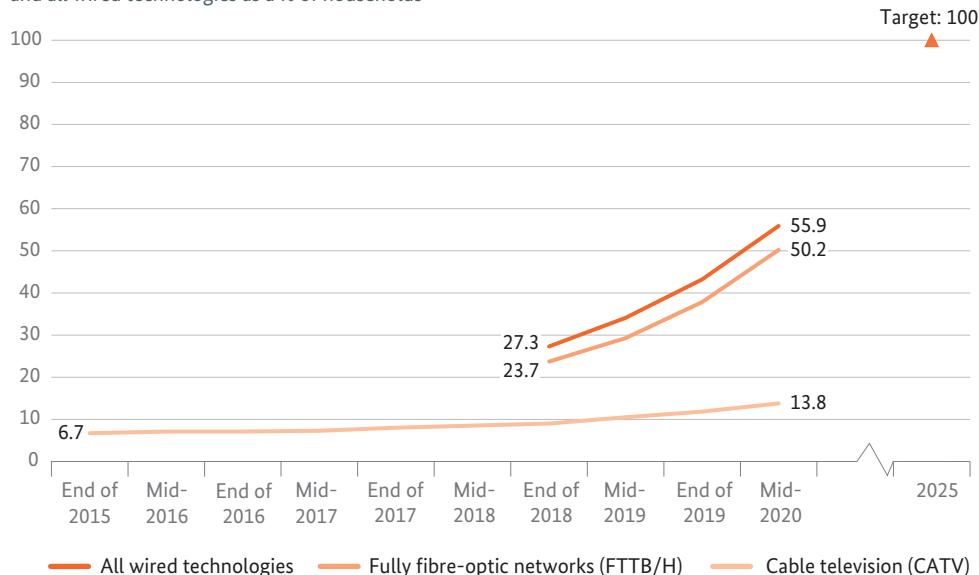
The heads of the Federal and Land Governments will continue to work on increasing R&D spending as a proportion of GDP and enhancing competitiveness by supporting R&D.

9.1.b Rollout of broadband

Innovation – Shaping the future sustainably with new solutions

Broadband availability in Germany

≥1,000 Mbps via fully fibre-optic networks (FTTB/H) cable television (CATV)
and all wired technologies as a % of households



Source: Broadband Atlas of the Federal Ministry of Transport and Digital Infrastructure

DIESTATIS
Statistisches Bundesamt

Definition of the indicator

The indicator shows the development of broadband availability for households in Germany in terms of the technology installed, with separate figures for gigabit connections ($\geq 1,000$ Mbps) using fully fibre-optic networks (FTTB/H), cable television (CATV) and other types of wired technology.

Targets and intention of the German Government

The nationwide roll-out of gigabit networks by 2025 is one of the German Government's key objectives. In addition to enhancing international competitiveness, the expansion of broadband availability with gigabit speeds is intended to facilitate the convergence of living standards across Germany. To achieve these aims, the predominantly private sector roll-out is to be supported by public funding schemes in unprofitable areas.

Content and development of the indicator

The indicator measures the availability of broadband to households in Germany at downstream speeds of at least 1,000 Mbps, or one gigabit per second, using wired technology – fibre optics (FTTB/H) and cable television (CATV). The figures are collated on behalf of the Federal Ministry of Transport and Digital Infrastructure and published on the Government's Broadband Atlas.

As of the middle of 2020, fully fibre-optic internet connections (FTTB/H) capable of more than 1,000 Mbps were available in 13.8% of households in Germany. Between 2015 and 2020, the availability of 1,000 Mbps FTTB/H broadband rose by 7.1 percentage points. In other words, it more than doubled, increasing by +105.9%. From the end of 2018 to the middle of 2020, the proportion of households with equally rapid connections using CATV grew from 23.7 to 50.2%. This is also more than double, equating to a +111.8% increase. Altogether, 55.9% of households had gigabit-capable connections available as of mid-2020.

Within the country, availability can be seen to vary depending on the region. For all technologies, the provision of gigabit broadband is concentrated particularly in urban areas, where some 74.6 % of households had gigabit-speed internet access as of 2020. That figure is markedly lower for areas of a rural character, at 16.7 % in 2020. To consider the distribution of the different technologies, 70.7 % of urban and 7.8 % of rural households had gigabit connections via CATV in mid-2020, while gigabit-capable fibre broadband was available to 17.6 % of households in urban areas and 8.9 % of those in rural areas. Rural locations are thus predominantly supplied with gigabit speeds via fibre-optic networks, while urban areas rely more on CATV.

Differences in availability between urban and more rural areas are also discernible among the Länder. Of all the Länder that are not city states, Schleswig-Holstein has the highest level of gigabit-speed provision using any technology in 2020, at 74.0 % of all households, followed by North Rhine-Westphalia on 62.0 %. At the other end of the scale, 12 % of households in Saxony-Anhalt can say the same, with Brandenburg the next-lowest at 22.1 %. In contrast, provision of gigabit-speed broadband is markedly higher than 90 % in the three city states, Berlin, Bremen and Hamburg.

Various sources are used to calculate these data. Alongside the digital landscape model produced by the Federal Agency for Cartography and Geodesy and OpenStreetMap, more than 500 telecommunications companies in Germany are surveyed about their current provision. To preserve the companies' business and trade secrets, the resultant data are aggregated into a grid of 250-metre by 250-metre cells and grouped according to seven classes of broadband. Although full-fibre networks with speeds of over 1,000 Mbps have been included in observations since the end of 2015, that class has only been studied in detail since the end of 2018 in light of the latest technological advances.

Methodologically, it should be noted that the telecom companies provide their data on broadband availability on a voluntary basis, as there is no legal framework. Furthermore, the figures for availability refer to the technology that telecom companies have installed, as opposed to the actually usable broadband capacity in the area. Additional information on broadband measurement can be found in the annual report of the *Bundesnetzagentur*, Germany's federal networks agency.

German Government activities relating to the indicator

In pursuit of nationwide gigabit-capable broadband availability for all households and businesses in Germany – an important precondition for the convergence of living standards – the German Government has undertaken a number of measures. The focus has been on the roll-out of fibre-optic networks by the private sector. In regions where the fibre roll-out is not being realised at the private sector level, federal funding has been provided for complementary investment.

Previous measures

Achieving the nationwide roll-out of gigabit-capable networks will require willingness to make considerable investments, primarily on the part of the private sector. There has been dynamic growth in this regard over recent years, with around EUR 10 billion now being invested in the telecommunications market annually. The trend is rising. Only in 2017, that figure was still at around EUR 8 billion. To further enhance the regulatory incentives for private sector investment, there are plans to create a regulatory framework that not only encourages innovation and investment but also safeguards competitiveness. To that end, the Telecommunications Act (*Telekommunikationsgesetz*) is being comprehensively revised and redrafted in line with the provisions of the European Electronic Communications Code. For example, the regulations are to facilitate cooperative arrangements between network providers that will promote the roll-out of technology and to take better account of the differences between the roll-out of gigabit-capable infrastructure and existing copper networks. In addition, the Digital Networks Act (*DigiNetz-Gesetz*), which has already been in force since 2016, created the legal conditions for enhancing synergistic relationships with respect to the laying and shared use of fibre-optic cables.

To supplement the private sector network upgrade, the roll-out in unprofitable areas will be subsidised with federal funding. Since the federal funding programme began during the last legislative term, the Federal Government has made approximately EUR 12 billion available, chiefly through the special digital-infrastructure fund, to support the broadband roll-out. Support schemes worth almost EUR 8 billion have been launched so far. Altogether 2.5 million connections are being created.

The existing federal funding programme was amended in the current legislative term to concentrate exclusively on the provision of gigabit broadband. To date, the focus has been on establishing coverage for "white areas", where in-

ternet speeds are below 30 Mbps, and connecting socio-economically important players. These include industrial estates as well as ports, schools and hospitals, which have been eligible for funding since the end of 2018 assuming they are not already receiving or due to receive gigabit broadband. As of the end of 2020, funding has been granted to around 11,000 schools and at least 140 hospitals and 665 business parks.

In addition, support for broadband as part of the joint federal-Länder task referred to as "Improvement of Agricultural Structures and Coastal Protection" has been extended until the end of 2023. The federal broadband programme supplements that support with small-scale measures to close gaps in the existing broadband infrastructure. Areas with inadequate broadband provision – where internet connections have speeds of less than 30 Mbps – are eligible for funding.

Alongside these efforts, the German Government has created fresh incentives in collaboration with KfW to boost private sector investment in expanding fibre-optic networks. As an additional aid to the accelerated roll-out of broadband, the new KfW support programmes launched in April 2020, Investment Loans for Digital Infrastructure and KfW Syndicated Loans for Digital Infrastructure, supplement the federal subsidies with assistance to improve the feasibility of commercially funding projects. In the first year, broadband projects have received loans amounting to approximately EUR 87 million.

Another important factor for the broadband roll-out is to get the pivotal local stakeholders on board and provide them with the necessary knowledge and expertise with regard to technology, organisation and funding. The Federal Gigabit Bureau (formerly the Federal Broadband Bureau) is therefore running training schemes throughout Germany. Seminars and workshops inform various target audiences – such as Land ministries, local authorities and banks – about the relevant aspects of the broadband roll-out.

Planned measures

The previous measures in the areas mentioned above will be maintained and continuously refined. Whereas the previous funding scheme was restricted to areas without provision, i.e. with broadband speeds below 30 Mbps, the next step will see regions with speeds below 100 Mbps eligible for support on the basis of a new funding scheme – assuming a private sector roll-out is not expected in the foreseeable future.

10. Reduce inequality within and among countries

a) Main substance and political priorities in the view of the German Government

Income and wealth inequality is an accepted part of any society founded on freedom to develop and fair recompense. For society as whole, it is entirely desirable for outstanding contributions to be particularly well rewarded. This promotes innovation and development. However, if inequality is accompanied by people's exclusion from society and the endangerment of social cohesion and harmony, then state intervention is required. According to the OECD and the International Monetary Fund (IMF), the benefits of reduced inequality can include a positive effect on economic growth.

The equal inclusion of all people, regardless of age, gender identity, sexual orientation, ethnicity, origins, place of residence or religion, and irrespective of social and economic status or any disability, is an obligation imposed by human rights as well as by social responsibility. The imperative for everyone to be included in economic life and in society goes right back to the principle of social justice by which the Federal Republic of Germany is bound. It is in part intended to ensure that the potential of all the country's citizens can be tapped for the benefit of society as a whole. The meaning of SDG 10 is therefore understood to include equal opportunities and freedom from discrimination.

The aim must be to enable everybody to participate properly in our economic progress and social achievements.

Inequality as a social problem

High or increasing inequality often goes hand in hand with social problems. International studies show that stark inequality, growing regional disparities and far-reaching exclusion of sections of the population from the life of society can have a negative impact on social cohesion and economic development, even in industrialised countries. This can ultimately jeopardise social harmony.

It is also important to consider regional differences with a view to ensuring the convergence of living standards throughout the country.

Because income is so pivotal to individual consumption and living standards, income distribution plays an important role. Income inequality increased in Germany from 1999 to 2005 but has been largely stable since. After tax and social transfer payments, inequality in Germany is below the OECD average. Wealth inequality has also remained stable, albeit at a relatively high level. Regional disparities in income and wealth distribution are also an issue that is dis-

cussed in connection with the goal of equalising living standards.



The inequalities are much greater when it comes to the global scale. Worldwide, the top 1% of earners have done more than twice as well from economic growth since 1980 than the poorest 50%. Not only income but wealth in particular is distributed very unequally across the globe. In 2018, about half of all household assets around the world were held by just 1% of the global population. To make matters worse, many direct and indirect ramifications of the COVID-19 pandemic are affecting disadvantaged groups particularly badly. This can exacerbate existing inequalities within and between countries. The regions with the highest levels of inequality at the domestic level are Latin America, the Caribbean and sub-Saharan Africa.

At the same time, inequality extends beyond the purely financial and is developing rapidly. In the context of extensive technological changes, inequality is manifesting itself in new ways, such as in respect of access to broadband.

The United Nations 2019 Global Sustainable Development Report emphasises that inequality is one of the key issues which are developing negatively but which are fundamental to the successful implementation of the 2030 Agenda.

Structure of the SDG

The first four targets (10.1–10.4) are geared towards reducing inequality within countries. Their first aim is above-average income growth for the bottom income groups, augmented by better inclusion, guaranteed equal opportunities, progressive taxation and greater equality in matters relating to wage settlements and social protection. The other targets (10.5–10.7) seek to break down global inequality and call for an international approach to improving the regulation of global financial markets, granting developing countries more of a voice, and facilitating orderly, safe, regular and responsible migration. Targets 10.a-10.c stipulate, among other things, that official development assistance and financial flows be directed to states where the need is greatest.

German Government activities

10. Measures in Germany

In Germany, income inequality is already greatly mitigated by taxes and transfer payments. High levels of employment, low unemployment, strong representation for both labour and management, and a functioning system of employee involvement at management level serve to

further combat inequality. In view of the new challenges, however, we also need to find answers to such questions as how we envision the future of work and the welfare state, how we can safeguard cohesion for the years to come and how we can overcome the divisions that arise.

This is why the German Government conducted its New Work – New Security dialogue. With the participation of the general public, the dialogue examined, for example, how decent work can be assured in the context of digital transformation, how the risk of unemployment might be more effectively mitigated, and how people can be made ready for the jobs of tomorrow. The intention is to distil specific options for political action out of this process. Furthermore, in its Understanding Society – Shaping the Future programme for the humanities and social sciences (2019–2025), the German Government is prioritising the strengthening of social cohesion. Measures include the development of a research institute for social cohesion. Among the institute's core tasks will be to analyse current relevant trends and developments in society as well as their historical roots. In addition, funding goes to research projects looking at the various manifestations, interactions and causes of diversity and inequality and their effects on social cohesion and levels of participation in society.

A milestone in the history of German social policy was achieved with the introduction of a general statutory minimum wage on 1 January 2015. It immediately benefited around four million employees who had previously earned less than EUR 8.50 gross an hour. In line with the recommendations of the Minimum Wage Commission, the level will rise to EUR 9.50 on 1 January 2021 and thereafter increase incrementally to EUR 10.45 by 1 July 2022. This will improve the income situation for people working in the low-pay sector. The benefit is felt disproportionately by women and by employees in eastern Germany. The minimum wage therefore contributes to more balanced income distribution and fosters participation in economic life and in society. With regard to care, including care for the elderly, a new Ordinance on Minimum Working Conditions (Verordnung über Mindestarbeitsbedingungen) entered into force on 1 May 2020. It makes stipulations for the convergence of the different minimum rates of pay in eastern and western Germany. For the first time, the ordinance also contains minimum rates of pay for different levels of qualification, which will raise incomes for care staff. The Pension Benefits Improvement and Stabilisation Act (RV-Leistungsverbesserungs- und -Stabilisierungsgesetz), which came into effect on 1 January 2019, amended the law in a number of important ways to safeguard the reliability and stability of statutory pensions as a crucial pillar of old-age provision and to distribute the burden of their long-term financial viability without intergenerational in-

justice. Sometimes referred to as the Pensions Pact, it consists of four key elements:

It stipulates that the level of pensions provision must be at least 48 % of average earnings by 2025 and that contributions to statutory pensions insurance will not exceed 20 % as of 2025. These twin brakes serve to balance active contributors' legitimate interest in keeping pensions insurance affordable against pensioners' need for adequate pension payments. To ensure that the contributions guarantee can be upheld, the German Government will provide additional federal funds as required. In addition to the upper limit on contributions, a lower limit for contributions to general pensions insurance was set at 18.6 % until 2025 in the interests of keeping contributions stable.

It significantly improves provision for people receiving disability pensions by increasing the length of the theoretical working life on which calculations are based.

From January 2019, the amount of child-rearing time credited in the calculation of parents' pensions, where the children were born before 1992, will be raised by six months, to a total of two and a half years. This rule also applies for parents who are already drawing their pensions.

Low-income workers' social-security contributions have been decreased. Since 1 July 2019, there has been a new earnings category, for monthly incomes of between EUR 450.01 and EUR 1,300, in which reduced rates apply. In addition, reduced pensions contributions no longer result in lower pension payments.

With respect to attachment of earnings and consumer insolvency (discharge of residual debt), the Federal Ministry of Justice and Consumer Protection has put forward a bill to adapt the law on bank accounts exempted from attachment (Pfändungsschutzkonto-Fortentwicklungs-gesetz), creating new rules which go further towards resolving the conflict between creditors' legitimate interest in having their claims met and the essential protection of debtors.

Furthermore, in accordance with EU legislation, the length of time before a bankrupt individual's residual debts are discharged is to be cut from six to three years.

The COVID-19 crisis has made it particularly clear how easily a business or a family can find itself in financial difficulties due to unexpected circumstances beyond its control.

The Act Adapting Tenancy Law (Mietrechtsanpassungsgesetz) which entered into force on 1 January 2019 serves to protect tenants. It curbs rising rent prices and helps

to keep rents affordable. Moreover, the reference period for calculating prevailing local rent levels was increased from four to six years by the entry into force of the Act Prolonging the Reference Period for Rent-level Surveys (Gesetz zur Verlängerung des Betrachtungszeitraums für die ortsübliche Vergleichsmiete) on 1 January 2020, which also instituted a generous transitional arrangement so that rent-level surveys already completed or under way can still be used.

Alongside these laws, the Act Expanding and Improving Rent Controls (Extension and Enhancement) Act (Gesetz zur Verlängerung und Verbesserung der Regelungen über die zulässige Miethöhe bei Mietbeginn) came into force on 1 April 2020. It enables the Länder to pass ordinances redesignating areas with overstretched housing markets. To more fully exploit the potential of the rent controls, it also expands tenants' right to reclaim rent overpayments from landlords in cases where the rent at the start of the tenancy exceeded the permissible rate.

In the interests of equality for same-sex partnerships, marriage was opened up to homosexual couples by the Marriage (Same-sex Couples) Act (Gesetz zur Einführung des Rechts auf Eheschließung für Personen gleichen Geschlechts) in July 2017. Furthermore, the Act Expanding Stepchild Adoption (Gesetz zur Erweiterung der Stiefkindadoption) of March 2020 enables not only spouses but also people in long-term cohabiting couples to adopt. The German Government has also taken steps to improve levels of participation for people with disabilities. Adopted at the end of 2016 and entering into force step by step, the Federal Participation Act (Bundesteilhabegesetz) serves to increase the ways in which people can participate in society and exercise autonomy, thereby contributing to equality in living standards for people with disabilities. In particular, all integration support providers throughout Germany have been required to uniformly implement the overall-plan procedure since 2018. All services required from different rehabilitation providers are to be delivered in a coordinated manner as if by a single source. As of 2020, the provision of integration support services depends only on the needs of the individual concerned, not on the type of accommodation they live in, and the former differentiation between in-patient and out-patient provision no longer applies. Service provision is thus equal for all adults with disabilities, regardless of the form of their accommodation. Ultimately, this reform means that people with disabilities who use integration support can keep significantly more of their income and assets.

Inequality also has a regional dimension. That is why the German Government is signposting the dismantling of existing regional disparities by implementing the structural measures agreed in the course of the Commission

for Equivalent Living Conditions. Programmes previously confined to eastern Germany have been expanded into all disadvantaged regions. The subject matter of these programmes includes economic stimulus, research and innovation, the skills base, broadband and digitalisation as well as infrastructure and public services. In this context, the joint federal-Länder task of improving regional economic structures helps to create and maintain competitive jobs for the long term in disadvantaged areas. To that end, subsidies are granted for investment in commerce and industry as well as for upgrading and expanding economically relevant local infrastructure. Non-capital measures are also supported to enhance competitiveness and build ties and cooperation among regional actors. Rural development is continued and consolidated as part of the joint federal-Länder task "Improvement of Agricultural Structures and Coastal Protection". Furthermore, the German Government is working to ensure that all regions of Germany can benefit from consistently strong EU structural and cohesion policy.

11. Measures by Germany Trade

Regulations

Global trade can help reduce inequality among countries if it is fair, regulated and in conformity with existing environmental, social-welfare and human rights standards. The German Government is therefore campaigning to strengthen the rules-based multilateral system of trade, with the WTO at the centre, and champions ambitious bilateral trade agreements. This contributes to sustainable development (see also SDG 17 below).

Commitment to orderly, safe and responsible migration

The amount of money they send to their countries of origin is collectively many times higher than official development assistance (ODA), and the sharing of expertise and information benefits not only the migrants themselves but also their countries of destination and origin. The German Government is therefore working proactively at the international level to manage migration in line with target 10.7 and with respect for human rights. It took part in drafting the Global Compact for Safe, Orderly and Regular Migration (GCM) between 2017 and 2018 and participated in the regional review of its implementation in 2020. The 23 objectives and the associated recommendations for action contained in the GCM are geared towards fostering orderly, regular, safe migration and combating irregular migration. They range from providing accurate, disaggregated and timely data on processes of migration, minimising the adverse drivers behind migration movements and facilitating regular

migration to engaging in the cross-border fight against human trafficking as organised crime and collaborating multinationally on return, readmission and reintegration. The work of the Federal Ministry for Economic Development in this regard includes boosting the potential of regular migration by putting returning skilled workers in touch with employers in their countries of origin as well as supporting diasporas in Germany in their efforts to advance development back home. The Ministry is also piloting models of cooperation with partner countries on development-oriented migration for work and vocational training.

Commitment to combating illicit financial flows

The UN estimates that developing countries lose around USD 1.26 trillion through illicit financial flows (IFFs) every year – nine times more than they received in official development funds in 2017. As a consequence, IFFs undermine the mobilisation of domestic resources, preventing urgently needed investment in healthcare, education and other public services and so bringing out inequalities. Germany's development cooperation therefore supports partner countries in Africa, the Western Balkans and Latin America in their fight against IFFs, assisting with prevention, financial investigation and asset recovery.

12. Measures with Germany

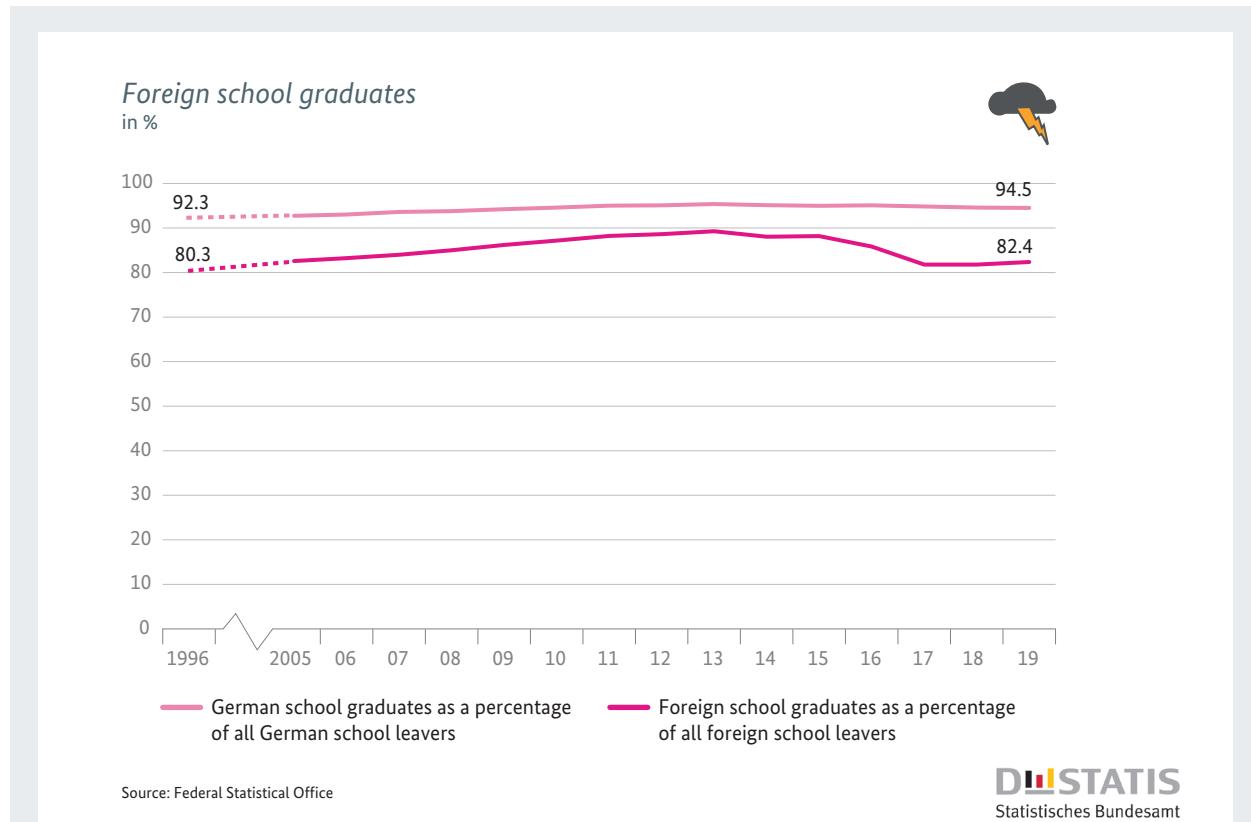
To reduce income and wealth inequality, the German Government supports the governments of its partner countries in advancing appropriate measures, such as progressive fiscal policy and the establishment of social security systems (see also SDG 1). The aim is to make taxation systems fair, increase states' domestic revenues and channel those funds to benefit less well-off segments of the population, thereby meaningfully reducing inequality.

The German Government is making an important contribution to the sustainable and socially responsible management of tax revenue and expenditure by the state in more than 30 countries. Under the aegis of the Addis Tax Initiative (ATI), Germany remains committed to contributing twice as much as it did in 2015 to partner countries' efforts to mobilise domestic revenues.

b) Relevant national sustainability indicators and targets/measures

10.1 Foreign school graduates

Equal educational opportunities – Improving educational success of foreigners in German schools



Definition of the indicator

The indicator shows the number of foreign school graduates as a proportion of all the foreigners leaving schools in Germany in a particular school year. In this case, the term “graduates” refers to people who leave general-education schools with at least a *Hauptschulabschluss*, a lower secondary school leaving certificate.

Targets and intention of the German Government

The integration of foreigners living in Germany is an important prerequisite for cohesion within our society. A necessary condition for successful integration is the acquisition of sufficient qualifications at school to open up subsequent educational and professional opportunities. The goals of the German Government are therefore to increase the share of foreign school graduates who obtain at least a lower secondary school leaving certificate and bringing it into line with the corresponding rate for German school leavers by 2030.

Content and development of the indicator

The data for this indicator come from the school statistics compiled by the individual Länder. These statistics are generally derived from a full census for which a disclosure obligation applies. The Federal Statistical Office collates them to create a national result on the basis of the catalogue of definitions compiled by the Standing Conference of the Ministers of Education and Cultural Affairs. It is difficult to aggregate the Länder findings into a national whole because of the Länder's different education policies with regard to, for example, moving between schools or the creation of qualification pathways for vocational schools. Even formal rules for how the disparate elements should be counted can only partially offset this difficulty.

Graduates are former pupils who have left a particular type of school with the relevant school leaving certificate. They include those who have moved to another general-education school to pursue an additional qualification.

Foreigners are defined as all those who are not German under Article 116 (1) of the Basic Law, i.e. who do not possess German citizenship. They include people who are stateless or whose citizenship status is unclear. Germans who also possess citizenship of another country do not count as foreigners.

In 2019, the proportion of all foreign school leavers who obtained at least a lower secondary school leaving certificate was 82.4%. This represents a slight increase compared with the previous year. If one splits the figures by gender, female foreign school leavers graduated at a rate of 85.5%, while the proportion was lower among their male counterparts, at 79.5%. The proportion of German school leavers obtaining at least a lower secondary school leaving certificate has remained fairly stable, most recently recorded as 94.5%.

The gap between the share of foreign and German pupils graduating from school has risen slightly from 11.9 per-

centage points in 1996 to 12.2 percentage points in 2019. After tending towards convergence until 2013, the figures diverged again until 2017 and have remained almost parallel since.

To break the figures down by types of certificate obtained, 31.0% of foreign pupils who graduated from general schools achieved a lower secondary school leaving certificate in 2019, while 36.8% completed their schooling with an intermediate secondary school leaving certificate and 14.5% gained university-entrance qualifications. Among German school graduates, 15.5% received a lower secondary school leaving certificate, 42.7% gained an intermediate secondary school leaving certificate and 36.8% earned university-entrance qualifications. This leaves young foreigners considerably under-represented in comparison to Germans, especially when it comes to the higher-level school leaving certificates.

German Government activities relating to the indicator

Previous measures

A good command of German is crucial not only for social integration, but especially for integration into the labour market. It is a prerequisite both for obtaining higher-level school leaving certificates and for participating meaningfully in the labour market and society more generally. Integration courses for immigrants were introduced for this reason in 2005, and almost 2.5 million people have attended them so far. More than 55% of all those taking the final exam attained the B1 level of the Common European Framework of Reference (CEFR) for describing language abilities. If those achieving the next level down are included (A2 CEFR), a total of 90.5% of all course participants have obtained a language certificate since mid-2009.

The German Government's further measures focus on the times of transition in a person's education, greater permeability between the various educational pathways, the promotion of opportunities for qualification and advancement, the improvement of conditions for education and equal participation, and the groundwork for educational policy management. The German Government also sets priorities – in line with its constitutional mandate – for vocational training and educational opportunities outside of schools. In many of its measures, the Federal Government follows the principle of mainstreaming; that is, the measures are not aimed exclusively at people with migrant backgrounds, though they do take the particular difficulties they face into account.

For example, there are federal measures designed to provide targeted support for pupils in danger of leaving school without qualifications and young people refusing to go to school. Run by the Federal Ministry of Education and Research and the Federal Ministry of Labour and Social Affairs in conjunction with the Federal Employment Agency and the Länder, the support initiative Graduation and Continuation – Education Chains up to Vocational Qualification involves systematic analysis of potential, a vocational orientation programme, career-start counselling, an initiative called VerA to prevent apprentices from breaking off their training, and a careers guidance programme for refugees. Young people with migrant backgrounds take great advantage of these services and make up nearly half of those using the career-start counselling, for example. In the VerA initiative, young people receive support from retired experts during their vocation training. In 2019 alone, support was provided to some 5,000 trainees, two in three of whom had migrant backgrounds. As part of the Education Chains initiative since 2015, the Federal Government has concluded agreements with the Länder on enshrining the education chain philosophy in the Länder's regular systems in the long term.

KAUSA, the Coordinating Agency for Vocational Training and Migration, has been part of the Education Chains initiative since the end of 2018. With funding from the Federal Ministry of Education and Research, the KAUSA service centres provided advice on Germany's dual system of vocational training to around 25,000 young people and more than 7,000 businesses between 2013 and 2019. The 20 regional KAUSA service centres are currently chiefly focused

on creating more training places in migrant-run businesses and getting companies on board to train young people with migrant backgrounds. Additionally, three national KAUSA service centres support and advise adolescents with migrant backgrounds and their parents on matters relating to vocational training. Another of KAUSA's aims is to strengthen the existing networks and, together with together with migrant organisations, parents' associations, vocational training institutions, policymakers and business associations, to develop strategies and cement structures that sustainably ensure equal access to vocational train-

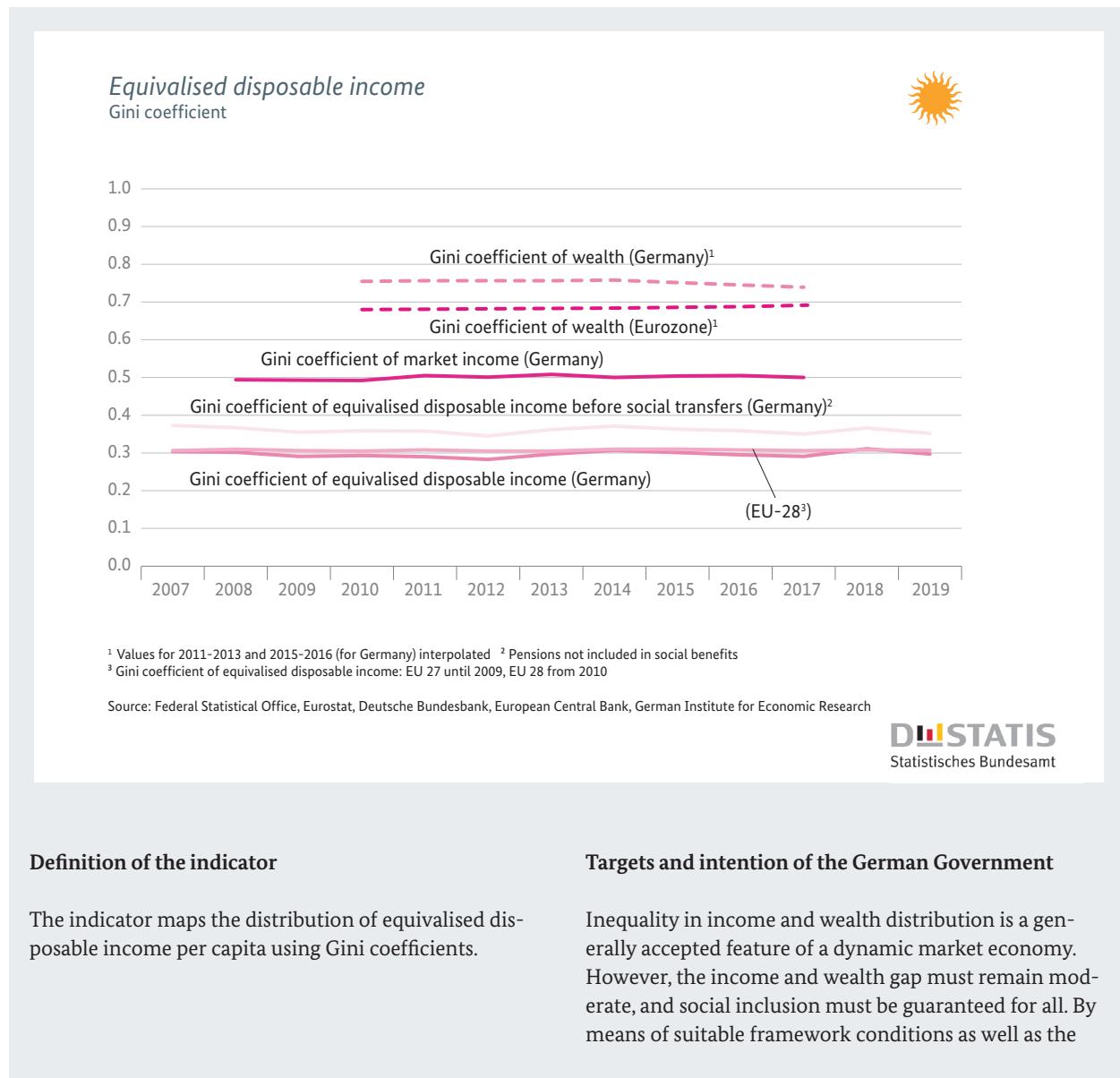
ing for all young people. There is also the Welcome Guides programme funded by the Federal Ministry for Economic Affairs and Energy, which primarily targets companies in order to aid the successful integration of (young) refugees into vocational training and the labour market.

Planned additional measures

The previous measures in the areas mentioned above will be continued, refined and expanded.

10.2 Gini coefficient of income after social transfers

Distributive justice – Preventing excessive inequality within Germany



strategic redistribution of income through taxes and social benefits, the goal is to bring the Gini coefficient for equivalised disposable incomes below that of the EU-28 by 2030.

Content and development of the indicator

The Gini coefficient is a statistical measure of income inequality. It has a value between 0 and 1. If everyone had exactly the same income, the coefficient would be 0. If all of the income went to a single person – the situation of maximum inequality – it would have a value of 1. The smaller the Gini coefficient, the greater the equality in income distribution.

Equivalised income is a value derived from the total income of a household and the number and age of the people living on that income. With the help of an equivalence scale, the incomes are weighted according to household size and composition, as the shared use of living space and household appliances results in savings. With the equivalised income then allocated equally to each household member, it becomes possible to compare people's incomes independently of age or household size. A household's equivalised disposable income is the income, including social transfers, which remains after taxes and other deductions, and is therefore the income available for spending and saving. A distinction must be made between this measure and equivalised income before social transfers, which looks at disposable income without any possible welfare payments, such as unemployment benefit or housing assistance, or market income, which is calculated before taxes, social contributions and social benefits. In none of these ways of looking at income is a differentiation made between the sources of income, i.e. whether it takes the form of wages, rental income or capital gains.

The data used to calculate equivalised income come from the annual harmonised European statistics on income and living conditions (EU SILC).

The wealth distribution figures are taken from the Household Finance and Consumption Survey (HFCS) conducted on an irregular basis by the European Central Bank. The fact that households with high incomes and/or extensive assets are under-represented in voluntary sample surveys is compensated for methodologically. Therefore, this methodology, the values for income as well as for assets in Germany can be compared with those in Europe or the euro area. Since no Gini coefficient is calculated for market income from the EU SILC, data from the German Socio-Economic Panel (SOEP) held by the German Institute for Economic Research are used instead.

As in previous years, the Gini coefficient for equivalised disposable income in Germany for 2019 (0.297) is close to the value for the EU as a whole (0.307) and has remained stable. There are therefore no significant differences in income distribution to be discerned between Germany and Europe as a whole. At 0.297, the Gini coefficient for equivalised disposable income remains clearly below that for equivalised income before social benefits (0.352). As expected, the 2017 Gini coefficient for market income was higher, at 0.500. Social benefits, social insurance and taxes in Germany evidently contribute considerably to reducing inequalities in disposable income.

Measured by the relevant Gini coefficients, the distribution of wealth in Germany, at 0.739 in 2017, is considerably less equal than that of income. In this context, virtually no change can be detected over time (2010: 0.758 and 2014: 0.762). The equivalent value for the euro area in 2017 was lower than Germany's, at 0.695. However, the impression of above-average wealth inequality is qualified by several factors not covered by the Gini coefficient. For instance, the assessment of wealth does not take future pension entitlements into account. Moreover, Germany's higher level of protection for tenants means that people here are more likely to rent rather than own their homes compared with other European countries.

German Government activities relating to the indicator

Inequality in income and wealth distribution is a generally accepted feature of a dynamic market economy. However, the income and wealth gap must remain moderate, and social inclusion must be guaranteed for all. Otherwise, it has the potential to offend people's sense of justice and jeopardise social cohesion. This is particularly true if inequalities are not predominantly based on personal ability and individual performance, and equal opportunities are no longer guaranteed.

The German Government's reporting on poverty and wealth, which occurs once per legislative term, includes extensive analysis of inequality in Germany as well as its own complex set of indicators (www.armuts-und-reichtumsbericht.de). The report provides details of the German Government's measures to reduce income and wealth inequality. Further measures undertaken by the German Government are outlined in the foregoing parts of this chapter.

Education and family affairs policies designed to improve equal opportunities and social mobility also play a role. The

priority is to decouple children's educational achievements from their social origins and to ensure equal educational opportunities for all children and adolescents (see remarks on SDG 4 above).

The German Foundation for Civic Engagement and Volunteer Work fosters the structures that facilitate people's involvement in their communities, particularly in rural and disadvantaged regions, in order to aid the convergence of living standards and help minimise inequalities. It thereby contributes significantly to social cohesion within an open society.

From 1 January 2021, the Basic Pensions Act (Grundrentengesetz) of 12 August 2020 will recognise the life's work of people who have spent decades working, raising children and/or caring for family members (BGBl. I p. 1879). Its intention is to improve conditions for those who have been part of the statutory pension insurance scheme on below-average incomes for many years by raising their individual pension entitlements. This will mean a lasting improvement in those people's confidence in what is the most important pillar of their old-age provision. A decent level of financial security in retirement is crucial to the legitimacy and public acceptance of the statutory pension insurance scheme and consequently to social cohesion. The basic pension applies both for current and for future pensioners. To ensure the basic pension serves its purpose exactly, the Act provides for income assessment and offsetting. Those with long pension insurance records are moreover to receive improved social benefits other than the statutory pension, such as an allowance exempt from deductions in respect of basic income support and housing benefit.

The German Government set up a commission to formulate recommendations for a reliable intergenerational contract, which were duly issued in March 2020. The commission's report backs the Government in its adherence to the principles of its existing pensions policy. Statutory pension insurance is the core of old-age provision in Germany, in which people here place their trust. For them to do so, the payments need to be considered appropriate. In the opinion of the commission, brakes on contribution rates and provision levels can help protect both those paying into the scheme and those already retired from excessive pressure.

Planned additional measures

An evaluation of the minimum wage demonstrated that it does protect employees from very low hourly rates of pay. It has noticeably improved the wages of around four million people. However, in hundreds of thousands of cases, unlawfully, workers are not receiving minimum wage. Customs will be carrying out more checks to ensure that everyone adheres to the rules in future. The evaluation also showed that the minimum wage comes to less than 50 % of the median wage.

11. Make cities and human settlements inclusive, safe, resilient and sustainable

a) Main substance and political priorities in the view of the German Government

Sustainable, integrated urban-development policy has a significant role to play in the attainment of the Sustainable Development Goals of the 2030 Agenda. SDG 11 for sustainable cities and communities highlights not only the increased responsibility borne by cities and communities around the world but also the opportunities of an urbanisation which is shaped by that responsibility and prioritises sustainability. If such opportunities are to be exploited, national structures need to provide the framework conditions required for achieving the goals.

Urban and rural areas should not be considered in mutual isolation. Good utilities provision and the promotion of local initiatives and civic engagement in town and country are basic requirements for the development of Germany's liveability overall.

The significance of cities and communities

Cities are key stakeholders and arenas of sustainable development. They are places where potential is explored and all kinds of economic activities can take place. Some 80 % of all the world's value creation that is measured in monetary terms is generated in cities. At the same time, cities are places of high environmental pollution, including energy-related CO₂ emissions, noise, municipal waste, land take and endangerment of biodiversity. Cities cause around 75 % of global CO₂ emissions and the same proportion of natural-resource consumption. The construction, maintenance and operation of buildings alone account for 39 % of all energy-related greenhouse gas emissions today and use more than a third of all final energy worldwide. At the same time, cities are a future source of raw materials, as their built infrastructure represents a store of materials with great potential for urban mining and the creation of sustainable resource cycles.

Cities and communities need to be particularly proactive in tackling the challenges of climate change, increasing scarcity of resources, pandemics, demographic change, growing volumes of waste, major migration flows and ever-swifter evolution of the economic base. Particularly in crisis situations, many places are revealed to lack necessary capabilities and to have gaps in the provision of goods and services for their populations. All this calls for massive investment. The annual investment required in cities is estimated at more than USD 4 trillion and rising.

In contrast, many towns, villages and rural areas outside urban centres are subject to emigration and shrinkage. Maintaining and adapting infrastructure and public utilities in such areas presents a particular sustainable-development challenge.



The far-reaching relevance of cities in the 2030 Agenda the New Urban Agenda and the Leipzig Charter

It is therefore largely in cities that the achievement or otherwise of the global SDGs will be decided, and urban development is not only relevant to SDG 11 but is also intimately connected to many other goals in the 2030 Agenda. The complexity of urban development is also reflected in the New Urban Agenda, which the member states of the United Nations adopted at the Habitat III Conference in Ecuador in 2016. In it, they commit themselves to focusing more strongly on cities and improving conditions for sustainable, integrated urban development.

Adopted in 2007 by the relevant government ministers from the EU member states, the Leipzig Charter on Sustainable European Cities is intended to strengthen integrated urban-development policy in Europe as well as its implementation at the national level. In Germany, this has meant recasting the National Urban Development Policy as a joint initiative by the Federal Government, Länder and local government, in which form it has been successfully implemented since.

Areas for action for a sustainable, integrated and inclusive urban development policy

Sustainable, integrated urban-development policy combines social, economic and ecological objectives. With due consideration to the relevant constitutional remits at the different levels of government, it takes account of all the relevant interests and stakeholders and strikes a balance between them in terms of space, sectors and time. The continuous collaboration and input of all significant partners from politics, public administration, the private and cultural sectors, the general public, associations and academia, using up-to-date means of participation, is indispensable. Urban-development policy must also encompass cities' particular regional and local circumstances as well as their different requirements, traditions and capabilities. The specific needs of the various subdivisions – functional areas, cities, neighbourhoods – also need to be properly considered.

The aim is to practise urban development in our cities and communities that is focused on the common good, partnership and resilience and creates sustainable, effective structures. Experience – following German unification, for example – has shown that this enables local authorities and their inhabitants to use their potential flexibly and respond appro-

priately to crises like the current COVID-19 pandemic. That is why the preparations for Germany's 2020 presidency of the Council of the EU included the revision of the Leipzig Charter on Sustainable European Cities, which was originally produced during Germany's previous tenure in 2007 and focuses particularly on the public-interest aspect of urban development. The New Leipzig Charter expresses this in terms of the three dimensions of any city: the green city, the just city and the productive city. Keeping urban structures compact and green makes it possible to achieve efficient use of resources through, for example, sustainable mobility and effective climate action. Next to socially well-balanced and mixed neighbourhoods which facilitate access to social services, culture and mobility as well as social inclusion, cities and communities need to provide jobs for the future by fostering a strong, forward-looking economic base. The spread of digital technologies affects all areas of life, and urban-development policy is no exception. In the foreground is the question of how the digital transformation at the community level can be channelled in the direction of sustainability. The German Government wants to unleash the potential of technological progress to enhance prosperity, quality of life, people's sense of involvement, and the environmental situation, which is why it set up the national Smart Cities Dialogue Platform.

Well thought-out and safe public spaces are an integral part of the European city in which all people can come together without restrictions. A holistic understanding of Baukultur, which refers to the totality of all human activity that shapes our built environment, is of crucial importance and helps secure public approval.

The physical side of cities and communities is made up of buildings as well as engineering and infrastructure works. The instruments and solutions of sustainable planning, construction and operation can play a role in improving quality of life and health, protecting the climate, conserving resources and easing the burden on local households. One aspect is climate-smart building in response to the effects of climate change already being felt. Sustainable buildings thereby also serve to enhance cities' resilience.

One important area for action is housing policy. The Federal Government, Länder and local government have collaborated closely to agree a package of measures for an extensive housing strategy, consisting of specific investment to boost residential construction as well as measures to safeguard the affordability of housing, lower construction costs and secure the supply of skilled labour (target 11.3). The focus in many rural areas is on measures to revitalise town centres and reactivate vacant buildings.

The German Government is moreover stepping up its efforts for the convergence of living conditions in Germany and established the Commission for Equivalent Living Conditions to that end. Numerous proposals were put forward in 2019

to make rural as well as urban regions attractive, economically vibrant, liveable and able to adapt to demographic change for the long term. The German Government subsequently agreed twelve federal priority measures for the convergence of living conditions. In them, it emphasised the pivotal importance of urban-development assistance to the sustainable and future-proof development of our cities and communities. It also underscored the need to specifically channel support towards villages and especially disadvantaged rural areas.

In all of this, our thinking about the future of our cities and regions must not end at city limits, for cities and the areas surrounding them are closely intertwined. For greater sustainability in the spatial relationships between cities, their environs and rural areas, the formal and informal instruments of regional planning as well as collaborations between local authorities need to be further strengthened (target 11.a) This is part of the Territorial Agenda of the European Union, which provides the framework for campaigns and measures to advance a policy of territorial cohesion in Europe. It is intended to serve as strategic guidance for regional planning and help strengthen the territorial dimension in all relevant policy areas within the sector and at all levels of public administration. The goal is meant to be to advance the inclusive and sustainable development and ongoing evolution of European regional-planning policies.

Another priority for the German Government in its pursuit of SDG 11 is the creation of resource-efficient and inclusive infrastructure. Target 11.6 is to reduce the adverse per capita environmental impact of cities by 2030. To achieve it, a greater role is to be played by sustainable mobility within and between cities, settlements and rural areas. The transformation of transportation, shifting to a post-fossil-fuel mobility, is seen as an urgent task facing society as a whole, which can only be tackled by the key stakeholders from politics, business, society and science acting together. Cutting energy use and switching energy sources for the heating of buildings is another way of improving local air quality. Over and above this, growing volumes of waste need to be collected, recycled and disposed of with the greatest possible resource efficiency. This, particularly given the ongoing rapid growth of urban populations, is indispensable.

Cities and communities as international stakeholders

Cities and communities increasingly see themselves as international stakeholders. In a wide range of local-authority partnerships, they exchange views on economic, social and environmental challenges. The focus is on reciprocal learning, knowledge-sharing and the adaptation of existing problem-solving ideas. The German Government supports these activities by means of networks to foster learning, for example, as well as through local-authority partnerships for sustainability and climate action, the outcomes of which feed into German urban-development policy in practice.

German Government activities

I. Measures in Germany

1. Cooperation within the framework of the National Urban Development Policy

The successful collaboration of the Federal Government, Länder and local government within the framework of the National Urban Development Policy is being continued and expanded. On the basis of the Leipzig Charter, this platform makes it possible to try out innovative ideas for dealing with the economic, environmental and social challenges we face in cities and communities and to share such ideas between different levels of government and specialist areas. Held annually, its Federal Congress represents the largest showcase of sustainable urban development in Germany and is increasingly prominent internationally.

2. Smart City Dialogue

The Smart City Dialogue is a key project run by the Federal Ministry of the Interior, Building and Community as part of the German Government's implementation strategy for shaping the digital transformation. Sustainable development of local-authority areas is one of the main objectives.

The Smart City Dialogue ensures the continuation of the national Smart Cities Dialogue Platform and flanks the implementation of the Smart City Charter. The Ministry has been supporting pilot projects on this basis since 2019. The aim is to support a proactive, strategic and integrated approach to digitalisation and to foster the sharing of experience and knowledge not only between projects but also with local authorities not receiving direct support, with national experts, and with partners in Europe and around the world.

3. City of the Future Innovation Platform

Research findings play an essential role in sustainable urban development. This is reflected in FINA, the Strategic Research and Innovation Agenda on the City of the Future. The German Government's City of the Future Innovation Platform serves to see such findings translated into practice in an international as well as a national context.

4. Land.Digital initiative

The Stadt.Land.Digital (Urban.Rural.Digital) initiative functions as a centre of excellence, a point of contact, a multiplier and a support for all relevant stakeholders and issues on the way towards smart cities and smart regions. On behalf of the Federal Ministry for Economic Affairs

and Energy, it seeks to further the spread of intelligent networks in Germany. Advanced, efficient and stronger networks using digital technologies can be used to improve people's quality of life, particularly in the fields of education, energy, healthcare, transport and administration.

5. Implementation of the housing strategy

(See the indicator update under housing cost overload below.)

6. Sustainable buildings

In recent years, binding quality requirements for sustainable building have been introduced to apply to federal construction projects. The Federal Government supports the Länder and local government in putting sustainability into practice with regard to buildings by providing useful groundwork and aids such as the Guideline for Sustainable Building, the Assessment System for Sustainable Building (BNB), the WECOBIS information system for building materials, and the life-cycle analysis tool eLCA. In future, the Guideline for Sustainable Building and the BNB are to be even more explicitly aligned with the German Government's objectives in terms of climate action, protection of the environment and health, resource and energy efficiency, and demographic change. The aim is to achieve climate-neutral building stock via the holistic approach of sustainable building.

These efforts are supported within the remit of the Federal Government Commissioner for Culture and the Media, with sustainability elements incorporated, for example, into the funding principles and award notification documents for suitable construction projects

7. Climate-friendly building – Charter for Wood 2.0

Producing and disposing of building materials made of wood, a renewable natural resource, generally requires less fossil energy than materials based on finite mineral resources. Using wood for construction therefore demonstrably helps reduce CO₂ emissions. In light of this, as part of the 2030 Climate Action Programme, the Federal Ministry of Food and Agriculture will increase its support for research and development measures, pilot schemes and demonstration projects, as well as for the provision of technical and consumer information, through its Renewable Resources Funding Programme. These measures are in part intended to break down unjustified legal and administrative restrictions as well as ignorance about the latest technological advances.

8. Research agenda for urban environmental protection

Urban areas are hubs of human consumption of energy and resources and the source of great pressures on the environment. At the same, their density and the associated short distances present major opportunities to save on natural resources and spare the environment. That is why the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, together with the Federal Environment Agency, has turned a spotlight onto the interplay between urban development and protection of the environment. Through the relevant strategic research agenda, the Federal Environment Agency identifies future research priorities to help ensure that the development of municipal spaces is guided by environmental quality objectives – and explicitly by those areas where urban development and environment policy meet.

9. Future Building innovation programme

Through its Future Building innovation programme, the German Government provides important stimulus for sustainable development of the building stock and supports climate action, energy and resource efficiency, affordable building, consideration of design qualities and management of demographic change. To complement its Future Building research funding and Future Building departmental research, the programme is to be expanded to include pilot projects for experimental building.

10. Urban-development assistance to promote sustainable cities and communities

Local communities are facing major adaptation challenges and processes of transformation in urban development. This particularly applies to preserving vibrant town and city centres rich in identity, mitigating and adapting to climate change, constructing housing, and creating infrastructure that is informed by real needs and the demands of the future. Therefore, as in previous years, the Federal Government is providing the Länder with EUR 790 million for 2020. Funding goes to far-reaching urban-planning measures built around holistic development strategies. To be eligible for funding, they must involve action to mitigate and/or adapt to climate change. Furthermore, the German Government uses the interministerial Social City Strategy for neighbourhood social cohesion to harness the various ministries' specialised policy in support of urban districts which are disadvantaged or in great need of integration. For example, it supports pilot schemes on integration for young people, consumer information, participation in cultural and political life, nutritional education and physical exercise.

11. Integrated rural development to promote attractive villages

Integrated rural development incorporates a region's prevailing conditions, its potential and the knowledge of its inhabitants. The social, cultural and economic demands made of rural areas need to be reconciled with their ecological functions. The funding prioritises provision of accessible basic services, vibrant town centres and the reactivation of vacant buildings. Integrated rural development is a region-specific, cross-sectoral, cooperative, dynamic and long-term approach which brings the various sectors together in a joint development strategy operating at different levels with a range of implementation measures.

12. Support for the cultural and creative industries to revitalise cities and communities

The cultural and creative industries are drivers of social renewal and future developments in the workplace, the economy, culture and society.

In much the same vein, they provide valuable stimulus when it comes to revitalising cities and communities. When, for example, artists and creative professionals in rural areas use vacant buildings as spaces with potential, they help raise the value of a place and keep it alive. The German Cultural and Creative Pilots competition has been honouring cultural players and creative enterprises for their brave and original business ideas since 2010.

13. Support for culture in rural areas

The German Government works to support culture in rural areas through, for example, the Federal Rural Development Programme and its component LandKULTUR and Culture in Rural Regions schemes. The German Federal Cultural Foundation has developed the TRAFO – Models for Culture in Transformation programme in cooperation with the Länder, districts and local government. To reinforce the cinema as a cultural venue, particularly in communities of up to 50,000 inhabitants, the German Government launched its investment programme Zukunftprogramm Kino (For the Future of Cinema) in March 2020 and has provided it with EUR 17 million from the federal budget for 2020.

14. Amendment of the Federal Regional Planning Act

The 2017 amendment of the Federal Regional Planning Act (Raumordnungsgesetz) made quantified targets a lawful part of the legal principles on reducing the use of greenfield sites for settlement or transport purposes. Wherever necessary, such targets are to be specified in the relevant plans, especially those for nationwide and regional land use.

15. Exemplary projects in rural areas

Since 1991, the European Union has used the LEADER approach to support exemplary projects initiated at the local level in rural areas. The people in LEADER regions can help shape processes in their areas and so contribute to development of “their” rural space that is sustainable and fully takes all dimensions into account.

16. Localisation of the 2030 Agenda

If the local dimension of the 2030 Agenda is to be systematically understood, the SDGs need to be translated onto the local scale. Global – Lokal: Agenda 2030 verOrten (Going Local with the 2030 Agenda), a pilot scheme aiding the creation of local sustainability strategies, was recognised as a beacon project by the State Secretaries’ Committee for Sustainable Development in 2018. The Service Agency Communities in One World is continuing it, now in the form of a programme entitled Municipalities for Global Sustainability, in cooperation with the Länder.

II. Measures by Germany

1. The New Leipzig Charter

The aim of the Charter is to champion greater support for integrated urban-development approaches and take account of altered circumstances such as climate change, demographic developments and digitalisation. It represents further progress in the evolution of successful urban policy in Europe that is focused on the public interest.

2. International networks and multilateral processes

As an active member of the Executive Board of UN-Habitat, the United Nations World Human Settlement Programme, Germany supports the creation and dissemination of ways to make urban development sustainable around the world and participates in multilateral processes. City decision-makers are assisted in their work for sustainable, climate-friendly and inclusive urban development through cooperation with international networks such as the Cities Alliance, ICLEI – Local Governments for Sustainability, C40 Cities, the Cities Climate Finance Leadership Alliance (CCFLA) and the Climate and Clean Air Coalition (CCAC).

Germany has been working for some years for the human right to adequate housing to be internationally recognised and upheld. Together with partners, it has been proposing resolutions to that effect in the Human Rights Council and the UN General Assembly since 2000. Germany moreover financially supports the mandate of the Special Rapporteur on adequate housing, which was created in that year.

III. Measures with Germany

1. Sustainable urban development in bilateral cooperation

Already, more than one in three German development cooperation projects are concerned with matters of sustainable urban development. Given the way cities are growing, particularly in the Global South, activities in this field are increasingly relevant. Apart from reinforcing the capacity of city and national governments to steer sustainable urban development and promoting good local governance and civic engagement, the focus is chiefly on local-authority financing, urban mobility, and sustainable urban infrastructure and services such as waste processing and disposal, water supply and sanitation.

In pursuit of the “recover better” principle, Germany and its partners are committed to finding sustainable responses to the adverse consequences of the COVID-19 pandemic. Reconstruction measures and economic stimulus programmes are intended to increase cities’ resilience to external shocks and crises like disease outbreaks, climate change, natural disasters and economic crises.

Apart from the German Government’s development cooperation projects and programmes, there are also various international exchange programmes in which people working in different countries’ local authorities collaborate with one another and develop new instruments to put into practice in their national contexts

2. Research for sustainable urban development

With its Research for Sustainability (FONA) Strategy, the Federal Ministry of Education and Research champions the development of robust foundations and directly applicable expertise for the development of future-proof urban and regional places to live. Research topics include urban-rural relations, digitalisation and resource efficiency.

Under the funding priority Sustainable Development of Urban Regions, for example, funding goes to projects run in collaboration with developing and newly industrialised countries to enhance the resilience of cities and urban regions by means of transdisciplinary approaches to planning.

3. Protection of cultural and natural world heritage; conservation of historic buildings and monuments

Both in Germany and around the world, the German Government is actively committed to the maintenance, protection and conservation of cultural heritage, especially cultural and natural world heritage sites. Most especially, it uses the culture-related agreements and programmes of UNESCO as a platform for promoting and supporting

culture-focused implementation of the 2030 Agenda. Of particular note are the Cultural Preservation Programme of the Federal Foreign Office, the Coordination Office for World Heritage, and the establishment of a national information, knowledge-transfer and documentation centre on UNESCO world cultural heritage and of an office for UNESCO Global Geoparks. It provides information and advice in Germany and abroad, taking international discussions into account. In addition, the German Government is particularly robust in its defence of cultural property against removal from the country. The Cultural

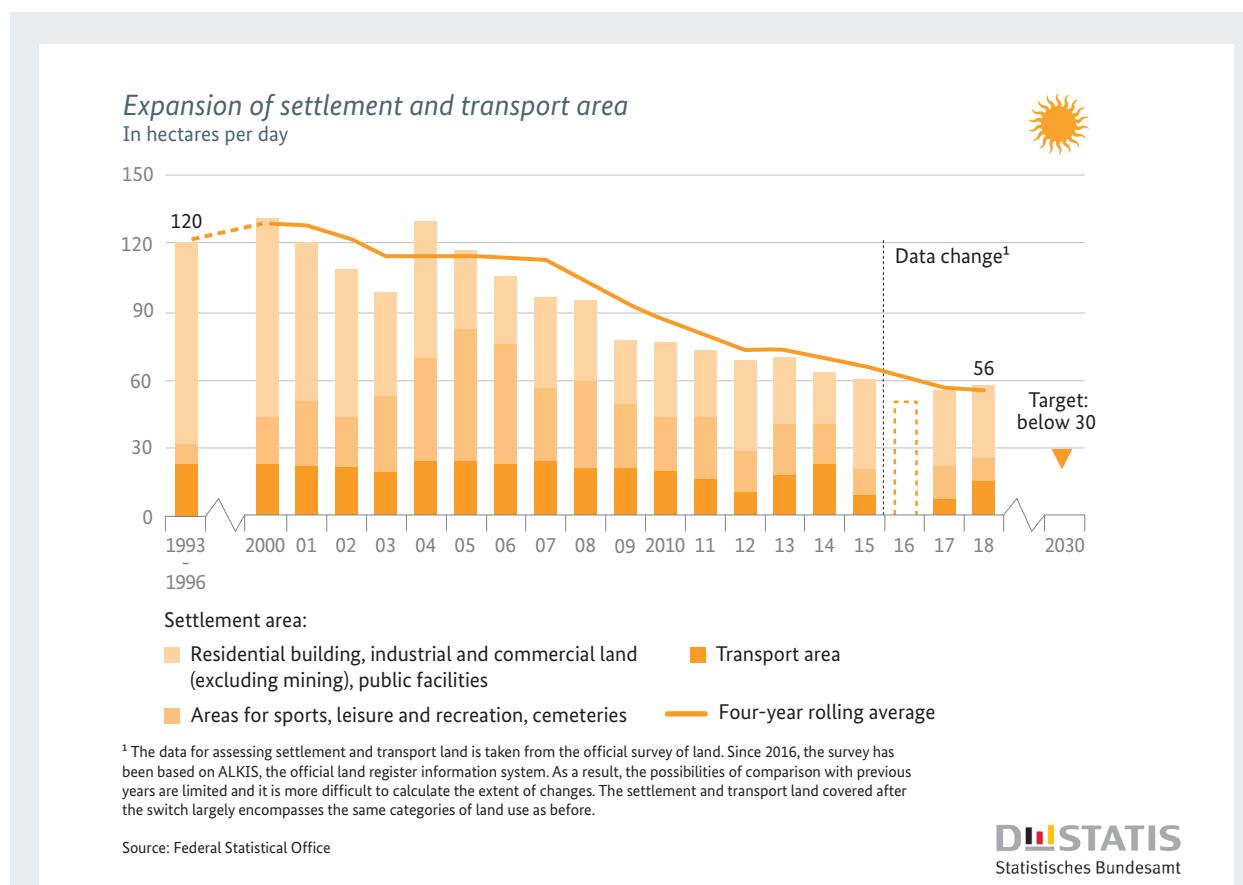
Property Protection Act (*Kulturgutschutzgesetz*), for example, sets out regulations to govern the export of cultural property from Germany to countries both within and outside the European single market.

Unprecedented digital access to cultural heritage is provided by the German Digital Library, a central national platform jointly created by the Federal Government, Länder and local government which brings together and provides permanent online access to the digital content held by Germany's cultural institutions and repositories of learning.

b) Relevant national sustainability indicators and targets/measures

11.1.a Expansion of settlement and transport area

Land use – Using land sustainably



Definition of the indicator

The indicator shows the average daily expansion of the area used for settlement and transport infrastructure in hectares per day.

Targets and intention of the German Government

Land is a limited resource. It is subject to competition from various interests, including agriculture and forestry, settlement and transport, nature conservation, resource extrac-

tion and energy generation. The development of additional land for settlement and transport purposes is to be limited to an average of less than 30 hectares per day by 2030. The goal is to establish a closed-loop land-use regime by 2050, meaning that, in net terms, no additional area will be developed for the purposes of settlement or transport.

Content and development of the indicator

Settlement and transport area should not be equated with sealed land. Settlement land includes areas used for residential building, industry and commerce, public facilities, recreational amenities or cemeteries. It also covers land used for surface or sub-surface mining. However, mining land is not counted in the calculations for this indicator, as it ends up being reclaimed for other uses in the long term (e.g. as re-naturalised post-mining landscapes). Transport area is made up of four subcategories: road transport, rail, aviation and shipping. The indicator therefore refers not only to sealed areas but also to undeveloped and unsealed land. These include, for example, domestic gardens, parks and other green spaces. As calculated in the environmental economic accounts compiled by the Länder, the sealed share of their settlement and transport area is estimated at 45% on average (2017).

The indicator is derived from the area survey of land by type of actual use (official land-use statistics), which in turn is based on data from the official land register maintained by the Länder. Some areas of land have been reclassified in the official land register in recent years without any actual change in the way they are used. To balance out the effect this has on the statistics for any particular year, a four-

year rolling average is also shown, averaging out the year in question and the three preceding years. Moreover, the switch from the old to the new land-use classification system was completed in 2016, which affected the official land-use statistics such that the data for 2016 are not directly comparable to those for previous years. It is for this reason that the overall indicator value for 2016 is also not subdivided into types of settlement or transport use.

From 2000 to 2018, 5,880 km² of land was converted into settlement and transport area. This is equivalent to more than twice the area of Saarland. The majority, 84 %, was converted into settlement land, while 16 % went to accommodate transport infrastructure.

The four-year rolling average of previously undeveloped areas newly converted to settlement or transport area continuously decreased throughout the time series, going from 129 hectares per day in 2000 down to 56 hectares per day in 2018. Considered for each reporting year separately, the value for new settlement or transport area was lowest in 2016, at 51 hectares per day. The figure has risen again since then, to 58 hectares per day in 2018.

In 2018, the area of settlement or transport use amounted to 49,819 km², or 14 % of the total area of Germany. The largest land types in Germany are agricultural land at 181,625 km² (51%) followed by woodland at 106,546 km² (30%). Settlement and transport area grew by 565 km² between 2016 and 2018. Agricultural land shrank by 1,012 km² during the same period, while woodland grew by 376 km². It can therefore be assumed that the increase in settlement and transport area was primarily at the expense of agricultural land.

German Government activities relating to the indicator

Previous measures

Reaching the 30-hectare target is primarily a task for the Länder and local government. Most federal measures make only an indirect contribution to the fulfilment of the target. The prioritisation of brownfield urban-development measures was enshrined in the Federal Building Code (*Baugetzbuch*) in 2013.

The 2017 amendment to building law introduced the urban zone as a new category of built-up area. The intention is to facilitate urban planning that is more compact, with greater mixing of types of land use, which will serve to prevent traffic. At the same time, in response to the considerable increase in demand for affordable housing, section 13b of

the Federal Building Code created a temporary exception so that residential building land could be made available via an expedited procedure in regions where the housing market was overstretched. Thereby designating an area as building land though it is outside the existing contiguous parts of town naturally conflicts with the goal of brownfield development.

As part of its FONA Strategy, the Federal Ministry of Education and Research has set up funding measures to support local authorities in developing innovative concepts to reinforce civic cohesion and better, sustainable land management.

In its recommendations of 2 July 2019, the Building Land Commission reiterated that brownfield development should be prioritised. Through the federal-Länder pro-

grammes for the promotion of urban planning and village development, the German Government supports local authorities in activating town centres, making use of their brownfield and infill sites, and reusing or repurposing vacant building stock in inner cities and villages. In the current Federal Transport Infrastructure Plan (FTIP 2030), the lion's share of funding, 69 %, flows into maintaining and upgrading existing infrastructure – that is, it goes to land already sealed and affected by traffic.

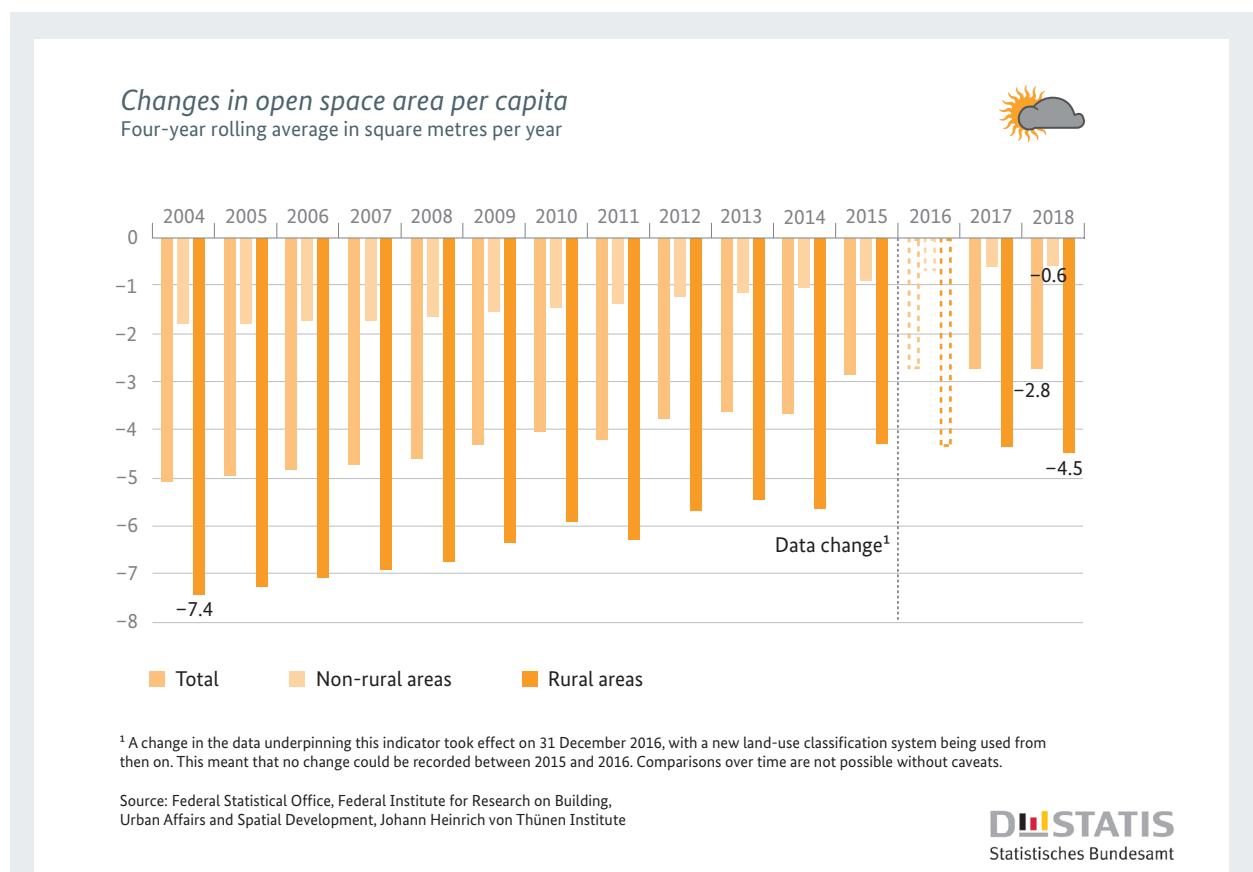
Planned additional measures

It is important to continue developing the above approaches. In addition, quantified guidelines for reducing the con-

sumption of previously undeveloped land can have a positive effect on the direction of travel, as set out in the Federal Regional Planning Act amended in 2017 and as discussed in the context of the nationwide pilot scheme on land-use certificate trading. The requisite exchange of views on the options for regional planning is to be organised between the Federal Government, Länder and national associations of local authorities. Among other things, further improvement is needed in the overarching cooperation among local authorities for sustainable settlements development. Consideration should be given to incentive schemes to encourage collaboration between local authorities. More is also to be done to further raise public awareness of the disadvantages and dangers of land consumption.

11.1.b/c Loss of open space area and density of settlements

Land use – Using land sustainably



Definition of the indicator

The indicator represents the annual change in open space area in square metres per capita as a four-year rolling average.

Targets and intention of the German Government

Open spaces should be preserved for use as agricultural land, woodland, cultural and natural landscapes, and recreational areas. The intention is therefore to curb the

decline in open space area per capita. A reduction in the loss of open space area points to the success of measures to strengthen brownfield development with a view to saving agricultural land, woodland and water systems for farming, forestry, nature conservation and recreational use by the public.

Content and development of the indicator

Open space area includes areas of vegetation, such as arable land, pasture and woodland, as well as mining land and bodies of water. A distinction is made between open space proper and open areas within settlement zones, such as cemeteries, gardens, parks and recreational amenities, which, although largely undeveloped, are generally considered part of settlement and transport area. As a result, if previously undeveloped parts of settlement land are built on, this is not reflected in the indicator for loss of open space area.

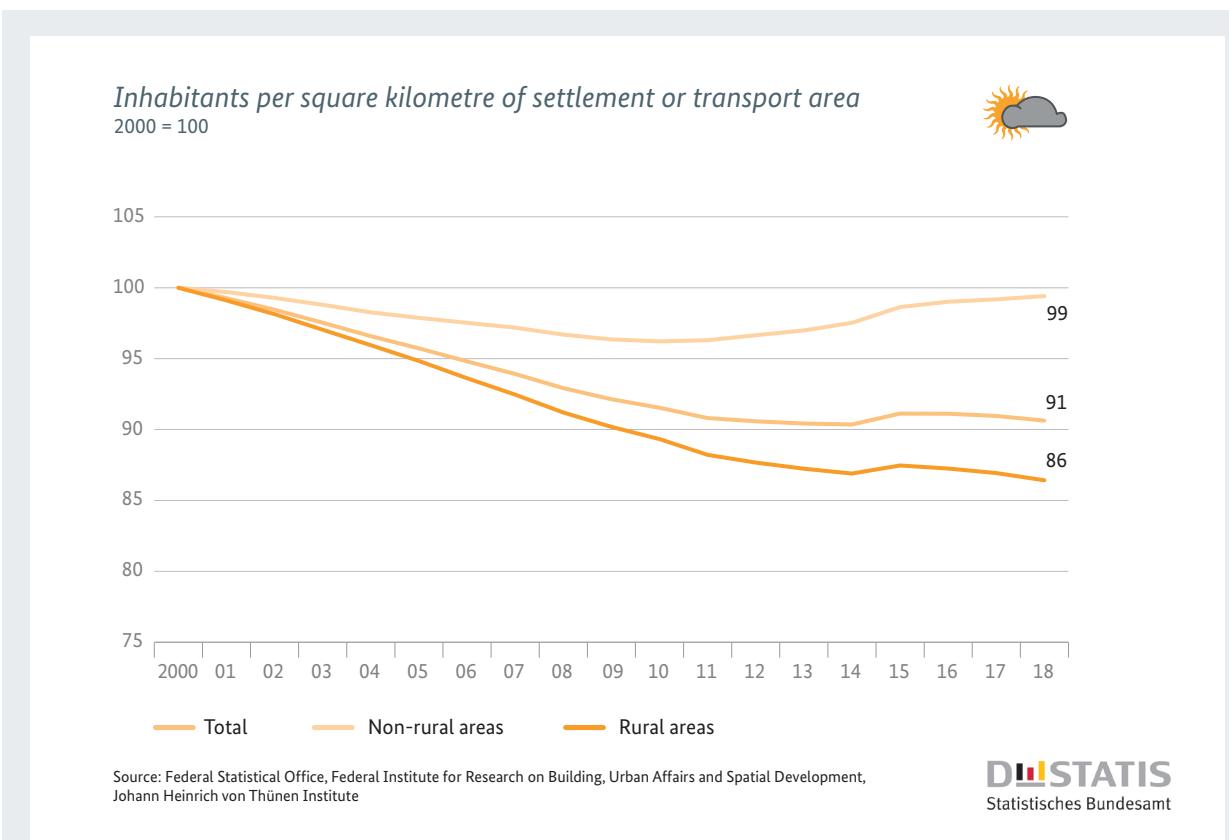
In the period under review, the national average for per capita loss of open space area went down. Whereas the four-year rolling average for 2001–2004 was still around 5 m² per capita, the current average for 2015–2018 reveals a figure of just 3 m².

Although subject to a similar trend, significant differences can be observed between rural and non-rural areas in terms of the degree of change. The loss of per capita open space area per inhabitant in rural areas contracted from 7.4 to 4.5 m² per year. In non-rural areas, it fell from 1.8 m² to 0.6 m². In this context, it is important to remember that non-rural districts and district-free cities have much

less open space, such as forest or farmland, than rural areas do. Demographic trends also differ, and the indicator reflects those disparities, with rural areas mostly seeing their populations shrink during the period under review, while population numbers in non-rural areas rose slightly overall.

The data sources for the indicator are the population figures and the area survey by type of actual use compiled by the Federal Statistical Office. Since population data at regional level are used for the associated calculations, the 2011 census caused a jump in the time series. Moreover, some areas of land have been reclassified in the official land register maintained by the Länder in recent years, without any actual change to the landscape. To smooth out these effects and depict the long-term trend, a four-year rolling average is shown, averaging out the figures for each year with those for the three preceding years. Additionally, the switch from the old to the new land-use classification system was completed in 2016, which affected the official land-use statistics such that the data for 2016 are not directly comparable to those for previous years. This is why the development of the indicator for 2016 is only shown as a broken outline in the graph.

The distinction between rural and non-rural is based on a classification used by the Thünen Institute. The institute ascribes a degree of rurality to districts and district-free cities on the basis of geographical characteristics such as settlement density and share of farmland and woodland. The classification is thus applied to whole districts rather than to smaller entities like towns or villages.



Definition of the indicator

Taking 2000 as a base year, the indicator shows the development of population numbers per square kilometre of settlement or transport area.

Targets and intention of the German Government

The density of settlements indicator provides information about the efficiency of settlement land use. The goal of the German Government is to counteract the reduction in settlement density by implementing space-saving measures for all new construction, brownfield development, reduction of residential and commercial vacancy, and densification or dedensification of built-up areas.

Content and development of the indicator

Settlement density looks at the number of inhabitants in relation to the amount of settlement and transport area – in contrast to population density, which is based on the entire land area.

Apart from residential building land, settlement land includes areas of special functional character (such as hospitals and schools), industrial and commercial land,

mixed-use land (such as shopping streets), and areas for sports, leisure and recreation. Changes in the number of inhabitants and changes in the extent of settlement and transport area both affect figures for the density of settlements.

Settlement density varies considerably between rural and non-rural areas, with the figures for 2018 showing an average of 3,344 people per square kilometre of settlement and transport area in non-rural districts but around 1,205 in rural districts (2018). Residential building land in towns and cities is frequently much more densely developed, and with more multiple-floor buildings, than in rural regions, where more scattered development incorporating larger unsealed areas such as domestic gardens is prevalent.

From 2000 to 2009, there was a steady decline in settlement density in both rural and non-rural regions. The reduction in absolute terms is slightly smaller in non-rural areas than in rural regions. In relative terms, given the distinctly lower settlement density in rural areas, the reduction was considerably greater there, at 11 %, than the 4 % reduction observed in non-rural areas. Settlement density in non-rural regions been rising again since 2011. This shows that settlement and transport area in relative-

ly urban areas is being used more efficiently than in previous years.

Looking at the trends in population numbers and settlement and transport area separately reveals marked differences between rural and non-rural regions. Between 2000 and 2018, the amount of settlement and transport area in both rural and non-rural regions increased, though to differing extents – by 15 % and 8 % respectively. After rising slightly at the beginning of the century, the rural population then shrank by approximately 2.3 % before increasing again by 1.8 % between 2010 and 2018. In contrast, the population in non-rural regions grew by 1.7 % between 2000 and 2010 and again, by 5.4 %, between 2011 and 2018. The effects that the development of additional settlement and transport area had on the indicator were therefore amplified in rural regions by the declining population numbers there.

The data sources for this indicator are the population figures and the area survey by type of actual use com-

piled by the Federal Statistical Office. In the population numbers, the 2011 census caused a jump in the time series. Some areas of land have moreover been reclassified in the official land register maintained by the Länder in recent years, without any actual change in the way they are used. Additionally, the switch from the old to the new land-use classification system was completed in 2016, which affected the official land-use statistics such that the data for 2016 are not directly comparable to those for previous years. So that comparisons can nevertheless be drawn, the relevant values were extrapolated on the basis of the 2011 census and the 2016 reform of the land-use survey.

The distinction between rural and non-rural is based on a classification used by the Thünen Institute. The institute ascribes a degree of rurality to districts and district-free cities on the basis of geographical characteristics such as settlement density and share of farmland and woodland. The classification is thus applied to whole districts rather than to smaller entities like towns or villages.

German Government activities relating to the indicator

In both urban and rural regions, the indicators for settlement density and loss of open space area reflect how rapidly open space is depleted in connection with how efficiently settlement land is used. They show the effect of measures conducted to strengthen brownfield development and thereby spare open space, i.e. farmland, woodland and water systems, agriculture, forestry, and nature conservation. Such measures can also help safeguard recreational amenities for the public.

Previous measures

Many local authorities – not least in view of their own or their Land's sustainable development considerations and targets – have set about numerous meticulous and intricate measures for brownfield development and the preservation of open space. Particularly notable here are efforts to reduce residential and commercial vacancy, encourage the development of brownfield and infill sites, and revive or raise the density of new-build projects and other built-up areas. The gratifying stabilisation and improvement of settlement density in non-rural areas shows that the “brownfield before greenfield” principle is working. As hoped, the statistics for non-rural areas reflect the many individual efforts by local authorities to keep their settlement bodies compact, as promoted, for example, by federal support tools, information materials and guidelines on space-saving forms of building

and brownfield development to prevent further land use. For several years now, those data have shown that land use no longer exceeds population growth and the intended stabilisation of settlement density is well under way.

The same cannot be said for rural areas. Settlement density there has been sinking since 2000 – with the exception of 2015 – albeit at a slower rate more recently. Some local authorities in rural areas have been taking positive steps to reduce land use, by refusing or reversing land-use designations, for example. Village development serves as an instrument to support rural authorities and private property owners in drawing up strategies and repurposing buildings within built-up areas. Nonetheless, too many rural regions are still seeing new land built on despite their shrinking population numbers. This means less efficient use of infrastructure capacity. Strategies for brownfield development, not least intended to revitalise hollowed-out village centres, are still not being implemented consistently enough. What is particularly needed is more work to raise public awareness of the disadvantages and dangers of land consumption.

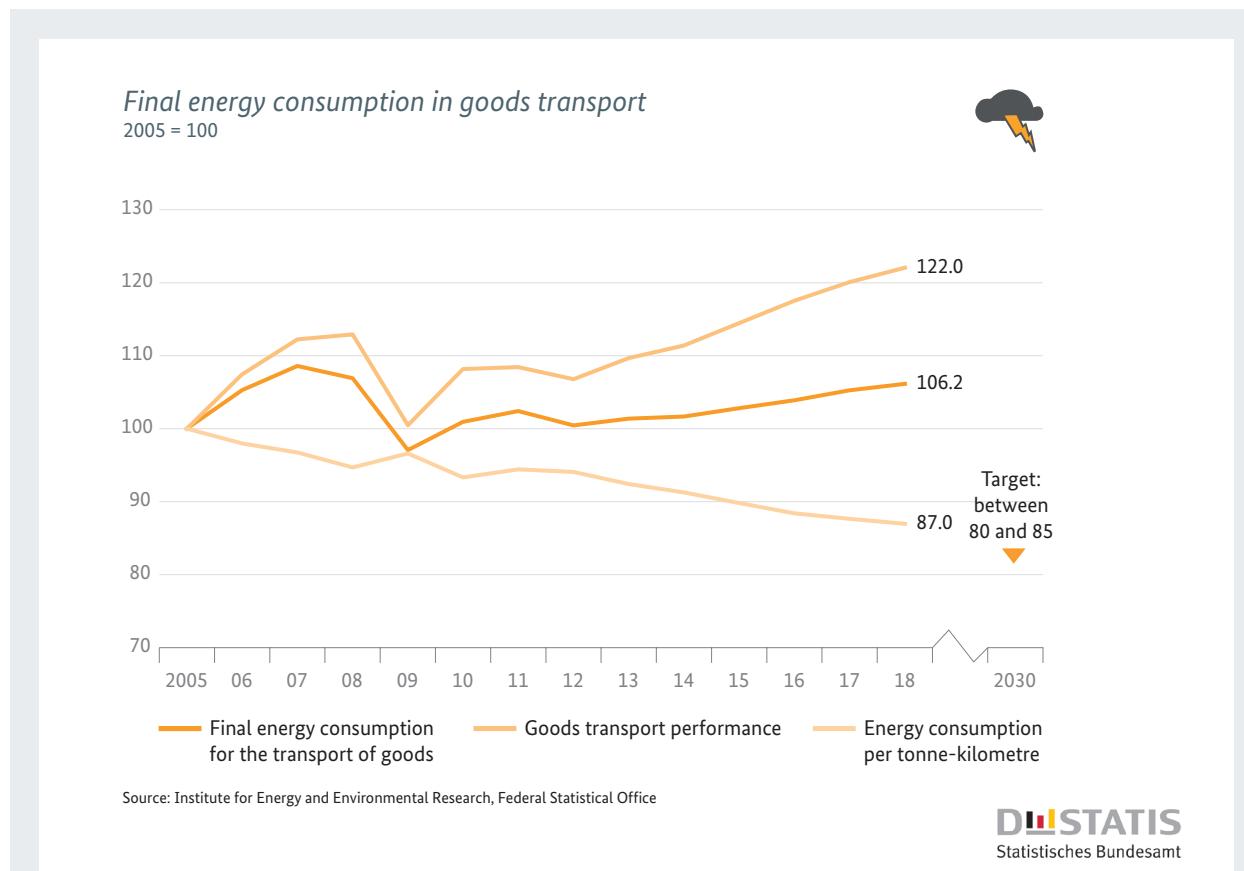
Planned additional measures

To supplement the continued pursuit of the existing approaches – identifying potential for and consistently prioritising brownfield development – deliberations are under way as to whether and to what extent settlement-development efforts should be concentrated more on small and medium-sized urban centres. More support could go to

communities of around 5,000 inhabitants which have not yet been allocated a role as supply or development hubs. The attractiveness and therefore liveability of such communities could be directly enhanced. This would simultaneously curb the still widespread use of land outside the central areas, i.e. in the environs, of these communities.

11.2.a/b Final energy consumption in goods and passenger transport

Mobility – Guaranteeing mobility, protecting the environment



Definition of the indicator

Final energy consumption in goods transport represents the energy consumption for the transport of goods within Germany via inland waterways, by rail and by road.

Targets and intention of the German Government

Transport creates a range of problems. For instance, noise and air pollution impair quality of life, especially in cities, and traffic-related emissions contribute to climate change. The emission of harmful greenhouse gases is closely linked

to the energy consumed for transport purposes. The aim is to reduce final energy consumption in goods transport by 15 to 20% by 2030.

Content and development of the indicator

The data regarding domestic final energy consumption originates from the TREMOD (Transport Emissions Estimation Model) database at the Institute for Energy and Environmental Research. TREMOD is a model for evaluating transport emissions. The data record fuel consumption within Germany irrespective of where refuelling

takes place. "Final energy" refers to that part of the total energy used that is directly consumed in transport. It does not cover the conversion losses that arise during the production of fuels or any pipeline losses that may occur.

TREMOD also supplies the goods transport volumes which are used to calculate the specific energy consumption of this sector. Air freight transport is not included, as it accounts for negligibly small volumes.

By definition, the indicator for final energy consumption in goods transport refers to consumption within Germany. It gives only an inadequate reflection of the German economy's increasingly complex international ties in a globalised world. As a result, transport flows and the associated energy consumption that arises due to German exports and imports are not included.

The energy-consumption data presented here is supplemented by energy efficiency, or energy consumed per tonne-kilometre. The number of tonne-kilometres provides information about the extent to which transport intensity or the distance per transported tonne changes.

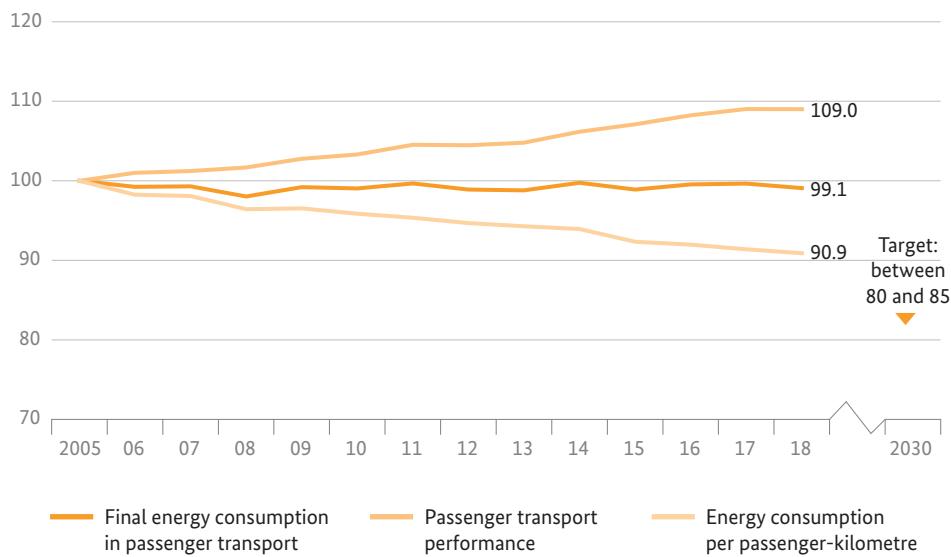
Contrary to the German Government's target, final energy consumption for the carriage of goods was 6.2% higher in 2018 compared with 2005. Goods thereby accounted for almost 30% of total final energy consumption in the transport sector. The sharp increase can be attributed primarily to freight transport by road. Final energy consumption in road goods transport increased by 7.8% during this period, while consumption for rail and inland shipping was significantly reduced (-5.3% and -26.7% respectively).

During the same period, goods transport volumes increased by 22.0%. In conjunction with comparable energy consumption in 2005 and 2018, this means a significant increase in efficiency of 13.0% during that time.

During the economic crisis of 2009, price-adjusted gross value added in the manufacturing industry suffered a particularly sharp decline of just under 20%. This heavy loss particularly affected the transport sector, which reacts directly to increases and falls in the production of goods. The resultant decrease in the utilisation of transport capacity explains why average energy consumption per tonne-kilometre rose slightly despite the sharp fall in overall energy consumption in absolute terms during the crisis years.

Besides the more short-term consequences of the economic crisis of 2009, a number of long-term ramifications also affected the development of final energy consumption in goods transport during the 2005 to 2018 review period. For instance, there was a decrease in the average number of manufacturing steps a company performs, something that is normally associated with greater transport volumes because companies procure more intermediate goods from domestic and international suppliers. Furthermore, the average distance between where goods are manufactured and where they are used increased, which also caused transport volumes to rise. These effects are countered by a shift towards a less material-intensive pattern of demand (e.g. increasing demand for services). The resulting change in the composition of goods volumes damped the increase in transport-related energy consumption.

Final energy consumption in passenger transport
2005 = 100



Source: Institute for Energy and Environmental Research, Federal Statistical Office

Destatis
Statistisches Bundesamt

Definition of the indicator

Final energy consumption in passenger transport represents energy consumption due to the carriage of people by rail, by air and by road (public and private transport) within Germany.

Germany, irrespective of where refuelling takes place (in accordance with the principle of actual final consumption). “Final energy” refers to that part of the total energy used that is directly consumed in transport, so it excludes conversion losses that arise during the production of fuels as well as any pipeline losses that may occur.

Targets and intention of the German Government

Transport brings with it a range of challenges. For instance, noise and air pollution impair quality of life, especially in cities, and traffic-related emissions contribute to climate change. The emission of harmful greenhouse gases is linked to the energy consumed for transport purposes.

The volume of passenger transport is expressed in terms of the number of passenger-kilometres travelled. Provided by TREMOD, this figure is used to calculate the specific level of energy consumption in this sector. In the aviation statistics, only domestic flights are taken into account. International flights departing from or landing in German territory are not counted. Nor is waterborne passenger transport included.

The aim is to reduce final energy consumption in passenger transport by 15 to 20 % by 2030.

Some 30.1 % of overall final energy consumption can be attributed to transport. Of this, more than 70 % is accounted for by passenger transport. Savings in final energy consumption in passenger transport therefore have a marked effect on total energy consumption in Germany. The number of passenger-kilometres provides information about the extent to which transport intensity or the distance per transported tonne changes. In addition to final energy consumption, the indicator also examines energy efficiency in passenger transport, measured in terms of energy consumption per passenger-kilometre.

Content and development of the indicator

The data regarding domestic final energy consumption originates from the TREMOD (Transport Emissions Estimation Model) database at the Institute for Energy and Environmental Research. TREMOD is a model for evaluating transport emissions. The data record fuel consumption associated with passenger transport within

Final energy consumption in passenger transport decreased by a total of 0.9 % between 2005 and 2018. However, analysis of progress since 2008 reveals that the indicator value increased by 1.1 %, meaning that final energy consumption in passenger transport is developing contrary to the target set in the German Sustainable Development Strategy.

Although the number of passenger-kilometres covered increased by 9.0 % between 2005 and 2018, energy consumption with reference to all forms of transport fell by 9.1 % to 1.49 megajoules per passenger-kilometre during the same period. This indicates a notable increase in efficiency in passenger transport. A particularly large share of the efficiency gain can be attributed to the railways. The number of passenger-kilometres travelled by rail rose by 25.3 %, while final energy consumption was reduced by 8.9 %. This equates to a 27.3 % increase in efficiency. A significant increase in efficiency was also

achieved in aviation, with a 17.1 % rise compared with 2005. Road transport registered a slight gain in efficiency of 7.4 % recently, thanks to a rise in passenger-kilometres, even though final energy consumption remained almost constant (0.5 %).

Private motorised transport by car or two-wheeled vehicle accounted for 81.4 % of total passenger transport volumes in 2018. Its share in 2017 was 81.6 %. It can be subdivided into various categories. In 2017 (more recent figures not yet available), work-related transport, i.e. commuter traffic and business travel, accounted for the largest share, at 39.2 %, followed by recreational transport at 29.5 %. Travel for shopping accounted for 17.1 %. These purpose-based categories of transport have developed differently since 2005. Work-related travel in particular has increased significantly (+30.0 %), while journeys for recreation or shopping have declined (-11.4 % and -2.7 % respectively).

German Government activities relating to the indicator

Previous measures

The National Platform for the Future of Mobility (NPM) commissioned by the German Government started work at the end of September 2018. Gathered from politics, business, academia, associations and civil society, the approximately 240 stakeholders involved in the NPM are pooling their expertise in order to sketch out a forward-looking, innovative transport system that is robust, affordable, needs-led, climate-friendly and sustainable. The findings collated to date by the NPM's Working Group 1 (Transport and Climate Change) provided an important basis for the German Government's 2030 Climate Action Programme adopted on 9 October 2019.

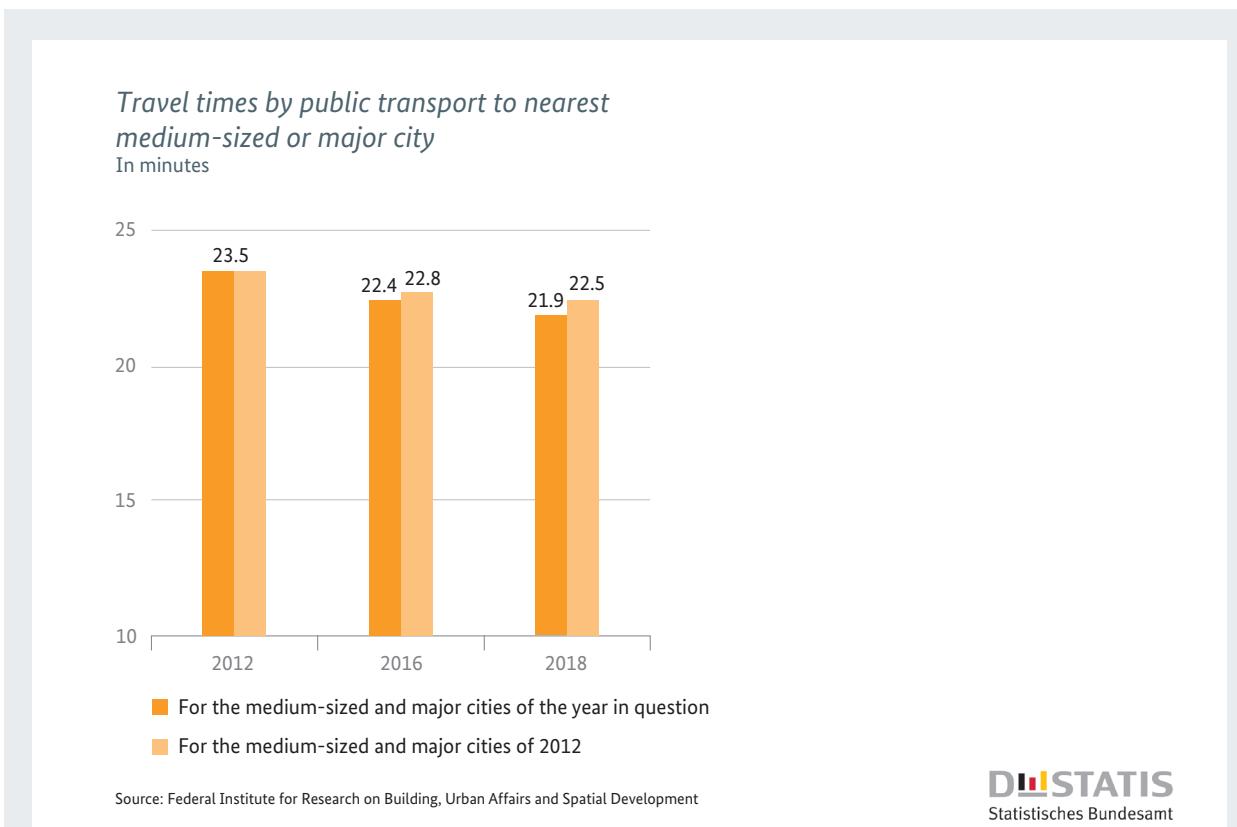
Planned additional measures

The measures contained in the 2030 Climate Action Programme will be implemented. They range from a far-reaching campaign to promote cycling, investment in climate-friendly railways and markedly improved backing for public transport, to lasting intensification of support for alternative forms of propulsion, including the associated charging and refuelling infrastructure as well as the production of alternative fuels. There are also various initia-

tives to advance the development of integrated, intermodal, transregional mobility platforms which can be used to plan, book and pay for journeys involving various transport providers. All of these elements will serve to reduce final energy consumption in goods and passenger transport. Another important lever is the carbon pricing established in the Climate Action Programme, since, as mentioned in Chapter A II 3 aa (4) above, emissions of harmful greenhouse gases are closely related to transport-related energy consumption. By including the transport sector in carbon pricing, the German Government is sending price signals based on the carbon-intensity of fuels. This creates an incentive to switch from high-emissions technologies to more climate-friendly options such as deploying e mobility, improving energy efficiency and using renewable energy sources.

11.2.c Accessibility of medium-sized and large cities by public transport

Mobility – Guaranteeing mobility, protecting the environment



Definition of the indicator

The indicator shows population-weighted average travel times to the nearest medium-sized or major city by public transport.

Targets and intention of the German Government

Mobility is a key factor in enabling people to participate in society. Accordingly, urban development and transport should be designed to provide good mobility services and suitable connections to medium-sized or major cities for the entire population. Therefore, the goal of the German Government is to shorten the average amount of time it takes people to travel to their nearest medium-sized or major city by public transport.

Content and development of the indicator

The indicator is computed by the Federal Institute for Research on Building, Urban Affairs and Spatial Development. Public means of transport are defined as transport

services that anyone can use on payment of the relevant fees. Flexible forms of operation, such as on-call buses that operate on demand without fixed stopping points and timetables, are not taken into account.

Comparing the indicator values for 2012 and 2018 shows that the population-weighted average travel time to the nearest medium-sized or major city fell from 23.5 to 21.9 minutes during that period. This equates to a reduction of 6.9%.

However, the number of medium-sized and major cities grew from 1,010 in 2012 to 1,109 in 2018. Much of this growth can be traced to the designation of additional urban centres as medium-sized cities in Bavaria.

It is beyond the purview of this report to assess whether that change of status reflects an actual improvement in the provision available in those cities. Nonetheless, the increase in medium-sized and major cities notably helped reduce the average travel time required to reach one.

If the average travel time for each reporting year is calculated on the basis of only those intermediate and major cities which existed in 2012, it is found to have decreased from 23.5 minutes in 2012 to 22.5 minutes in 2018. This equates to a reduction in travel time of only 4.3 % in relation to 2012.

The data for these calculations were taken from the timetables of Deutsche Bahn, various networks and numerous other transport providers. With the help of the timetable data, the travel times to the nearest intermediate or major city during peak morning traffic times were determined for some 258,000 stops. This period is defined differently across the reporting years. Whereas connections with arrival times between 6 a.m. and 9 a.m. were taken into account in 2012, the figures for 2016 and 2018 refer to connections with arrival times between 8 a.m. and 12 noon.

Not least because not all local transport schedules had been fully incorporated into the database used, the values for the different reporting years cannot be compared without caveats. Therefore, the frequency of transport

services to the nearest intermediate or major city is ignored, as is travel time to and from the stopping point. Furthermore, this indicator is based on timetable data – which means that delays or even cancellations are not taken into account.

The classification of an urban centre as a medium-size or major city is determined according to the availability of goods, services and infrastructure there that are not available in the surrounding regional towns. These include, among other things, specialist medical practices, hospitals, cultural facilities as well as secondary schools and institutions of higher education. In each intermediate or major city, especially in large cities, only one location in the city centre was designated as the destination. The destination stops were selected within a radius of one kilometre around that destination point, and the quickest connection from each departure stop to that point was sought. A population-weighted average value of the travel time for Germany was then determined with the help of small-scale population data from the Federal Statistical Office.

German Government activities relating to the indicator

An important gauge of environmentally friendly mobility is the population-weighted average travel time by public transport from each stop to the next medium-sized or major city. Equivalent living conditions across all regions can be achieved only if public-service facilities are sufficiently accessible by public transport.

Previous measures

Thanks to work done to support it over recent decades, the quality of public transport in Germany is generally high. It guarantees people mobility. The provision of effective public transport systems is a public service obligation. Responsibility for planning, designing, organising and financing public transport lies with the Länder and local government. Despite this fundamental division of powers, the Federal Government provides the Länder and local government with a substantial amount of funding for public transport

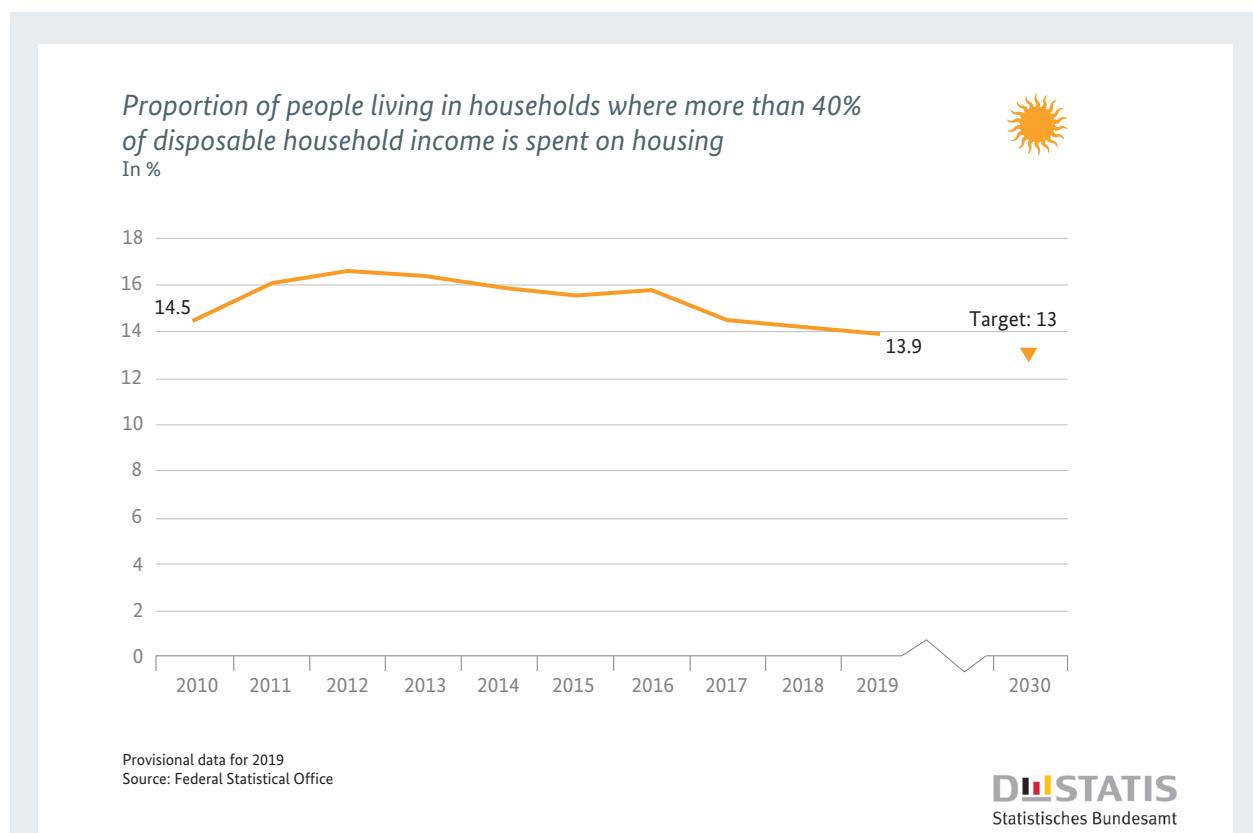
(currently almost EUR 9.5 billion a year) so that they can fulfil their mandate to provide mobility for the population. Additional support takes the form of tax relief as well as recompense for transporting school pupils, those in vocational training and people with disabilities.

Planned additional measures

In accordance with the Community Transport Financing Act (*Gemeindeverkehrsfinanzierungsgesetz*), an annual EUR 1 billion will be available for measures to improve communities' transport conditions between 2021 and 2024, rising to EUR 2 billion in 2025. From 2026 onwards, that figure will increase by 1.8 % a year. These funds will go towards infrastructure projects in the realm of local passenger rail.

11.3 Housing cost overload

Housing – Affordable housing for all



Definition of the indicator

The indicator shows the share of people living in households where more than 40% of disposable household income is spent on housing. Housing costs comprise rent and ancillary charges, energy costs and water bills as well as, in the case of home ownership, investments to maintain the value of a property and interest payments on associated loans.

Targets and intention of the German Government

High housing costs place restrictions on households with regard to their other consumption choices. Housing expenses amounting to more than 40% of disposable household income are considered to be excessive. The share of people who live in households where more than 40% of disposable household income is spent on housing is therefore to be reduced to 13% by 2030.

Content and development of the indicator

The data used for this indicator come from the harmonised European statistics on income and living conditions

(EU-SILC). The indicator expresses housing costs relative to disposable household income. If a household is receiving housing benefits or comparable social benefits, such as social-security payments for accommodation and heating, these are also included in the calculations. These social benefits are not added to the income amount but are deducted from the housing costs, so that the burden of housing expenses on households that rely on housing-related social benefits is reduced or almost nullified.

The purchase of owner-occupied property is not included in housing costs. Other spending on measures to enhance the value of a property is not taken into account either – though it is not always possible to clearly differentiate such spending from value-maintaining expenditure, which does count as part of housing costs. In such cases, established assumptions are applied to simplify the calculation. Nor does the indicator take into account any additional costs associated with the geographical location. For instance, expenditure on travel from a person's place of residence to their workplace is not taken into account, although it is possible that the long commuting distance is the only reason that their housing costs remain below the 40% threshold.

By defining the threshold value as 40% of disposable household income, the indicator provides no information about average housing costs in absolute terms. If clusters emerge close to the threshold, even small alterations in the ratio of income to housing costs can cause major changes in the indicator. The indicator rose from 14.5% in 2010 to a relatively constant 16% from 2011 to 2016. In 2017, it went back down to the starting rate of 14.5%, before reducing further in 2018, to 14.2%, and yet further in 2019, when it reached 13.9%. The value is therefore lower than the level it started at in 2010. If the average trend recorded over the last five years continued, the goal set for 2030 would be achieved.

With regard to the actual housing situation and disposable income, the indicator provides only a limited

amount of meaningful information. After all, the calculation method means that households with high incomes and high expenditure on housing also appear to be overburdened. Meanwhile, the data show that it is people at risk of poverty – that is, those with less than 60% of the median equivalised income for the population – who are particularly affected by excessive housing costs. Some 42.2% of people at risk of poverty were overburdened by housing costs in 2010, rising to 54.4% by 2014. That figure then sank to 48.3% by 2019. In contrast, excessive housing costs affected a markedly smaller proportion of people considered not at risk of poverty. The 2019 figure of 8.0% was lower than the 9.4% recorded in 2010 and peak of 10.5% reached in 2011.

German Government activities relating to the indicator

Housing is a basic human need and an indispensable anchor of social stability. As housing costs tend to be the largest element of a household's expenditure, any increase in housing costs results in less money being available for general consumption and participation in the life of society (such as recreational activities for children and adolescents) – assuming there is no corresponding increase in income. Low-income households are especially affected by this, notwithstanding the slight reduction in the relevant rate of excessive housing costs in 2018.

Previous measures

As part of the 2018 housing summit and the joint housing strategy shared by the Federal Government, Länder and local government, the German Government has adopted a far-reaching package of measures to create more affordable housing. All the key measures have already been carried out or are being implemented. One focus here is the construction of social housing. The Federal Government is providing the Länder with an annual EUR 1 billion in programme funds for this purpose between 2020 and 2024. Additionally, the Housing Benefit Reform Act (*Wohngeldstärkungsgesetz*) entered into force on 1 January 2020, raising the level and scope of housing benefit. Starting in 2022, housing benefit will also be regularly updated, every two years, in line with changing income and rent levels. Other measures helping to keep housing affordable include building-related child benefit to encourage home ownership (around 310,000 applications amounting to EUR 6.5 billion between the start of the programme and 31 December 2020), special depreciation allow-

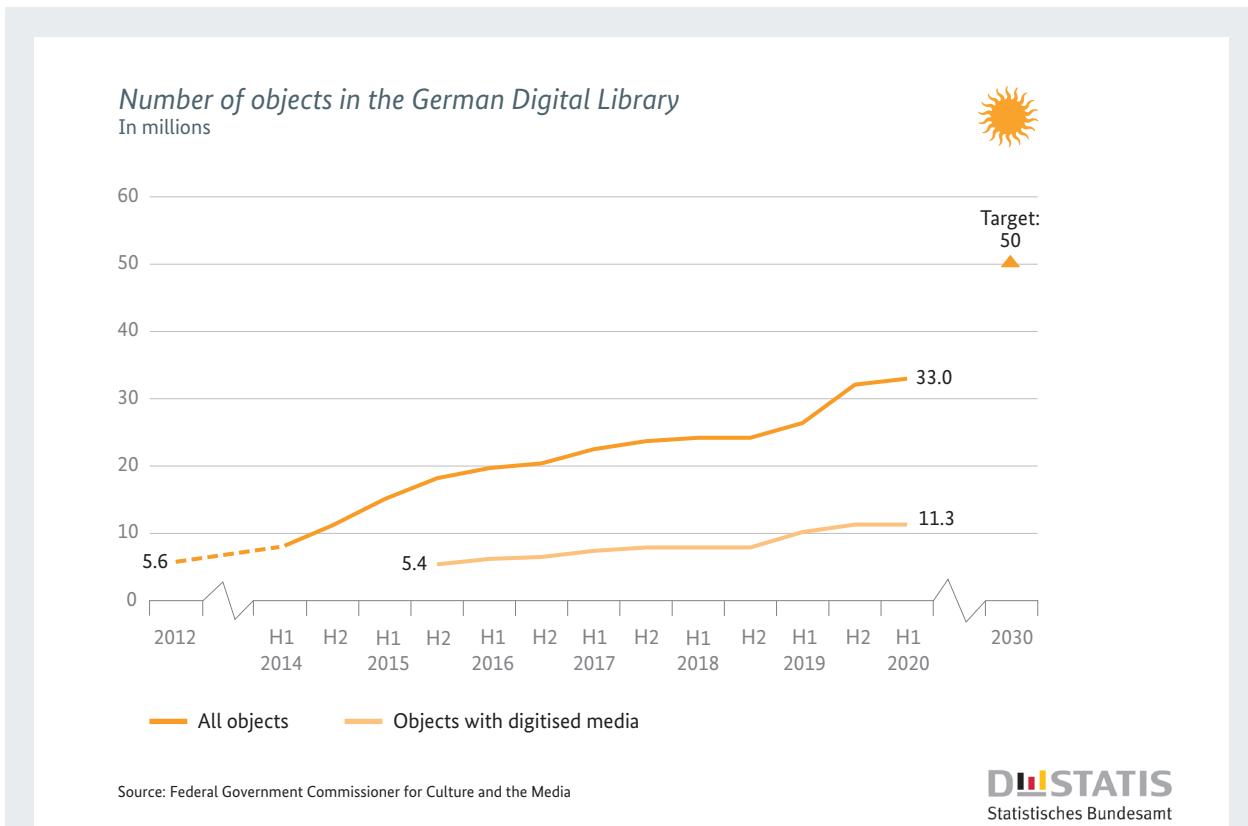
ances for the construction of rental properties, and further reform of the rent-related legal framework, such as improving rent controls and extending the reference period for calculating prevailing rent levels.

Planned additional measures

The measures of the housing strategy will continue to be implemented in 2021 and beyond. Another improvement to housing benefit, for example, is the heating-costs relief for households receiving housing benefit in the context of carbon pricing applicable from 2021. Support will also be given for the acquisition of shares in housing cooperatives for owner-occupied properties. Reform of the Federal Building Code will moreover contribute significantly to the swifter mobilisation of building land. The bill builds on the recommendations arising from the discussions of the Building Land Commission and contains various measures to that end. They will serve to depress the price of building land and thereby ultimately keep housing costs down too. In addition, it is to be made more difficult to convert rental property to owner-occupation in areas where the housing market is overstretched, so that affordable housing remains available. The reform of rent-comparison legislation agreed by the Federal Cabinet on 16 December 2020 is intended to encourage the spread of rent-level surveys and enhance the transparency of the housing market. The measures relating to construction-cost reduction – including modular building, digitalisation of the construction sector and a secure supply of skilled labour – will also be taken forward.

11.4 Number of objects in the German Digital Library

Cultural heritage – Improving access to cultural heritage



Definition of the indicator

The indicator shows the number of objects in the network of the German Digital Library, or Deutsche Digitale Bibliothek (DDB).

Targets and intention of the German Government

The German Digital Library connects and provides online access in one place to the digital holdings of Germany's cultural institutions and repositories of learning. It thereby makes them easily accessible, in an up-to-date manner, to scholars and anyone else interested in culture. As such, the indicator is a useful gauge of the extent to which our shared heritage of culture and learning has been rendered digitally accessible in Germany. The goal is to increase the number of objects available via the German Digital Library to 50 million by 2030.

Content and development of the indicator

The German Digital Library is a platform created to connect the digital holdings of institutions like archives, li-

braries and museums. It is managed by a network of such repositories of culture and learning from the Federal Government, the Länder and local-authorities, and it is jointly funded by the Federal Government and the Länder. Most of the digital materials are held not by the German Digital Library itself but by partner institutions, while the DDB only hosts links to those objects. The partner institutions are responsible for the stability of the connection. As of May 2020, the number of partner institutions making data available for the German Digital Library had reached 448. The majority are museums or archives – 183 and 174 of them respectively.

The German Digital Library online platform has been accessible since 2012, at which point it hosted links to 5.6 million objects. By the middle of 2020, that number had risen to 33 million. If the trend continues as it has to date, the target of 50 million by 2030 could be achieved. Some of the objects made available by libraries may repeat the same content; for example, two libraries might post links in the German Digital Library to the same edition of a book. In such cases, the two links are counted separately.

Since 2015, it has been possible to differentiate between objects with and without digitised media. For those with digitised content, the German Digital Library link gives direct access to the digitised reproduction of the book, certificate, painting or other object in question. For objects without digitised media, on the other hand, the links lead only to information about them. The link pertaining to a painting, for instance, will provide information about who painted it, what year it is from and where it is kept. Objects with digitised media thus provide a good deal more information than those for which only metadata are made available.

There were 5.4 million objects with digitised media at the end of 2015, rising to 11.3 million by the middle of 2020. Objects with digitised media also increased as a proportion of all the objects linked to in the German Digital Library, rising from around 30% in 2015 to around 34% by mid-2020. At the end of the first half of 2020, the majority of digitised objects available via the Library were texts (60.2%), followed by pictures (33.8%) and other media (5.5%). In contrast, audio and video recordings made up only a very small proportion of digitised Library objects, at 0.4% and 0.1% respectively.

German Government activities relating to the indicator

Following the launch of the first public beta version of the German Digital Library in 2012, the number of objects to which the library hosts links grew from 5.6 million to 32.2 million by 2019..

Previous measures

Between 2011 and 2020, EUR 15.1 million from the Federal Government and the same from the Länder was spent on creating and upgrading the German Digital Library. In 2013, the Federal Government also provided an additional EUR 1 million to upgrade the beta version to the full version of the Library and invested another EUR 4 million in special projects to digitise objects of cultural heritage in federal institutions, the results of which are directly stored in the Library. The Länder also contributed EUR 300,000 to the functional upgrading of the German Digital Library during the beta-testing stage. Around EUR 1 million in additional federal funds was provided to update the IT infrastructure of the Library in 2016 and 2017. These measures fundamentally updated and future-proofed the digital library's basic architecture. Switching to state-of-the-art back-end technologies made it possible not only to improve performance but also to offer new functions, on the basis of which the Library could be used in different ways – e.g. to analyse data sets, produce visualisations and run data enhancements.

More changes were implemented at the same time that were visible to users of the platform. These included the creation of an integrated object viewer, a marked improvement to the search function, the introduction of pages relating to the various organisations, and the pooling of editorial content in the newly developed DDBjournal. In 2017, the Federal Government provided around EUR 500,000 in special funds. Another EUR 500,000 is currently being deployed to improve the quality of metadata and processing procedures in the DDB.

Planned additional measures

The German Digital Library will continue to offer assistance, provide services and develop projects to help cultural institutions and repositories of knowledge make the cultural property they hold accessible in the digital sphere.

12. Ensure sustainable consumption and production patterns

a) Main substance and political priorities in the view of the German Government

The aim of SDG 12 is to bring about the necessary changes to our lifestyles and business practice. In order to achieve sustainable consumption and production, we must ensure that our current consumption and production do not jeopardise the satisfaction of the justified needs of current and future generations, with proper consideration to the limits of the Earth's resilience, universal human rights and the other SDGs.

To this end, growth and wealth must be decoupled as much as possible from the consumption of natural resources. The focus here should be primarily on non-renewable resources. Like much else, our efforts in pursuit of long-term climate targets can only succeed if supported by effective measures in consumer protection and consumption policy.

Global responsibility

The industrialised countries play an important role in the global development of sustainable consumption and production patterns and in efforts to improve resource efficiency. As their economies are so firmly integrated in global value and supply chains, they have a significant impact on production methods in industrialised and developing countries as well as emerging economies. They consequently bear special responsibility for the associated economic, environmental and social effects felt in those countries. What is more, the middle classes becoming established in newly industrialised and developing countries often take cues from the consumption behaviour they observe in industrialised countries; the latter can therefore function as role models of sustainable consumption.

Consumption and production patterns

SDG 12 ties in with the 10-Year Framework of Programmes on Sustainable Consumption and Production (target 12.1) agreed at the UN Conference on Sustainable Development in Rio de Janeiro in 2012. Based on the fundamental imperative of sustainable management and efficient use of natural resources (target 12.2), the requirements focus on halving food waste and reducing food losses (target 12.3), achieving environmentally sound management of chemicals throughout their entire life cycles (target 12.4), reducing waste generation (target 12.5), encouraging companies, especially large companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycles (target 12.6), promoting sustainable public procurement practices (target 12.7) and ensuring that people have the information and awareness they need to lead sustainable lifestyles (target 12.8). Fulfilling the require-

ments of this SDG also means strengthening science and technology in developing countries (target 12.a), developing sustainable tourism (target 12.b, see also SDG 8) and abolishing inefficient fossil-fuel subsidies (target 12.c).



Central challenges

Our past consumption behaviour has involved only scant consideration of our planet's limitations. Sustainable production focuses throughout the entire value chain on using natural resources more efficiently, avoiding and reducing pollution including greenhouse gas emissions, and preventing the destruction of ecosystems. It emphasises the importance of keeping nature intact as well as observing human rights and social standards and ensuring fair trade.

Sustainable products are supposed to be as durable and resource-efficient as possible and, wherever feasible, recyclable after use (in line with the cascading use principle). They must moreover present no danger to health. Transparent and independent certification and labelling systems are designed to help consumers identify whether products fulfil sustainability criteria, so that they can make informed purchasing decisions. Sustainable consumption and sustainable production are thus two sides of the same coin.

At present, 20 % of the global population consume 80 % of the available raw materials. Natural resources are fundamental to life and well-being, for current and future generations. This must be kept in mind, particularly in relation to the consumption of finite resources. The German Government's aim is therefore to further decouple the use of natural resources from economic development, continuously increase efficiency and keep reducing the consumption of natural resources. Germany should be a global pioneer on the way to a fully circular economy. A vital part of this endeavour is to promote compliance with human rights as well as labour and social-welfare standards throughout global supply chains.

Role model function of the state

As a consumer, the state is practising what it preaches: the German Government is working to strengthen sustainable public procurement. This is its means of setting an example to consumers on sustainable consumption (see German Government activities below).

In their procedures, the various ministries and procurement offices will therefore consistently use all the available flexibility of public procurement law to favour sustainable procurement. The German Government is also advocating for

sustainable and innovative procurement at the European level. It is moreover examining the possibility of incorporating minimum due-diligence requirements in respect of human rights into public procurement procedures.

Creating the right conditions

Sustainable consumption is an integral part of any sustainable value chain. It requires environmentally and socially responsible products that are clearly and reliably labelled. This allows consumers to consider matters such as working conditions, social-welfare standards and the environmental pollution caused by manufacturing processes when making their purchasing decisions. A product's market price, often the main focus, is thereby supplemented by additional product-relevant selection criteria.

The supply and demand sides bear joint responsibility. To ensure that the market-based competition to win the customers' favour and the demand for products at the lowest possible price do not come at the expense of working conditions and the environment, transparent, binding and effect-oriented environmental and social standards must be observed during production and distribution as well as during subsequent recycling and disposal.

The German Government is campaigning for businesses to assume responsibility for their entire global supply and value chains and to respect human rights, environmental concerns, and international labour and social-welfare standards. In the National Action Plan on Business and Human Rights adopted in 2016, the German Government described how it expected companies to carry out due diligence in matters of human rights and to uphold such rights at every stage of their supply and value chains (see SDG 8 above).

Further reductions are also required in the consumption of natural resources, the generation of waste, and the use and, above all, release of hazardous substances.

The link between production and consumption is trade. Without trade, products would not reach consumers. Trade is crucial when it comes to distribution. As increasing numbers of consumers are expecting sustainability in commerce as elsewhere, considerable efforts are being undertaken to make trade more sustainable. Sustainability is becoming more and more of a selling point.

The German Government sees sustainability reporting on the part of companies as an important lever for advancing sustainable development and welcomes the European Commission's review of Directive 2014/95/EU, known as the Non-financial Reporting Directive. The German Government

will campaign at the European level to reinforce non-financial reporting, and it values input from representatives of business, civil society and academia in that process.

German Government activities

I. Measures in Germany

The amendment of the Circular Economy Act (Kreislaufwirtschaftsgesetz) includes provisions on public procurement, such as a conditional obligation to favour resource-saving products, and on ensuring that products remain usable throughout the commercial process, even when returned.

The Federal Climate Change Act (Bundes-Klimaschutzgesetz) has been adopted containing provisions on public procurement, including the obligation to consider climate-friendly products.

The National Programme for Sustainable Consumption is being implemented and refined. Through more than 170 measures, the programme addresses the six areas of consumption with the greatest potential for improvement: mobility, food, home and household, workplace and office, clothing, and leisure and tourism. Beyond these, there are various overarching fields where action is required, including education, consumer information and research. The programme also provides a platform which enables all the relevant groups in society to get involved.

A centre of excellence on sustainable consumption has been established as a hub for information, networking and current research findings relating to the subject (website in German: www.k-n-k.de).

The National Sustainable Consumption Network has been set up as a social platform to ensure that specialist discussion can take place among all stakeholders and sustainable consumption remains permanently in the public consciousness.

Support measures have been instigated to further the implementation of the National Action Plan (NAP) on Business and Human Rights (see SDG 8 for more details on the NAP).

In 2020, the German Government awarded its CSR Prize for the fourth time, with the Federal Minister of Labour and Social Affairs standing as patron. The prize is intended to honour outstanding examples of corporate social responsibility (CRS) and motivate other companies to emulate them.

Companies are encouraged to conduct sustainability reporting, including those which already engage in environmental EMAS reporting.

With the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety as the lead ministry, the German Resource Efficiency Programme is being implemented and updated, its third iteration published in 2020 (ProgRess III).

Measures are being undertaken to enhance environmental and sustainability management. The Eco-Management and Audit Scheme (EMAS), for example, is intended to help make the German Government climate-neutral. EMAS/LUMASPlus will therefore be introduced at another 300 federal administration locations by 2025.

Adopting the Condominium Reform and E-mobility Act (Gesetz zur Förderung der Elektromobilität und zur Modernisierung des Wohnungseigentumsgesetzes) improved the legal framework by making it easier to equip condominiums and rental properties, particularly in the areas of e-mobility, e.g. installing charging stations for electric vehicles, and retrofitting for energy efficiency.

Sustainable procurement has been pursued in several ways: implementation and ongoing development of the Programme of Sustainability Measures for the federal administration as a public purchaser; introduction and implementation of German Government guidelines for sustainable textiles procurement by the federal administration; further alignment of federal properties with the requirements of the Assessment System for Sustainable Building (BNB); amendment of the General Administrative Regulation on the Procurement of Energy-efficient Products and Services (AVVEnEff) and consideration of a General Administrative Regulation on Climate-friendly Public Procurement in alignment with the German Government's 2030 Climate Action Programme 2030; deployment of the nationwide, fully digitised procurement-statistics systems to compile new data sets on sustainable procurement, among other things; collection of data on use of the available leeway to accommodate sustainability criteria; EMAS convoy procedure for institutions of the federal administration; and targeted support to help public procurement officials use the room for manoeuvre afforded by amended procurement law for sustainable public procurement. For example, the Centre of Excellence for Sustainable Procurement has been established to support contracting authorities at the federal, Land and local-authority levels in matters of sustainable public procurement by providing information, advice and training courses.

In its National Hydrogen Strategy, the German Government clearly affirms its commitment to building a hydrogen economy. In this context, plans are currently being developed for a funding scheme to support the use of hydrogen in industry. The Federal Ministry for Economic Affairs and Energy is furthermore working to see Germany participate in an IPCEI, or important project of common European interest, on hydrogen. IPCEIs involve several EU member states coming together to jointly develop value chains for strategically important products – like hydrogen technologies.

The Federal Ministry for Economic Affairs and Energy has updated the German Government's Raw Materials Strategy of 2010 to adapt it to technological change. Its aim is to reinforce Germany's industrial and export credentials by promoting the sustainable and responsible supply of raw materials. Most particularly, it is to ensure that those raw materials which form the start of the value chain for important technologies – in e-mobility, the energy transition or digitalisation, for example – are available for the long term and are extracted in compliance with sustainability standards

The German Government is revising the Technical Instructions on Air Quality Control (Technische Anleitung zur Reinhaltung der Luft), which represent the most important emission-control effort in German environmental legislation and affect more than 50,000 industrial facilities requiring authorisation, plus another 100,000 indirectly, across almost all sectors of Germany's economy. Lightweighting Initiative: Lightweighting is a construction philosophy focused on reducing weight while simultaneously improving resource efficiency and functions. Of relevance here is the Lightweighting Initiative of the Federal Ministry for Economic Affairs and Energy, which seeks cross-sectoral knowledge-sharing and technology transfer in the interests of developing lightweighting as technology for the future.

In its Steel Action Concept, the German Government has put forward a comprehensive political strategy for a steel industry in Germany which is strong, internationally competitive and climate-neutral on a long-term basis. It is the intention that steel should be manufactured within Europe, competitively and in line with European environmental and climate standards, well into the future. The aims which the German Government is pursuing with its strategy are as follows: create a level playing field in the global steel market; strengthen carbon-leakage protections for steel and other energy-intensive industries; facilitate the switch to steel manufacturing with low or, in the long term, no CO₂ emissions; and use the chance to become a pioneer of innovative climate-frien-

ly technologies. In future, the Steel Action Concept is to serve as a basis for encouraging investment in low-/zero-greenhouse gas technologies in the steel industry and the industrial use of hydrogen.

The Federal Government's Waste Prevention Programme is being implemented, and work to foster a circular economy continues. Measures are being implemented to promote greater consideration of aspects such as durability, repairability and recyclability in product design.

The National Strategy for Food Waste Reduction is being implemented, and the Too Good for the Bin! initiative is being expanded.

Information and support services are being expanded to assist companies, especially SMEs, with implementation of the EU Non-financial Reporting Directive (2014/95/EU), which covers sustainability reporting.

Through, for example, the consumer-information website siegelklarheit.de and expansion of existing certification systems, the public are kept informed about trustworthy labels and certification to support good purchasing decisions.

Implementation of the Consumer Behaviour and Biological Diversity Initiative and increased topic- and target group-specific communication as part of the UN Decade on Biodiversity 2011–2020 through the stronger embedding of the topic of biodiversity in ecolabels such as the Blue Angel and through the development of specific biodiversity criteria as an integral part of sustainable procurement and sustainable building Work is under way to implement the Strategy for the Future of Organic Farming (see also SDG 2 above).

Deforestation-free supply chains: Many businesses are currently investigating the sustainability implications of their supply chains. Up to 80 % of tropical deforestation around the world is caused by the expansion of agricultural land use. Germany is a signatory of the New York Declaration on Forests and the Amsterdam Declarations; its ministries are conducting numerous voluntary initiatives at all levels. The Federal Cabinet adopted the German Government guidelines on promoting deforestation-free supply chains for agricultural commodities on 8 April 2020.

Funding is dedicated to research projects and measures on the subject of sustainable business and work. They research, develop and deploy resource and energy-efficient manufacturing technologies and innovative green services in such sectors as logistics and crafts, as well as new

approaches to sustainability in the design and organisation of working processes. Within the framework programme to promote materials research, From Materials to Innovation, digital methods of simulating and monitoring materials and components throughout their entire life cycles are researched, developed and trialled, as are sustainable bioinspired materials.

The German Government also funds research into new business models for a circular economy, rebound effects, ways to change a whole society's behaviour in favour of more sustainable lifestyles, sustainable business models, sustainability assessments, and the conditions required for a sustainable economic system.

The Sustainable Urban Mobility research agenda of the Federal Ministry of Education and Research is implemented through research projects which pursue sustainable mobility by bringing together the opportunities of new technologies, changing attitudes in the way people see and use transport, and the peculiarities of local situations. One of the chief starting points for making mobility-related and consumer behaviour in urban areas more sustainable is the reduction of motor traffic.

The Valuing Biodiversity funding measure run by the Federal Ministry of Education and Research is being implemented through research and education projects which examine how sustainable consumption, alongside sustainable manufacturing and sustainable distribution, can help protect biodiversity and safeguard important ecosystem services.

With research projects under the Plastics in the Environment funding measure, the Federal Ministry of Education and Research is helping to reduce plastic waste, the release of microplastics into the environment and the use of plastic packaging..

The Green & Socially Responsible Digitalisation funding measure administered by the Federal Ministry of Education and Research supports the search for ways in which digitalisation might be harnessed to solve environmental challenges and improve people's lives in social, cultural and economic terms.

As part of its flagship initiative Pathways and Components of a Digital Agenda for Sustainable Consumption, the Federal Ministry for the Environment is working with relevant stakeholder groups to develop practical ideas to help bring about sustainable consumption patterns and lifestyles within society in a time of digital revolution. Examples are improving the sustainability of online shopping, using algorithms and search engines for sus-

tainable purchasing decisions, supporting digital initiatives and developing consumers' digital skills in the interests of sustainable consumption. This work enhances the capacity of sustainable-consumption policy to have a meaningful impact in the digital arena.

Through research projects under the funding guidelines for Consumer Protection in the Service of the UN 2030 Agenda and the Sustainable Development Goals, the Federal Ministry of Justice and Consumer Protection helps makes use of the potential of consumer protection to move society as a whole in the direction of sustainability and to mobilise support for that change.

The German Government supports resource-efficient filmmaking. At the German Federal Film Fund (DFFF), the cultural characteristics test used to determine eligibility for funding takes account of filmmakers' steps to lessen the environmental impact of their productions. In addition, both the DFFF and the German Motion Picture Fund (GMPF), as well as support provided under the Film Subsidies Act (Filmförderungsgesetz), recognise the cost of an environment adviser as a production expense eligible for funding and therefore subsidise it. The same applies in respect of film projects supported as part of the cultural film assistance of the Federal Commissioner for Cultural and Media Affairs. The Film Subsidies Act moreover obliges the German Federal Film Board to take environmental concerns into account in the performance of its duties.

The Federal Government Commissioner for Culture and the Media supports measures to ensure that cultural events are conducted sustainably.

In the commercial sphere, the Federal Ministry for Economic Affairs and Energy funds a series of workshops on returns and surpluses. There is an important role to be played here by digitalisation and artificial intelligence in enhancing the predictability of consumer needs (e.g. clothing in the right sizes) and the management of perishable foods. Other topics include the avoidance of packaging, use of recycled materials and energy saving in the commercial process. The centre of excellence MIttelstand 4.0 – Kompetenzzentrum Handel informs commercial SMEs in particular about the potential and opportunities of digitalisation, including such benefits as saving energy or paper. For more detail (in German), see www.kompetenzzentrumhandel.de. A study by the Federal Ministry for Economic Affairs and Energy also identified areas in which AI can contribute to greater efficiency and more sustainability. They include, for example, energy management and smart logistics for the procurement and delivery of goods. The study can be downloaded free

of charge from the website of the Federal Ministry for Economic Affairs and Energy.

II. Measures by Germany

To implement the Elmau commitments made by the G7 heads of states and government for sustainability in global supply chains (see p. 29 et seq. of the Biarritz Progress Report), Germany is supporting multi-stakeholder alliances, strengthening the OECD system of National Contact Points and promoting the application of labour, social-welfare and environmental standards. The German Government also provides advisory and information events to assist businesses in implementing the OECD-FAO Guidance for Responsible Agricultural Supply Chains. The guidance specifies the OECD Guidelines for Multinational Enterprises with principles on human rights as well as social-welfare and environmental standards specific to the agricultural sector.

Sustainable supply chains and the circular economy are encouraged by means of multi-stakeholder partnerships combining businesses, trade unions, the government and civil society, not least in implementation of the National Bioeconomy Strategy (including the Partnership for Sustainable Textiles, the PREVENT Waste Alliance, the Working Group on Business and Human Rights within the National CSR Forum, the German Initiative on Sustainable Cocoa, the Forum for Sustainable Palm Oil, the Dialogue Forum on Sustainable Protein Feed, and the European Partnership for Responsible Minerals (EPRM), flanked by the EU and national requirements governing biofuels). Germany correspondingly seeks to shape international agreements in such a way as to promote sustainable production patterns.

Germany supports the United Nations One Planet network by, for example, developing global guidance on trustworthy consumer information and engaging with the UNEP International Resource Panel. It also supports the Partnership for Action on Green Economy (PAGE).

Transparency and good governance in the raw materials or extractive sector is being enhanced by means of, for example, German reporting in the context of the Extractive Industry Transparency Initiative (EITI) and the G7 CONNEX Initiative, which offers support to resource-rich developing countries for the conclusion of raw materials contracts.

Through the Export Initiative for Green Technologies, the Federal Ministry for Economic Affairs and Energy nurtures the export of German-made green technology to, primarily, developing and newly industrialised countries.

These technologies contribute to the resolution of environmental problems in those countries.

Germany is pursuing sustainable chemistry as a holistic approach to chemicals management which incorporates ecological, economic and social aspects into the decision-making process behind the production and use of chemicals. To put this approach into practice and continue fostering ties, communication and continuous development within sustainable chemistry, the German Government established the independent International Sustainable Chemistry Collaborative Centre (ISC3) in 2017.

In October 2020, within the framework of Germany's presidency of the Council of the EU, the Trio partners Germany, Portugal and Slovenia produced a joint paper on Consumer Protection in Europe – Lessons Learned from the COVID-19 Pandemic. It proposes guidelines and measures for European consumer policy, particularly in respect of current challenges facing consumer policy with the green transition and digitalisation, paying special attention to the experience gained from the COVID-19 pandemic.

III. Measures with Germany

German development cooperation and the International Climate Initiative of the Federal Ministry for the Environment support partner countries with, for example, the implementation of internationally recognised environmental and social-welfare standards.

Environmental and social-welfare standards are taken into consideration in projects under the German Government's other relevant international funding programmes.

Developing and newly industrialised countries are supported in establishing and expanding circular economic systems.

Support also goes to the Powering Past Coal Alliance (PPCA). Germany joined the PPCA in September 2019, after the Climate Cabinet decided on Germany's phase-out of coal. The aim is to jointly persuade additional states, regions and businesses to declare their intention to phase out coal in accordance with the goals of the Paris Agreement and renounce international financing of coal power.

The production of nitric acid causes emissions of nitrous oxide, also known as laughing gas, which is 265 times as damaging to the environment as carbon dioxide (CO_2). Recognising this, Germany has set up the Nitric Acid Climate Action Group (NACAG) using funds from the International Climate Initiative (ICI) led by the Federal Ministry for the Environment. The objective is to quickly reduce nitrous oxide emissions and bring about a long-term transformation of the sector. All nitric acid facilities around the world are to be equipped with effective technology to prevent nitrous oxide pollution by 2023.

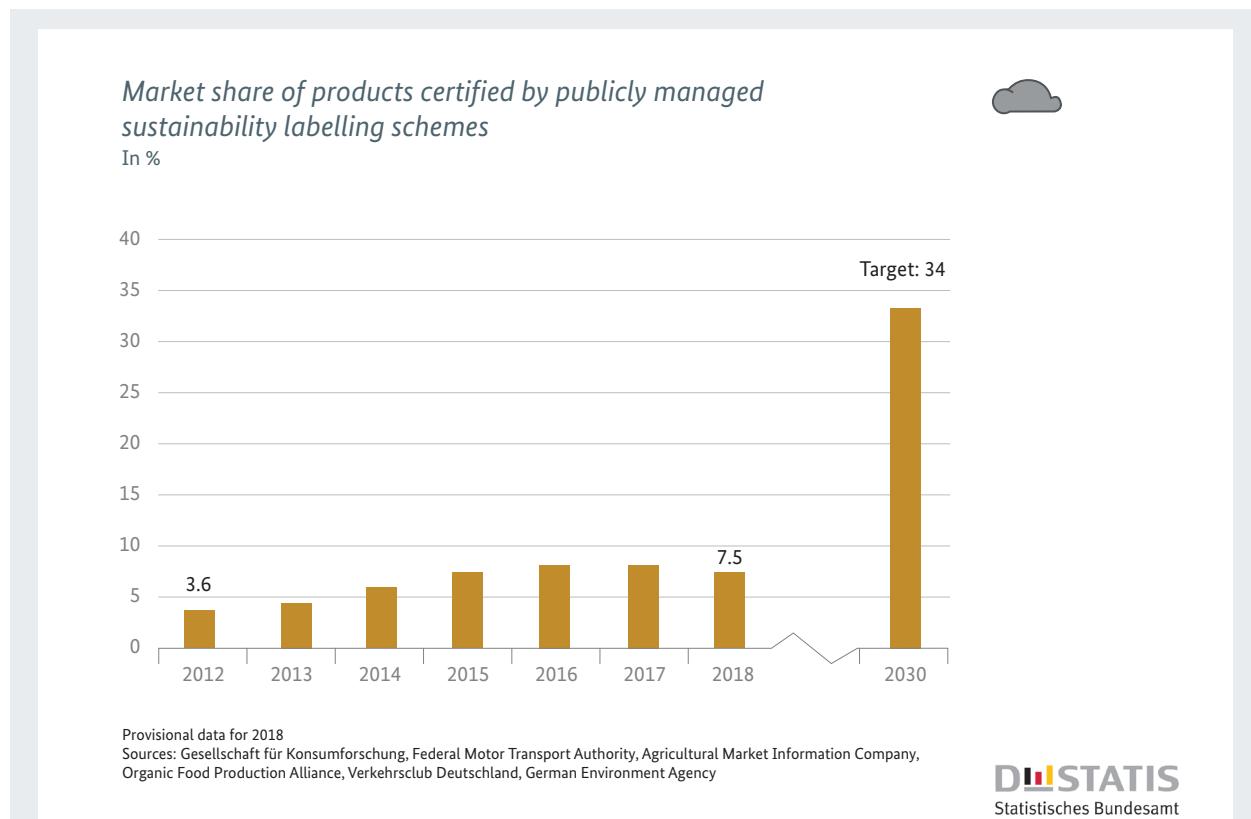
Expertise and technology pertaining to sustainable consumption and production patterns and the establishment of resource-efficient economic structures (e.g. advice on national action plans) are shared with newly industrialised and developing countries.

Germany supports partner countries with such matters as transitioning to a green economy, promoting inclusive business models and investing with a focus on environmental and climate-related concerns (green finance), for example through measures to increase resource efficiency or improve recycling.

b) Relevant national sustainability indicators and targets/measures

12.1.a Market share of products certified by publicly managed ecolabelling schemes

Sustainable consumption – Making consumption environmentally and socially compatible



Definition of the indicator

The indicator measures the market share of products with voluntary or mandatory ecolabels which are awarded according to criteria stipulated by government bodies.

Targets and intention of the German Government

Private households can engage in sustainable consumption both directly and indirectly. Not only do their purchasing decisions influence their own ongoing impact on the environment, as energy-efficient vehicles or insulated homes require less energy to use and lead to lower emissions of greenhouse gases, but consumers can also purchase products that have been manufactured in particularly sustainable ways. The aim of the German Government is therefore to increase the market share of products certified by publicly managed ecolabelling schemes to 34 % by 2030.

Content and development of the indicator

The indicator is calculated on the basis of data from the consumer research institute GfK, the Federal Motor Transport Authority, the agricultural market information firm AMI, the Organic Food Production Alliance, the sustainable-mobility association *Verkehrsclub Deutschland* and the Federal Environment Agency. The latter has been calculating the indicator values for each reporting year since 2012.

The indicator is made up of the market share of products which either bear the highest category of EU energy label within their class or are certified by the EU Ecolabel, the Euro-leaf organic logo or the German Blue Angel. The EU energy label primarily addresses energy consumption and greenhouse gas emissions, while the other three eco-labels also take into account other threats to the environment such as pesticide use and harmful wastewater. The indicator is intended to show whether environmentally friendly product variants are replacing conventional ones

The indicator encompasses consumption in the fields of home life, mobility and nutrition. Household appliances such as refrigerators, washing machines, televisions and vacuum cleaners are assessed, as are light bulbs, food-stuffs, sanitary paper, detergents and cars. Since the markets for the individual product groups are of different sizes, the market shares are weighted according to the total turnover of the market in question. This is intended to prevent the indicator being distorted by products which have high shares of small niche markets. Furthermore, this means expenditure on environmentally friendly products can be considered in relation to the total expenditure of private households.

It is not possible to weight the market shares according to the market relevance of the respective product groups because the environmental labels address different categories (energy consumption, greenhouse gas emissions, material demand) that cannot be balanced against one another. This also makes it impossible to set out the environmental footprint, or comprehensive evaluation taking in several environmental categories, of each product

group. Moreover, the indicator only covers goods newly brought into circulation in relation to the market as a whole. It thereby gives no indication as to whether the enhanced efficiency of an appliance results in a change in consumer behaviour and perhaps to an increase in consumption – the rebound effect. It also describes the market share on the basis of turnover. Given the price differences between products with and without the relevant ecolabels, this means no conclusions can be drawn about their numbers. It follows that a change in the indicator value might have been caused by price alterations within a product group.

Between 2012 and 2018, the market share of products certified by publicly managed ecolabelling schemes increased from 3.6 % to 7.5 %. This is equivalent to a turnover of EUR 23.8 billion in 2018. The indicator value sank in 2017 and 2018 relative to the previous year, which is not the desired direction of travel. Unless the trend is reversed and the market share is considerably increased, Germany will fall short of the 2030 target.

German Government activities relating to the indicator

The consumption of goods and services fulfils a vast range of social and individual functions. It lies at the root of economic growth and prosperity and enables consumers to meet their need for food, a home, mobility, etc. At the same time, however, consumption is responsible for a large proportion of our exploitation of natural resources and the resultant impact on the environment.

Consumption is therefore a field which offers a considerable chance of reducing our burden on the environment, safeguarding biodiversity through sustainable use, conserving natural resources and much more. Most particularly, sustainable consumption has the potential to vastly reduce greenhouse gas emissions. When it comes to promoting sustainable consumption, an important role is played by social aspects such as the observation of human rights and international labour and social-welfare standards in producer countries, transparency and sustainability in global supply and processing chains, and corporate due diligence.

For now, due to a lack of data, indicator 12.1.a covers only independently verified labels and only reflects the environmental dimension. The intention is that the indicator will be expanded in future to include social aspects and additional ambitious and trustworthy labels attesting to environmental and social-welfare standards, if suitable certification schemes are available. In terms of its significance, this indicator is closely tied to the sustainable-consumption

indicator recording energy consumption and CO₂ emissions. In 2017, the product areas which have publicly managed ecolabelling schemes saw 8.3 % of turnover achieved by particularly green products.

Previous measures

In order to strengthen and systematically expand sustainable consumption in various areas, the German Government adopted its National Programme for Sustainable Consumption on 24 February 2016. This programme describes the areas for action that are relevant to sustainable consumption (mobility, food, living and household, work and office, clothing, leisure time and tourism), indicates approaches (e.g. education, consumer information, research) and identifies specific measures. These measures are aimed not only at the general public but at all relevant stakeholders, such as the private sector, civil society, the scientific community, and the state itself in its function as a role model. It is currently a particular priority for the German Government to develop ideas that will help instigate sustainable consumption patterns and lifestyles in a time of digital revolution. In the private sector, for example, these approaches are aimed not only at manufacturers but at traders and service providers as well. Every two years, the environmental awareness study conducted by the Federal Ministry for the Environment provides an insight into people's knowledge of and attitudes to sustainable consumption in Germany.

The German Government uses the following measures to provide information on trustworthy certification and eco-labels to support good purchasing decisions:

1. The consumer-information website siegelklarheit.de offers consumers information on social-welfare and environmental standards. The goal is to expedite the market penetration of ambitious ecolabel schemes and the international implementation of high environmental and social-welfare standards as well as to promote sustainable consumption.
2. The national Bio label established in 2001, which can be used to certify products and foodstuffs that are produced and checked in accordance with the EU regulations for organic farming, is widely recognised and has achieved very good market penetration.
3. Existing trustworthy schemes, like Germany's governmental Blue Angel ecolabel, are continuously expanded to cover additional product groups that are of relevance to consumers.
4. The government-run Green Button scheme has been raising the visibility of sustainably produced textiles in the commercial sphere since September 2019. It is attached directly to the product, making it easier to find – a reliable and consumer-friendly seal of approval. What is special about the Green Button is that the stipulations concerning the textiles themselves are combined with an assessment of the company as a whole. It is not enough to have a few token products; a total of 46 ambitious social and environmental criteria need to be met, covering everything from wastewater thresholds to forced labour. The seal is awarded by the Federal Ministry for Economic Cooperation and Development. The criteria and conditions for the Green Button are set by the state, which generates clarity and trust. Independent verification agencies check that the criteria are fulfilled, and their work is in turn monitored by the German governmental accreditation body, DAkkS, to ensure that the checks are reliable.

Other examples include the Sustainability Compass, an online information platform established at kompass-nachhaltigkeit.de. It offers procurement officers practical support for their implementation efforts, such as additional background information on sustainable procurement and on how to incorporate sustainability criteria in accordance with procurement laws and regulations, including model calls for tenders and a list of providers. The Federal Environment Agency furthermore provides procurement offices with practical guidelines and training materials at www.beschaffung-info.de.

As the German Government's central information and advisory service for sustainable public procurement, the Centre of Excellence for Sustainable Procurement assists public

contracting authorities at the federal, Land and local levels in giving due consideration to sustainability criteria. Since 2012, public procurement officers have had a telephone hotline, email address and an online platform through which to access information and training opportunities offered by the Centre of Excellence for Sustainable Procurement (http://www.nachhaltige-beschaffung.info/DE/Home/home_node.htm).

Energy audits help people incorporate considerations of energy efficiency and renewable energy into their planning and decision-making processes and thereby find the best possible time to exploit potential efficiency gains in their individual circumstances. This can also involve sustainability considerations.

Energy-labelling: The energy label actively influences consumers' purchasing decisions and thereby motivates manufacturers to develop more efficient products. It also creates transparency for consumers, which helps keep competition fair in the European market. Regular reviews and revisions of the legal requirements governing the label, and expansion of the scheme to cover new products, have resulted in a continuous rise in product efficiency in recent years. The German Government remains committed to ambitiously raising the legal requirements, and it unequivocally defends that position in the relevant legislative bodies at the European level. To ensure that the legal requirements are enforced, the German Government keeps the market surveillance authorities responsible informed about current European legislative procedures and projects as well as providing an office to assist them with coordination and reporting.

Planned additional measures

The Federal Government intends to expand its existing information services on sustainable consumption for consumers, companies, associations and organisations. This will include providing consumer information within online shopping so that people can make informed decisions on environmentally friendly products. Knowledge about sustainability is also to be integrated into the education programme for schools and extracurricular education provision. In addition, the publicly managed Blue Angel ecolabel will be further expanded, with even more everyday products included in the portfolio. In view of the growing importance of online shopping, the German Government is currently drawing up Blue Angel procurement criteria for certifying particularly environmentally friendly shipping and delivery services. The expansion will also encompass information technology, e.g. software for smartphones.

The Green Button scheme is to be expanded as well. From mid-2021, revised criteria will enable the governmental eco-label to assess the sustainability of textiles production even more comprehensively.

The planned governmental animal welfare label will be able to promote animal welfare for livestock, not least in pursuit of more sustainable animal husbandry, as a public measure.

The Federal Government Commissioner for Culture and the Media will introduce a certification scheme based on scientific expertise to recognise particularly sustainable film and television production. The certificate is intended to help establish effective and lasting structures to support the environmentally sustainable production of audiovisual content in Germany.

The information on social-welfare and environmental standards provided on the ecolabel information platform siegelklarheit.de is to be expanded to include more product groups.

The Sustainability Compass website is continuously gaining new elements and content.

A web platform called SME Compass is currently being developed to support small and medium-sized businesses in implementing more sustainable supply-chain management.

The Centre of Excellence for Sustainable Procurement will increase its staff and grow further as the German Government's central point of contact and advisory service.

In accordance with the German Government's 2030 Climate Action Programme, the subsidy for energy auditing servicing for residential buildings, with on-site inspections and individual renovation roadmaps, rose from 60% to 80% in February 2020. The corresponding energy auditing programmes for local authorities, SMEs and non-profit organisations also receive subsidies of 80% of the auditing costs.

The following measures are intended to advance the ongoing evolution of the energy label, assist consumers with their product comparisons, improve enforcement and make consumption more sustainable:

- Product studies: As part of a national programme, short-term studies are commissioned to identify additional incentives to expand certification obligations and support the German Government in putting together the relevant strategies.

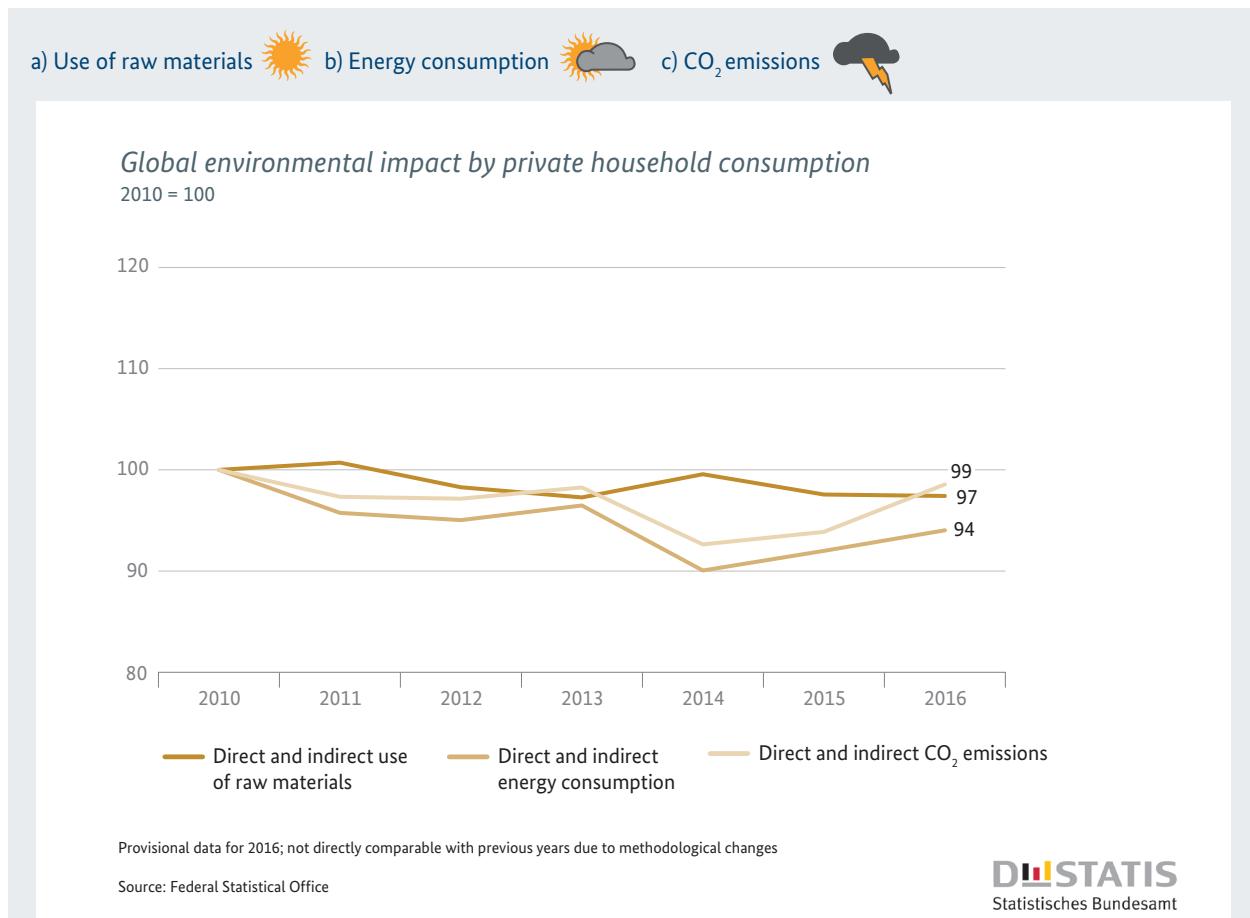
- Information campaign: Starting in March 2021, consumers will find new energy labels in the marketplace. The German Government is conducting an information campaign to familiarise both consumers and traders with the changes. The campaign will raise awareness of the energy label and moreover enhance its effectiveness. Also as part of the information campaign, an app will be developed which will enable consumers to find out about the current distribution of efficiency classes for a

particular product while they are in the shop and thereby effect a more meaningful comparison of the available goods. The app will furthermore serve as a suitable channel for drawing attention to existing government services designed to inform purchasing decisions and support the energy-efficient use of products.

Measures to increase the market share of organically produced goods and foodstuffs: Although the market for organic food has been growing for many years, a further increase in demand is needed to reach the 20% target. Market experts see a significant reserve of potential demand, which has hardly been tapped so far, in the hospitality and catering industry. Promoting the use of organic products in hospitality and catering is therefore a priority within the Strategy for the Future of Organic Farming, though the focus there is chiefly on catering in public institutions and public procurement. The nationwide information campaign launched in early 2020 on organic catering in public institutions and public procurement is intended to reach and raise awareness about organic food among as many federal, Land and local-authority mass-catering facilities, and their decision-makers, as possible. Information materials and events tailored to different target audiences will specifically support those responsible at the political, administrative and practical levels in introducing or expanding the use of organic foods. The aim of the campaign is to raise the share of organic products used in public kitchens to 20% and beyond.

12.1.b Global environmental impact by private household consumption

Sustainable consumption – Making consumption environmentally and socially compatible



Definition of the indicator

The impact caused to the environment around the world by private household consumption is shown here by three indicators. They are domestic and foreign energy consumption, emissions of carbon dioxide (CO₂) and the use of raw materials in connection with the production and use of all goods destined for the consumption of private households in Germany.

Targets and intention of the German Government

Through their spending habits, private households are responsible for a significant proportion of an economy's consumption of resources. That consumption occurs not only within the country in question but also indirectly includes the consumption which is involved in the production of imported goods. The indicator therefore provides information about the impact being done to the environment on a global scale as a result of private

household consumption. Reducing energy consumption, for example, will conserve resources both domestically and abroad and prevent environmentally harmful carbon dioxide emissions. The intention of the German Government is to continuously cut the environmental impact that occurs in connection with private household consumption in all three areas.

Content and development of the indicator

The spending habits of private households affect the environment in various ways. This indicator reflects three of the factors behind this impact, namely energy, CO₂ emissions and the use of raw materials. The relevant data are collated in the environmental economic accounts of a range of governmental and non-governmental sources.

Resources may be consumed by households directly or indirectly. Direct consumption might be the use of gas for heating, fuel for transport or food to eat. Resources

are also tied up or consumed at every stage of the process of manufacturing and transporting consumer goods both within Germany and abroad. All of that counts as indirect consumption by German private households when they buy and use those goods. Both types of consumption are included in the present indicator, the environmental impact represented in terms of energy, raw materials and CO₂.

The use of raw materials, energy consumption and CO₂ emissions are closely interconnected. To use coal, oil and gas – material resources – in power plants and boilers to produce electricity and heat is simultaneously to consume energy. As a rule, the burning of fuels also results in the emission of CO₂.

However, the use of raw materials is not restricted to fuels. This is clear from the time series in the graph: while the data for energy consumption and emissions follow a fluctuating but generally downwards trend, the change in the use of raw materials is less marked. That factor is made up both of abiotic resources, which include other mineral resources like sand and salts as well as fuels, and of renewable resources like the products of farming and forestry. While the use of abiotic resources is steadily shrinking,

In contrast, energy consumption went down by 6 % during the same period. Energy loss incurred during the generation of electricity and district heat for consumption by private households is counted as indirect consumption. Energy consumption can be split according to the different fields in which it occurs, namely home life, transport, food, other products and services. At around 3,402 petajoules in total, home life accounted for the largest proportion, 36 % of private household consumption, in 2016.

A similar trend can be seen in CO₂ emissions. The vast majority of emissions are generated indirectly, during the manufacturing process of consumer goods in Germany and abroad, rather than during the actual consumption of the goods. The total CO₂ emissions caused by private household consumption in 2016 amounted to 667 million tonnes. The ratio of direct to indirect emissions was around 1:2. Between 2010 and 2016, direct CO₂ emissions fell by 6 %, while the emissions footprint of consumer goods fell by 1 %. The last five years, on the other hand, show no reduction but a slight increase in emissions.

This indicator can be usefully cross-referenced with indicator 8.1 on raw material input productivity.

German Government activities relating to the indicator

The consumption of goods and services has an impact not only on people's economic and social situations all over the world, but also on the environment. Private households account for a significant share of overall energy demand and CO₂ emissions. The reduction of CO₂ emissions is crucial for combating climate change. It is therefore important to know how consumption is likely to develop. That analysis should take in the depletion and pollution of the global environment, particularly CO₂ emissions, associated with imported goods.

The indicator data on energy consumption and CO₂ emissions caused by private households is broken down into different areas such as home life, mobility and food. It thereby maps a considerable proportion of the environmental impact and exploitation of resources that result from consumption decisions. The indicator also takes into account the environmental impact and use of resources caused by imports, but not those caused by exports. This is the central feature of the consumption perspective, which attributes environmental impact to the end consumer. Using this perspective gives an indication of the extent to which environmental impact is outsourced from Germany.

These insights are all the more meaningful in conjunction with the indicator showing the market share of products certified by independently verified ecolabel schemes. This is important, as the increasing market shares and higher sales of certified sustainable products can be connected with an overall increase in consumption. On the balance sheet, this increased consumption can result in a greater environmental impact or cancel out the positive effects completely or partially (known as the rebound effect). However, the two sustainable consumption indicators together reflect the development of sustainability in the field of consumption..

Previous measures

In recent years, the German Government has made a considerable effort to raise consumers' awareness of climate issues and to reduce emissions of greenhouse gases by private households. For example, the energy consumption labelling scheme has led not only to significantly more efficient household appliances, but also to a reduction in household electricity consumption. Recognising the rising energy consumption associated with increasing digitalisation, the German Government has provided public and commercial procurement officers as well as consumers with procurement criteria for data centres, servers and software under the publicly managed Blue Angel ecolabel.

On the basis of the EU Energy Labelling Regulation 4. of 4 July 2017, work is under way to rescale the energy efficiency classes for product categories with a significant role in energy consumption, like washing machines, dishwashers and lighting. The energy labelling scheme will in future comprise only classes A to G, which will make it more user-friendly and comprehensible.

The German Government has also supported various reduction measures in the context of the National Climate Initiative run by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, such as the Caritas Germany project offering advice and device swaps for low-income households or the EcoTopTen information website.

For more relating to this topic, see also the measures on energy labelling and energy audits described under indicator 12.1.a and those on tax incentives for energy efficiency retrofitting outlined under indicator 7.1.a/b.

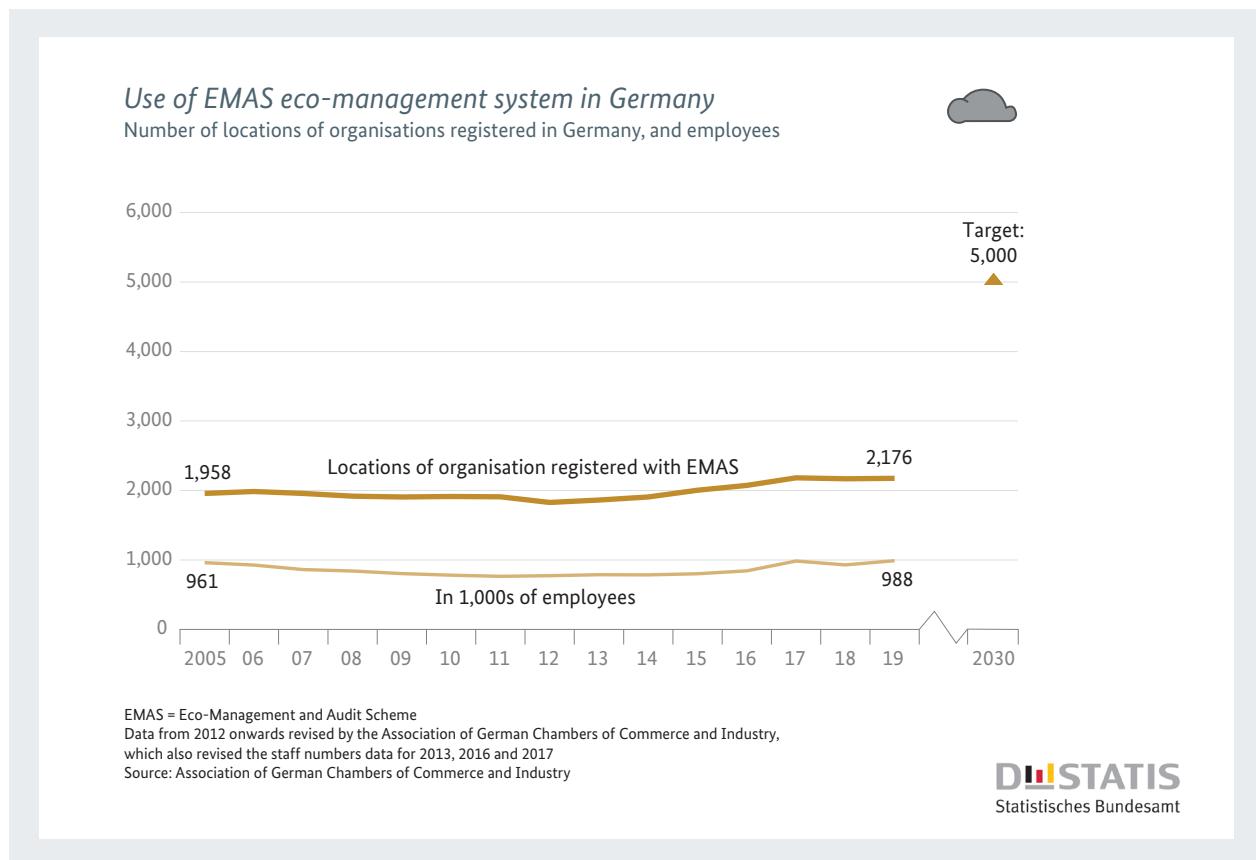
Planned additional measures

In the context of the implementation of the National Programme for Sustainable Consumption, the Federal Government is planning various measures that will make sustainable consumption easier for consumers and provide better orientation, particularly with regard to carbon footprints and energy consumption associated with the production and use of goods and services. The German Government will continue to campaign for an ambitious revision of the Energy Labelling Directive. In addition, it is planning further measures to give greater consideration to external effects, especially in relation to consumer goods. Plans are also being made for publicity campaigns designed to help curb possible rebound effects.

At the same time, the German Government is pushing for resource-intensive digital devices with short life cycles to be covered in the product design provisions of the EU Ecodesign Directive.

12.2 EMAS eco-management

Sustainable production – Steadily increasing the proportion of sustainable production



Definition of the indicator

The indicator shows the number of locations in Germany registered with EMAS, the Eco-Management and Audit Scheme, for German as well as foreign organisations.

Targets and intention of the German Government

Climate change, the energy transition and scarcity of resources are presenting companies with new challenges that are forcing them to reconfigure their business processes, structures and products along environmentally responsible and resource-saving lines. EMAS offers a strategy for organisations to pursue systematic environmental protection, with the ultimate aim of steadily improving their locations' environmental performance. The goal is therefore to identify a total of 5,000 organisation premises for registration with EMAS by 2030.

Content and development of the indicator

EMAS is a voluntary instrument of the European Union that helps organisations of any size and in any sector to continuously improve their environmental performance. Having EMAS certification does not automatically mean that organisations or their products are more environmentally friendly than comparable organisations and products. EMAS involves a reporting obligation requiring organisations to submit environmental statements. These statements include reporting on the main environmental impacts of the organisation in question as well as data pertaining to energy and material efficiency, emissions, water, waste and use of land/biodiversity. Organisations have to update their environmental statements annually, with the exception introduced in 2010 that SMEs can apply to do so every two years instead. The environmental statement, which is public, and various additional internal documents are inspected by independent, licensed environmental verifiers. The verification must be repeated on a regular basis, no less than every three years. Organisations that pass the verification process and have no breaches of environmental regulations or complaints to answer for are added to the EMAS register. The German

EMAS Advisory Board is responsible for quality assurance. EMAS organisations and locations are registered by the responsible chambers of industry and commerce and stored in a publicly accessible database at the Association of German Chambers of Commerce and Industry.

In terms of methodology, it should be noted that the EMAS register shows the number of registrations. Participating organisations are free to include several locations under a single organisation registration (corporate registration) or to have their locations registered individually. Some organisations have had their sites abroad registered in Germany. These are present in the EMAS register, but they are not included in the number of EMAS locations recorded here.

In 2019, there were 2,176 EMAS locations registered in Germany. This equates to an increase of 11 % compared with 2005. Considered over the last five years, the indicator has been gradually moving in the direction of the target. Nevertheless, if that trend continues unchanged, the goal for 2030 will not be achieved.

The registered organisations employed a total of 988,401 people in 2019. This equates to an decline of 2.8 % compared with 2005.

The 2,176 EMAS locations on the register in 2019 belong to 1,150 German organisations and one organisation headquartered abroad. The number of German organisations had shrunk by 22.9 % since 2005. Furthermore, those organisations were very well spread throughout the country. The majority were based in Baden-Württemberg (347) and Bavaria (288), followed by North Rhine-Westphalia (105). In contrast, there were just two registered organisations in Mecklenburg-Western Pomerania. Divided by sector, the distribution in 2019 was as follows: 38.3 % of the German organisations represented the manufacturing industry, 9.4 % miscellaneous services, 8.0 % the education sector and 7.6 % the hospitality industry. It should be noted that some of the organisations belong to more than one sector.

German Government activities relating to the indicator

The purpose of EMAS is to help companies make a voluntary contribution to corporate protection of the environment that extends beyond what is legally required, simultaneously optimising the use of resources, saving costs, and improving their reputations in the general public and among contracting authorities. The scheme furthermore serves to boost employees' motivation and open up new market opportunities and possibilities for innovation. Today, EMAS is a permanent feature and a hallmark of economically efficient, sustainable, environmentally conscious and resilience-focused corporate governance as well as an expression of great corporate responsibility. It thus contributes at the corporate level to the German Government's aim of making Germany one of the most efficient and environmentally friendly economies in the world and promoting sustainable manufacturing methods in Germany and beyond.

EMAS constitutes the most ambitious solution in the area of environmental management systems. EMAS demands that each and every participating company continuously improve its environmental performance and comply with all statutory provisions. The companies' environmental performance is measured on the basis of what are known as core indicators, which include energy, material and resource efficiency, land and water consumption, waste, and emissions. EMAS participants report on these indicators in their environmental statements, which are accessible to the public. The statements are audited by independent environmental verifiers. Various investigations and surveys conducted among the EMAS companies in Germany and throughout the EU confirm that participation in EMAS does reduce the burden on the environment. All EMAS participants are listed in a public register. On 1 October 2020, there were 2,213 locations in Germany registered with EMAS.

Previous measures

The measures initiated by the Federal Government aim to promote the EMAS system and further increase the number of EMAS participants. A toolkit tailored to EMAS is used for this purpose, with a focus on the unique needs of SMEs.

In terms of legislation, EMAS is recognised in the equalisation scheme under the Renewable Energy Sources Act (*Ereneuerbare-Energien-Gesetz*), in the rules governing rebates on electricity and energy tax, and in the Energy Services Act (*Energiedienstleistungsgesetz*). EMAS companies are granted relief, for example, with regard to various reporting obligations, monitoring by regulatory authorities and the deployment of environmental verifiers as authorised experts. The environmental aspects of corporate sustainability reporting are covered by the verified environmental statement. Various Länder grant EMAS companies reductions on certain charges as well as exemptions with regard to other obliga-

tions (a detailed overview of which can be found at www.emas.de).

The European and German EMAS awards are presented alternately every two years. They give businesses an opportunity to showcase their environmental and sustainability performance through the prism of a pre-selected topic. This makes it possible to discern continuous progress that has been made more broadly, not only within that particular area, on environmentally responsible and sustainable corporate governance. A large number of EMAS companies are in the process of gearing their business models towards climate neutrality.

Various federal authorities and federal ministries have introduced EMAS within the framework of pilot projects. A handbook for federal authorities explains the basic steps involved in introducing EMAS and the environmental aspects that are important for federal authorities. Information brochures on EMAS and procurement, EMAS and Germany's Sustainability Code, and EMAS and digitalisation flag up additional ways in which an organisation can improve its sustainability credentials.

The 2017 and 2018 changes to the legal framework explicitly made it an option to embed sustainability considerations more prominently in eco-management systems. Accordingly, the training of state-registered environmental verifiers was extended with effect from 1 January 2020 to include knowledge of sustainable corporate governance within the scope of their respective accreditations. This leaves them in a position to verify not only the environmental statement but also the sustainability reporting that builds on it.

Pilot projects introducing EMAS with the multi-location verification procedure have shown that the monitoring burden can be eased in some sectors, such as the food industry, without adversely affecting the quality of EMAS implementation.

Planned additional measures

The German Government will continue to expand the incentives to adopt eco-management schemes. The key focus is on more tightly interweaving EMAS and other instruments and measures that seek to support sustainable corporate governance and sustainable business practice.

The German Government intends to develop an EMAS component for corporate climate management, with which companies and other organisations can credibly demonstrate their climate neutrality.

The German Government will campaign for EMAS to evolve to include more sustainability management and further enhance its interaction with the Sustainability Code

(Deutscher Nachhaltigkeitskodex) and the European Non-financial Reporting Directive (NFRD). A pilot phase is already under way in which environmental verifiers are able to double-check declarations of conformity made under the Sustainability Code. The German Government will develop an online platform where the EMAS validation and registration process will largely take place digitally. The platform will also offer tools for digital data gathering and reporting. Thus easing the administrative burden and speeding up procedures will create incentives for companies to adopt and adhere to EMAS.

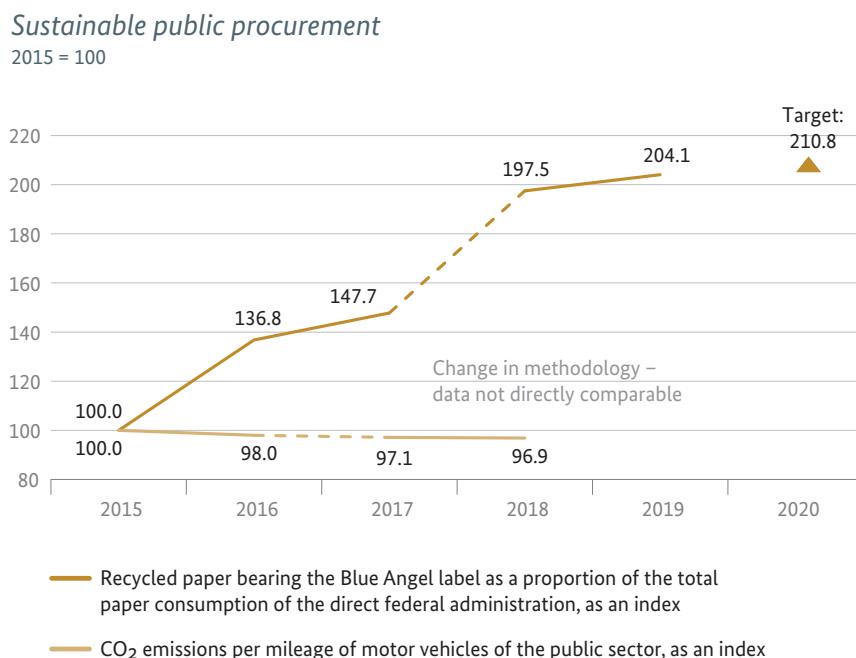
It will remain the aim to adopt EMAS in all federal ministries in accordance with the assessment mandate of the German Government's Programme of Sustainability Measures and Climate Action Programme. This is specified directly in paragraph 3.5.1.1 of the 2030 Climate Action Programme, according to which all the supreme federal authorities, including all the federal ministries, as well as a number of other federal authorities will adopt eco-management systems at 300 locations by 2025.

The annual expert discussions with EMAS organisations on the conferment of EMAS awards will continue.

12.3 a/b Sustainable procurement

Sustainable procurement – Giving shape to the public sector's exemplary role in sustainable procurement

- a) Paper bearing the Blue Angel label as a proportion of the total paper consumption of the direct federal administration
- b) CO₂ emissions of publicly owned vehicles by distance travelled



Provisional data for 2019 recycled and total paper use
Sources: Centre of Excellence for Sustainable Procurement, Institute for Energy and Environmental Research, German Environment Agency, Federal Statistical Office

DISTATIS
Statistisches Bundesamt

Definition of the indicator

These indicators show sustainability in procurement through the examples of paper and the CO₂ emissions of motor vehicles. Each is depicted as an index using 2015 as its base year.

Indicator 12.3.a measures what proportion of total paper procured for the direct federal administration is certified with the Blue Angel ecolabel.

Indicator 12.3.b shows the CO₂ emissions of publicly owned vehicles in relation to the distances they travel.

Indicator 12.3.b shows the CO₂ emissions of publicly owned vehicles in relation to the distances they travel.

Targets and intention of the German Government

Sustainable procurement is a very complex topic. Product-specific indicators are examined here as examples. While the proportion of paper bearing the Blue Angel ecolabel is supposed to reach 95 % of the direct federal administration's total paper use by 2020, the ratio of CO₂ emissions to distance travelled is supposed to continue sinking. The public sector accounts for a considerable share of demand for products and services. It is therefore aimed that establishing sustainable development as a guiding principle of public procurement and reinforcing sustainability criteria within public procurement will serve as a lever to increase provision of sustainable products. The German Government's aim is to strengthen sustainability across public procurement generally.

Content and development of the indicators

Paper with Blue Angel certification as a proportion of the direct federal administration's total paper consumption

The data used to calculate the proportion of Blue Angel-certified paper in the direct federal administration's total paper consumption are collated through the monitoring of the Programme of Sustainability Measures being conducted by the Federal Chancellery and supported by the Centre of Excellence for Sustainable Procurement at the Procurement Office of the Federal Ministry of the Interior. The Blue Angel is an ecolabel for environmentally friendly products and services. When awarded to paper, it means that 100% of the paper fibres were recovered from wastepaper and that no harmful chemicals or bleaching agents were used in the production process.

According to the preliminary data, the proportion of Blue Angel-certified paper rose by around 104 % between 2015 and 2019. In 2015, 45 % of all the paper used by the direct federal administration bore the Blue Angel label; that figure had risen to 92 % by 2019. This equates to an increase of 104.1 % (or an index value of 204.1). The indicator is thus in line with the target set in the Programme of Sustainability Measures to raise the use of paper with the Blue Angel label to 95 % by 2020. Total paper consumption, after rising by 11.5 % to 993.4 million sheets of paper in 2016, shrank again in 2019, according to the (provisional) data, resulting in a 13.6 % reduction in total paper consumption between 2015 and 2019.

When comparing the data over time, it should be noted that there was a change in methodology in 2018 regarding

the definition of paper. Since the 2018 reporting year, only non-coloured A4-sized printer and copier paper has been included in the data. The reduction in total paper use can in part be traced to this methodological change.

More generally, it should be noted that the use of Blue Angel-certified paper has limited relevance in terms of sustainable procurement overall, as paper accounts for a small proportion of the total financial volumes involved in procurement for the public sector.

CO₂ emissions of motor vehicles Of the public sector milage

The data on publicly owned vehicles are provided by the environmental economic accounts compiled by the Federal Statistical Office using the TREMOD (Transport Emissions Estimation Model) database at the Institute for Energy and Environmental Research. The public sector comprises the federal government, the Länder and municipalities, the police, the Federal Border Police and the fire services.

Because of the small number of data points and a methodological change affecting the TREMOD database in 2016, it is not possible to assess the trend. The definitions of vehicles have been modified, which is reflected in the data on vehicle fleets. There have also been alterations in the outcomes for distance travelled, energy consumed and emissions in the environmental economic accounts.

If, instead of looking at publicly owned vehicles, one focuses on vehicles owned by the direct federal administration, average CO₂ emissions amounted to 203.3 grams per kilometre travelled in 2019. There was a methodological change in the statistics of the Federal Environment Agency as well.

The direct federal administration encompasses federal government's own central and subordinate authorities, which are legally dependent. The data on CO₂ emissions per kilometre travelled for vehicles owned by the direct federal administration are provided by Federal Environment Agency.

As for the data on publicly owned vehicles, the direct federal administration figures count all passenger vehicles weighing up to 3.5 tonnes but not light commercial vehicles within that class. Between 2015 and 2017, the proportion of vehicles newly acquired for the direct federal administration that produced emissions lower than 50 grams per kilometre rose from 2.6 % to 4.1 % of all newly purchased vehicles. That share fell back to 3.3 % in 2018. The provisional data show it falling further in 2019, to 2.4 %.

The indicator under consideration here relates only to the environmental aspect of sustainability. Moreover, it only covers the CO₂ emissions released during the vehicles' operation. Looking at their entire life-cycle costs, there are more greenhouse-gas emissions, occurring during the processes of manufacturing and waste dis-

posal, which would have to be taken into account for a conclusive indicator. In addition, the sustainability of electric vehicles depends on whether the electricity powering them comes from conventional or renewable sources.

German Government activities relating to the indicator

Public procurement can play a significant role in boosting sustainable development. Giving procurement a deliberate focus on both quality and quantity, not least by consistently applying environmental and also social-welfare criteria, creates a lot of potential for steering the direction of travel towards greater sustainability. Examples of this include the Federal Climate Change Act, the Circular Economy Act, rules for the federal administration such as the General Administrative Regulation on the Procurement of Energy-efficient Products and Services, and German Government programmes like the 2030 Climate Action Programme, the Programme of Sustainability Measures, the National Action Plan on Business and Human Rights and the German Resource Efficiency Programme.

With regard to the federal administration's role in leading by example, the German Government can work through its ministries to see sustainable public procurement implemented comprehensively by the authorities and institutions within each ministerial portfolio.

The German Government's current Programme of Sustainability Measures of 30 March 2015 identifies specific measures by which to achieve this, particularly in areas where action is urgently needed.

The latest monitoring report on that programme, issued in 2019, highlights the significance and the binding nature of the targets and requirements it contains and points out where they are not being met. Such deficiencies are also brought to light through interministerial experience-sharing, particularly in pursuit of the planned revision of the Programme of Sustainability Measures and its uniform implementation.

Previous measures

The Federal Climate Change Act entered into force at the end of 2019, bringing with it, in section 13, provisions on public procurement. As of now, the requirement to take climate change into consideration is in force. What this means is that the federal authorities assess how they can use procurement as another way to pursue the climate targets. Similar provisions are contained in section 45 of the bill amending the

Circular Economy Act. They include a conditional obligation to favour products that protect resources, which replaces the previous requirement simply to consider that possibility.

The General Administrative Regulation on the Procurement of Energy-efficient Products and Services makes it mandatory to take energy efficiency into consideration, primarily through the rule about the highest available energy-efficiency rating and the consideration of life-cycle costs. As early as the needs-analysis stage, procurement offices have to assess whether a product or service actually needs to be procured and whether buying second-hand, renting or leasing might be the more environmentally friendly option.

Several institutions large and small are helping to make sustainable public procurement a reality on behalf of the German Government.

To offer practical assistance with sustainable public procurement to the estimated 30,000-odd public contracting authorities, as defined in the Competition Act (Gesetz gegen Wettbewerbsbeschränkungen), the German Government decided in 2010 to set up the Centre of Excellence for Sustainable Procurement. With its remit to support procurement offices, the Centre of Excellence can help strengthen sustainable procurement. As the central gateway for sustainable procurement by public contracting authorities, it provides training, holds workshops, answers questions about sustainable procurement over the phone or by email, and offers consultation services. It also supplies a wide range of information on the topic through its website (www.nachhaltige-beschaffung.info) and maintains a diverse network of valuable contacts, making use of the expertise of, for example, the Federal Environment Agency in the performance of its duties.

On its sustainable procurement website (www.beschaffung-info.de), the Federal Environment Agency provides public contracting authorities with explainers, guidelines, practical aids and other information tailored to the tendering process, including training materials. The information is often based on the Blue Angel criteria and the incorporation of those criteria into the public procurement process.

The Agency for Renewable Resources also assists public contracting authorities with information on sustainable procurement. Its focus is on substituting resources with

renewable alternatives and thereby fostering resource efficiency. The agency maintains a website on sustainable procurement, where it provides information on how renewable resources can be incorporated, including a database of potentially suitable products.

Over and above all this, the staff of the aforementioned organisations share ideas and experience of sustainable procurement with the staff of other federal authorities, Land representations and institutions of local government within the framework of the Alliance for Sustainable Procurement. The networking and dialogue this facilitates serve to enhance sustainable procurement at all levels.

On the German Government's e-awarding and ordering platform, Kaufhaus des Bundes, the four central procurement offices of the Federal Ministry of Finance, the Federal Ministry of the Interior, the Federal Ministry for Economic Affairs and Energy, and the Federal Ministry of Defence are collating framework contracts for numerous products and services. The intention is to align all framework contracts with the SDGs.

Next to the above-named institutions are others which have connections to sustainable procurement alongside their main endeavours, such as the National Quality Centre for Nutrition in Daycare Centres and Schools, the National Climate Initiative and the National Organisation for Hydrogen and Fuel Cell Technology.

Planned additional measures

In accordance with measure 3.5.1.6 of the 2030 Climate Action Programme, the German Government has pledged to assess the possibility of adopting a set of administrative regulations on climate-friendly public procurement. It will also present a new Programme of Sustainability Measures and revise the measures pertaining to public procurement in light of the new legislation and other recent developments.

The Centre of Excellence for Sustainable Procurement will expand its provision by offering e-learning modules and adding webinars to enhance its digital information-sharing efforts.

13. Take urgent action to combat climate change and its impacts

a) Main substance and political priorities in the view of the German Government

Climate change and its consequences are among the greatest global challenges of the 21st century. SDG 13 follows from a critical ecological threshold which it is a vital task to avoid exceeding – one of the most vital tasks for the survival of human life as we know it. Changes in the climate are already evident in Germany today. The average air temperature in Germany has risen by more than 1.6°C since the pre-industrial era. A temperature rise of 0.3°C was measured between 2015 and 2018. The consequences in many different fields are unmistakable. Swift and ambitious action to reduce climate-altering emissions and to adapt to the consequences of climate change is indispensable for sustainable global development and international cooperation. However, to make Germany resilient to the effects of climate change and meet the ambitious climate targets, we also need to strengthen the local and regional levels.

On greenhouse gas emissions, the Paris Agreement sets out the target of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit that rise to 1.5°C.

According to findings issued by the Intergovernmental Panel on Climate Change (IPCC) in 2018, the current climate action plans being followed by states under the Paris Agreement make it likely that global average temperature will increase by 3°C by the end of the 21st century and continue rising thereafter. The IPCC calculates that such a rise would mean a very high risk of abrupt, irreversible changes in the climate and considerably reduce the potential for humans and ecosystems to adapt to climate change.

In its Special Report published in 2018, the IPCC also demonstrated that the risks to nature and humanity increase more sharply between 1.5°C and 2°C than previously thought. Even warming in excess of 1.5°C may result in irreversible losses and/or the passing of tipping points. Should global warming continue at the current rate, the IPCC predicts, it is probable that the rise in temperature will already go beyond the 1.5°C mark between 2030 and 2050.

At the same time, the IPCC explains that it is possible to limit the increase in temperature to 1.5°C above pre-industrial levels if sufficiently swift and effective action is taken now to achieve global carbon neutrality by 2050. Delaying climate action would result in a significantly greater need for measures to remove CO₂ from the atmosphere (known as carbon dioxide removal, or CDR) in order to keep global warming below the threshold. Possible CDR measures might

involve natural carbon sinks or other technologies designed to achieve negative emissions. Natural carbon sinks are chiefly forests, marine ecosystems and underground carbon storage. More research is needed, however, into whether they can store carbon long term on a large scale.



The main technological options for obtaining negative CO₂ emissions that are currently under discussion are DACCS and BECCS. DACCS stands for direct air carbon capture and storage and involves capturing CO₂ from the atmosphere before sequestering it. The process uses a lot of energy, and the technology is not yet available on a large scale. In the long term, at least, DACCS could become marketable.

BECCS stands for bio-energy carbon capture and storage and refers to the use of biomass as an energy source in combination with CO₂ storage. While the IPCC does consider BECCS a realistic option, critics fear that the large-scale use of biomass from agriculture and forestry for energy would bring its own threats to the environment and generate considerable competition for edible produce (food versus fuel).

Neither technology is yet available, at least on an industrial scale, and both raise more questions, some of a legal nature, which need to be clarified by means of further research. Using them would also call into question the achievement of the SDGs, because of the significant intervention into ecological processes and changes in land use they would entail. The risks and public-approval issues of technological carbon storage also need to be taken into consideration. Emissions should therefore be kept as low as possible, and ambitious action should be taken to cut them, so as to minimise the need to CO₂ removal.

The IPCC continues to emphasise that the current adaptation measures are insufficient in view of the expected climate change. The consequences of climate change – such as increases in temperature, rising sea levels, weather extremes, ocean acidification, the extinction of species, regional water scarcity and an increasing risk of erosion – can aggravate social and economic inequality and lead to social conflicts, migration, poverty and hunger. These factors would impair sustainable development.

The international target set by the UN's Paris Agreement on climate change adopted at the end of 2015 is to hold the increase in the global temperature to well below 2°C above pre-industrial levels and pursue efforts to limit that rise to 1.5°C. States are also to increase their ability to adapt to the adverse impacts of climate change. Another aim of the Paris Agreement is to make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

The IPCC Special Reports on the Ocean and Cryosphere in a Changing Climate (SROCC) and on Climate Change and Land (SPCCL) of 2019 underline the urgent need for action to address the effects of climate change and ambitious efforts to protect the climate. Climate change is progressing more quickly than was documented in previous reports.

The international Paris Agreement on climate change (2015)

In the Paris Agreement, a global and binding instrument, the international community agreed to keep global warming well below 2°C above pre-industrial levels and endeavour to limit the increase in temperature to 1.5°C. The peak of global emissions is to be marked as soon as possible, followed by rapid reductions in emissions until greenhouse gas neutrality is reached – that is, until as much gas is being captured as is released – in the second half of the century. Next to the reduction of greenhouse gas emissions, an equally important goal is to strengthen our ability to adapt to climate change.

The Agreement commits each of its parties to formulate and communicate a nationally determined contribution (NDC) to the global response to climate change and take steps to put it into practice. It also establishes a five-year cycle for parties to resubmit their NDCs, with each new submission required to be at least as ambitious as the ones before, representing a progression over time. The decisions of COP25, the 2019 climate conference in Madrid, reaffirmed the requirement to be progressively more ambitious and emphasised the urgency of action going into 2020. More than 100 states on that occasion declared their intention to pursue more ambitious climate targets in 2020. The European Council had previously invited the Commission to submit a proposal on updating the EU's NDC in 2020. In view of the COVID-19 crisis, the COP26 climate conference has been postponed until 1–12 November 2021. Notwithstanding the date of the conference, Germany and

the EU were called upon under the Paris Climate Agreement to submit more ambitious climate targets by the end of 2020.

It was also decided in Paris that the NDCs would be reviewed every five years to establish whether they would be enough to hold the temperature increase below the agreed threshold. To support developing countries in implementing their NDCs and adapting to climate change, the industrialised countries pledged to mobilise international climate finance of USD 100 billion annually from public and private sources starting in 2020. Newly industrialised countries are invited to make additional contri-

butions to climate finance. As decided in the Addendum to the Paris Agreement, a new annual target for climate finance, amounting to not less than USD 100 billion, is to be set for the years after 2025.

European targets

In recognition of the goals of the Paris Agreement, the EU is pursuing the long-term goal of achieving greenhouse gas neutrality by 2050. The European Council endorsed that goal in December 2019, and the European Parliament has supported it since March 2019. The Commission has proposed a European Climate Law to enshrine the goal in legislation and is to set a trajectory for achieving climate neutrality with due consideration to cost-effectiveness, economic efficiency and various other factors (see Article 3 (3) COM/2020/80 final). In its conclusions of 24 October 2014, the European Council also adopted a framework for the EU's climate and energy policy until 2030, which it updated in 2018.

At the European Council of 10–11 December 2020, the EU heads of states and government raised the EU's climate target for 2030, following the guidance given by the Commission proposal on 17 September 2020. The European Council thereby approved the new binding EU target of internally reducing net greenhouse gas emissions by at least 55 % compared with 1990 levels by 2030.

The targets for 2030 are therefore as follows:

- Reduce EU-internal greenhouse gas emissions by at least 55 % compared with 1990*
- Expand renewable energy to at least 32 % of final energy consumption*
- Increase energy efficiency by 32.5 %*

National targets

The Federal Climate Change Act, which came into force in December 2019, provides for greenhouse gas emissions to be reduced incrementally relative to 1990 levels, adding up to a reduction of at least 55 % by the 2030 target year. Permissible annual emission quantities (in millions of tonnes of CO₂ equivalents) have also been set for six sectors – energy, industry, buildings, transport, farming, and waste management and miscellaneous – for the 2020–2030 period. In its Climate Action Programme, the German Government sets out what measures will be taken in the land use, land-use change and forestry (LULUCF) sector by 2030 in order to keep it a net carbon sink. The Federal Climate Change

Act moreover enshrines the goal of greenhouse gas neutrality by 2050. The German Government also set itself the target in that Act to make the federal administration greenhouse gas neutral by 2030.

With regard to climate finance, the German Government set itself the target of raising the amount of international climate finance provided from public funds (including grant elements of development loans) to EUR 4 billion by 2020, double the target value for 2014.

In Germany as elsewhere, it is increasingly important to adapt to climate change in order to mitigate the damage and risks it entails. In adopting the German Strategy for Adaptation to Climate Change, the German Government has established a framework for tackling the challenges of climate change. The aim of the German Government's policy is to reduce Germany's susceptibility to the effects of climate change and increase the country's capacity to adapt to it, thereby ensuring that existing objectives in all policy areas remain as feasible as possible even under the conditions caused by a changing climate. This endeavour will require close cooperation at all levels of politics.

The associated targets in detail

SDG 13 essentially envisages strengthening resilience and adaptive capacity to climate-related hazards (13.1), integrating climate change measures into national policies (13.2) and improving human and institutional capacities on climate-change mitigation and adaptation (13.3). At national level, these goals are reflected in the German Strategy for Adaptation to Climate Change (DAS).

What is sought at the international level is fulfilment of the developed countries' commitment in the Addendum to the Paris Agreement to jointly mobilise USD 100 billion from all sources each year from 2020 to 2025 to address the needs of developing countries (target 13.a) and the promotion of mechanisms to raise capacity for planning and management in least developed countries and small island developing states (target 13.b). At COP26, due to be held in Glasgow from 1 to 12 November 2021, negotiations will begin on the new climate finance target for the years after 2025.

Germany's international role

Germany shares its own positive experience – such as that of its energy transition – with other countries, and it is one of the largest contributors to international climate finance. Via bilateral and multilateral programmes and funds, finance goes to projects designed to cut greenhouse gas emissions, advance adaptation to climate change, or protect forests and biodiversity. Going forward, it is important to

continue specifically championing structural elements of the global climate architecture (implementation of NDCs, transparency of mitigation efforts, the ambition mechanism, increasing financial support for developing countries), fostering the climate resilience of partner countries and supporting necessary processes of transformation. The parties in Paris also committed themselves to agreeing a general rulebook by 2020 to guide the implementation of the Paris Agreement. The majority of the rules were agreed at the Katowice climate conference in 2018, which means that implementation of the Agreement is already a reality. The last remaining details on transparent reporting for the implementation and review of the Paris Agreement are now to be settled at COP26, the Glasgow climate conference originally planned for 2020 but postponed until 2021 due to the COVID-19 pandemic.

Alongside the implementation rulebook, it is important for the countries of the world to set themselves ambitious climate targets and thereby globally start down the road that will enable us to limit global warming to as near 1.5 % as possible. As important partners among the major emitters and the industrialised countries, Germany and the EU need to campaign for all countries to update their nationally determined contributions (NDCs) in the 2020 ambitions cycle and submit long-term strategies for low-emission development which are in line with the climate targets agreed in Paris.

They also need to assist partner countries in creating robust processes and institutions to support climate-resilient development.

National challenges: Successfully implementing climate policy

The guiding principle and yardstick of the German Government's climate policy is the Paris Agreement on climate change.

Swift and ambitious action is called for to prevent the worst consequences of climate change and the dwindling of adaptation options. Achieving greenhouse gas neutrality by 2050 and the climate target agreed in the Paris Agreement will require far-reaching social and economic changes. The Federal Climate Change Act, the 2030 Climate Action Programme and the Climate Action Plan 2050 serve as guide rails for the transformation process required to reach our national climate targets.

The more the climate changes, the greater the potential for damage to nature, society and the economy. Extreme weather events in particular, such as heat, heavy rain, strong winds and river flooding, can cause damage to buildings and infrastructure and even cost people their lives or livelihoods. In the German Strategy for Adaptation to Cli-

mate Change of 2008, the German Government assessed the risks of climate change, identified action required, formulated the corresponding targets and developed possible measures for maintaining or increasing the adaptive capacity of natural, social and economic systems. The overarching objective of the strategy is to flag up and mitigate Germany's vulnerabilities with regard to the effects of climate change. To that end, it outlines policy options for 15 areas for action.

Thanks to its energy transition, Germany is frequently held up as an example in the international arena when it comes to the necessary transformation of energy systems to effectively protect the climate. Successful climate policy that is geared towards achieving the long-term goals will need to encompass not only the energy sector but all areas for action, such as transport, agriculture, buildings, industry, waste management and miscellaneous, and LULUCF. As research and innovation are of great importance to climate policy that is efficient, based on science and not bound to particular technologies, the German Government is also intensifying its support for research into the climate as well as mitigation of and adaptation to climate change.

German Government activities

I. Measures in Germany

When it comes to climate action, the German Government relies on a broad toolkit consisting of legal provisions, economic instruments and support programmes – in the areas of renewable energies and energy efficiency, for example – as well as information provision and consulting. With a view to achieving the German climate target for 2030, the 2030 Climate Action Programme and the Federal Climate Change Act were adopted in October 2019. The former contains measures for all sectors that play a role in greenhouse gas emissions (e.g. energy, buildings, transport, industry, waste/circular economy and agriculture).

The 2030 Climate Action Programme also includes the German Government's plans for significant investment in research and innovation. A comprehensive package of R&D measures takes account of the whole spectrum of research needs across all fields within the programme. In addition, the interdisciplinary Science Platform for Climate Action has been set up to provide scientific support for the implementation of the Climate Action Plan 2050. This panel of specialists will provide expert opinions and assessments to support the German Government in regularly checking whether its current pathway will be sufficient to achieve its goals and where corrections or course adjustments may be required.

The implementation of the 2030 Climate Action Programme is supported by a coalition for action comprising representatives of business and civil society. The progress made on the measures within the programme is recorded annually in the German Government's Climate Action Report. With the passing of the Fuel Emissions Trading Act (Brennstoffemissionshandelsgesetz), the German Government has also introduced carbon pricing in the heating and transport sectors. The Act stipulates that anyone putting fuel on the market will need to participate in an emissions trading scheme as of 2021. In addition, the Bundestag and Bundesrat adopted the Coal Phase-out Act (Kohleausstiegsgesetz) on 3 July 2020. It entered into force on 1 August 2020 and sets out how coal-fired power generation will be reduced in stages and ended by 2038 at the latest.

Intending to be climate neutral by 2030, the federal administration wishes to lead by example on reducing greenhouse gas emissions. The Federal Ministry for the Environment and the Federal Ministry for Economic Cooperation and Development are already climate neutral. The Federal Ministry of Transport and Digital Infrastructure has ordered its executive agencies to (1) adopt eco-management systems in line with EMAS/LUMASPlus and (2) purchase low-pollution official cars, preferably electric vehicles. The Federal Government Commissioner for Culture and the Media is also pursuing the adoption of an eco-management system in line with EMAS that includes certification, and she calls on the recipients of her grants to do likewise. The Federal Cultural Foundation and the cultural-events agency Kulturstiftungen des Bundes in Berlin GmbH already have EMAS certification.

In the interests of implementing the terms of the Paris Agreement, helping to limit the increase in global temperature and its consequences, and consistently taking the necessary action to deal with the effects of climate change, the German Government adopted the Second Progress Report on its Strategy for Adaptation to Climate Change in October 2020. The report contains an action plan comprising more than 180 measures for various policy areas, such as transport, construction, coastal protection, healthcare, research and international cooperation. Alongside the latest findings and outcomes of the adaptation-strategy process, the 2020 Progress Report also identifies the future priorities of that process. The work of the Strategy for Adaptation to Climate Change is led by the Federal Ministry for the Environment and co-ordinated by the interministerial working group on adaptation to climate change.

The implementation status of the measures is reviewed in order to assess the progress that has been made on adapting to climate change in Germany. The dangers associated with climate change are ascertained and made transparent on a regular basis. The latest monitoring report, published in 2019, uses over 100 indicators to describe the effects of climate change that can already be observed and engages in additional analysis to identify the future priorities of Germany's adaptation policy. The most important finding in the report is that climate change has already arrived in Germany with far-reaching consequences for the environment, society and human health, and that pressure to act is therefore growing in all areas, including adaptation. Most particularly, the statistics show that annual average air temperature in Germany, averaged across the country, rose by 1.5°C between 1881 and 2018. Cross-referenced with the 2015 monitoring report, that demonstrates a temperature increase of 0.3°C in just five years.

The vulnerability analysis produced in 2015 provides a comprehensive and nationwide study into the weak points in Germany's resilience to climate change. It forms the basis of prevention measures by the German Government and serves to take the German Strategy for Adaptation to Climate Change a step further. The vulnerability analysis is currently being conducted afresh by the vulnerability network, which has grown to comprise 28 higher federal authorities. The new analysis is intended for publication in 2021.

The aim of the support programme for measures to adapt to the effects of climate change is to assist regional and local stakeholders, educational institutions and SMEs which are working to advance innovative adaptation strategies and sustainable pilot schemes. Around 300 individual projects have been approved since the beginning of the support programme, receiving a total of EUR 40.2 million in funding. The number of project outlines submitted in the 2020 funding window was again higher than the previous year's, rising from 150 in 2019 to almost 190.

A revised version of the support programme is to come into effect by mid-2021. The Federal Government particularly intends to review how it can most effectively support the necessary sustainable adaptation to the effects of climate change without impinging on the remits of the Länder and local government. The National Climate Initiative run by the Federal Ministry for the Environment to promote broad climate action in Germany and the support programme run as part of the Strategy for Adaptation to Climate Change will be continued and amended if necessary to fit changing needs.

Through its research and innovation policy, especially through sustainability research, the German Government is improving the knowledge base which informs decisions about mitigating and adapting to climate change. That work is guided by three objectives: (i) recognise threats to the environment ahead of time and take appropriate steps, (ii) manage transformation processes by providing a well-founded knowledge base for decision-makers and adaptable instruments and (iii) assume global responsibility through international cooperation.

II. Measures by Germany

Within the EU, United Nations climate negotiations, the G7 and informal forums, the German Government campaigns for ambitious international climate policy and appropriate targets for reducing greenhouse gas emissions in order to accelerate the necessary transition towards decarbonising the global economy and increasing resilience to the consequences of climate change on an international scale. Notable achievements in this context include the following:

The pledge to raise the amount of international climate finance provided from public funds to EUR 4 billion by 2020, double the target value for 2014, has been fulfilled.

Germany makes an additional contribution to international climate finance through the instruments with which KfW and DEG leverage capital-market funding and private investment is mobilised

The German Government is supporting research on climate change and thereby aiding the work of the Intergovernmental Panel on Climate Change (IPCC), which provides essential scientific foundations for decisions regarding climate policy.

III. Measures with Germany

The German Government has supported developing and newly industrialised countries via the International Climate Initiative (ICI) of the Federal Ministry for the Environment since 2008. More than 700 ICI projects have been commissioned in the intervening years, with a total of EUR 3.9 billion allocated so far, all of them contributing in partner countries to the creation of political, technological, economic and financial-market conditions conducive to sustainable economic systems.

In July 2020, the German Government also announced a COVID-19 response package worth an initial total of EUR 68 million arranged via the ICI. It is intended to help partner countries cushion the direct impacts of the pan-

demic and also link the restarting of the economy and social stabilisation with action on climate and biodiversity. Assistance includes first aid for nature conservation areas and biodiversity hotspots, as well as economic advisors in many ICI partner countries.

In addition, the German Government is one of the initiators and contributors of the NAMA Facility, which receives ICI funding. Through the NAMA Facility, funds go to projects explicitly promoting CO₂-reduction activities within a particular sector and which combine technical and financial cooperation. The funding commitments for the six previous calls for projects come to more than EUR 460 million. In addition to Germany, the contributors include the UK, Denmark, Switzerland and the European Commission. An additional funding round run by the NAMA Facility in 2020, with money from the ICI (EUR 100 million), the UK (EUR 68 million) and a private foundation (EUR 5 million), explicitly takes up the topic of green recovery. Through its German Climate Technology Initiative, the German Government has invested in transformative and innovative solutions in more than 30 partner countries since 2014. The focus is on important emerging economies like Brazil, Mexico, Morocco, Tunisia, India, Indonesia and Vietnam.

The InsuResilience Global Partnership was set up in 2017 by the German Government in collaboration with G20 and V20 partners. Its objective is to strengthen the resilience to extreme weather events of the poorest and most vulnerable groups in developing countries. InsuResilience has become the central global initiative for developing climate and disaster risk finance and insurance, with more than 90 members so far representing industrialised and developing countries, civil society, the private sector, development banks and the research community. The Federal Ministry for Economic Cooperation and Development has to date provided around EUR 550 million to support various risk finance and insurance solutions in the context of the InsuResilience Global Partnership.

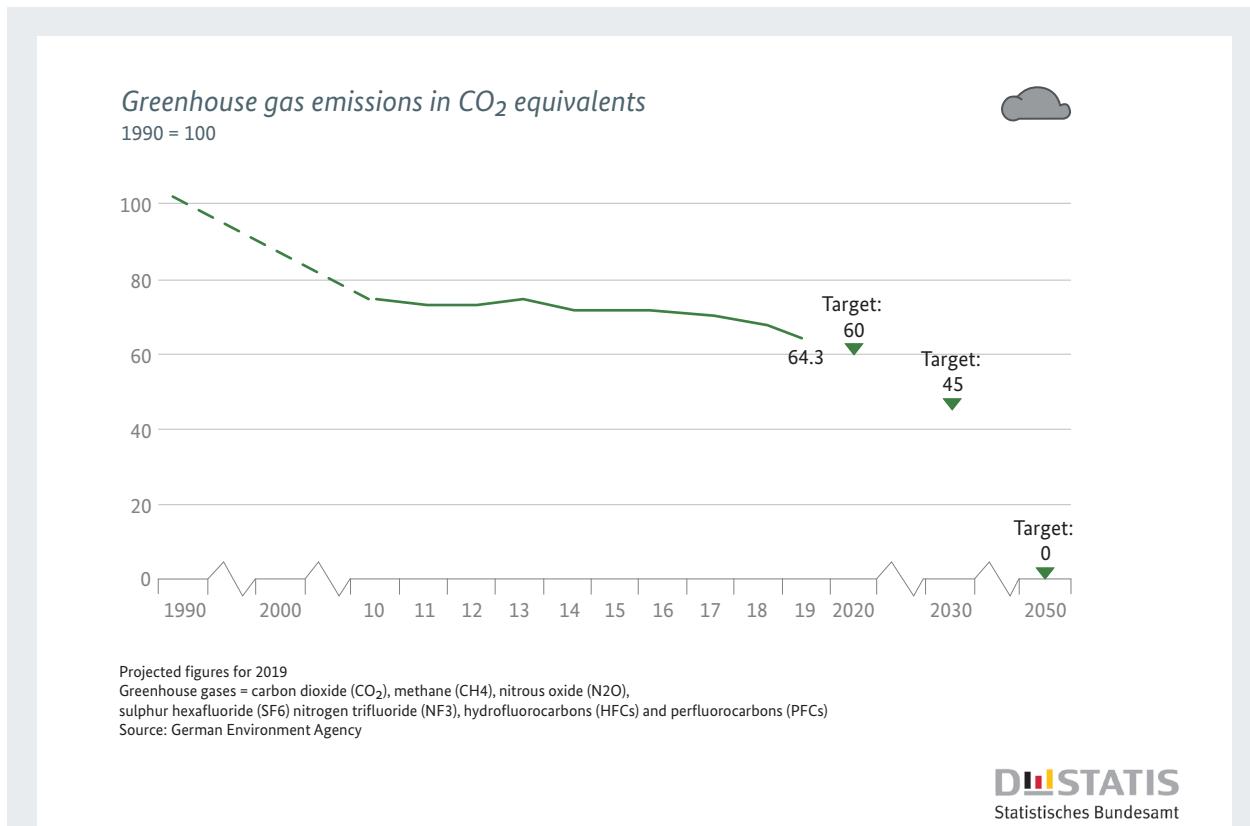
With the aim of simultaneously supporting development and climate action, the Federal Ministry for Economic Cooperation and Development set up the Development and Climate Alliance in November 2018. The initiative honours voluntary, non-governmental efforts to protect the climate. Its supporters are working towards future climate neutrality by simultaneously avoiding, reducing and offsetting emissions. Carbon offsetting is achieved by financing projects in developing and newly industrialised countries which promote climate action alongside economic and technological progress as well as improving living standards for local people. More than 500 partners – businesses, authorities and civil-society organisations – have already joined.

The German Government is also increasingly focusing its development cooperation in climate-relevant sectors on realisation of the nationally determined contributions, or NDCs. In the NDCs, the parties to the Paris Agreement set out their mitigation and adaptation goals up until 2030. To expedite the effective realisation of NDCs around the world and promote ever more ambition in efforts to mitigate and adapt to climate change, the Federal Ministry for the Environment and the Federal Ministry for Economic Cooperation and Development joined Morocco and a number of other industrialised and developing countries as well as multilateral institutions to found a global partnership for the realisation of the NDCs – the NDC Partnership – in 2016. In a system which requires them to update their contributions every five years, the partnership assists developing and newly industrialised countries in drawing up and realising ambitious NDCs.

b) Relevant national sustainability indicators and targets/measures

13.1.a Greenhouse gas emissions

Climate protection – Reducing greenhouse gases



Definition of the indicator

The indicator shows emissions of the following greenhouse gases (substances or substance groups) in CO₂ equivalents: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), nitrogen trifluoride (NF₃), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

Targets and intention of the German Government

The global average temperature on the surface of the Earth is continuously rising due to the increasing concentration of carbon dioxide and other greenhouse gases in the atmosphere, which is already having a detectable impact on the climate system today. The German Government therefore aims to lower greenhouse gas emissions in Germany by at least 40 % compared with 1990 by 2020 and by at least 55 % by 2030. The intention is to achieve greenhouse gas neutrality by 2050.

Content and development of the indicator

So that the various greenhouse gases can be collated into a single index, they are each expressed in CO₂ equivalents, which means that their mass is converted into the amount of CO₂ that would have an equivalent effect on global warming. However, this cumulative reporting obscures the development of each greenhouse gas on its own, as a negative trend in one can be balanced out by the positive trend in another.

The data are provided annually by the Federal Environment Agency as part of the reporting required under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The measuring and reporting of emissions is subject to a comprehensive quality-management regime.

The emissions are calculated in accordance with the territoriality or production principle.

The largest emitters of greenhouse gases and air pollutants within Germany were therefore identified, and the quantity of their emissions under certain circumstances was investigated. A specific emissions factor derived from those findings was then multiplied by the emitter's activity data to arrive at the overall quantity of emissions. It should be noted that, in accordance with the Kyoto Protocol, the indicator does not show carbon dioxide emissions arising from land use, land-use change and forestry (LULUCF). Maritime shipping and international aviation are also excluded from the calculation. Looking at developments between 2015 and 2019, it is clear that the indicator has not progressed in a stable manner. In 2015 and 2016, greenhouse-gas emissions rose slightly, by 0.3 and 0.2 percentage points respectively. Since 2017, however, they have sunk noticeably, by 1.2 percentage points

in 2017 and 2.9 percentage points in 2018. Over the long term, the projected figures for 2019 from the Federal Environment Agency show a total reduction of 35.7% compared with 1990. If the trend seen over the last five reporting years continues, the target for 2020 – a reduction of 40 % compared with 1990 – is unlikely to be reached.

By far the greatest share of total greenhouse-gas emissions in 2019 was carbon dioxide, at 87.7%, compared with 84.1% in 1990. Most recently, methane accounted for 6.2 % of the total, with nitrous oxide on 4.3 %, HFCs on 1.3 % and sulphur hexafluoride on 0.5% (the latter two being figures for 2017). By far the largest proportion of CO₂ emissions arise from the generation of electricity and heat. Methane and nitrous oxide are emitted primarily by agricultural production.

German Government activities relating to the indicator

The indicator is based upon the scientific finding that there is a direct connection between the increase in global warming and the concentration of greenhouse gas emissions in the atmosphere. Reducing greenhouse gas emissions is therefore crucial to combating climate change.

The German Government has based its national climate targets on the 2015 Paris Agreement on climate change, which stipulates that the increase in the global temperature is to be held to well below 2°C above pre-industrial levels and efforts are to be pursued to limit that rise to 1.5°C. Germany therefore seeks to be climate neutral by 2050. This indicator is an important criterion for measuring the success of the German Government's climate policy.

Previous measures

When it comes to climate action, the German Government relies on a broad toolkit consisting of legal provisions, economic instruments and support programmes as well as information provision and consulting. With a view to achieving the German climate target for 2030, the 2030 Climate Action Programme and the Climate Change Act were adopted in October 2019. The former contains measures for all sectors that play a role in greenhouse gas emissions – energy, buildings, transport, industry, waste/circular economy and LULUCF – as well as cross-sectoral measures. In addition, a comprehensive package of research and development measures takes account of the whole spectrum of research needs across all fields within the programme. The implementation of the programme is supported by a coalition for action comprising representatives of business and civil society. The progress made on the measures within the

2030 Climate Action Programme is recorded annually in the German Government's Climate Action Report. The Climate Cabinet set up in March 2019 will continue to meet.

The Climate Change Act sets out for the first time how much CO₂ each sector is permitted to emit a year – which the exception of the LULUCF sector, which is intended to remain a net carbon sink. The federal ministries have an obligation to ensure that the annual emissions ceilings for each sector are not exceeded.

In the Fuel Emissions Trading Act, the German Government has also introduced carbon pricing in the heating and transport sectors. As of 1 January 2021, companies bringing fossil fuels onto the market must buy emission rights in the form of permits. This is intended to reduce consumption of such fuels and help channel demand towards climate-friendly technologies and products. The right to emit one tonne of CO₂ currently costs EUR 25. That fee for harmful emissions will rise incrementally, reaching EUR 55 per tonne of CO₂ in 2025. The emissions trading system will operate using fixed prices for the first five years. For 2026, a price corridor of EUR 55 minimum and EUR 65 maximum per emissions permit will apply. Within that bracket, the price will be determined on the basis of market demand. This will create a reliable pricing trajectory which will enable consumers and businesses to ready themselves and take the trend into account in future purchasing and investment decisions. The revenue will be passed on to consumers and businesses: in addition to support programmes and measures within climate policy for the benefit of particularly badly affected households, the fees for emissions permits will be used to cut the surcharge mandated by the Renewable Energy Sources Act and thereby reduce electricity prices.

The Coal Phase-out Act has been adopted to reduce coal-powered electricity generation in stages until it is completely phased out by 2038 at the latest. The recommendations of the Commission on Growth, Structural Change and Employment are essentially being implemented. The first power plant was scheduled to go offline as early as 2020. A total of eight power plants will be switched off by the end of 2022. Moreover, the climate gains of Germany's coal phase-out will not be undone by increasing emissions elsewhere in the EU. The German Government will make sure of this by removing the freed-up emissions permits from the market. As the commission recommended, the German Government is supporting the regions affected by the phase-out of coal through structural change.

The interdisciplinary Science Platform for Climate Action additionally established by the German Government will provide scientific input for the ongoing development and possible expansion of Germany's long-term climate strategy (currently set out in the Climate Action Plan 2050) as well as the climate action programme in its current and future iterations. This independent panel of specialists will provide expert opinions and assessments on climate-related topics to support the German Government in regularly checking whether its current trajectory will be sufficient to achieve its goals and where corrections or course adjustments may be required. The German Government also supports a large number of climate action projects, for example via the National and International Climate Initiatives of the Federal Ministry for the Environment.

It is also investing in wide-ranging research into the climate system and climate change as well as research and development in the field of climate-friendly technologies. At the European level, too, Germany champions climate action. It is involved in the EU Emissions Trading System, the central European instrument for protecting the climate.

Planned additional measures

The agreed measures are now being implemented. Starting in 2020, in accordance with the Climate Change Act, the Federal Environment Agency annually collates the exact emissions data for each sector, which are then published in March of the following year. Progress is monitored by an independent Council of Experts. The Council of Experts on Climate Change examines the annual emissions data from the Federal Environment Agency and presents its assessment to the German Government and the Bundestag.

If a sector is not meeting its legally prescribed targets, the German Government moves to correct this without delay. The ministry responsible must present an immediate-action programme within three months. Before the German Government decides on the corrective action to be taken, the Council of Experts assesses the assumptions behind it.

On the basis of that assessment, the German Government decides what action it will take to continue reducing emissions within the sectors and consequently getting closer to its climate target.

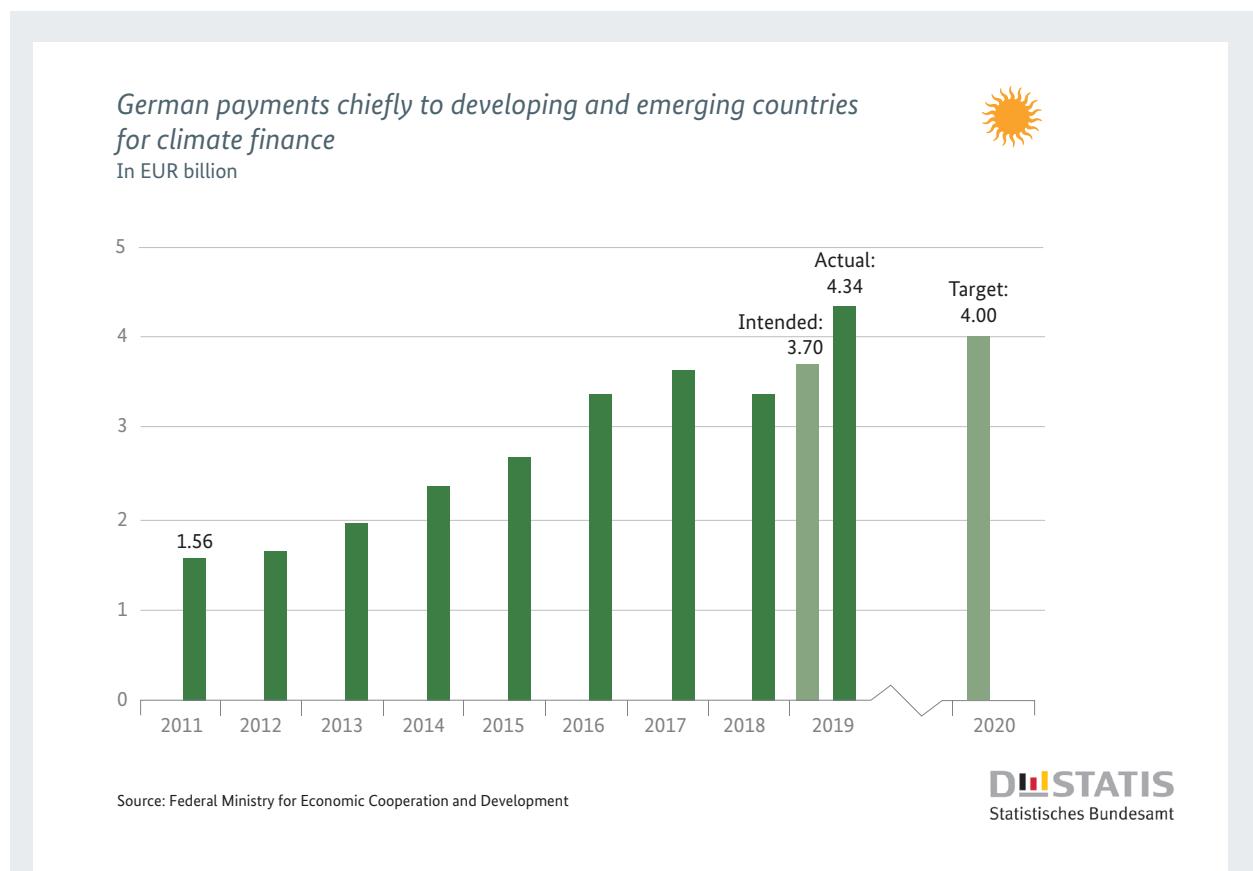
The carbon price is also successively raised in line with the price trajectory described above. By 2038 at the latest, coal-fuelled power generation will have ended. To create a level playing field and good prospects for climate-friendly investment across Europe, the German Government advocates adopting an overarching pan-European emissions trading scheme for all sectors. As a first step, the existing EU Emissions Trading System (ETS), which covers the energy and industrial sectors, should be supplemented by a moderate European minimum-pricing scheme. Minimum pricing will ensure that the price of emissions permits no longer falls arbitrarily, even when demand is low, which will create planning certainty for climate-friendly investment within the ETS sectors.

Under the 2030 Climate Action Programme, an important role in reducing greenhouse gas emissions is to be played by e mobility. The lithium-ion batteries currently required for electric vehicles have their own carbon footprint. Challenges lie, for example, in the energy intensity involved and the need for sustainably extracted and processed raw materials. These factors are pivotal to how well e mobility can contribute to climate action in the transport sector and to the achievement of the SDGs. Battery cells are moreover a key technology for a large number of other applications relevant to the SDGs, such as the storage of energy from renewable sources on the electricity grid.

The German Government's aim is to establish sustainable and innovative battery cell manufacturing in Germany and support the R&D activities this will require. This assistance is part of an overarching European project. The aim of this initiative is to create a European network of value chains for batteries in collaboration with other European countries.

13.1.b International climate finance for the reduction of greenhouse gases and adaptation to climate change

Climate protection – Contribution to international climate finance



Definition of the indicator

This indicator covers the financing of measures to reduce greenhouse gases, adapt to climate change and/or take climate-related action to preserve biodiversity and protect forests (specifically, projects for the conservation and sustainable management of forests as well as reforestation within the REDD+ framework). The measures chiefly take place in developing and emerging countries and are financed using German budgetary funds (including grant elements of development loans).

Targets and intention of the German Government

The German Government's aim is to raise its contribution to international climate finance to EUR 4 billion from public funds and grant elements of development loans by 2020, thereby doubling the target value for 2014, which was EUR 2 billion. In the decisions contained in the Addendum to the Paris Agreement, the industrialised countries reaffirmed their 2009 commitment to collectively provide USD 100 billion from public funds and

from private sources mobilised by public funds, every year from 2020 to 2025, for work to mitigate and adapt to climate change in developing countries.

Content and development of the indicator

The data for this indicator are derived from reporting carried out under the EU Regulation on a mechanism for monitoring greenhouse gas emissions. The source of the annually collected data is the Federal Ministry for Economic Cooperation and Development, which also reports in this context on climate finance from other federal ministries. In the case of bilateral climate finance, expenditure is calculated on the basis of funds allocated; in the case of multilateral climate finance and contributions to energy and climate funds, it is calculated on the basis of funds actually paid. The indicator also includes climate finance that is attributed to donors pro rata on the basis of their contributions to multilateral funds managed by development banks. As climate finance primarily benefits developing countries, it is considered to be part of official development expenditure (see indicator 17.1).

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In 2019, Germany committed or provided EUR 4.34 billion in public funds for international climate finance for the reduction of greenhouse gases and adaptation to climate change. Compared with the previous year, when climate finance amounted to EUR 3.37 billion, this represents an increase of 29%. The target for 2020 – to reach EUR 4 billion – was thus met a year early. In 2019, 44% of climate finance went to fund projects to reduce emissions, while 25% went towards adaptation to climate change. The remaining 31% was used to finance horizontal measures. As the horizontal measures serve both the reduction and adaptation efforts, the final split in 2019, as in previous years, shows more funds being used for emissions reduction (59%) than for adaptation (41%).

14% of climate finance, or EUR 588 million, was provided through multilateral channels in 2019. EUR 248 mil-

lion of that can be attributed to Germany on the basis of the climate-related shares of Germany's contributions to multilateral development banks, the Global Environment Facility and the International Fund for Agricultural Development. Germany provides the remaining EUR 340 million through multilateral institutions and contributions to international climate funds.

In addition to official climate finance from public funds, Kreditanstalt für Wiederaufbau (KfW) and DEG (Deutsche Investitions- und Entwicklungsgesellschaft) also provide climate-related loans with funds from the market. These represent mobilised public climate finance and are not included in the indicator. In 2019, the resources mobilised in this way amounted to approximately EUR 2.47 billion, compared with EUR 3.25 billion the previous year. Here too, more funding went towards emissions reduction (86%) than adaptation (14%).

German Government activities relating to the indicator

Previous measures

The United Nations Framework Convention on Climate Change (UNFCCC) commits the industrialised countries to provide support in the form of funding, capacity building and technology development to help developing countries implement measures for reducing emissions and adapting to climate change. At the Copenhagen Climate Change Conference in 2009, the industrialised countries pledged to support developing and newly industrialised countries with USD 100 billion in climate finance a year from public and private sources starting in 2020. At the 2015 Climate Change Conference in Paris, this commitment to long-term financing was reaffirmed and carried forward until 2025. At the 26th UNFCCC Conference of the Parties (COP26) in Glasgow, negotiations will begin on a new climate finance target taking the USD 100 billion in the Addendum to the Paris Agreement as a baseline. Germany's contributions nurture confidence building in our relations with developing countries, support them in realising their national determined contributions and thereby contribute towards the swift implementation of the Paris Agreement. In this regard, Germany campaigns for climate targets to be incorporated into national development strategies and for SDGs and climate targets to be combined in pursuit of sustainable development in our partner countries.

Germany is an important partner in international development cooperation and one of the main donors for inter-

national climate action. Alongside bilateral cooperation, Germany is among the largest contributors to multilateral climate funds. These include the Green Climate Fund (GCF), to which Germany has pledged EUR 2.25 million to date, as well as the Global Environment Facility (GEF), the Climate Investment Funds (CIFs) and the Adaptation Fund.

The resources provided for the reduction of greenhouse gases and for adaptation to climate change have mostly increased over recent years. At the Petersberg Climate Dialogue in May 2015, Federal Chancellor Angela Merkel announced that Germany intended to raise the annual amount of international climate finance provided from public funds (including grant elements of development loans) to EUR 4 billion by 2020, double the figure for 2014. The German Government achieved that target a year early in 2019.

In total, Germany provided around EUR 7.58 billion for international climate finance in 2019. Almost a third of that, some EUR 2.47 billion, was made available by KfW and DEG in the form of development and support loans, equity investment and other forms of finance from capital market funds. Private capital amounting to EUR 770 million was mobilised over and above this via, for example, structured funds. The remaining EUR 34 billion, i.e. the bulk of climate finance provided, came from German public funds.

The purpose of climate finance is to achieve direct and indirect effects through the measures it funds. Direct effects are attained, for example, by supporting investment in renew-

able energy. Indirect effects are achieved when technical advice enables the partner country to bring about change in relation to a reference case by means of public and private investment. These effects are not entirely foreseeable. Any estimate given when a project is approved is a forecast; at that point, there is no evidence of the project's success or actual impact. With these provisos, provisional quantitative estimates can be made as to its likely impact. Thanks to the new financial-cooperation commitments made by the Federal Ministry for Economic Cooperation and Development in 2019, approximately 6.7 million tonnes of CO₂ emissions a year will be prevented and around 103.2 million people will be directly or indirectly assisted in dealing with the effects of climate change. The technical-cooperation projects approved by the Federal Ministry for Economic Cooperation and Development in 2019 will serve to prevent 381,397 tonnes of greenhouse gas emissions directly and 29.2 million tonnes indirectly as well as helping some 5.9 million people deal with the effects of climate change. Over the whole life cycles of the projects which the Federal Ministry for the Environment approved as part of its International Climate Initiative in 2019, policy advice, capacity building and the development and application of new instruments will serve to reduce greenhouse gas emissions directly by

an estimated 42.4 million tonnes and indirectly by another 48.9 million tonnes (technical and financial cooperation combined). Those projects are expected to directly support 975,000 people in their adaptation efforts or their work to preserve ecosystems.

Planned additional measures

Implementing industrialised countries' international commitments will require a further increase in spending on international climate finance. In particular, there needs to be a rise in the proportion of international climate finance funded from private sources.

Germany will continue to pay its fair share into international climate finance and keep up its involvement in the areas of finance outlined above. In this context, it is also important to agree on an ambitious post-2025 climate finance target.

14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

a) Main substance and political priorities in the view of the German Government

The oceans of the world cover more than 70 % of our planet's surface and are hugely important to its ecological equilibrium. Thanks to their biodiversity and the resources they harbour, they serve as a source of energy and nutrition for a considerable proportion of the human population and play a vital role in food security. The fact that they absorb greenhouse gases from the atmosphere means they help regulate the climate and lower temperatures.

These ecological services that the oceans provide have to be safeguarded. The critical loads that the marine environment can bear, e.g. in terms of ocean acidification, must not be exceeded.

Given the social, economic and ecological functions of the oceans, the challenge for international climate and environment policy is to conserve them as a global public good and use them in a sustainable manner.

All over the world, coastal areas are centres of settlement and economic activity, subject to the pressures of heavy use. Key factors in the sustainable development of coasts and oceans are forms of utilisation adapted to the peculiarities of those environments, precautionary coastal protection strategies, and effective protection by means of, for example, special area designations to compensate for the increased demands of exploitation. The principal challenge, not least in view of SDG 1, is to manage natural resources sustainably and with due consideration to the ecosystem approach and the precautionary principle. Saltwater fish are the most important source of animal protein in the world. What we need includes fishing quotas which are in line with scientific recommendations and capped at the maximum sustainable yield (MSY). These need to be flanked by regular checks and effective areas for retreat and replenishment. An ecologically representative and effectively managed protected area network (German Advisory Council on Global Change, WBGU 2013: at least 20–30 % of the area of marine ecosystems as a planetary guideline) is also needed. This applies to coastal areas and to areas in the exclusive economic zone and the high seas, i.e. outside national jurisdictions. Since autumn 2019, the German Government has been championing an ambitious SDG target 14.5, namely to establish marine protected areas covering at least 30 % of the surface of the world's oceans by 2030.

The German Government's policy is guided by the vision that future generations will still find ecologically intact and functional coasts and oceans whose resources they will be able to use indefinitely.



Conserving the oceans' natural resources is in the interests not only of the environment and the economy but also of social welfare and society as a whole. Correspondingly, the programme of measures Germany declared to the European Commission in 2016 under Article 13 of the Marine Strategy Framework Directive does take account of the economic dimension.

In its entirety, SDG 14 outlines a sustainable future for the biosphere of marine and coastal waters which is within reach given the technological and social tools at our disposal today. It focuses on conserving the ecological foundations of the oceans while also bringing global partnership and the pursuit of prosperity into line with what the oceans can bear. It addresses the implementation process as well as the economic and social components of environmental measures. The aim is to make it possible for all people on the planet to enjoy a good life while respecting the systemic parameters. Questions of causation and fairness are not left unexamined.

SDG 14 and its associated targets

As part of the global water cycle, the oceans are particularly vulnerable to external influences like plastic waste, pollution from farming, industry and transport, and the pressures of overfishing and climate change.

Around the world, the oceans are subject to heavy use. That is why the targets under SDG 14 include significantly reducing marine pollution from debris and nutrient run-off by 2025. Targets 14.1 and 14.3 address marine pollution, eutrophication (target year 2025) and acidification, while targets 14.2 and 14.5 focus on the sustainable management and effective protection of marine and coastal ecosystems (target year 2020 for both). The aim of targets 14.4 and 14.6 is to end overfishing, illegal, unreported and unregulated (IUU) fishing, and destructive fishing practices, e.g. by eliminating harmful subsidies (target year 2020). Target 14.7 calls for an increase in the economic benefits to developing countries from the sustainable use of marine resources. Other aspects include the transfer of marine technology (target 14.a), access for small-scale artisanal fishers to marine resources and markets (target 14.b) and the implementation of the United Nations Convention on the Law of the Sea (target 14.c).

German Government activities

1. Measures in Germany

As responsibility for the various kinds of sea-related human activity is spread across different sectors, measures to protect the marine environment fall under the remits of several federal ministries as well as that of the Länder. The need for a comprehensive and integrated overview is addressed by jointly implementing the EU Marine Strategy Framework Directive and, under that instrument, developing national programmes of measures in pursuit of a healthy marine environment (see below).

1. Regulations for the reduction of nutrient input

Inputs of nutrients into inland waters and seas via the ground are supposed to be reduced by the Fertiliser Application Ordinance (*Düngeverordnung*) revised in 2017 and amended again in 2020, among other instruments. Checks are therefore needed to assess whether this measure will help achieve the objectives of current EU law, specifically the Water Framework Directive and the Marine Strategy Framework Directive. It may be necessary for the Länder to undertake further measures to reduce inputs of nutrients into bodies of water, from run-off and from other sources.

2. Agri-environmental and climate measures, organic farming

Agri-environmental and climate measures also make important contributions to reducing the amount of nutrient inputs into the oceans, as does the promotion of organic farming. Because of the latter's positive environmental impact, the German Government has set itself the target in its Strategy for the Future of Organic Farming, as part of its Sustainable Development Strategy, to expand the proportion of land dedicated to organic farming to 20 % of all the agricultural land in Germany by 2030. The strategy is intended to inject new impetus for growth into the organic food and agriculture sector.

3. The protected area network

The German Government established bird sanctuaries in the German exclusive economic zone (EEZ) as part of the European network of protected areas, NATURA 2000, back in 2005. Eight areas within the EEZ of the North and Baltic Seas have been protected in accordance with the Habitats Directive and the Birds Directive since 2004. In 2017, in implementation of the Habitats Directive, the protected areas were brought under national protection as nature reserves. They supplement the existing protect-

ed areas that the Länder have designated on shore and in coastal waters. The German Government will work to ensure the effective protection of the protected areas in the EEZ in compliance with EU and regional international law (OSPAR, HELCOM). The site management plans for the North Sea were published in 2020. They include measures to ensure the effective protection of designated areas in the North Sea EEZ. The site management plans for the Baltic Sea EEZ were drawn up in 2020. The German Government furthermore champions effective measures to manage fishing in the EEZ protected areas in the North and Baltic Seas in line with the procedure set out in the Regulation on the Common Fisheries Policy. An effective system of protected areas also serves to make the oceans more resilient in the face of the effects of climate change. The seas serve as a natural buffer in many ways, and healthy seas are better placed to maintain that function.

4. Improvement of agricultural structures and coastal protection

With improvement of the agrarian structure and of coastal preservation specified as a joint task in Article 91a of Germany's Basic Law, the German Government provides a majority of the funds for coastal protection measures that are implemented by the Länder, by means of regular framework plans and a special framework plan for the consequences of climate change. In future, the German Government will do more to ensure that the measures undertaken are consistent with sustainable coastal development.

5. National Marine Strategy/national programme of measures as per EU MSFD

Under the EU Marine Strategy Framework Directive (MSFD), a good environmental status was supposed to be achieved in the seas of Europe by 2020. National programmes of measures were developed and implemented to that end, building on the ecosystem approach and embodying an integrated cross-sectoral protection strategy to facilitate the sustainable use of the seas today and by future generations. At the end of 2020, none of the EU member states with reporting obligations had achieved good environmental status on schedule, as attested to by the assessment which the European Commission carried out in accordance with Article 20 MSFD. The German Government and the Länder together are working for more effective implementation for the national environmental targets for marine conservation, particular through a national MSFD programme of measures to be updated and agreed in 2021 by the Federal Government and the coastal Länder.

6. National ICZM strategy

In view of the increasingly heavy use of Germany's coastal areas, Integrated Coastal Zone Management (ICZM) is intended to help preserve and sustainably develop coastal and marine areas as ecologically intact and economically prosperous habitats. To that end, Germany adopted the ICZM strategy in 2006 and an implementation report in 2011. The German Government will examine, with reference where appropriate to the implementation of the MSFD, whether the strategy should be updated, particularly with a view to maintaining the vital processes of coastal and marine ecosystems which underpin the coast as a habitat as well as an area of economic activity.

7. German oceanographic museum in Stralsund

Supported by the Federal Government Commissioner for Culture and the Media, MEERESMUSEUM, the German oceanographic museum in Stralsund, has the nationally mandated task of exhibiting and researching not only the flora and fauna of the seas and the ways they are used in science and the economy but also the anthropogenic threats jeopardising them in a national and international context. Through its exhibitions, it shares scientific findings about the marine environment, its diversity and the threats it faces with around 850,000 visitors a year.

II. Measures by Germany

1. Prevention of marine litter

In the fight against marine litter, the German Government places its main focus on avoiding waste and preventing deposits of debris. Germany is campaigning intensively at a regional level in the context of the OSPAR and HELCOM Conventions for the protection of the marine environment (Regional Action Plans on Marine Litter) and made marine litter one of the topics of its G7 and G20 presidencies in 2015 and 2017. The two Regional Action Plans on Marine Litter which have been adopted describe specific political and technical goals along with timelines and lead implementing parties. Through a funding programme, Germany is supporting projects in countries on the banks of the ten rivers which cause 90% of the world's river-borne plastic waste in the oceans. The aim is to fund waste avoidance and management.

The Federal Ministry for Economic Cooperation and Development is further expanding its development cooperation with partner countries in, for example, Southeast Asia and the Caribbean on reducing marine litter.

2. Partnership on Regional Ocean Governance

With the support of the Partnership on Regional Ocean Governance (PROG) initiated in 2015 by the UN Environment Programme (UNEP), the Potsdam Institute for Advanced Sustainability Studies (IASS) and the Institute for Sustainable Development and International Relations (IDDRI), Germany is also contributing to the removal of structural obstacles that stand in the way of integrated marine resource management.

3. Implementing agreement on the UN Convention on the Law of the Sea

In the ongoing UN negotiations, the German Government is advocating that an implementing agreement for the UN Convention on the Law of the Sea be agreed to create the necessary conditions for effective protection of marine biodiversity in the high seas, beyond the boundaries of national sovereignty. Such an agreement is required to establish and effectively implement internationally recognised protected areas in the high seas.

4. WTO agreement to prohibit harmful fishing subsidies

The German Government supports the European Commission in its efforts for a swift and successful outcome to the WTO negotiations on an agreement to eliminate fisheries subsidies which contribute to illegal, unreported and unregulated (IUU) fishing or to overcapacity and overfishing (SDG target 14.6).

5. Marine protected areas in the Arctic and Antarctic

The German Government supports the establishment of protected areas in the Arctic and Antarctic. That is why it drew up an EU proposal for the Weddell Sea in the Southern Ocean of Antarctica, which has been discussed several times at the annual meetings of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) over the last few years. Regrettably, because the CCAMLR operates on the principle of unanimity, the proposal has not yet met with the approval of all the contracting parties to the CAMLR Convention.

In the context of OSPAR, the Oslo-Paris Convention for the Protection of the Marine Environment of the North-East Atlantic, the German Government is campaigning intensively for the designation of an OSPAR high seas marine protected area in that part of the High Arctic which is covered by the convention.

6. Sustainable fisheries

In the context of the EU Common Fisheries Policy (CFP), the German Government continues to advocate that all fish stocks used as fishery resources be harvested in such a way that their populations remain above the level which gives the maximum sustainable yield. Moreover, the negative effects of fishing on marine ecosystems are to be reduced to a minimum, and illegal discards stopped by avoiding and as far as possible reducing unwanted by-catch in implementation of the landing obligation. For some fish stocks, the 2020 target of managing the population to provide the maximum sustainable yield will not have been met. It therefore remains a priority to implement a sustainable EU CFP. That will mean looking at the entire marine ecosystem as an integrated whole, with all its species and habitats, not just the commercially exploited resources.

III. Measures with Germany

1. Protection and sustainable use of coastal and marine areas

The German Government helps ensure that additional coastal and marine areas in development cooperation partner countries are designated for conservation, effectively, fairly and sustainably managed, and financially secure. To name but one of its instruments, marine projects worth more than EUR 140 million have been implemented in partner countries through the International Climate Initiative of the Federal Ministry for the Environment. The Federal Ministry for Economic Cooperation and Development is committed to the protection as well as the sustainable and fair use of coastal and marine resources, the fight against marine pollution and support for coastal communities' efforts to adapt to climate change. With the Blue Action Fund that Ministry has built up, the German Government is contributing, together with Sweden and France, to the expansion and consolidation of marine protected areas, which currently comprise almost 200,000 km.

The German oceanographic museum in Stralsund, supported by the Federal Government Commissioner for Culture and the Media, offers multi-day courses for representatives of affected island states in which it passes on the knowledge gained from the operation of its aquariums, specifically on regenerating coral reefs. Small-scale replanting projects have already been undertaken on the reefs of seven islands within this context.

2. Sustainable fisheries in partner countries

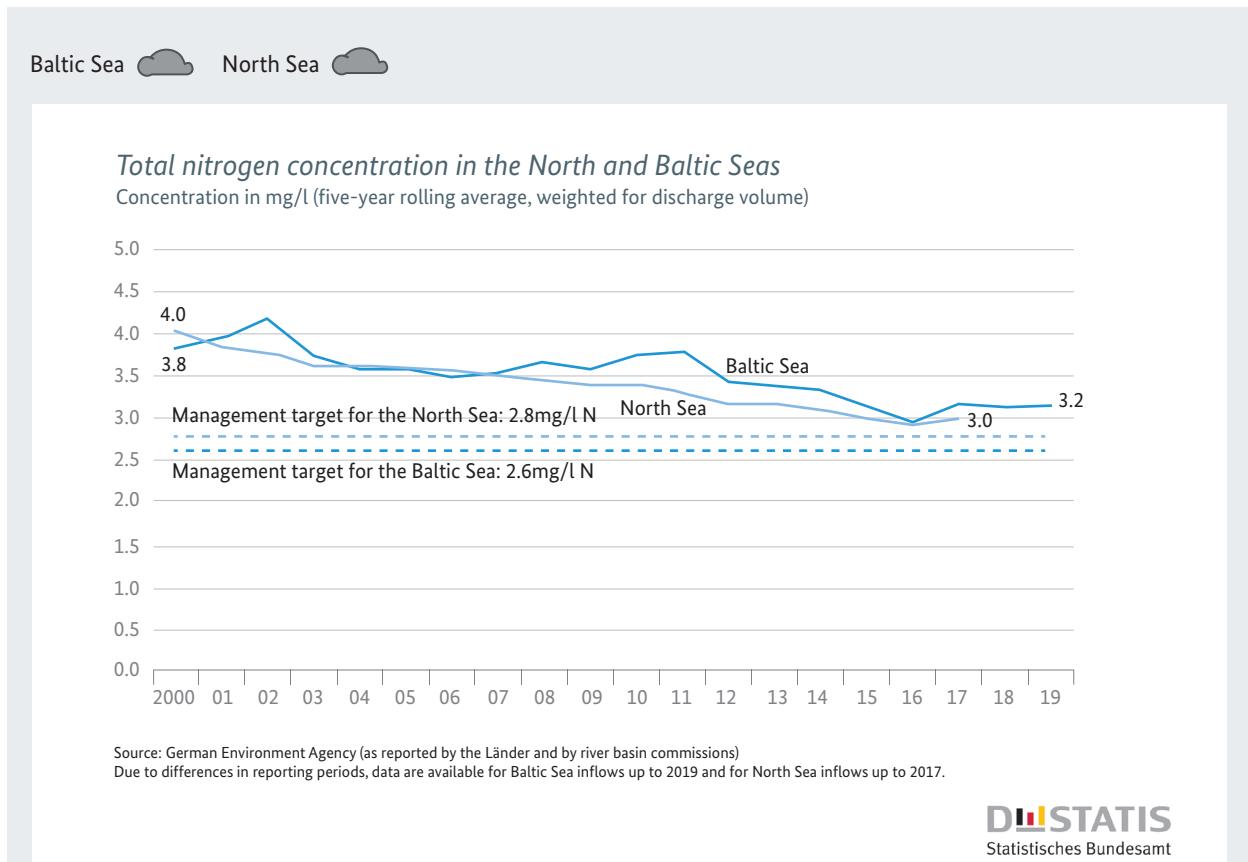
The Federal Ministry for Economic Cooperation and Development also supports sustainable fisheries and aquaculture in developing countries and works to ensure that the resources of coastal areas will remain available to the people who live there in the long term. The German Government is committed to fighting illegal, unregulated and unreported fishing and supports its partner countries with the implementation of targeted measures to combat such practices.

In addition, the German Government promotes the sustainable and socially responsible processing and marketing of fish in partner countries and supports them in opening up other ways of earning a living as an alternative to fishing.

b) Relevant national sustainability indicators and targets/measures

14.1.a Nitrogen inputs via the inflows into the North and Baltic Seas

Protecting the oceans – Protecting and sustainably using oceans and marine resources



Definition of the indicator

The indicators show the five-year rolling average, weighted for discharge volume, of nitrogen (N) concentrations in milligrams (mg) per litre (l) of water discharging from rivers to the North and Baltic Seas.

Targets and intention of the German Government

High concentrations of nitrogen in the seas can lead to eutrophication effects such as oxygen depletion and the subsequent loss of biodiversity and destruction of fishing grounds. Nitrogen inputs should therefore be below 2.8 mg of nitrogen per litre of discharge for rivers flowing into the North Sea and below 2.6 mg per litre for the rivers flowing into the Baltic Sea. This aligns with the management targets of the Ordinance on the Protection of Surface Waters (*Oberflächengewässerverordnung*), which were agreed in implementation of the Water Framework Directive, as well as with those of the Marine Strategy Framework Directive and the Baltic Sea Action Plan.

Content and development of indicators

One of the main causes of nitrogen inputs reaching the North and Baltic Seas via inflows is nitrogen surplus in agriculture, which is measured in indicator 2.1.a. Like nitrogen, phosphorus also leads to eutrophication. Phosphorus pollution in rivers is examined separately, in indicator 6.1.a.

The calculations for this indicator use monitoring data on nitrogen concentrations and on the discharge volumes of small and major rivers flowing into the North and Baltic Seas, which the Federal Environment Agency collates as reported by the Länder and by river basin commissions. Data are also included for smaller rivers which do not flow directly into the North or Baltic Sea but are tributaries to larger rivers. In these cases, the data for each river are taken from its last monitoring site before the confluence. The Rhine is also included in the figures, even though its estuary is not in Germany. The data for the Rhine were recorded at the point where it leaves Germany, the monitoring site at Bimmen near the town of Kleve.

The nitrogen concentrations for each river are weighted for discharge volume, so that major rivers which discharge large qualities of water have a greater influence on the average than smaller ones. To prevent the graph being distorted by single extreme events like floods or droughts, which can result in anomalously very high or very low nitrogen inputs, the values are depicted as a five-year rolling average.

The average nitrogen concentration for all North and Baltic Sea inflows, weighted for discharge volume, has followed a downward trend since the beginning of the time series, with the reduction in concentration more marked for the North Sea than the Baltic. The 2013–2017 average for the North Sea inflows was a concentration of 3.0 mg/l. For rivers flowing into the Baltic Sea, the average concentration for 2015–2019 was 3.2 mg/l. To achieve good quality, as defined by the Ordinance on the Protection of Surface Waters, however, each river by itself has to meet the management target.

Of the three major inflows into the Baltic Sea, the Peene, the Trave and the Warnow, only the latter had already reached the management target by 2015–2019. Nevertheless, all three rivers showed a clear reduction in concentration across the five-year averages. That reduction was most marked in the Trave. In some of the smaller Baltic Sea inflows, concentrations of nitrogen are still several times higher than the management target, with values of up to 6.1 mg/l.

Among the North Sea inflows, only the Rhine met the management target in 2013–2017. The five-year average was on the way down for concentrations in all the major North Sea inflows. In smaller rivers flowing into the North Sea, the nitrogen concentrations in 2013–2017 ranged from 2.9 to 3.6 mg/l. In conclusion, the management targets are not being permanent and nationwide fulfilled for the North or the Baltic Sea.

German Government activities relating to the indicator

Eutrophication – that is, the increased growth of algae as a result of high nutrient inputs, reduced clarity of water and oxygen depletion on the seabed – is one of the greatest environmental problems facing Germany's seas, especially the Baltic. According to the initial national assessment carried out as part of the EU Marine Strategy Framework Directive (MSFD) in 2012 and the follow-up assessment of 2018, neither the North Sea nor the Baltic has achieved a "good environmental status". Eutrophication effects are among the reasons for this.

Previous measures

Eutrophication is caused by excessive nutrient inputs from rivers and from the air. In order to attain a good environmental status as per the MSFD and a good ecological status as per the Water Framework Directive (WFD), nutrient inputs into the North and Baltic Seas therefore need to be significantly reduced. The 2016 amendment of the Ordinance on the Protection of Surface Waters specified quantitative reduction targets to guide their management. Effective measures designed to reduce nutrient inputs are currently being implemented, mainly under the WFD. The MSFD addresses measures related to shipping. The measures described for the two indicators on total phosphorus and nitrate in groundwater (SDG 15) also serve the purpose of reducing nutrient inputs.

It was in part to reduce the amount of nutrients from fertilisation getting into inland and marine waters that fertiliser legislation was again changed in 2020. It is to be expected that the measures it contains will cut nutrient inputs from fertilisation. The scale of that reduction is not yet foreseeable.

Agri-environment and climate measures, as well as the promotion of organic farming with a view to having 20% of agricultural land farmed organically by 2030, also play an important role in lessening the amount of nutrients entering inland and marine waters.

Planned additional measures

Emissions reduction measures are needed to cut nutrient inputs into the North and Baltic Seas from the air. Of particular relevance here are the existing commitments within the Gothenburg Protocol agreed under the UNECE Convention on Long-Range Transboundary Air Pollution and Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants. The measures necessary to fulfil those commitments by 2030 are specified in Germany's National Air Pollution Control Programme.

Because the Baltic is a semi-enclosed sea and exchanges only little water with the North Sea, it is particularly vulnerable to nutrient inputs. These therefore need to be further reduced in order to achieve the European quality targets and the targets of the HELCOM Baltic Sea Action Plan. To this end, Germany will undertake effective nutrient reduction measures in implementing the WFD. A further possible measure is to follow the 2016 HELCOM Recommendation on sustainable aquaculture and not permit any aquaculture in marine nature reserves if it might jeopardise the environmental targets for those areas. As part of the Baltic Sea Action Plan, its overall goal being "to have a Baltic Sea unaffected by eutrophication", HELCOM derived ambitious nutrient reduction targets which Germany committed itself to achieve by 2021.

The process of drawing up programmes of measures under the WFD for the 2021-2027 management period and updating the MSFD programmes of measures in 2021 is an opportunity to assess whether additional, more radical measures should be put in place.

Assessments are also carried out in conjunction with the Länder to check and, if necessary, update the technology operating in municipal sewage treatment plants in light of the nutrient-related requirements of the Wastewater Ordinance (*Abwasserverordnung*).

One of the objectives in implementing the MSFD programme of measures is to reduce emissions of nitrogen oxides in shipping. The national strategic plan for the next phase of the EU's Common Agricultural Policy (CAP) should make it a top priority to promote measures reducing nitrogen inputs.

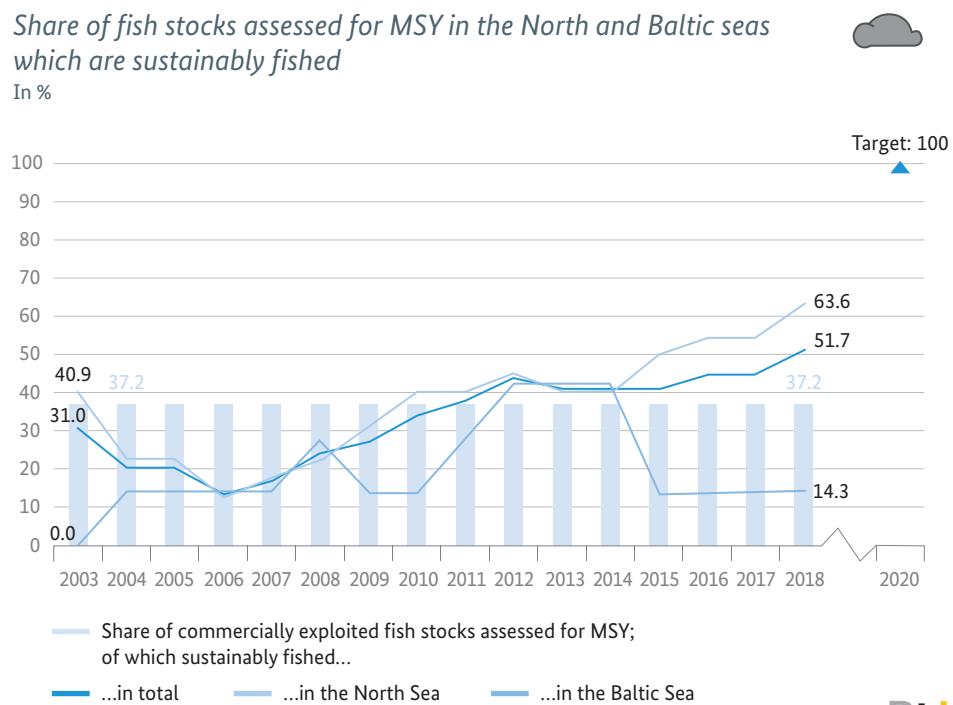
The Arable Farming Strategy which the German Government is planning is also to contain strategies for reducing nutrient inputs into bodies of water. Reducing soil erosion can serve the same purpose.

Nitrogen inputs into bodies of water are part of the overall nitrogen problem described in the German Government's first Nitrogen Report of May 2017, and an integrated problem-solving approach is needed to bring nitrogen emissions down to an environmentally manageable level – an approach which covers all the sectors causing emissions and all the elements of the environment affected (see also indicator 2.1.a on the nitrogen surplus in agriculture).

Based on the Nitrogen Report, the Federal Ministry for the Environment is working on an action programme to reduce nitrogen emissions, which is included as a measure in the Action Programme for Insect Conservation.

14.1.b Share of sustainably fished fish stocks of fish in the North Sea and Baltic Sea

Protecting the oceans – Protecting and sustainably using oceans and marine resources



Definition of the indicator

The indicator shows what share of all the commercially

exploited fish populations in the North and Baltic Seas are sustainably fished – managed in such a way as to provide the Maximum Sustainable Yield (MSY).

Targets and intention of the German Government

Biodiversity is fundamental to all human life. Only if natural capital – like the fish stocks in the North and Baltic Seas, for example – is protected and maintained can it continue to provide future generations with critical ecosystem services.

The aim of the indicator is to describe the extent to which the target defined in the Regulation on the Common Fisheries Policy has been achieved. That target is for commercially exploited fish stocks to be sustainably managed in accordance with the MSY approach by 2020.

Content and development of the indicator

Not all fish stocks are inspected with reference to their sustainable management. Therefore, the number of fish populations that are sustainably managed using the MSY approach should always be viewed in relation to the totality of fish stocks. Although it would be desirable to expand the inspection to include as many stocks as possible, the high cost of these inspections means that the prospect of recording all stocks, even those that are economically less relevant and fished less extensively, is unrealistic.

Based on current estimates, a total of 58 fish stocks in the North Sea and 20 in the Baltic Sea are commercially exploited. The number of stocks inspected in accordance with the MSY approach is currently seven for the Baltic Sea; for the North Sea, a total of 22 stocks are taken into account. This means only slightly over a third of all managed stocks are fully analysed for sustainable management. All other populations, for which insufficient data were available for an inspection according to the MSY model, are not included in this indicator.

Stocks are considered to be sustainably managed if the actual catch per year and fish stock does not exceed the scientifically recommended amount based on the MSY

approach or meets the requirements of a long-term management plan deemed to be sustainable according to the MSY approach. In this context, a fish stock is defined as an independently reproducing population of a specific species of fish. One species can therefore have multiple stocks, and different guideline values for catch quantities can be in place for each stock. As a rule, each stock is assigned a guideline value according to its previous development.

The guideline values for the managed stocks are calculated by the International Council for the Exploration of the Sea (ICES).

The annual calculation of sustainable catch quantities according to the MSY approach is based on stochastic predictions, which use calculations relating to the stocks' historical development. Information about quantities of fish landed is based on reported catches. Random samples taken from those catches provide insights into the demographic parameters of the stock, such as age and size. Scientific surveys conducted on research ships independently of the fishing industry are another important source of information about the health of fish stocks.

The share of sustainably fished stocks among all the stocks investigated according to the MSY approach was 51.7% for the North and Baltic Seas together in 2018. That share was 63.6% for the North Sea and 14.3% for the Baltic Sea. Looking at the development between 2013 and 2018, the overall trajectory is positive.

It is difficult to assess this indicator, as it is influenced not only by the actual development of the stocks but also by the choice of stocks for inspection. As the exact constellation of data sources varies from year to year, any comparison between different years becomes complicated. In addition, the recommended catch quantities apply internationally and can be fulfilled only indirectly by the efforts of a single country.

German Government activities relating to the indicator

The indicator assesses the condition of the commercially exploited fish stocks in the North and Baltic Seas and is therefore an important element with regard to the sustainable use of those marine ecosystems, although this indicator is essentially inadequate for a comprehensive assessment of sustainable use. Sustainable use would not only lead to the economically exploited fish stocks being in a good condition but would also improve the condition of species that are not fished and the state of marine habitats. However, as the EU has collected virtually no data in this area to date, these indicators can at least cover an important subsection.

The target described by this indicator corresponds to Article 2 of the Regulation on the Common Fisheries Policy: "In order to reach the objective of progressively restoring and maintaining populations of fish stocks above biomass levels capable of producing maximum sustainable yield, the maximum sustainable yield exploitation rate shall be achieved by 2015 where possible and, on a progressive, incremental basis at the latest by 2020 for all stocks."

The necessary data are published by the Commission every year (prior to the allocation of quotas). On this point, it should be noted that catch quotas are regulated not nationally but at the EU level, through decisions made by the Council, in which Germany is just one of many political players.

Previous measures

Ensuring the sustainable management of fish stocks is a central concern of the German Government's fisheries policy. Germany therefore joined the then 27 other EU member states and the European Parliament in agreeing radical reform of the Common Fisheries Policy in 2013. The reform stipulates that all stocks are to be maintained at the level giving maximum sustainable yields by 2020 at the latest. It is likely that this has not been achieved for all fish stocks in the North and Baltic Seas. This new political direction is to be implemented by means of multi-species plans for the individual marine areas. A suitable plan has been in force for the Baltic Sea since July 2016 and for the North Sea since July 2018. The landing obligation, introduced incrementally to apply to all fishing that is subject to catch restrictions by 2019, also serves to improve the way fisheries resources are used. Discard plans were drawn up for this purpose and are continually updated. Another part of this measure is the creation of a new regulation on technological measures in fisheries which will cover all EU waters.

Planned additional measures

In line with the new political approach, total catch quotas will in future be set according to the MSY principle. To implement this approach, the Regulation on the collection, management and use of data in the fisheries sector was fundamentally revised in 2017. The EU Fisheries Control Regulation is also currently undergoing a radical revision.

15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

a) Main substance and political priorities in the view of the German Government

Intact ecosystems are the indispensable basis of human existence and sustainable development. They are the foundation required for ensuring a varied diet, they supply clean air and drinking water, and they provide important raw materials. Most ecosystems help to regulate temperatures and support climate action by functioning as carbon sinks. Wetlands have developed into immense carbon sinks over the millennia, and forests continuously remove large quantities of CO₂ from the atmosphere.

Intact ecosystems with a natural variety of species provide stronger resilience in the face of environmental catastrophes like floods and landslides, are better placed to adapt to climate change and can prove more resilient to the spread of infectious diseases.

The workshop report published in October 2020 after the Workshop on Biodiversity and Pandemics run by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) urgently warns that pandemics may become even more frequent in future due to destruction of the natural world. What causes pandemics is the same as what causes biodiversity loss: above all the incursion of humans into previously intact ecosystems, the expansion and intensification of agriculture, and the unregulated trade in wild animals. To reduce the risk of future pandemics, the IPBES recommends investing more in preventive nature conservation measures.

Apart from all these factors, many sectors of the economy also depend on biodiversity, functioning ecosystems and the services they provide. The Global Risks Report 2020 compiled by the World Economic Forum is the first such report to include biodiversity loss in the top five global risks to the economy. The sectors and industries most directly dependent on nature are farming and forestry, fisheries and aquaculture, food, buildings, and the provision of electricity, heating and water. But considerable dependence also exists in such areas as transport, resource extraction, consumer goods, chemistry, especially pharmaceuticals and cosmetics, and tourism – both directly and in relation to supply chains. Safeguarding functioning ecosystems is consequently of central importance.

However, nature is not preserved solely for the sake of humans. According to the Federal Nature Conservation Act, nature and landscape must be conserved “by virtue of their

intrinsic value”. Effective measures such as conservation, protection and sustainable use must be undertaken to confront the loss of habitats and species, including the exploitation of finite resources beyond the limitations of what the planet can bear.



Conservation of terrestrial ecosystems as a multidisciplinary issue of the 2030 Agenda

Conserving, protecting, sustainably using and restoring terrestrial ecosystems and the associated biodiversity is not limited to SDG 15 but comes up as a recurring theme in many other SDGs: SDG 2 on food security, SDG 6 on water, SDG 11 on sustainable urban development, SDG 12 on sustainable consumption and production patterns, SDG 13 on combating climate change and SDG 14 on the oceans.

SDG 15 in the context of international and EU processes

The Convention on Biological Diversity (CBD) is an important foundation for the pursuit of SDG 15, especially at the international level. Its objectives are to pursue the conservation and sustainable use of biodiversity, regulate access to genetic resources and ensure equitable distribution of the benefits arising from their use. The new post-2020 global framework for biodiversity is currently being negotiated. It is intended to address the direct drivers of biodiversity loss and seek synergies with other instruments, particularly the UN Convention to Combat Desertification (UNCCD) and the UN Framework Convention on Climate Change (UNFCCC), as well as with the work of the UN Environment Programme (UNEP) and the UN Food and Agriculture Organization (FAO). The new biodiversity framework is also meant to make an important contribution to the achievement of the goals of the 2030 Agenda, as intact ecosystems are the basis of life on Earth and of sustainable development.

Alongside the CBD, the Ramsar Convention on Wetlands of International Importance is another vital basis for the pursuit of SDG 15. The UNESCO Man and the Biosphere (MAB) Strategy, which is being piloted in Germany's 16 UNESCO biosphere reserves through the Lima Action Plan, also plays a role in work towards SDG 15 as well as other SDGs within the 2030 Agenda.

Just like SDG 15, the 2021-2030 UN Decade on Ecosystem Restoration aims to protect and restore ecosystems to put an end to biodiversity loss and turn the tide.

Worldwide implementation of sustainable forest management is another of the most vital global tasks established by SDG 15. The decision to maintain and strengthen the United Nations Forum on Forests (UNFF) and the UN General As-

sembly's adoption of the 2017–2030 UN Strategic Plan for Forests in 2017 have given these instruments an increasingly important international role in the global advancement of sustainable forest management and the fostering of greater coherence and synergy among the many international processes related to forestry – including the pursuit of SDG 15. The global framework governing sustainable forest management will also provide crucial guidance for the plans for a post-2020 EU Forest Strategy.

The EU Biodiversity Strategy expired in 2020. On 20 May 2020, the European Commission published the new EU Biodiversity Strategy to 2030 as a key element of the European Green Deal and the European process of recovery following the COVID-19 crisis. The strategy contains specific targets and measures for EU biodiversity policy and is intended primarily to combat the chief causes of biodiversity loss in the EU. It also provides important impetus for COP15 of the CBD.

The associated targets in detail

In its many associated targets, SDG 15 seeks the comprehensive protection, restoration and sustainable use of ecosystems. Target 15.1 focuses on the conservation of terrestrial and inland freshwater ecosystems, while target 15.3 addresses desertification and the protection of soil quality and target 15.4 deals with mountain ecosystems. The aim of target 15.2 is to achieve sustainable management of all types of forest, halt deforestation, restore degraded forests and increase afforestation and reforestation. Targets 15.5 to 15.8 are primarily intended to confront the loss of biodiversity, by, for example, promoting fair and equitable sharing of the benefits arising from the utilisation of genetic resources (target 15.6), taking urgent action to end poaching and trafficking of protected species of flora and fauna (target 15.7) and preventing the introduction of invasive alien species (target 15.8). Finally, ecosystem and biodiversity values are to be integrated into decision-making processes (target 15.9).

The means of implementation envisaged in SDG 15 are a significant increase in financial resources to conserve and sustainably use biodiversity and ecosystems (target 15.a) as well as the mobilisation of significant resources to finance sustainable forest management in combination with adequate incentives for developing countries (target 15.b). In addition, support for efforts to combat poaching and trafficking of protected species is to be enhanced (target 15.c).

German Government activities

I. Measures in Germany

1. Protecting domestic biodiversity

a) National Strategy on Biological Diversity

Agreed by the German Government in 2007 with the Federal Ministry for the Environment as the lead ministry, the National Strategy on Biological Diversity remains particularly significant. It contains roughly 330 targets and 430 specific measures across 16 areas for action. Particularly in light of the new targets set at the EU level (2020) and in the context of the CBD (2021), a revision of the National Strategy on Biological Diversity for the post-2020 period is being planned (see below).

Other strategies, such as the 2020 Forest Strategy (see below) and the Sectoral Strategy on Agrobiodiversity of the Federal Ministry of Food and Agriculture, also play a part in protecting biodiversity.

Since 2011, implementation of the National Strategy on Biological Diversity has been supported by the Federal Biodiversity Programme, a Federal Ministry for the Environment funding programme. The budget for this has been continuously increased since 2017, reaching EUR 45 million by 2020.

b) Sectoral Strategy on Agrobiodiversity

In 2007, the Federal Ministry of Food and Agriculture published its Strategy on Agrobiodiversity entitled Safeguarding Agrobiodiversity, Tapping and Sustainably Exploiting Potential in Agriculture, Forestry and Fisheries. It serves to supplement the National Strategy on Biological Diversity. Its objectives comprise improving conditions for the long-term conservation and sustainable innovative exploitation of genetic resources for food, agriculture, forestry and fisheries as a preventive strategy by means of subject-specific national programmes on genetic resources; improving the connections between conservation and use of biodiversity as part of an innovation strategy for rural areas that foregrounds sustainable development; and strengthening international cooperation in pursuit of collaborative, internationally equitable global management of the biological resources on which food, agriculture, forestry and fisheries depend.

c) Action Programme for Insect Conservation

Insects are an integral part of biodiversity and play a vital role in our ecosystems. And yet both the total number of insects in Germany and the biodiversity among them have

fallen drastically in recent decades. The German Government agreed on the Action Programme for Insect Conservation in September 2019, with the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety as the lead ministry. The aim of the programme is to turn the tide on the falling numbers and diversity of insects. Containing a wide range of measures to protect insects and their habitats, it is meant to be mostly implemented before the end of the current legislative term.

d) *Stadtnatur master plan for urban greenery*

Green and open spaces in urban areas provide a habitat for numerous plants and animals and bring nature within reach for the people who live there. We therefore need to increase the number and quality of natural spaces in our towns and cities. The Federal Cabinet agreed its Stadtnatur master plan for urban greenery in June 2019, which encompasses 26 measures to support local authorities in their efforts to bring more nature into the urban environment. The programme includes amendments to the legal framework, improved support for urban greenery, environmental education and public relations measures, trials of new approaches and development of aids to assist the work of local stakeholders.

e) *Protected areas as indispensable instruments for protecting biodiversity*

Protected areas are indispensable when it comes to conserving biodiversity. The number of nature reserves and national parks is increasing steadily. As of 2016, they accounted for roughly 4.4 % of Germany's land area. The Natura 2000 areas designated as per the Habitats Directive and the Birds Directive make up around 15.5 % of it. Some of these areas overlap with nature reserves, national parks or biosphere reserves. In addition to the 16 existing UNESCO biosphere reserves established in Germany to implement the SDGs of the 2030 Agenda in exemplary fashion, applications for UNESCO status are intended in respect of two new biosphere reserves.

f) *National natural heritage*

Sites of national natural heritage are nature conservation areas that belong to the Federal Government. They are excluded from privatisation and transferred to the Länder, conservation foundations or conservation associations free of charge. So far, the conditions for safeguarding ecosystems of importance to nature conservation have been created in a total area of 156,000 hectares in Germany.

For woodland sites of national natural heritage, the fundamental objective is natural forest development. They thus serve the target contained in the National Strategy on Bio-

logical Diversity to raise the proportion of woodland boasting natural forest development to 5 % of all wooded areas, or 10 % of publicly owned woodland, by 2020.

The sites of national natural heritage also make a valuable contribution to the strategy's target of safeguarding 2 % of German territory as wilderness, where nature is again able to develop according to its own laws..

2. *Protection and sustainable management of Germany's forests*

a) *2020 Forest Strategy*

In the 2020 Forest Strategy, the German Government set out guidelines for treating forests as areas of natural and economic significance. The aim is to achieve a sustainable balance between the rise in various kinds of demand on our forests and their capacities. In the implementation of the Forest Strategy, there is a stronger focus on the conservation targets of the National Strategy on Biological Diversity. Privately owned small and micro-forests are included in the development via appropriate channels. The Forest Strategy will be recast during the current legislative term, and the resultant 2050 Forest Strategy, complemented by the ethos of biodiversity, will serve as the key guide for forestry and forest-based industries.

b) *Forest Climate Fund*

With the Forest Climate Fund that was started as part of the special Energy and Climate Fund in 2013, the German Government supports research, development and demonstration measures for the preservation and expansion of the CO₂-reducing potential of forests and timber and the adaptation of forests to climate change. In the 2020 financial year, EUR 25 million were available.

3. *Protection and sustainable use of soil as a resource*

The conservation and sustainable use of soil as a resource is an important aim at the national as well as the international level.

The German Government is endeavouring to develop a meaningful soil indicator which covers all relevant forms of land use. The indicator is intended to facilitate assessment of changes in the various functions of the soil, where possible on an annual basis. The plan is to introduce it in the 2022 revision of the Sustainable Development Strategy. The development of this indicator is also intended to support Germany's contribution to the pursuit of SDG target 15.3 for land degradation neutrality.

4. Restoration of rivers and wetlands

Germany's Blue Belt, a federal programme developed jointly by the Federal Ministry of Transport and the Federal Ministry for the Environment, is particularly intended to restore rivers, banks and river meadows in subsidiary parts of the federal waterways network to a natural state. In the core network of federal waterways too, stepping-stone biotopes are to be created wherever this is compatible with transport objectives. The programme is to set a new course highlighting flood prevention, nature conservation, tourism and recreation.

5. Research for the preservation of biodiversity and ecosystems

With its FONA Strategy, the Federal Ministry of Education and Research is improving the knowledge base which informs decisions on preserving biodiversity and ecosystem services. The Ministry's research initiative for the preservation of biodiversity, funded as part of FONA and launched in 2019, aims to realign biodiversity research in Germany, aggregate research activities more strongly and embed them in important areas of policy and action.

Run jointly by the Federal Ministry of Education and Research and the Federal Ministry for the Environment, the funding initiative for research to support implementation of the National Strategy on Biological Diversity has been helping to develop and trial application-focused strategies and examples of concepts for measures to protect and sustainably use biodiversity since 2013. Research is closely dovetailed with application in practice, through joint projects that are focused on problem-solving.

6. Integration of ecosystem and biodiversity values into decision-making processes

Natural Capital Germany – TEEB DE was the German follow-up project to the international study entitled *The Economics of Ecosystems and Biodiversity (TEEB)*. It vividly demonstrated what great economic value lies in diverse intact ecosystems, for Germany just as for other countries, and what massive costs an economy has to bear if they are damaged. The final report of October 2018 contains recommendations for measuring the value of nature and making it an integral part of decision-making and planning processes.

The German Government is also working on measuring and mapping the health and performance of ecosystems nationwide as well as incorporating the value of natural capital into the environmental economic accounts at the

Federal Statistical Office in a system known as ecosystem accounting or natural capital accounting.

7. Conservation of forests by means of deforestation-free supply chains

Up to 80 % of global deforestation is caused by the conversion of woodland for agricultural use. That is why, at the national level, the German Government adopted its Guidelines for the Promotion of Deforestation-Free Supply Chains in Agricultural Commodities in 2020. Its intention with the new guidelines is, among other things, to influence domestic demand and encourage support for a uniform and more robust approach at the EU level, so that, in future, no more forests will be destroyed to gain farmland.

II. Measures by Germany

1. Protection and sustainable use of biodiversity and forests, sustainable forestry management worldwide

a) Germany as an important financier of global forest and biodiversity conservation

Since 2013, Germany has provided more than EUR 500 million a year for the conservation of forests and other ecosystems all over the world, thereby increasing its commitment more than fourfold since 2007. This encompasses not only bilateral commitments but also multilateral payments in the context of the Forest Carbon Partnership Facility (FCPF), the Global Partnership for Sustainable and Resilient Landscapes (PROGREEN), the Central African Forest Initiative (CAFI), the BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) and the Global Environment Facility (GEF).

b) The New York Declaration on Forests and deforestation-free supply chains

In September 2014, Germany committed to implementing the New York Declaration on Forests. Its goals include ending natural-forest loss by 2030, restoring a total of 350 million hectares of deforested and degraded forest landscapes, and supporting businesses in eliminating deforestation from their supply chains. At the European level, by signing the Amsterdam Declaration in December 2015, Germany set itself the target of avoiding deforestation in connection with agricultural supply chains. These objectives are also significantly supported in the context of EU measures, to which the German Government will contribute. At the global level, Germany is involved as a member of the Tropical Forest Alliance, for example, in promoting the creation of deforestation-free agricultural supply chains through enhanced collaboration among state and private stakeholders.

c) Illegal logging

The illegal felling of trees is one of the major causes of deforestation and forest degradation, especially in tropical developing countries. This not only results in a loss of biodiversity but also runs counter to the efforts undertaken to protect the climate and eradicate poverty.

The Thünen Centre of Competence on the Origin of Timber was established as the central contact point for authorities, timber businesses, consumers and conservationist organisations from both Germany and all over the EU.

The Federal Ministry of Food and Agriculture has been funding the Global Timber Tracking Network (GTTN) since 2015. Within the framework of the GTTN, innovative measures have been developed for identifying types and geographical origins of wood. Altogether, the GTTN accommodates experts from over 40 countries.

d) Restoration of forest landscapes: Bonn Challenge and AFR100

Ever since the first Ministerial Conference of the internationally recognised Bonn Challenge platform for action in 2011, the German Government has supported the target of restoring 150 million hectares of destroyed forest worldwide by 2020, channelling its support through the International Climate Initiative led by the Federal Ministry for the Environment. The target has since been expanded to a total of 350 million hectares by 2030. The German Government continues to support various regional initiatives working alongside the Bonn Challenge in pursuit of the objectives of the New York Declaration on Forests. Of particular note is the pan-African AFR100 initiative, which aims to bring 100 million hectares of forest and tree-rich landscapes in Africa into restoration by 2030. Thirty countries have made voluntary commitments to the initiative so far, their combined restoration target amounting to more than 125 million hectares.

2. Protection and sustainable use of land as a resource

a) Degradation neutrality as the topmost priority Germany campaigned strongly for the goal of a land and soil degradation-neutral world during the negotiations on the 2030 Agenda, partly because of the great importance of soil for species diversity and climate action. Work is currently under way around the world to develop suitable national strategies to implement target 15.3 on land degradation neutrality on the basis of the UN Convention to Combat Desertification (UNCCD). These should not only measure and assess changes in the state of the soil but also have as great a positive influence on them as possible.

b) The special One World – No Hunger initiative run by the Federal Ministry for Economic Cooperation and Development has been supporting sustainable land management since 2014. With a current budget of around EUR 200 million, it is intended to protect or rehabilitate up to 800,000 hectares of land and thereby raise agricultural yields by an average of 37%. A total of 11 projects in Benin, Burkina Faso, Ethiopia, India, Kenya, Madagascar and Tunisia support partners in making soil protection part of their agendas, political strategies and agricultural consultation services.

c) At Germany's initiative, Global Soil Week has been supporting dialogue and cooperation among decision-makers in different sectors and at various levels since 2012 to improve the framework conditions for sustainable land management.

d) With significant support from Germany, the international Economics of Land Degradation (ELD) Initiative presented its findings on the economic benefits of soil and terrestrial ecosystems and the cost of advancing land degeneration in 2015. Through consultation and the development of expertise, partner countries are empowered to make economically informed decisions in favour of sustainable land management.

e) Germany's research activities on land management

The national and international research on sustainable land management conducted under the aegis of the Federal Ministry of Education and Research produces supportive contributions on protecting land from degradation as well as mitigating and adapting to climate change, particularly in relation to food security, water security, protection of biodiversity and responses to climate extremes.

Supported by the Federal Ministry of Education and Research, the Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) and the West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL) aim to improve the knowledge base on sustainable land management under the influence of land exploitation and climate change in order to enhance the resilience of the regions' socio-economic systems and ecosystems. In a similar field, the Ministry has been supporting Science Partnerships for the Adaptation to Complex Earth System Processes in Southern Africa (SPACES) since 2013, a measure designed to prepare people and the environment in Southern Africa more effectively for the adverse consequences of climate change and to develop resilient and adaptable systems of land use.

CLIENT II – International Partnerships for Sustainable Innovations, another Federal Ministry of Education and Research measure, was launched in 2015 to address challenges to sustainable land management in a selection of Asian and African countries.

The national Innovative Communities funding measure also run by the Federal Ministry of Education and Research assists local communities and regions in shaping a sustainable future for themselves in times of demographic change. It particularly supports the sustainable development of land resources in Germany.

f) National Bioeconomy Strategy

Agriculture and forestry are a central pillar of the National Bioeconomy Strategy. Any decisions about land use have to take account of conflicting aims and possible effects on biodiversity, the water supply, nutrient cycles and the global climate. Through the Bioeconomy Strategy, the German Government funds research to advance our understanding of ecosystem relationships. Bioeconomy monitoring measures the effects of bio-based economic activity and makes it possible to quantify and evaluate developments in the bio-economy. There is a focus on land use in this context.

3. Fight against poaching and wildlife trafficking

The increasing illegal trade in ivory, rhinoceros horn and many other endangered species and their products is having considerable adverse effects on biodiversity. Combating wildlife crime has become a priority of Germany's environmental and development policy, and it is to remain a priority in future. Pathogen contagion via wild animals heightens the risk of epidemics, which can bring massive social and economic turmoil on a global scale in their wake.

Animals caught in the wild are very often declared as the offspring of animals already living in captivity. Disproving such declarations used to be almost impossible.

In the Forensic Genetics for Species Protection (FOGS) project funded by the Federal Ministry of Education and Research, new DNA-based tools are being developed for the fight against trafficking in protected species.

The first ever UN resolution on poaching and wildlife trafficking, adopted by the UN General Assembly in 2015, was chiefly initiated by Germany and Gabon. More resolutions followed in the subsequent years, the most recent in 2019. At the G20 Summit under Germany's presidency held in Hamburg in 2017, the G20 adopted their High Level Principles on Combatting Corruption Related to Illegal Trade in Wildlife and Wildlife Products.

In founding a new international alliance to combat health risks connected with the trade in wildlife and wild-animal products, the Federal Ministry for Economic Cooperation and Development and its partners are seeking to help ensure more consistent worldwide enforcement of the ban on trafficking in wild animals which pose risks to health. The alliance is also intended to reduce the trade in and consumption of wild animals, improve hygiene and oversight in the legal and sustainable trade, and promote alternative sources of income and nutrition.

4. Access to genetic resources and fair benefit-sharing

Germany ratified the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (Access and Benefit-Sharing, ABS) on 21 April 2016 and passed the Act Implementing the Obligations under the Nagoya Protocol and Transposing Regulation (EU) No 511/2014 (NagProtUmsG/EUV511/2014DG), which the Federal Agency for Nature Conservation has been busy putting into practice ever since. Germany also supports the ABS Capacity Development Initiative and, through the BioInnovation initiative, it promotes partnerships between companies from Germany, Europe and Africa for equitable value creation using biological resources.

5. Guidelines on land use rights

The German Government provided significant support to the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests adopted by the UN Committee on World Food Security (CFS) in October 2013. These guidelines are the first global instrument under international law that stipulates secure and fair access to natural resources and specifies standards for responsible investment in land in order to prevent land-grabbing.

6. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBESWertschöpfung aus biologischen Ressourcen).

IPBES presented its Global Assessment Report on Biodiversity and Ecosystem Services in May 2019. The report finds that the global state of the natural world has deteriorated dramatically, with the rate of species extinction already at least dozens if not hundreds of times higher than the average rate over the past 10 million years, 75 % of the land surface significantly altered and over 85 % of wetlands lost.

By promoting research on biodiversity and ecosystems, the German Government is also supporting the work of

IPBES. The platform provides policy makers with objective and reliable information on the condition and development of biodiversity and its ecosystem services.

7. Support for the drafting of reports on the state of the world's biodiversity for food and agriculture and on aquatic genetic resources Weltbiodiversitätsrat (IPBES)

Thanks to project funding and personnel assigned to support the work of the FAO's Commission on Genetic Resources for Food and Agriculture, the first report on the state of the world's biodiversity for food and agriculture has been produced. It provides the foundations for drawing up a global action plan on biodiversity for food and agriculture and will address the sustainable use of agricultural ecosystems, among much else.

III. Measures with Germany

1. REDD+: Connecting forest protection and climate action

The German Government has provided more than EUR 1 billion for reducing emissions from deforestation and forest degradation (REDD+) since 2008. The International Climate Initiative led by the Federal Ministry for the Environment prioritises support for the preservation of forests as natural carbon sinks. At the 2015 climate summit in Paris, Germany announced its joint intention with Norway and the United Kingdom to make more than USD 5 billion available between 2015 and 2020 to support REDD+.

2. Implementation of the EU FLEGT Action Plan

The BMZ supports the implementation of the EU Action Plan to fight illegal timber trade and felling (FLEGT Action Plan) via bilateral projects. The action plan involves the conclusion of voluntary partnership agreements between the EU and the partner countries.

3. Deforestation-free supply chains

The German Government assists multiple partner countries involved in Germany's development, agricultural and environmental cooperation in establishing deforestation-free supply chains and simultaneously supports small-scale farming. The overarching goal is to protect intact natural and old-growth forests.

4. Access to genetic resources and fair benefit-sharing

The main focus of the Access and Benefit-Sharing (ABS) Capacity Development Initiative, which is supported by Germany, is on assisting partner countries in Africa, Oce-

ania and Latin America with the implementation of the Nagoya Protocol, the valorisation of genetic resources and the creation of value chains that observe the applicable ABS rules and contribute to the conservation of biodiversity through benefit-sharing. As regards genetic resources for food and agriculture, it is particularly important that the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA, see above) be implemented and promoted if the special requirements of these resources, subject to such intensive international trade, are to be met.

5. Global network of protected areas

A global network of protected areas is intended to help preserve biodiversity all over the world and protect vital ecosystem services. In the context of international cooperation for the implementation of the Convention on Biological Diversity (CBD), the World Heritage Convention and the UNESCO Man and the Biosphere (MAB) Programme, Germany supports its partners with the establishment and sustainable management of natural world heritage sites, national parks, biosphere reserves and nature reserves. In 50 partner countries, an overall area larger than France and Germany combined is supported with an ongoing funding volume of more than EUR 1 billion. The European network of protected areas, Natura 2000, is an important building block in the global network of protected areas.

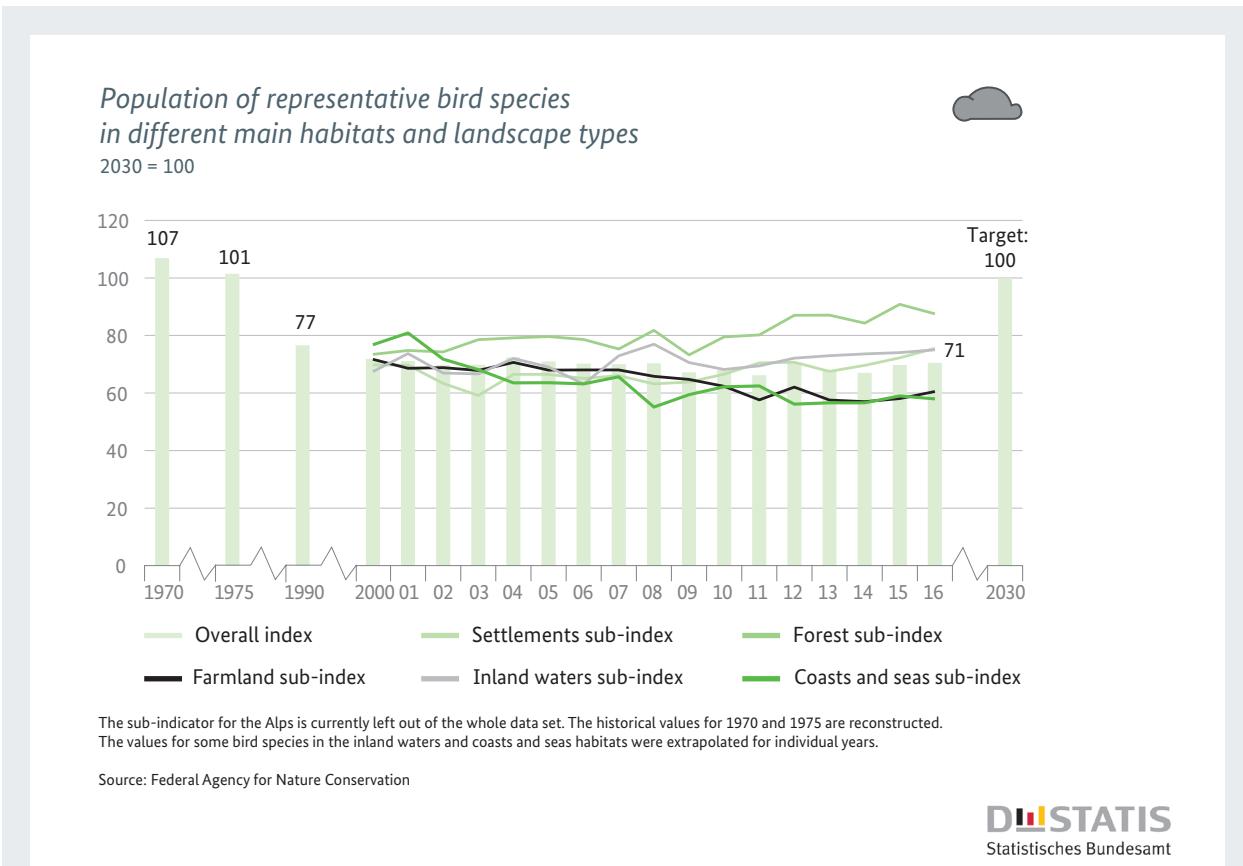
6. The global fight against desertification

In the context of international cooperation on implementation of the UN Convention to Combat Desertification (UNCCD), Germany has long supported partner countries with the sustainable management of land resources. Germany is a party to the UNCCD, home to its Secretariat and the largest contributor of funding to support its implementation (around EUR 545 million in 2017 under the Rio marker for desertification). Alongside this, Germany supports various initiatives like the Group on Earth Observations Land Degradation Neutrality (GEO LDN) Initiative, which assists member countries in accessing and using Earth-observation data for monitoring under SDG target 15.3, and the World Overview of Conservation Approaches and Technologies (WOCAT), a global network seeking to document and disseminate knowledge about ideas and technologies for sustainable land management.

b) Relevant national sustainability indicators and targets/measures

15.1 Biodiversity and landscape quality

Biodiversity – Conserving species, protecting habitats



Definition of the indicator

The indicator shows the development of population numbers for 51 selected bird species in the form of an index.

Targets and intention of the German Government

Having a wide variety of animal and plant species is a fundamental prerequisite for a healthy natural environment and an important foundation for human life. To preserve biodiversity and simultaneously safeguard quality of life for humans, the provisional goal of the German Government is an index value of 100 by 2030 – a target that was originally meant to be achieved by 2015. This target value is currently being reviewed as part of a research project and may be amended in future on the basis of new findings.

Content and development of the indicator

Other species besides birds rely on landscapes with intact, sustainably used habitats, which means that the indicator also indirectly reflects the development of many other species in the landscape and the sustainability of land use.

The calculations for this indicator are based on changes in the populations of 51 bird species, which together represent the most important types of landscape and habitat in Germany: ten species each for the sub-indicators farmland, settlements, inland waters, and coasts and seas, as well as eleven species for forests. The Alpine landscape is not currently taken into account, because of uncertainty of data.

The population size of each species is calculated annually from the results of bird-monitoring programmes by the Federation of German Avifaunists in cooperation with the Federal Agency for Nature Conservation and is expressed in relation to the target population size. The target value for each species is defined by a panel of experts. The historical values for 1970 and 1975 are reconstructed.

Each sub-indicator represents the arithmetic mean of the degrees of success achieved across the 10 or 11 selected avian species. The overall indicator is derived from a weighted summation of the sub-indicators. The weighting relates to the proportion of German territory which each main habitat or landscape type covers. On a provisional basis, the target values for the sub-indicators and the overall indicator have been applied unchanged to the 2030 target year.

In 1990, the indicator for biodiversity and landscape quality was significantly lower than the reconstructed values for 1970 and 1975. The indicator value stagnated

over the last ten reporting years (2006–2016), reaching 70.5 % of the target value in 2016 compared with 70.2 % in 2006. If this trend continues, the goal for 2030 will not be achieved.

During the same period, however, the sub-indicators for the various types of habitat did not follow uniform trajectories. The farmland and coasts and seas sub-indicators fell during the last ten reporting years, to 60.5 % and 58.0 % of their target values in 2016 respectively. The equivalent values in 2006 were 68.0 % for farmland and 63.2 % for coasts and seas.

In contrast, the forest, settlement and inland-waters sub-indicators moved in a positive direction over the last ten reporting years. The forest sub-indicator reached 87.5 % of its target value in 2016, compared with 78.6 % in 2006. The settlement sub-indicator rose from 65.1 % in 2006 to 75.5 % in 2016. The figure for inland waters was 75.0 % of the target value in 2016, compared with 63.1 % in 2006.

German Government activities relating to the indicator

The indicator on biodiversity and landscape quality provides important information on the pursuit of SDG 15 in Germany, and on progress towards target 15.3 in particular. It was developed as a key indicator of the sustainability of land use in the context of the German Government's National Sustainable Development Strategy and was also included in the National Strategy on Biological Diversity.

Previous measures

In principle, any measure which pursues more sustainable, ecologically sound land use makes a positive contribution to the improvement of biodiversity and landscape quality. Responsibility for implementing such measures lies not only at the federal level but chiefly with the Länder and other stakeholders.

In publishing its National Strategy on Biological Diversity in 2007, the German Government presented an ambitious national programme for implementing the Convention on Biological Diversity that aims to halt the decline in biodiversity in Germany and turn the tide. The measures are aimed not only at governmental stakeholders, but at all relevant decision-makers. A wide variety of measures have already been carried out for the conservation and sustainable use of natural and cultural landscapes or for the protection of biodiversity and genetic resources in plant and animal species. They include agri-environmental and climate measures as well as conservation easements. The 2017 Re-

port and the 2019 Indicator Report on the National Strategy on Biological Diversity provide more detailed information on these points.

The following ongoing measures from the coalition agreement are currently particularly relevant in terms of improving biodiversity:

- Implementation of the Action Programme for Insect Conservation
- Implementation of the Strategy for the Future of Organic Farming
- Implementation of the Protein Crop Strategy
- Creation of an Arable Farming Strategy
- Creation of a Wetland Protection and Peat Reduction Strategy
- Implementation of the *Stadtnatur* master plan for urban greenery
- Implementation of the federal Blue Belt programme to restore river meadows along federal waterways
- Implementation of the national work programmes on animal, plant, arboreal and aquatic genetic resources as part of the Strategy on Agrobiodiversity
- Funding of projects using the Federal Biodiversity Programme
- Continuation of the National Natural Heritage programme with a fourth tranche of more than 30,000 hectares, including 20,000 hectares held by the BVVG Land Utilisation and Management Company
- Use of the Wilderness Fund for measures to support the Länder in pursuing the 2 % wilderness target

The last reform of the EU's Common Agricultural Policy (CAP) already placed greater emphasis on remuneration for services to society, including the promotion of biodiversity. For the forthcoming funding period, the German Government supports the EU's aim of an ambitious degree of protection for the environment and climate right from the most basic level of funding. Moreover, giving nature conservation a more prominent role in the joint federal-Länder task of improving the agrarian structure and coastal preservation has considerably enhanced support for biodiversity by unleashing the possibility of funding intensive conservation measures and establishing conservation easements.

In 2018, a tender was awarded for a research and development project to accelerate the flow of data in national bird monitoring, with a view to significantly increasing the topicality of the figures used in the indicator on biodiversity and landscape quality. The tendering process for another research and development project to review the target values was completed in November 2019. The findings are expected at the end of May 2021.

Planned additional measures

The key challenge remains to achieve the target values for the overall indicator and the sub-indicators that were originally set for 2015. This will take additional effort, in some cases a significant amount, at the federal, Land and local levels in, if possible, all the relevant policy areas.

The Federal Government will play an essential part in this by recasting the National Strategy on Biological Diversity. A first draft is to be produced after the upcoming post-2020 targets have been set out at the international and EU levels. The new strategy is then to be adopted in the next legislative term.

To promote biodiversity in agricultural landscapes, the German Government is campaigning for the EU's CAP to reflect an ambitious level of environmentalism. The Second Act Amending the Direct Payments Implementation Act (Zweites Gesetz zur Änderung des DirektZahlDurchfG) already shifted more resources from the first to the second pillar for the funding period still under way, raising the budget for the latter from 4.5 % to 6 %.

Since 2019, the Federal Ministry of Food and Agriculture has been developing a National Monitoring of Biodiversity in Agricultural Landscapes (MonViA) programme to complement the monitoring programme of the National Strategy on Biological Diversity.

As regards coasts and seas, the main focus is on ecologically sound fisheries and ambitious management of the marine protected areas in the North and Baltic Seas.

Those protected areas require more intensive management and, particularly, closer cooperation between the Federal Government and the Länder. The plan is to establish a functioning management system for all flora, fauna and habitat areas and many large, protected areas by 2020. A biotope network that extends across all the Länder and makes up at least 10 % of the area of each one is to be established as a central element of Germany's green infrastructure by the end of 2025. The expansion of renewable energy is being conducted in accordance with the requirements of nature and biodiversity conservation.

In settlements, implementation of the Stadtnatur master plan for urban greenery needs to continue, helping to increase the number and quality of natural spaces that provide habitats for flora and fauna and help enhance biodiversity.

However, we also need to improve our knowledge about the condition and development of nature and biodiversity. Extensive biodiversity monitoring, the inclusive monitoring programme for national parks and biosphere reserves, information systems on flora and fauna, and improvements to taxonomy training are all important steps.

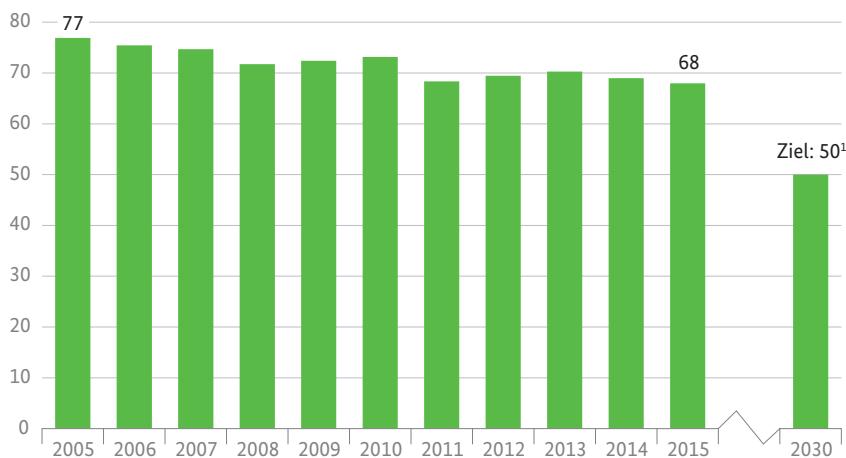
15.2 Eutrophication of ecosystems

Ecosystems – Protecting ecosystems, conserving ecosystem services and preserving habitats

Ecosystems where critical loads for eutrophication are exceeded due to nitrogen input



Proportion of sensitive ecosystems assessed in %



¹The target of 50% equates to a 35% reduction in the proportion of land compared with 2005.

Source: German Environment Agency

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Statistisches Bundesamt

Definition of the indicator

The indicator depicts the area of sensitive ecosystems where critical ecological loads have been exceeded due to atmospheric nitrogen inputs, as a proportion of the total area of sensitive ecosystems assessed.

Targets and intention of the German Government

Critical ecological loads are a measure of the sensitivity of an ecosystem to inputs of a pollutant. If the input of airborne pollutants are below those critical loads, current scientific knowledge suggests that the structure and function of an ecosystem will not suffer harmful effects. Almost half of all the ferns and flowering plants that are included on the red list in Germany are endangered by nitrogen inputs. The aim is to reduce the share of land that is subject to elevated inputs of nitrogen by 35 % by 2030 compared with 2005. This means reducing that share to 50 % of the area of all the sensitive ecosystems assessed.

Content and development of the indicator

Nitrogen, which escapes into the atmosphere bonded in ammonia and nitrogen oxides, can be introduced into ecosystems in gaseous form, dissolved in rain, or as a component of particulate matter. Emissions of ammonia and nitrogen oxides are depicted as part of indicator 3.2.a on emissions of air pollutants, and developments in that area directly affect the eutrophication of ecosystems. The sensitive ecosystems covered in the calculations for this indicator are forests, natural grassland, wetlands, marshes and heathland.

Excessive inputs of nitrogen compounds from the air into land ecosystems can result in nutrient imbalances. The alterations in nutrient availability can lead, for example, to changes in the species composition of an ecosystem, with organisms which prefer nitrogen-poor locations being driven out in favour of nitrogen-loving species. Meanwhile, many plants can be rendered vulnerable to frost, drought and pests by changes in nutrient availability. The effects of excessive nitrogen inputs often take several years to manifest themselves. Likewise, the positive effects of re-

duced inputs will become apparent only after an extended period.

For the purposes of evaluating nitrogen inputs, ecosystem-specific critical loads are determined which represent the saturation points below which, based on the latest knowledge available, the structures, functions and biological communities of an ecosystem remain protected. In total, around 11 million hectares, almost one third of the entire land mass of Germany, are assessed in this way.

In 2015, the critical loads for harmful nitrogen inputs were exceeded on 68 % of the area of all the sensitive ecosystems assessed in Germany. Excesses were particularly high in parts of northern Germany, where agricultural activity releases large quantities of reactive nitrogen compounds.

Between 2005 and 2011, the proportion of areas in which critical loads for nitrogen were exceeded was reduced by

nine percentage points. The indicator rose again slightly in the two subsequent years before returning to the 2011 level by 2015. The share of land where nitrogen was in excess of the critical load has thus not fallen any further since 2011.

The calculations for this indicator are produced by the Federal Environment Agency and derived from two data sets. The first of these is the critical-load data set, which the Federal Environment Agency provides for the purposes of international reporting under the aegis of the Geneva Convention on Long-Range Transboundary Air Pollution (CLRTAP). The tools used to determine that data set include the soil overview map of Germany, the map showing average annual rates of percolation into the soil, the map of land-use distribution and climatological data for Germany. The second data set comprises a time series of nitrogen inputs in Germany and was compiled as part of the PINETI III (Pollutant INput and EcosysTem Impact) project.

German Government activities relating to the indicator

Large inputs of reactive nitrogen are one of the causes of the strain on ecosystems and the threat to biodiversity. The proportion of these areas for which modelling shows eutrophication-causing nitrogen compounds in excess of the critical ecological load has fallen overall since 2000 and was at 68 % in 2015. There is therefore still a risk of eutrophication in more than two thirds of the examined area of sensitive ecosystems. The indicator refers to the effects on ecosystems associated with air pollutants. It was introduced in addition to the indicator on emissions of air pollutants and serves the pursuit of SDG targets 15.1 and 15.2. The indicator is also used in the context of reporting on the National Strategy on Biological Diversity.

Previous measures

Cuts in emissions over recent decades have substantially reduced inputs of pollutants from the air, especially of sulphur compounds, in Germany. This has halted or slowed the acidification of ecosystems. Forest and aquatic ecosystems in particular have been stabilised in this way. However, there are still considerable and extensive problems with regard to the pollution of ecosystems through nitrogen inputs – which cause both acidification and eutrophication – and ozone.

Planned additional measures

The permanent and systematic reduction of nitrogen inputs is part of the target system of the National Strategy on Biological Diversity. This envisages a 35 % reduction

in the geographical area where critical loads are exceeded between 2005 and 2030, which equates to bringing the remaining proportion down to around 50 % of the area of sensitive ecosystems..

The National Air Pollution Control Programme of the Federal Republic of Germany describes in quantitative terms the reduction trajectory leading to the 2030 target of the new NEC Directive (Directive (EU) 2016/2284) and the measures and instruments intended to achieve it in all emission-producing sectors. The agricultural sector causes about two thirds of the nitrogen emissions in the atmosphere that are relevant in terms of eutrophication. In accordance with the National Air Pollution Control Programme, nitrogen inputs will fall considerably by 2030, and the interim target defined above will be reached.

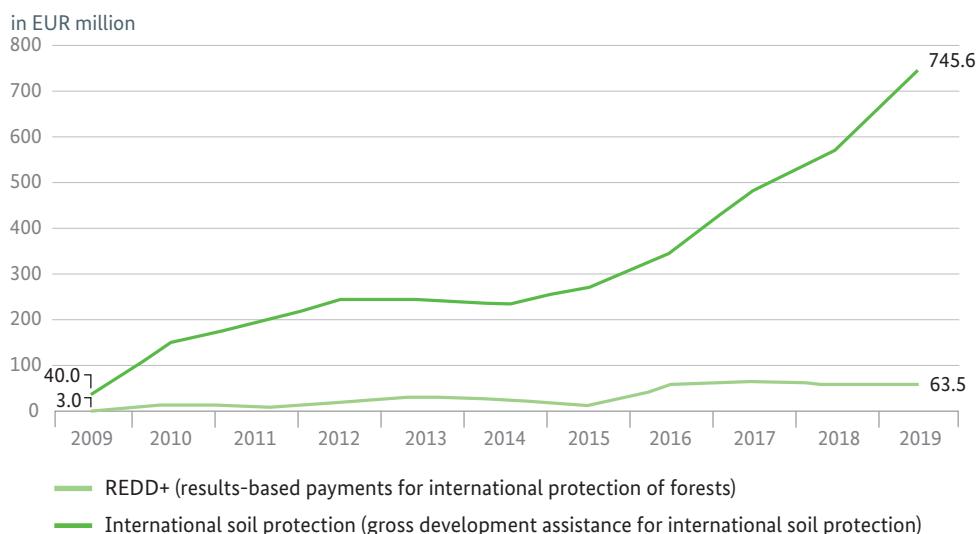
To further reduce the eutrophication of land ecosystems, nitrogen inputs will have to continue to fall beyond that target.

15.3.a/b Preservation or restoration of forests under REDD+ and international soil protection

Ecosystems – Preventing deforestation and protecting soils worldwide

a) REDD+ rulebook  b) International soil protection 

Payments to developing and emerging countries for the verified preservation and/or restoration of forests under the REDD+ rulebook and gross development assistance for international soil protection



Financial contributions before 2013 were made in anticipation of the REDD+ rulebook

Source: Federal Statistical Office, Federal Ministry for Economic Cooperation and Development

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Definition of the indicator

Indicator 15.3.a shows the results-based payments by Germany to developing and emerging countries for the verified preservation or restoration of forests under the REDD+ rulebook. Indicator 15.3.b covers Germany's gross bilateral development expenditure in connection with the implementation of the UN Convention to Combat Desertification (UNCCD) in developing and emerging countries.

Targets and intention of the German Government

Preventing deforestation and forest degradation (damage), managing forests sustainably, restoring forests and creating new woodland all directly and indirectly help to maintain biodiversity, improve soil, water and air quality, reduce soil erosion, cut CO₂ emissions, sequester carbon, and safeguard important prospects of development and income-generation for forest-rich countries. The

aim is to keep increasing payments under the REDD+ rulebook until 2030. Healthy soils are an essential natural resource that is extremely difficult if not impossible to renew. They play a pivotal role in food production, the mitigation of the effects of frequent and extreme weather events, the conservation of biodiversity and the provision of essential ecosystem services. The goal is therefore to continuously increase Germany's contribution to international soil protection until 2030. At the international level, combating desertification is one of the topics of the three Rio Conventions, alongside biodiversity and climate change.

Content and development of the indicators

Indicator 15.3.a is based on the rulebook for reducing emissions from deforestation and forest degradation, or REDD+. REDD+ is an international concept which financially rewards governments and local communities

in developing countries for reducing deforestation and thereby demonstrably cutting emissions. Contributions are paid in line with the scale of the emissions reduction measured or the amount of additional carbon sequestered. The data sources for the indicator are the financial reports compiled by the Federal Ministry for Economic Cooperation and Development and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. The data have been collected annually since 2008. Duplicate counting is avoided by means of the mandatory establishment of a register.

The overall trend is positive. During the 2009–2019 reporting period, payments rose from EUR 3.0 million to EUR 63.5 million. The years 2011 and 2015 both saw a fall in payments. Of the funds paid out in 2019, EUR 50 million (78.7%) went to the multilateral Forest Carbon Partnership Facility (FCPF) and EUR 13.5 million (21.3%) to the bilateral REDD Early Movers Programme. No payments were made to the Amazon Fund for Forest Conservation and Climate in 2018 and 2019.

The indicator depicts part of Germany's official development expenditure on the preservation, sustainable management and restoration of forests. Germany also supports the FCPF Readiness Fund and other programmes.

Altogether, total spending for international forest conservation for 2019 amounted to EUR 660.4 million.

The data source for indicator 15.3.b is the statistics on German official development assistance which are compiled by the Federal Statistical Office on behalf of the Federal Ministry for Economic Cooperation and Development. Relevant projects are any which Target to combat desertification or to mitigate the effects of droughts by preventing or reducing soil degradation, restoring degraded land or recultivating desert regions. However, the amounts paid give no indication as to the actual development of soil quality.

Gross development expenditure to combat desertification worldwide rose strongly in the reporting period starting in 2009. The indicator has developed positively with regard to the target set. Gross expenditure was most recently recorded at EUR 745.6 million for 2019, an 18-fold increase on the equivalent figure for 2009. A similar trend is discernible in the funds committed, which were most recently recorded at EUR 896.2 million.

Development spending under the REDD+ rulebook and in the context of the UNCCD is part of climate finance (indicator 13.1.b) and of official development assistance (indicator 17.1).

German Government activities relating to the indicator

15.3.a: Payments for completed preservation or restoration of forests under REDD+

The REDD+ rulebook adopted under the aegis of the Framework Convention on Climate Change (UNFCCC) encompasses measures that contribute indirectly and directly to the reduction of CO₂ emissions and the storage of carbon. In addition to the reduction of deforestation and forest degradation, these measures also include sustainable forest management, the restoration of forests and afforestation. The rulebook envisages results-based payments for measurable and verified reductions in CO₂ emissions. It is intended that the indicator on payments to developing countries for the verified preservation or restoration of forests under the REDD+ rulebook will in future depict the effects of Germany's involvement in an appropriate manner.

Previous measures

The German Government supports the implementation of REDD+ with results-based payments via existing bilateral and multilateral programmes. The total funding provided by the German Government for the World Bank's Forest Carbon Partnership Facility (FCPF) since 2007 comes to

EUR 360 million. The German Government provides a further EUR 200 million to support the Global Partnership for Sustainable and Resilient Landscapes (PROGREEN), EUR 30 million for the Central African Forest Initiative (CAFI) and EUR 20 million for a programme to promote social inclusion within programmes on climate-related forest preservation, as a follow-up to the FCPF Capacity Building Programme for Indigenous Peoples and Civil Society.

Through the global REDD Early Movers Programme, the German Government is already supporting results-based payments in Brazil, Ecuador and Colombia with a total amount of EUR 169 million. To date, funding from the Federal Ministry for Economic Cooperation and Development, the Federal Ministry for the Environment, the United Kingdom and Norway has enabled the programme to help prevent 74 million tonnes of CO₂ emissions in Colombia, Brazil (specifically in Acre and Mato Grosso) and Ecuador, which is equivalent to the annual per capita emissions of almost 6.8 million Germans. The state of Acre is able to use the money to support indigenous peoples living in the rainforest and promote agricultural measures that create alternative sources of income without destroying the forest.

Planned additional measures

In cooperation with Norway and the UK, Germany will support other countries in reducing deforestation through results-based programmes. The German Government pledged EUR 31 million for the protection of Amazonian rainforest in Brazil in 2019.

15.3.b. Investment in international soil protection – a contribution to implementation of the UNCCD

Soils are a vital but threatened and not readily renewable resource. Unsustainable land use saps soil fertility, water-retention capacity, carbon storage, productivity and other soil functions, with adverse consequences for food security, biodiversity, climate-change mitigation and adaptation, and disaster prevention. Through measures covered by this indicator, Germany provides its partner countries with effective support to protect soils, reduce land degradation and restore already degraded areas.

Previous measures

The German Government supports the implementation of soil protection worldwide by contributing through existing bilateral and multilateral programmes to the implementation of the UNCCD. In the years 2015 and 2016, Germany conducted 176 bilateral programmes in 59 countries, thereby supporting the implementation of sustainable land-management practices at various levels and in a range of different contexts.

In 2018, Germany supplied EUR 623 million for development cooperation projects to combat land degradation and protect soils. The special One World – No Hunger initiative run by the Federal Ministry for Economic Cooperation and Development contributes significantly to soil protection in partner countries, particularly through its focus on protecting natural resources. As part of that special initiative, a multilateral programme has been established in India and six African countries to protect and rehabilitate soils used for agricultural purposes in the interests of food security. Between 2015 and 2025, this soil programme will see around EUR 175 million used to promote the lasting integration of soil protection into incentive schemes and regulation mechanisms and restore the fertility of more than 700,000 hectares of land. This is equivalent to almost three times the area of Saarland. A total of 352,800 hectares of land were protected or rehabilitated between 2015 and 2020 – including 135,850 hectares in Ethiopia, 120,000 hectares in Benin and 49,775 hectares in India. Average yield increases of 38%, with some crops expanding by up to 200 %, have improved the food and income situation for 2.8 million people.

The Federal Ministry for Economic Cooperation and Development furthermore supports various stakeholders and

initiatives in the field of international soil protection. The Economics of Land Degradation (ELD) Initiative, for example, is a joint initiative run by Germany, the UNCCD and the European Commission. Since 2011, the German Government has invested around EUR 2.7 million in the initiative and facilitated additional cofinancing arrangements worth EUR 3.45 million. The ELD Initiative offers a globally applicable approach for conducting cost-benefit analyses of different land-management scenarios and delivers economic arguments in support of sustainable land management. To date, national governments in 20 countries and various international institutions, including the UNCCD, have used these analyses to decide in favour of sustainable land management and soil protection on the basis of economic information. Through the International Climate Initiative, the German Government also actively involves itself in sustainable land use and land rights, desertification prevention and restoration of degraded landscapes in the form of various projects and funds.

Planned additional measures

The German Government will continue to significantly support soil protection and land degradation neutrality worldwide through bilateral projects as well as, in the international context, by hosting the Secretariat of the UNCCD.

It remains the intention to convert the expenditure-based indicator 15.3.b into a results-based indicator in the near future.

16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

a) Main substance and political priorities in the view of the German Government

Just as there can be no sustainable development without peace and good governance, there can be no peace and no chance for people to live in dignity and freedom without sustainable development. That is why the 2030 Agenda calls for violence in all its forms to be significantly reduced, mechanisms to be established to resolve conflicts peacefully and the principles of the rule of law and good governance to be promoted. Peace, respect for human rights, security and strong institutions are therefore the objectives which guide the actions of the German Government. They are also reflected in the German Government policy guidelines Preventing Crises, Managing Conflicts, Building Peace of 2017.

In countries afflicted by fragility, legal uncertainty and violence, the COVID-19 pandemic can exacerbate existing challenges. It is therefore more relevant than ever to tackle the underlying causes.

SDG 16 as one of the key goals of the 2030 Agenda

Achieving SDG 16 is one of the basic requirements for the attainment of many other SDGs. Where war and violence reign, where fundamental rights are denied, public funds are wasted and people are discriminated against, where public administrations work poorly and participatory decision-making is suppressed, there can be no economic development, lasting reduction of poverty, respect for and realisation of human rights, equal access to healthcare and education, gender equality or conservation of life-sustaining natural resources.

Particular relevance in crisis prevention and post-conflict situations

When it comes to crisis prevention, conflict resolution and peacebuilding, it is of central importance to promote the rule of law and good governance. A functioning constitutional democracy pre-emptively creates the conditions required for resolving disputes without violence, thereby averting a descent into armed conflict. With that in mind, the German Government adopted three interministerial strategies in 2019 on the basis of its voluntary commitments under the policy guidelines Preventing Crises, Managing Conflicts, Building Peace: one for promoting the rule of law, one to support security sector reform – i.e. to reform the security services like the armed forces and police under democratic oversight – and one on dealing with the past and reconcil-

iation (transitional justice) after wars and violent conflict.

Democratic developments and lasting peace can only be achieved if all of the people within a society have an equal right to help shape it. The inclusive involvement of young people is crucial to democratic and just societies. The German Government champions the implementation of UN Security Council Resolution 2250 (2015) on youth, peace and security, particularly the protection of young peace activists and the promotion of youth-led organisations in countries afflicted by or vulnerable to conflict. Resolution 2535 was consequently adopted under Germany's Security Council presidency in 2020, underscoring the Youth, Peace and Security Agenda and emphasising the role that young peace activists have to play.



Severe inequalities still remain, particular between the sexes. Women must have the same rights and opportunities as men to participate in social and political decisions-making processes. This applies particularly to peace processes and post-war reconstruction measures, as these set the parameters which will shape the peaceful post-war order. Regrettably, the equal inclusion of women in crisis-prevention and peace processes cannot yet be taken for granted. This is why the German Government is campaigning for systematic implementation of the UN Security Council's Women, Peace and Security Agenda. During Germany's presidency of the Security Council, for example, Security Council Resolution 2467 (2019) was adopted, addressing sexual violence in conflict, specifically to combat impunity and effectively support survivors of sexual violence.

To guarantee access to medical care and other services for the poorest and most vulnerable groups in pandemic situations, anti-corruption measures are needed which raise the transparency and accountability of the institutions involved.

The associated targets in detail

The key requirements of SDG 16, next to significantly reducing all forms of violence (target 16.1) include ending abuse and exploitation of children (target 16.2), ensuring equal access to justice for all (target 16.3) and combating illicit financial and arms flows as well as organised crime (target 16.4). The targets also cover substantially reducing corruption and bribery in all their forms (target 16.5), providing legal identity for all, including birth registration (target 16.9), and ensuring public access to information (target 16.10). At all levels, effective and accountable institutions are to be developed (target 16.6) and responsive, inclusive, participatory and representative decision-making is to be ensured (target 16.7). The participation of developing countries in the institutions of global governance is also to be

strengthened (target 16.8). To achieve these targets, national institutions need to have sufficient capacity (target 16.a), and non-discriminatory laws and policies, including administrative procedures, must be enforced (target 16.b). In line with the 2030 Agenda's commitment to realising human rights for all and leaving no one behind, SDG 16 and its targets build on universal human rights standards and principles and use them as the benchmark for gauging successful implementation.

Significance for Germany

Over the last seven decades, Germany has benefited from a relatively stable, rules-based international order. Peace, prosperity and an open society are inseparable from a global community that interacts on the basis of legality and rules. And yet multilateral cooperation and the institutions it relies on are under pressure from various directions. Support for multilateralism, the rules-based international order and human rights is retreating behind an emphasis on national sovereignty and the pursuit of narrowly defined national interests. One of the most important tasks of German policy is to help maintain that order, refine it in collaboration with like-minded partners and promote multilateral cooperation. At the heart of these endeavours is strengthening the United Nations and the institutions of the rules-based international order. Germany and its partners champion this cause within the framework of the Alliance for Multilateralism.

German Government activities

I. Measures in Germany

1. Action during the COVID-19 pandemic

To mitigate the effects of the COVID-19 pandemic in Germany, the German Government passed a large number of laws at short notice in spring 2020 – such as the Protection against Infection Act (Infektionsschutzgesetz) and elements of social and labour law, package-travel contract law, and legislation governing civil, insolvency and criminal proceedings – thereby swiftly ensuring legal certainty in challenging times.

2. Participation and inclusion

The German Government is committed to fostering inclusive societies and protecting the rights of people with disabilities. The aim is for accessibility and inclusion to allow people with disabilities to determine their own lives, participate in society and develop their own potential. To pursue this beyond the national level, Germany has ratified the UN Convention on the Rights of Persons

with Disabilities and thereby committed itself to campaigning for its worldwide implementation.

3. Protection of children and adolescents from (sexual) violence

After the office of the German Government's Independent Commissioner for Child Sex Abuse Issues was permanently established, the National Council to Combat Sexual Violence against Children and Adolescents was put together at the end of 2019. The council will maintain long-term and interdisciplinary dialogue at the federal, Land and local levels to combat sexual violence against and exploitation of children and adolescents as well as the consequences of such abuse on a permanent basis. Specific targets and implementation measures for prevention and intervention are to be drawn up by summer 2021 in order to appreciably improve protection and assistance for people affected by abuse during childhood and to generate further progress in research. Advances are also to be made on ensuring that all children's rights are respected and effectively upheld in judicial proceedings. The German Government campaigns throughout the world for the implementation of the UN Convention on the Rights of the Child and its three optional protocols.

To ensure better protection of children from sexual violence in Germany, it was necessary to amend the relevant criminal definitions and increase the associated penalties. The Sexual Violence against Children Bill (Gesetzentwurf zur Bekämpfung sexualisierter Gewalt gegen Kinder), which has been agreed by the German Government and is currently undergoing the parliamentary process, is a major contribution to that endeavour. In January 2020, criminal liability was introduced for attempted online grooming. Investigating authorities were also permitted, under strict conditions, to produce and disseminate computer-generated child pornography in order to gain access to internet platforms where child pornography is uploaded and exchanged.

4. Promotion of the rule of law

The judiciary has a crucial role in upholding the rule of law. To enable the judiciary in Germany to fulfil its responsibilities yet more effectively, the Federal Government and Länder agreed a Pact for the Rule of Law in 2019, which provides for improved staffing in the judicial sector and a quality offensive in the administration of justice consisting of the development of an innovative training concept with digital elements for people working in and for the judiciary in fields involving psychological (family court proceedings), intercultural and digital skills as well

as a campaign to make the rule of law visible and more comprehensible to the general public. In view of the increased challenges facing the security authorities, improving their staffing levels and technical equipment is equally important for the rule of law. In the Pact for the Rule of Law, a specific timeline was agreed for the planned rise in staff numbers for the federal security authorities as well as for the Federal Criminal Police Office, the Federal Police and the Land security authorities.

5. Action against hate crimes

The German Government is aware that our development into a digital society calls for particular attention to be paid to the culture of online debate. The tone is often aggressive, offensive and not infrequently hateful. Peaceful coexistence and pluralist, open and fearless exchange of views, online as well as offline, is integral to progress on SDG 16. The Act to Improve Enforcement of the Law in Social Networks (*Netzwerkdurchsetzungsgesetz*) obliges social networks to run effective complaints systems for illegal content and to delete or block such content as appropriate.

6. Access to justice

To meet the requirements of SDG 16, rules of procedure in particular need to be constantly reviewed for real-world applicability. The German Government therefore introduced the model declaratory action under civil procedure law on 1 November 2018. The model declaratory action provides an easier and more effective way of calling companies which act unlawfully to account and of upholding consumer's claims. The Act on Alternative Dispute Resolution in Consumer Matters (*Verbraucherstreitbeilegungsgesetz*) also contributes to ensuring that consumers can claim their rights at an easy-access level via state-regulated fair dispute resolution.

The possibilities offered by digitalisation have the potential to further facilitate and simplify access to justice for the general public. Digital tools can help to make procedures cheaper and more efficient. Obstacles impeding access to justice can be dismantled by means of online access, digital instruments of conflict resolution and applications to support people in asserting their rights. New digital solutions can, for example, make it easier to access justice from anywhere in the country, including rural areas which may lie a long way from the nearest court. The familiar ways of accessing the courts will be supplemented by new digital means of accessing justice. In the context of Germany's presidency of the Council of the EU, the Federal Ministry of Justice and Consumer Protection initiated a high-level conference and conclusions on the use of digital instruments to improve access to justice.

7. More effective prosecution for money laundering

The Enhanced Criminal Prosecution for Money Laundering Bill (*Gesetzentwurf zur Verbesserung der strafrechtlichen Bekämpfung der Geldwäsche*), which was agreed by the German Government in October 2020 and is currently undergoing the parliamentary process, further strengthens the foundations of effective and consistent criminal prosecution of people involved in money laundering. This reform is a key element of the strategy to combat money laundering and the financing of terrorism.

8. Support for research and knowledge transfer

The German Government funds research into peace, security, cohesion and democracy. This support contributes to better understanding of conflict within and between societies and aids the transfer of research findings into specific measures of, for example, conflict prevention.

The German Government funds research into the unlawful confiscation of cultural property as well as international dialogue and knowledge-sharing on the subject. The focus is on dealing with the theft of cultural property under the Nazi regime. The Federal Government Commissioner for Culture and the Media funds the German Lost Art Foundation and various individual projects, which bolsters provenance research in German museums, libraries, archives and collections in order to advance the return of Nazi-confiscated art or other fair and equitable solutions.

The examination of German colonial history as part of our shared culture of remembrance as a society is conducted in dialogue and a spirit of partnership with the societies affected by colonialism, the objective being rapprochement and reconciliation.

II. Measures by Germany

1. Germany's commitment at all levels

Bilaterally, with EU partners and in multilateral forums, especially the United Nations, Germany campaigns vigorously for the advancement of good governance as well as for the cessation of violent conflicts, for crisis prevention, for effective arms control, and for human rights to be respected, protected and guaranteed. Other goals include advancing gender equality and establishing peace and security as indispensable foundations for development in all its forms. To that end, measures undertaken as part of the German Government's Enable and Enhance Initiative aim to put states and regional organisations in fragile environments in a position to assume their security responsibilities autonomously. Germany

is moreover involved through Bundeswehr missions for peace and stability in many places where conflicts have descended into violence. It is important to Germany to make UN peace missions more capable of achieving their aims and help them perform their duties more efficiently. That is why Germany supports the Action for Peacekeeping (A4P) initiative launched by the UN Secretary-General in March 2018 for reform to the UN peacekeeping system. Germany is endeavouring to make the Security Council more active in crisis prevention. This means, for example, considering the links between climate change and security policy, looking at human rights and security in combination, and strengthening international humanitarian law. Germany also actively advocates enhancing the capacities and dovetailing of multilateral institutions in order to be able to respond effectively and efficiently to global challenges like the COVID-19 pandemic.

Germany participates in the Open Government Partnership (OGP), an alliance of 78 states pushing for greater transparency, civic engagement, action against corruption, and the use of new technologies to tackle the challenges facing society. The Second National Action Plan (NAP) for 2019–2021 comprises nine federal commitments and, for the first time, five commitments from Länder, which include measures for transparency, inclusion, cohesion and digitalisation in such fields as development cooperation, foreign affairs, youth participation and better regulation. The German Government furthermore seeks to combat corruption and bribery worldwide, not least by supporting the work of the United Nations Office on Drugs and Crime (UNODC) and funding anti-corruption projects.

Germany provides institutional and project funding for a large number of intergovernmental and non-government organisations engaged in promoting democracy and the rule of law, specifically the establishment and support of legitimate institutions, the limitation of governmental authority and the protection of human rights.

2. Protection of human rights

Not least through its 2020–2022 membership of the UN Human Rights Council, Germany campaigns for the protection and promotion of human rights as well as the ongoing development of international human rights instruments worldwide. Human rights are a guiding principle of German policy. Not only is the human rights-led approach mainstreamed across all sectors and priority areas, but foreign and development policy is also channelled to support specific human rights projects in partner countries. These are increasingly important as, under cover of the fight

against the pandemic, human rights have been and are being curtailed in many countries, in some cases beyond the extent of what can be justified as necessary to combat the pandemic.

The German Government's Second Action Plan (2017–2020) on the Implementation of UN Security Council Resolution 1325 on Women, Peace and Security contains measures to increase the involvement of women in crisis prevention, conflict resolution and peacebuilding and to protect women and girls from sexual and gender-based violence in armed conflicts.

Germany became a party to the Council of Europe Convention on preventing and combating violence against women and domestic violence, known as the Istanbul Convention, in 2018. In so doing, it committed itself to doing all it can to combat violence against women, protect women, and provide them with help and support. The objective of the Convention is to strengthen gender equality and women's right to live free from violence Globally, violence against women has increased sharply as a result of the restrictions on public life imposed to fight the pandemic. Implementing the Istanbul Convention therefore remains a priority.

With its National Action Plan (NAP) on Business and Human Rights for 2016–2020, the German Government is putting into practice the UN guiding principles on business and human rights that were unanimously adopted in the Human Rights Council in 2011. As a result of the NAP monitoring process and in accordance with the coalition agreement, the German Government is seeking to legislate for corporate due diligence. Since the final report on the NAP monitoring process was submitted in summer 2020, the Interministerial Committee for Business and Human Rights has been discussing the follow-up process (see SDG 8 for more detail on the NAP).

3. German initiatives and projects for worldwide small arms control

In multilateral forums and through project work, the German Government campaigns for effective control of small arms and light weapons (SALW) including their ammunition. It plays an active role, for example, in the context of the UN small arms process, which constitutes the global frame of reference for SALW control efforts. The German Government also supports projects and measures for SALW control run in various parts of the world by the OSCE, the United Nations and NATO.

As the second-largest contributing country after the United States, Germany is involved in SLAW control via many

channels, including bilaterally. The German Government supports regional processes, among other things, thereby helping to reduce illicit flows of capital and arms. Examples include the Franco-German initiative on comprehensive SALW control with six states of the Western Balkans and initiatives to support the African Union action plan Silencing the Guns as well as the comprehensive regional Caribbean Firearms Roadmap. Alongside these efforts, SALW-control schemes are run at the national level around the world. A unifying theme throughout is the increased involvement of women and mainstreaming of possible gender-specific aspects in order to enhance the effectiveness of SALW control.

Moreover, the German Government is committed to a restrictive and responsible arms export policy. The Federal Government decides whether to grant licences to export arms on a case-by-case basis and in light of the respective situation after careful deliberation involving foreign and security policy considerations. Each case is assessed on the basis of the German Government's Political Principles, the EU's Common Position of 2008 as amended on 16 September 2019, and the Arms Trade Treaty.

In its Political Principles, the German Government sets particularly strict yardsticks for licensing exports of SALW to countries outside NATO, the EU and the group of countries with NATO-equivalent status (Switzerland, Australia, New Zealand and Japan). Furthermore, no licences are granted for exporting components and technology that could open up new production lines for SALW and ammunition in third countries.

Germany supports the implementation and further universalisation of the Arms Trade Treaty as the only instrument establishing globally applicable, legally binding minimum standards for arms exports. A separate reporting category for SALW also serves to enhance transparency with regard to the legal trade.

4. Crime/weapons, including practical action to combat proliferation

Germany cooperates with other countries around the world to fight cross-border crime effectively, especially in the fields of money laundering, financing of terrorism and environmental crime. Combating money laundering and the funding of terrorism means implementing the standards of the Financial Action Task Force (FATF). Germany has also assumed the presidency of the FATF for a two-year term starting in July 2020. To implement the UN Convention Against Corruption (UNCAC), partner countries of Germany's development cooperation are given targeted additional support regarding the use of

international legal aid, especially for the return of illegally acquired assets to their countries of origin.

5. Enhancement of the international criminal justice system

The German Government is aware that Germany has a historical responsibility to combat impunity, in particular for crimes against international law. Confronting the past and ensuring prosecution for crimes committed are indispensable elements of a society's healing process in a post-conflict situation.

Germany's commitment to the fight against impunity finds expression most particularly in its staunch support of the International Criminal Court (ICC). The ICC's second-largest financial contributor, Germany additionally makes voluntary contributions to the ICC Trust Fund for Victims. The German Government has also continuously supported the Special Tribunal for Lebanon, the Kosovo Specialist Chambers and the Extraordinary Chambers in the Courts of Cambodia since their establishment through financial contributions and the provision of German personnel, some by secondment. Within the framework of the Alliance against Impunity, Germany is campaigning at the UN level for the creation of a convention on crimes against humanity.

The international criminal justice system relies on the cooperation of the international community for the conduct of its procedures. The German Government therefore continues to set the greatest possible store by comprehensively assisting international courts and tribunals. Further to this, the German Government supported the UN investigative mechanisms for Iraq, Myanmar and Syria to conserve evidence for future criminal prosecutions.

III. Measures with Germany

1. Priorities of collaboration with development cooperation partner countries

The German Government takes dialogue with fragile states as part of the International Dialogue on Peacebuilding and Statebuilding seriously and aligns its cooperation with these states with the peacebuilding and statebuilding goals defined in the New Deal for Engagement in Fragile States. All development cooperation with fragile states is conducted in a conflict-sensitive manner, i.e. it follows the "do no harm" principle. In the face of challenges like the COVID-19 pandemic, peacebuilding must seize opportunities for conflict management and prevent the further escalation of violent conflicts. Advancing equal opportunities, including gender equality, the inclusion of people with disabilities and the empowerment of disadvantaged

and marginalised groups is a priority of the German Government's cooperation in the area of human rights. Good governance is promoted in partner countries, not least in terms of gender equality, the rule of law, anti-corruption, good financial governance, freedom of opinion and access to information. Next to civil society, enhancing the efficiency of the state and improving the legal and institutional conditions for constructive relationships between state and society are also of critical importance.

2. Construction of the African Peace and Security Architecture

Germany supports the building of the African Peace and Security Architecture (APSA) at the continental and regional levels. Complementary contributions from various policy areas go towards strengthening particularly the civilian but also the police and military elements of the African Standby Force through organisational consulting and support for training programmes, establishing conflict early warning systems, building mediation capacities, especially those involving women, and reinforcing institutional structures. Germany is thereby contributing to the endeavour on the part of the African Union and regional organisations to assume greater responsibility for peace and security on the continent.

3. Support for civil society

Germany campaigns worldwide for the expansion of the freedom of action available to civil society. In 2019, around EUR 30 million went to support civil society and participation in democratic life through governmental development cooperation. Funding for civil-society programmes through German organisations rose from just short of EUR 665 million in 2013 to around EUR 1.1 billion in 2020. Engagement Global, Germany's central public consulting and financial service, which funds and supports civil-society and community involvement in development policy in Germany, received EUR 30.5 million in the 2019 financial year.

By funding interfaith social-affairs initiatives like Religions for Peace, the German Government acknowledges the contribution which religions make to the development of peaceful and inclusive societies.

The aim of the funding programme on Expanding Cooperation with Civil Society in the Eastern Partnership Countries and Russia established in 2014 is to strengthen pluralism, promote discussion of the values underpinning a liberal democratic order, foster dialogue and understanding, and open up prospects for young people. As part of that programme, the German Government funds

bilateral and multilateral measures which, through the cooperation of German civil society with civil society in the Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine) and Russia, extensively support transformation and internal integration processes.

The Open Government Partnership (OGP), which Germany has been part of since 2016, is a global initiative steered jointly by governments and civil society which is chiefly concerned with fostering the voice of civil society. The COVID-19 OpenGov Tracker set up by the OGP serves as a basis for analysing the effects of emergency measures put in place in the course of the COVID-19 pandemic in terms of freedom of action for civil society, access to information, governmental oversight and control, and inclusion, as well as for generating and sharing relevant responses.

The public broadcaster Deutsche Welle contributes significantly to dialogue and understanding by using its services around the world to disseminate German and European culture, offer reputable news reporting and provide a forum for extensive exchange of views. At a time when plurality of the media and of opinion are under pressure from many directions, this is especially important.

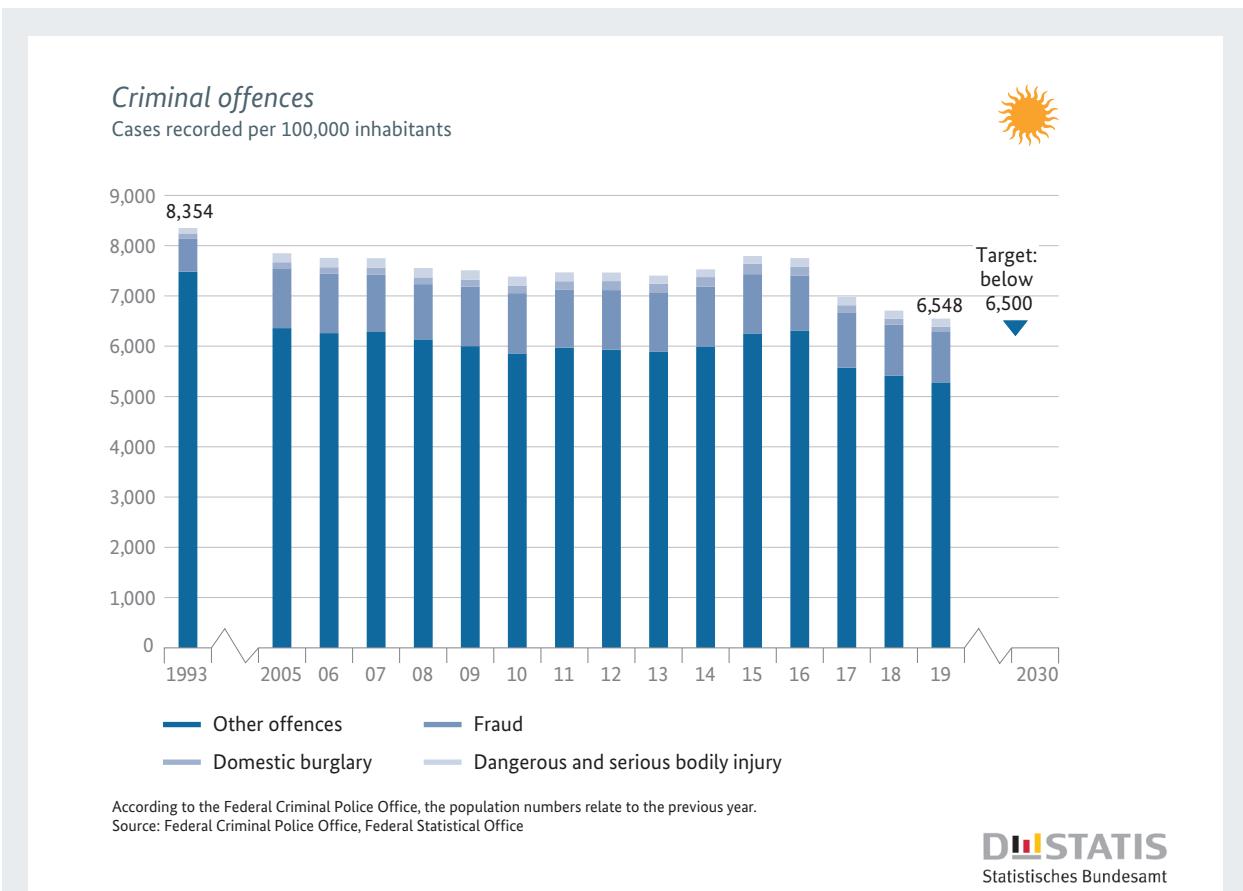
The opening of the Barenboim-Said Akademie marked the start of training for young scholarship holders from Israel and the Arab world according to the pedagogical vision of Daniel Barenboim and Edward Said, providing education in and through music in a spirit of democratic humanism.

Through the Civil Peace Service, the German Government seconds peace experts to NGOs in partner countries to support them in promoting non-violent ways of dealing with conflicts and potential sources of conflict. Germany will actively maintain that commitment.

b) Relevant national sustainability indicators and targets/measures

16.1 Criminal offences

Crime – Further increasing personal security



Definition of the indicator

The indicator shows the number of criminal offences reported to the police per 100,000 inhabitants.

Targets and intention of the German Government

A safe environment in which people can live without fear of lawlessness and crime is an essential prerequisite for sustainable development. The target is therefore to bring the number of recorded criminal offences per 100,000 inhabitants down to less than 6,500 by 2030.

Content and development of the indicator

The indicator covers all criminal offences recorded in the Police Crime Statistics. These are criminal offences reported to and fully processed by the police, except of-

fences against the security of the state, traffic offences and administrative offences.

Criminal offences committed outside the Federal Republic of Germany are not included, nor are offences that are not within the remit of the police, such as financial and tax offences, or are reported directly to and processed by the public prosecution office, such as offences relating to false testimony in court.

The Police Crime Statistics publications are compiled annually based on the data available from the Land Criminal Police Offices and the Federal Criminal Police Office. To calculate the number of criminal offences per 100,000 inhabitants, (extrapolated) population figures based on the 2011 census are used for the entire time series. This methodology allows comparisons over time to be made from 1993 onwards. It should be noted that this results in dis-

crepancies in relation to the Police Crime Statistics data published prior to 2013.

Changes in the Police Crime Statistics do not always reflect actual changes, as the statistics cover only that proportion of criminal activity that officially comes to the attention of the police. Since there is no statistical data on offences which go unreported, such crimes cannot be reflected in the Police Crime Statistics. However, the proportion of reported versus unreported crime was investigated in 2012 and 2017 by means of the German Victim Survey. For the offences dealt with in the survey, no statistically significant change in reporting rates was found between 2012 and 2017.

The number of offences was 6,548 per 100,000 inhabitants in 2019. If the trend seen in recent years continues, the target value of fewer than 6,500 offences set for 2030 will be achieved. The indicator fell by 21.6 % between 1993 and 2019. This trajectory, however, has not been continuous. For instance, it increased from 2000 to 2004, before entering a slight decline which continued until 2010. The large number of people who entered Germany as refugees and asylum-seekers from 2015 on is also reflected in the Police Crime Statistics, with violation of the legislation concerning foreigners (e.g. illegal entry) soaring by 211.8 % in 2016 compared with 2014. Such offences had fallen drastically by

2019, though, when they made up only 3 % of all criminal offences. Even when violations of the legislation concerning foreigners are accounted for, the total number of criminal offences registered by the police was lower in 2019 than in previous years.

In 2019, the total number of criminal offences registered by the police was 5.4 million. Of these, 1.6 % involved domestic burglary, 15.3 % involved fraud and 2.4% involved dangerous and serious bodily injury. Between 2014 and 2019, the incidence of domestic burglary fell by 42.7 % and fraud fell by 14 %, while cases of dangerous and serious bodily injury rose by 5.8 %. The success rate for solving cases was 57.5 % of all offences registered by the police in 2019, roughly the same as in the previous year. There were significant differences, however, depending on the type of criminal offence. For domestic burglary, for example, the rate of cases solved was only 17.4 %. By contrast, 66.6 % of fraud offences and 82.9 % of cases of serious and grievous bodily harm cases were cleared up. The comparatively low success rate for domestic burglary is related to a high rate of reporting combined with the comparatively infrequent existence of solid leads pointing to the perpetrators. This is in sharp contrast to cases of fraud and bodily injury. These crimes have high clear-up rates because, in most cases, the identity of the suspect becomes known to the police as the crime is reported.

German Government activities relating to the indicator

Whether people feel safe is a crucial benchmark for their quality of life. It is also an essential prerequisite for properly functioning social systems and social cohesion. The criminal offences indicator allows an overall assessment of the development of crime rates and thus a more precise look at the goal of further increasing personal security.

Previous measures

Successfully combating domestic burglary, to highlight a particularly relevant area of crime, depends not on any one measure but requires a large number of both preventive and punitive measures. The marked reduction in cases over recent years is largely due to the fact that combating domestic burglary has been and indeed still is a police priority nationwide and has actually been backed up by resources. Positive assessments can also be made regarding the various amendments to legislation on domestic burglary, including the categorisation as a separate criminal offence of theft by burglary of residential accommodation which is used permanently as private living space. Moreover, the Criminal Proceeding Modernisation Act (Gesetz zur Modernisierung des Strafverfahrens) fulfilled

a need which the police had been voicing for many years by adding domestic burglary to the offences listed in section 100a (Telecommunications surveillance) of the German Code of Criminal Procedure.

Planned additional measures

The German Government's prioritisation of fighting and preventing crime remains undiminished, and it works continuously to refine the existing instruments in this field.

The coalition agreement for the 2018-2021 legislative term moreover contains a commitment to seek the swift updating of the Periodical Report on Crime and Crime Control in Germany in order to gain an overall picture of the long-term development of crime rates. Specifically developing and implementing measures to combat, prevent and punish offences in all areas of crime requires well-founded and meaningful information about rates and types of crime.

To improve prevention of domestic burglary, information programmes on preventing break-ins have been set up nationally by the police crime-prevention programme ProPK and across the EU by the European Crime Prevention Network (EUCPN). Alongside the national Burglary Prevention Day held each year as the nights begin to draw in, the EUCPN held an EU-wide Focus Day on Domestic Burglary for the second time in 2020.

Since November 2015, the German Government has provided investment grants to fund construction measures to increase the security of residential buildings through the KfW Age-Appropriate Conversion programme. Application

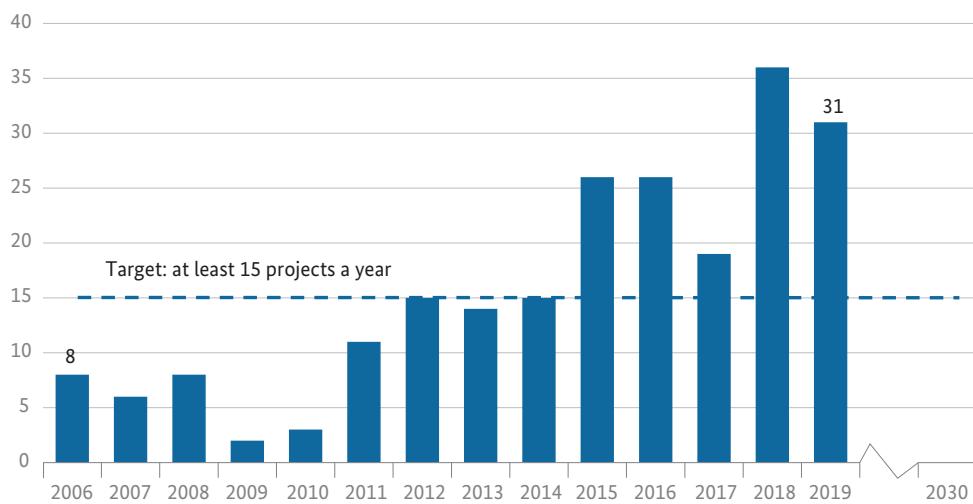
can be made not only by tenants or owners but also, for the loan version, by housing associations, housing cooperatives or municipal enterprises. EUR 65 million were made available for 2020, and this level of funding will be maintained. Burglary-prevention measures in this context have a two-fold effect, preventing not only damage to or loss of property but also the non-pecuniary damage that is caused by invasion of someone's private space.

A current appraisal report is available for download (in German) at <https://www.kfw.de/KfW-Konzern/KfW-Research/Evaluation-Altersgerecht-Umbauen.html>.

16.2 Number of projects to secure, register and destroy small arms and light weapons carried out by Germany in affected regions of the world

Peace and security – Taking practical action to combat proliferation, especially of small arms

Number of projects to secure, register and destroy small arms and light weapons carried out by Germany in affected regions of the world



Source: Federal Foreign Office

Definition of the indicator

The indicator shows the number of projects to secure, register and destroy small arms and light weapons (SALW) carried out in Africa, Eastern and South-Eastern Europe, Latin America and Asia with German financial support.

Targets and intention of the German Government

There can be no sustainable development without peace and no peace without sustainable development – as emphasised in the preamble to the 2030 Agenda for Sustainable Development. With the measures covered by this indicator, Germany contributes to peacekeeping in a specific and tangible way. The goal is for Germany to carry out at least 15 projects to secure, register and destroy SALW each year.

Content and development of the indicator

The data for the indicator come from a special evaluation by the Federal Foreign Office. This special evaluation found that the number of projects run per year rose from 8 in 2006 to 31 in 2019. According to the evaluation, the goal of Germany involving itself through at least 15 projects annually was already achieved for the first time in 2012. With the exception of 2013, that target was also reached or even exceeded in the years that followed. The regional focuses of Germany's involvement were in East and West Africa, the Western Balkans and Ukraine. Other projects were supported in Latin America and the Caribbean. It is possible that projects with run-times longer than one year were counted more than once.

The projects reported are not all financed exclusively by the Federal Foreign Office but may also receive third-par-

ty funds. The indicator therefore includes those projects only partially funded from the public purse. Notably, the number of projects carried out says nothing about their scale or their level of success. Clearly formulated and communicated criteria are essential, moreover, for a project to be unequivocally categorised as in line with the indicator's aims. The German Government's Annual Disarmament Report contains a list of projects with the objective of SALW control, alongside their sources of funding. Their number differs from those reported for this indicator. One reason for this may be the particular focus of individual projects, which affects whether they are taken into account. This means that the indicator depicts more than the extent of state involvement in these projects.

In accordance with the guidelines on statistical reporting issued by its Development Assistance Committee, the Organisation for Economic Co-operation and Development (OECD) also publishes detailed figures on projects for re-integration and SALW control (CRS Purpose Code 15240). There are some discrepancies here too, which may arise from a project, though its objective is SALW control, being part of a larger project with a focus which precludes its inclusion in this category.

If the indicator were based on the number of projects counted in the above-mentioned OECD category, the target of at least 15 projects would have been reached in 2006 and every year since 2016. The target value would not have been achieved in the intervening years. In 2019, the OECD counted 22 projects. However, those projects also included measures for reintegrating former combatants from armed groups into society. Without such reintegration projects, the number of project exclusively or chiefly intended to combat SALW would be lower.

German Government activities relating to the indicator

The emphasis of the German Government's activities is on bolstering regional action for comprehensive SALW control and facilitating the introduction of measurable indicators and benchmarks. Measures to implement existing international disarmament and arms control agreements or to help create new ones contribute directly to the reduction of illegal arms flows. They furthermore serve to strengthen multilateral regimes and thereby consolidate stability, security and peace in the signatory or participating countries and beyond.

Previous measures

Local, national and regional measures to advance conventional disarmament and arms control, particularly in the field of SALW, also play a direct role in reducing illegal arms

flows. In pursuing an initiative at the United Nations to strengthen the multilateral regulatory framework for conventional ammunition, the German Government is making a direct contribution to the fight against the influx of illegal ammunition into conflict regions. The Federal Ministry of Defence and the Bundeswehr support projects involving training relating to the control of SALW and ammunition as well as assisting efforts to strengthen and update international normative instruments..

Planned additional measures

The roadmap for the Western Balkans is a joint Franco-German initiative supporting comprehensive, regionally coordinated efforts to make lasting inroads against the illegal possession, use and sale of SALW in the Western Balkans by 2024.

An AU/G7 initiative assists in a spirit of partnership in the coordination of the pan-African action plans to implement the Silencing the Guns by 2020 roadmap and establish effective SALW control. Together with the Economic Community of West African States (ECOWAS), the German Government is developing a regional roadmap for SALW control as a model for other African regions.

Germany supports an ECOWAS training project seeking to teach multipliers from the security forces and armed services of ECOWAS states about safe handling and management of SALW and ammunition, for them to autonomously pass on that training to personnel at home and in partner countries in future.

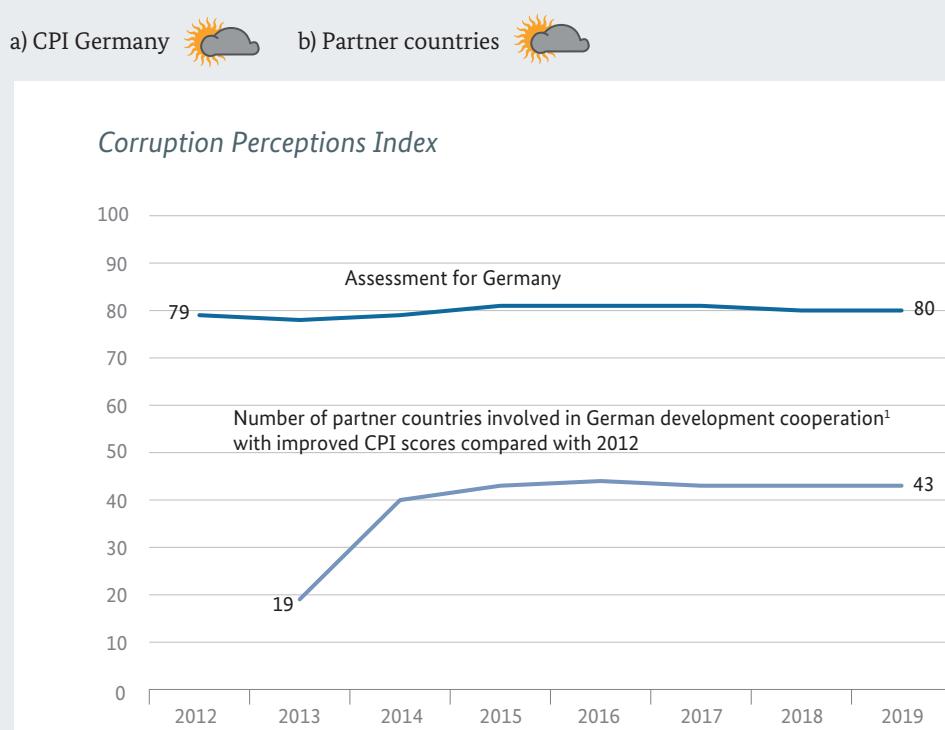
With German support and taking the Western Balkans roadmap as a model, an initiative for comprehensive SALW control has been set up in the Caribbean.

Another focus lies on projects in Ukraine to secure munitions stockpiles and prevent illegal arms flows from the region. Ideas for a national roadmap for SALW control in Ukraine are being nurtured in close collaboration with the Organization for Security and Co-operation in Europe (OSCE).

As part of the implementation of the peace treaty in Mozambique, the Bundeswehr was able to provide a SALW expert to support the process of disarming former resistance fighters. This process is intended to reinforce the consolidation of peace and security in the country and the wider region and thereby help to minimise the illegal proliferation of SALW and prevent armed conflicts.

16.3 Corruption Perceptions Index (CPI) in Germany and in partner countries in the German development cooperation

Good governance – Combating corruption



¹ Including South Sudan
Source: Transparency International, Federal Ministry for Economic Cooperation and Development

Definition of indicators

The indicators show Germany's score in the Corruption Perceptions Index (CPI) maintained by Transparency International (16.3.a) as well as the number of partner countries involved in German development cooperation whose CPI scores have improved compared with 2012 (16.3.b). CPI scores reflect the extent to which a country's public sector is perceived to be corrupt.

Targets and intention of the German Government

The intention is to further improve the CPI score for Germany by 2030. In addition, the CPI scores of the majority of partner countries involved in German development cooperation are also to be improved. The base year in each case is 2012.

Content and development of the indicators

The CPI is a composite indicator that is based on various expert and corporate surveys regarding the perception of corruption in the public sector. Depending on the survey, underlying definitions of corruption may differ, and the sources used for calculations may change over time. The index includes all countries for which at least three selected surveys are available. As such, the CPI is the most comprehensive synoptic study on perceived public sector corruption.

In its analysis of the CPI, the Joint Research Centre of the European Commission points out that interpretation of the findings should take into account whether a change is statistically significant and that the outcomes in this indicator should be treated with caution even where this is the case.

Germany's score improved from 79 in 2012 to 80 in 2019. That is one point down from its score in 2017, which leaves Germany ranked in tenth place on the index. In this case, the change compared with 2012 cannot be considered statistically significant (at a significance level of 5%).

The Federal Statistical Office also gathers information on corruption as part of its satisfaction survey on public services. According to that survey, 4.7 % of the population formed the impression during their interaction with public institutions in 2019 that public-service employees were susceptible to corruption. In the corresponding survey of companies, 4.0 % of businesses had the impression that public-service employees were open to corruption.

The Police Crime Statistics record all criminal matters that become known to the police. In 2019, these included 913 cases of corruptibility, bribery, or acceptance or granting of advantages in the public sector. The Police Crime Statistics also list cases of corruptibility and bribery in commercial practice as well as what are referred to as offences associated with corruption, such as fraud and breach of trust, falsification of documents, anti-competitive agreements during tendering procedures, obstruction of justice, false certification by officials and breach of official secrecy.

Turning to German development cooperation, a total of 43 of the 85 partner countries evaluated in the CPI improved in 2019 compared with 2012. The number of partner countries developing in a positive direction increased in each year of the reporting period until 2016. It declined slightly in 2017 and stagnated thereafter. However, 20 partner countries involved in German development cooperation showed a statistically significant improvement (at a significance level of 5 %) in 2019 over 2012. For comparison, six partner countries reported a significant improvement in 2014.

German Government activities relating to the indicator

The German Government recognises the crucial importance of good governance for sustainable development. In Germany, too, transparent and accountable institutions are crucial for public trust in the state and for a good investment climate. In development cooperation, it is essential for the development of partner countries and not least for the appropriate use of German taxpayers' money that the partner countries' government structures have integrity. The legitimacy of those exercising governmental authority

and fair access to resources prevent conflicts arising within countries. In exceptional emergency situations like the

COVID-19 pandemic, institutions with high standards of integrity are a vital prerequisite for the effective implementation of emergency assistance measures benefiting the public. The German Government champions the maintenance of anti-corruption standards even under extraordinary crisis-management circumstances.

Success in these areas also goes hand in hand with strengthening domestic resource mobilisation in developing countries (SDG 17) and with achieving the other SDGs. This underscores the integrated nature of all the SDGs and the pivotal role of SDG 16.

Previous measures

With its ratification of the UN Convention against Corruption (UNCAC) in 2014, adoption of the Anti-Corruption Act (*Gesetz zur Bekämpfung von Korruption*) in 2015 and the Anti-Corruption (Healthcare Sector) Act (*Gesetz zur Bekämpfung von Korruption im Gesundheitswesen*) in 2016, and Germany's accession to the Extractive Industries Transparency Initiative (EITI) in 2016, the German Government has made important progress in the field of integrity in recent years. In its development cooperation, Germany supports anti-corruption measures through projects run specially for that purpose.

The German Government moreover emphasises the importance of combating corruption in its interministerial strategy for promoting the rule of law in the fields of crisis prevention, conflict resolution and peacebuilding adopted in July 2019. Only if all areas of public service are free from corruption, including the police and judiciary, do the public truly have access to justice. With this strategy, Germany recognises that promoting integrity also actively serves to prevent crises.

At the international level too, Germany champions the prevention and fighting of corruption. During its presidency of the G20 in 2017, four sets of G20 High-Level Principles were adopted to advance the cause of integrity in the public and private sectors, including one on the liability of legal persons for corruption, one on countering corruption in customs and one on combating corruption related to illegal trade in wildlife and wildlife products. Germany has furthermore taken part in the Open Government Partnership (OGP) since December 2016, an international initiative for transparent governance and administration. A second National Action Plan was submitted in September 2019 for the 2019–2021 period, produced with the input of three Länder. Within the framework of the first National Action Plan (2017–20172019), the German Government continuously improved the quality and scope of data in German development cooperation in line with the International Aid Transparency Initiative (IATI). For example, it now publishes data and information updated on a monthly basis in accordance with that standard. Germany has moreover been a member of the OGP Steering Committee since 2019, thereby fulfilling an important role.

Planned additional measures

To reinforce integrity in the private sector and ensure fair competition, the legislation governing sanctions against transgressing businesses is to be amended. In cases of corruption or other economic crime, not only the individuals concerned but also the companies profiting from their staff's misconduct are to be sanctioned more severely. The intention is therefore to set the future upper limit for fines at 10% of turnover for any business with a turnover of more than EUR 100 million.

With the Competition Register Act (*Wettbewerbsregistergesetz*) of 2017, the German Government sent an important message

about how seriously it takes the fight against economic crime in general, and corruption and bribery in particular, in the field of public contracts and concessions too. The Competition Register, which is currently being set up at the Federal Cartel Office (*Bundeskartelamt*) is to be a modern digital register that public contracting authorities can consult simply and without loss of time to obtain reliable information, reported by the authorities charged with law enforcement or the investigation of administrative offences, about any reason why a company should be excluded from public procurement procedures. Facts that need to be recorded on the register are, most particularly, final and binding convictions, penal orders, and final decisions on fines relating to those offences which must result in exclusion from public procurement – chiefly bribery, human trafficking, formation of criminal organisations, financing of terrorism, money laundering, withholding of social-security contributions and tax evasion.

Preventing and fighting corruption remains high on Germany's agenda. At the international level, Germany continues to fight corruption through, for example, the OECD, the G20, the Council of Europe (Group of States against Corruption, GRECO) and the United Nations. It also maintains its support for implementation of the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions and the UN Convention Against Corruption (UNCAC).

Within Germany's development cooperation, the number of projects aiming to combat corruption is rising steadily. Support is currently in place in around 20 countries to assist national institutions engaged in preventing and fighting corruption. By means of such support as well as through mainstreaming tools, the risk of corruption facing German development cooperation projects is addressed and appropriate risk-reduction measures can be identified. This is of particular importance when it comes to the effective implementation of large-scale projects such as the package of measures to tackle COVID-19.

Germany formulated the intention to set up a management system by 2021 to optimise and safeguard data quality and to expand German IATI reporting. An IATI visualisation portal is intended to improve the usability of IATI data.

17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

a) Main substance and political priorities in the view of the German Government

The 2030 Agenda is underpinned by a global partnership that transcends the old donor-recipient mentality, ascribes responsibility to all partner countries and actively involves non-governmental stakeholders as well. It is only in such a spirit of global partnership – built on mutual respect, shared values and the combined efforts of all stakeholders – that the objectives of the Agenda can be achieved.

Global Partnership

Universality of goals: all must act

In contrast to the Millennium Development Goals, the goals in the 2030 Agenda apply to developing, industrialised and newly industrialised countries and to all policy areas. Differences in national circumstances, capabilities and levels of development have to be taken into account, as do national policy approaches and priorities.

Shared responsibility: Commensurate contributions from each stakeholder

All states and stakeholders bear shared responsibility for global well-being, notably for global public goods – i.e. goods that can be maintained only by collective action on the part of the international community, like biodiversity, climate action, functioning supranational institutions, social justice, peace and security – and for structural conditions conducive to development. This is reflected in contributions appropriate to each state or stakeholder.

Effectiveness, transparency and monitoring mutual motivation

The international community needs information about the progress made on implementing the 2030 Agenda. The commitments made by states, the measures they have undertaken and the effectiveness of their actions are tracked and reported. The experience-sharing and mutual learning processes will be intensified in order to foster development and transformation efforts.

Multi-stakeholder approach: all are part of the team

National governments alone will not be able to overcome the challenges facing the international community. Successful implementation of the 2030 Agenda therefore

requires new forms of cooperation, involving civil society, national human rights organisations, business and the academic community at the local, national and global levels.



Addis Ababa Action Agenda

The Addis Ababa Action Agenda adopted by the UN in July 2015 redefined the principles of global development financing. It is integral to the entire 2030 Agenda and particularly relevant with regard to SDG 17. Grounded in the principle that each country has primary responsibility for its own development, the Addis Ababa Action Agenda emphasises the central importance of public and private domestic resource mobilisation as well as the complementary role of international private investment, triangular cooperation and South-South cooperation. It also underscores the ambition to keep working to make the global financial architecture fair, sustainable and resilient.

Structure of the SDG

SDG 17 is divided into five areas with a total of 19 targets:

Finance: Enhancing the mobilisation of domestic revenue in developing and newly industrialised countries takes top priority. This includes international support for the development of fiscal systems and tax authorities and the fight against capital flight. Tax avoidance, tax evasion and illicit financial flows rob developing and newly industrialised countries of vast resources which are needed to finance sustainable development and expand resilient provision of basic public services, such as in the healthcare sector. Due to the cross-border nature of these illicit financial flows, combating them requires coordination at the national, regional and international levels. Other important areas for action include enhancing the investment options for the remittances which migrant workers send to their home countries, building institutional capabilities and improving debt sustainability. Fostering a sustainable financial sector to support economic growth and simultaneously accommodate environmental, social and governance (ESG) considerations is a fundamental precondition for the transition to a sustainable way of doing business, as is improving access to financial services.

Sustainable development and private sector involvement to tackle global challenges thus have a significant role to play. Official development cooperation is to support the poorest countries more. Emphasis is on the commitment made by many developed countries to put 0.7% of their gross national income (GNI) into development assistance and on the EU's collective commitment to provide 0.15–0.2 % of GNI to the least developed countries.

Technology transfer: Science, technology and innovation are recognised as key factors in sustainable development. In particular, environmentally friendly technologies are to be promoted and their propagation in developing countries expanded by means of, for example, South-South or triangular cooperation. The technology facilitation mechanism is intended to assist international communication and consequently improve developing countries' access to knowledge in the field of science, technology and innovation.

Capacity building: Within the framework of North-South, South-South and triangular cooperation, capacities and expertise in developing countries are to be strengthened in order to support their national plans to implement the SDGs. The 2030 Agenda also makes provision in target 17.19 to support statistical capacity building in developing countries.

Trade: The multilateral, rules-based system of trade, with the WTO at the centre, is to be strengthened. This must be done with due consideration to the goals of the 2030 Agenda. There is to be a marked increase in exports from developing countries. Easier market access for least developed countries is also to be secured on a lasting basis.

Systemic issues: From a systemic perspective, improved policy coherence and coordination is especially required as a precondition of sustainable development, combined with respect for the sovereignty of every country. International cooperation measures are more effective when national and international stakeholders systematically coordinate their policies and activities with developing and newly industrialised countries. The intention is to expand the Global Partnership, support multi-stakeholder partnerships such as triangular cooperation measures for mobilisation and knowledge-sharing, and encourage public, public-private and civil-society partnerships. Developing countries are to receive greater support for capacity building to facilitate the collection and evaluation of considerably greater quantities of high-quality, reliable statistical data. Finally, yardsticks measuring progress on sustainable development are to be developed to complement GDP as a measure of economic performance.

German Government activities

1. Financing global sustainable development

The German Government remains committed to the 0.7% target for official development assistance (ODA). Since 2018, in accordance with the current coalition agreement valid until 2021, any additional flexibility arising in the budget has been primarily used to appropriately raise defence spending and funding for development cooperation,

crisis prevention, humanitarian aid, and cultural relations and education policy. This has resulted, for example, in a rise in ODA funding from the federal budget for 2020. These funds bring Germany ever closer to the target of deploying 0.7% of gross national income for ODA.

To mitigate the worldwide social and economic consequences of the COVID-19 pandemic, the German Government is expanding its contribution to sustainable-development finance and involving itself in international activities designed to counteract the effects of the pandemic on the implementation of the 2030 Agenda and the Addis Ababa Action Agenda in its partner countries. In this endeavour, the German Government is making more extensive use of programme-oriented joint financing mechanisms, such as policy-based lending, pooled funding and interest-rate subsidies for development loans, in partner countries pursuing reform. This is serving, in combination with the input of other bilateral and multilateral contributors, to substantially raise the total volume of support and direct it effectively and flexibly towards lessening the effects of the crisis and achieving the SDGs.

Promoting and harnessing the private sector for pro-development investment has long been an element of German development cooperation, as has the development of financial markets and systems. It involves, for example, creating incentives for private sector investors by means of guarantees, structured funds and PPPs, building and resourcing microfinance institutions and digital financial services, introducing insurance instruments e.g. for climate risks, supporting the creation of domestic conditions conducive to sustainable economic growth and capacity building, and fostering companies' inclusive and green business models. Through the Africa Business Network, we support German companies seeking to enter African markets by means of, for example, job-creating investment.

The mobilisation of domestic resources in developing countries has grown in relevance in the context of the COVID-19 pandemic, as they are confronted with increased pressure on public expenditure while the global recession shrinks public revenue. The mobilisation of domestic resources is not least fostered by the Addis Tax Initiative (ATI). By initiating the ATI (together with the Netherlands, the USA, the UK and others), Germany sent a clear political message in favour of domestic resources in partner countries. Germany will double its engagement for the mobilisation and effective use of domestic revenue by 2015.

To close tax loopholes, Germany has committed as a member of the G20 and OECD to implementing the G20/OECD Action Plan on Base Erosion and Profit Shifting (BEPS) by multinational enterprises and has taken real-world action

to that end in concert with the EU member states. Germany campaigns for developing countries to be involved in the development and implementation of the BEPS recommendations and for the close international collaboration between the OECD, G20, developing and newly industrialised economies to be further intensified over and above the BEPS project.

In addition, Germany sets great store by the negotiations for an Inclusive Framework on BEPS grounded in the OECD. Resolving the fiscal challenges arising from the digital transformation, including the introduction of minimum effective taxation, is essential to fair taxation at the global level.

2. State insolvency

The German Government has participated constructively in the UN debates of recent years on a state-insolvency mechanism. It particularly advocates the more widespread inclusion of contractual wording in government bond issues that permits rapid debt restructuring should the need arise. It continues to support the work on this that is being done by the International Monetary Fund (IMF) and the Paris Club. In view of the deterioration in economic and financial circumstances which the COVID-19 pandemic has caused for many developing countries, the G20 has established a moratorium for the poorest states in the form of the Debt Service Suspension Initiative (DSSI), to remain in place until 30 June 2021. Looking further ahead, the G20 countries have also agreed on a Common Framework for Debt Treatments beyond the DSSI, under which countries with unsustainable debts which are eligible for the DSSI can apply for debt restructuring if they sign up to a regular IMF credit programme. This agreement for the poorest states is an important success on the road to improving the international architecture of debt.

3. Trade policy

Trade is a driver of economic growth and employment and can contribute significantly to sustainable development. Dismantling barriers to international trade and investment has played a key role in reducing global poverty. In the context of the EU's common commercial policy, the German Government advocates values-based trade policy and a rules-based system of global trade with the World Trade Organization (WTO) at the centre. Advancing the integration of developing countries into regional and global trade systems demands adequate capacities. Germany supports its partner countries in developing the necessary capacities by means of technical cooperation and has therefore

particularly expanded its Aid for Trade (AfT) activities in recent years. Germany has been the second-largest bilateral contributor to the WTO AfT initiative since 2013, currently providing around EUR 4 billion a year. 2017 saw the publication of Free and Fair Trade as a Driver for Development – the German Strategy for Aid for Trade.

That new strategy was the first of its kind to be systematically aligned with the SDGs. Its priorities include dismantling technological obstacles to trade by means of measures to facilitate trade and promote quality-control infrastructure. Implementing these measures requires more intensive cooperation with the private sector, so Germany supports its partner countries in implementing the WTO Trade Facilitation Agreement through two multi-stakeholder partnerships: the German Alliance for Trade Facilitation founded in 2016 and the Global Alliance for Trade Facilitation established in 2015. Through new partnerships with businesses and quality-control institutions, the Alliance for Product Quality serves to enhance product quality in selected sectors and thereby raise countries' exporting potential.

In Africa, the regional integration involved in creating an African Continental Free Trade Area (AfCFTA) unleashes great potential for trade within the continent. Germany has therefore supported the negotiations for and implementation of the AfCFTA since 2016. In bilateral trade relations too, the EU champions fostering sustainable development. It negotiates ambitious sustainability chapters in all its comprehensive free-trade agreements.

4. Technology

Germany promotes partnerships that advance the transfer of environmentally sound and pro-development technologies as well as social and environmental innovations to developing countries.

This is why Germany supports, for example, the UN process to establish a technology facilitation mechanism and a technology bank for the least developed countries. Issuing export credit and investment guarantees not only safeguards jobs at home but also enables developing countries to access modern technologies. To avoid adverse side effects, such as environmental damage or human rights violations in the importing countries, a system of intensive assessment by the German Government has been established on the basis of international standards. The German Government's export initiatives and its managerial-training programme not only sup-

port SMEs in tapping new markets but also foster the transfer of training content and sustainability expertise, particularly in green technologies, healthcare and energy.

5. International reform processes

Germany addresses international structural issues in the spirit of the 2030 Agenda in international institutions like the IMF and WTO as well as in the G20 und and G7. Germany exerts its influence as a member of the UN, the EU and the OECD and as a shareholder of the World Bank and the regional development banks. It supports processes of reform and strategy development conducted within those organisations to ensure that they can make the best possible contribution to the 2030 Agenda within the confines of their respective mandates and their relative strengths.

Since 2019, the German Government has deployed the instrument of reform finance in respect of countries in reform partnerships. These are countries particularly focused on reform which are also members of the G20 Compact with Africa initiative launched under Germany's presidency of the G20. Reform finance involving public funds has so far been approved for Ghana, Morocco, Côte d'Ivoire and Ethiopia. This instrument provides support for the funding of important reforms.

For 20 years, EU-assisted twinnings between institutions have been making an important contribution to sustainable development in the EU's neighbouring countries. Germany has been directly involved in more than 800 of the 2,700 twinning projects to date, making it the most active EU member state in this regard. Through these projects, German administration experts support reform process in such areas as good governance, the rule of law, human rights, economic development, protection of the environment and labour standards, thereby making an important contribution to the attainment of the SDGs. Ultimately, functioning administrations are the lever required to implement measures that will fundamentally improve living standards for current and future generations. It is on this principle that the German Government

has also been implementing bilateral partnerships between administrative authorities since 2019 with a view to improving economic framework conditions in Africa and the Western Balkans in particular.

6. Updating the Sustainable Development Strategy for more policy coherence and partnerships

The present update of the Sustainable Development Strategy helps to further enhance policy coherence for sustainable development across the German Government and align all policy areas with the SDGs. In view of the demand for civil-society partnerships to be set up as well, broader society, human rights organisations and other stakeholders are being more deeply involved in the development and implementation of the Sustainable Development Strategy.

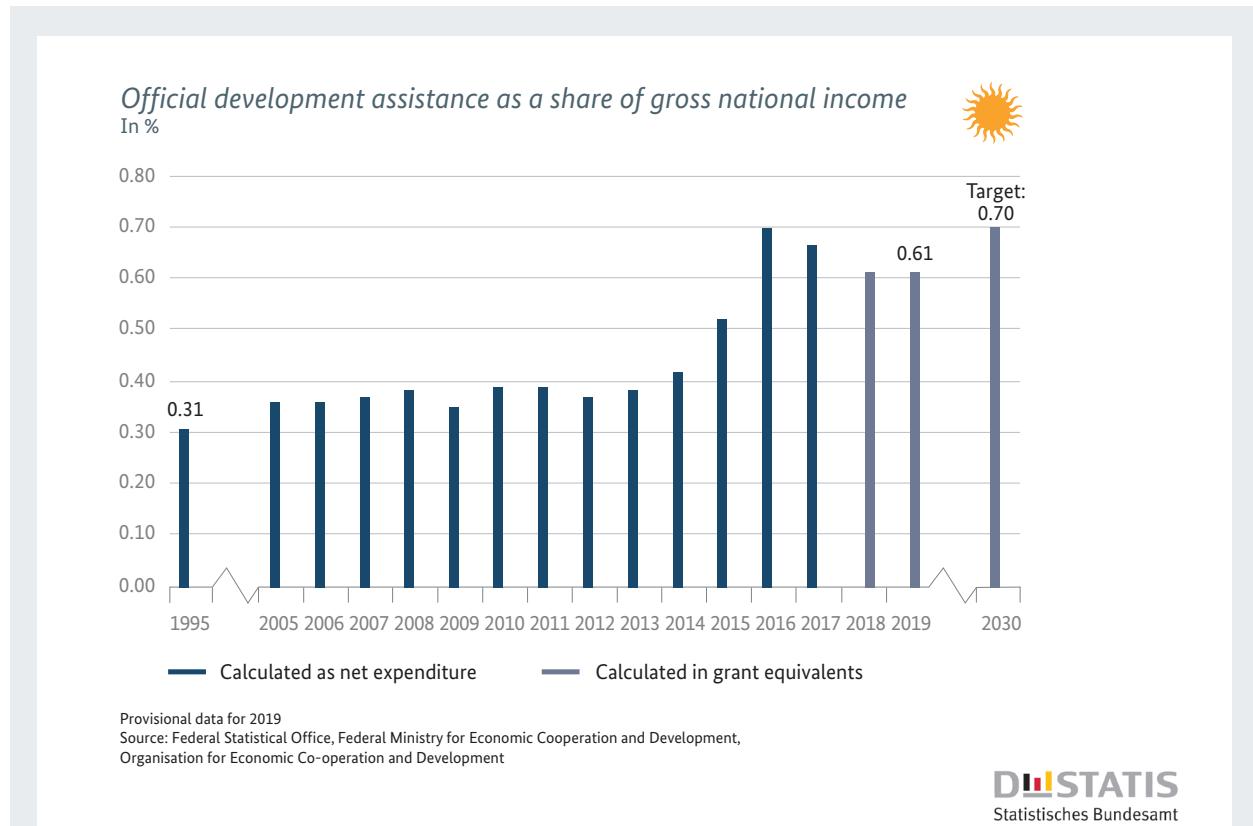
7. Dialogue processes with civil society

German Government processes like its 2030 Agenda dialogue forum, the #17Ziele (17 goals) project and the Tour der Nachhaltigkeit travelling information campaign on sustainable development help to bring the goals of the 2030 Agenda to the attention of wider society and into the public consciousness.

b) Relevant national sustainability indicators and targets/measures

17.1 Official development assistance as a proportion of gross national income

Development cooperation – Supporting sustainable development



Definition of the indicator

The indicator shows public expenditure on official development assistance (ODA) as a percentage of gross national income (GNI). Since 2018, it has been calculated using the grant-equivalent method.

Targets and intention of the German Government

Through their development cooperation, donor countries play a role in reducing global poverty, preventing or lessening humanitarian need, safeguarding peace, achieving democracy, making globalisation fair and protecting the environment. To live up to that responsibility, the German Government has committed itself to the target, originally set by the UN General Assembly in 1970, of raising its ODA expenditure to 0.7% of its GNI. For the indicator maintained in the German Sustainable Development Strategy, the aim is to reach that target by the year 2030.

Content and development of the indicator

The data on which the indicator is based are the statistics on German official development assistance which are compiled by the Federal Statistical Office on behalf of the Federal Ministry for Economic Cooperation and Development. Whether a flow is counted as ODA is determined by guidelines issued by the OECD Development Assistance Committee (DAC). ODA comprises public funds spent in order to advance the economic and social development of developing countries. It primarily includes expenditure for financial and technical cooperation with developing countries, humanitarian aid and development-cooperation contributions to multilateral institutions such as the United Nations, the European Union, the World Bank or regional development banks. Under certain conditions, spending on peace missions, debt relief and certain items of development expenditure in the donor country – such as tuition costs for students from developing countries, domestic spending on refugees and funding for development-related research – can also be counted as ODA.

The DAC also defines the list of developing countries eligible for ODA. This includes the least developed countries (LDCs) as well as other countries with low and medium per capita GNI. As a rule, the list is updated every three years. Changes in the indicator may therefore be the result of one or more countries being added to or removed from the list.

In 2018, there was a change in the way ODA loans are evaluated, in that the previous net-flows principle was replaced by the grant-equivalent method. In this method, only the grant element of an ODA loan, once calculated, is counted as ODA. The intention behind the new methodology is to make ODA grants and ODA loans comparable.

As calculated using the new method, Germany's ODA came to EUR 21.6 billion in 2019, slightly higher than the EUR 21.2 billion recorded for 2018. In both years, ODA accounted for 0.61 % of Germany's GNI. For comparison, net ODA spending (using the evaluation method that was standard until 2017) came to around EUR 21.5 billion in 2019. This represented a 1% drop from the previous year's figure of EUR 21.8 billion.

On the international scale, in 2019 Germany was once again the second-largest contributor in absolute terms, after the United States and ahead of the UK (provisional figures). Germany's ODA:GNI ratio of 0.61 % was higher than the average for EU members of the DAC, which was 0.48 % according to the provisional figures. Germany had the sixth-highest ODA:GNI ratio among the 29 members of the DAC. According to the provisional figures for 2019, the international target of 0.7 % was met by five DAC countries: Luxembourg, Norway, Sweden, Denmark and the UK.

In addition to official development cooperation, private funds are also provided by such organisations as churches, foundations and associations. These chiefly take the form of contributions and donations. This private development cooperation, which does not affect the ODA figures, amounted to EUR 1.36 billion in 2019, the equivalent of a 0.04 % share of GNI. Private direct investment in developing countries came to EUR 10.2 billion in 2019, according to the preliminary data.

German Government activities relating to the indicator

Only with a strong Global Partnership for Sustainable Development can we reduce poverty and inequality worldwide, make economic globalisation fair and protect the environment. The German Government is therefore committed to creating the conditions for sustainable development both in Germany and in its partner countries. Its ODA spending is therefore largely guided by the SDGs. Under the 2030 Agenda, to encourage greater ownership of development on the part of developing countries, ODA is particularly to be used to support countries in mobilising their own revenues and to stimulate the release of private funds.

Previous measures

As part of the Council Conclusions agreed in May 2015, the EU renewed its commitment to spend 0.7 % of its GNI on ODA. In the Council Conclusions of May 2019, the Council reaffirmed that more efforts were needed to meet the target of collectively providing 0.7 % of GNI as ODA by 2030. Germany has been the second-largest provider of ODA in absolute terms, after the United States, since 2016 (before which point it was the third largest after the US and the UK).

Planned additional measures

After Germany reached the target of a 0.7 % ODA:GNI ratio in 2016, partly as a consequence of its increased domestic expenditure for refugees, its ODA spending without domestic refugee costs has been steadily moving in an upward direction towards that relative target value. As well as increasing its ODA:GNI ratio, the German Government has also committed itself to using innovative financing instruments. For example, revenues derived from public sales of emissions certificates are used to finance development policy measures. To complement public expenditure, further non-governmental stakeholders are to be given a greater role in the implementation of the 2030 Agenda, in the spirit of the Global Partnership.

17.2 Number of students and researchers from developing countries and LDC, per year

Knowledge transfer, especially in technical areas – Sharing knowledge internationally



Definition of the indicator

The indicator records the number of students and researchers from developing and newly industrialised countries each year or semester. The number of students and researchers from the least developed countries (LDCs) is shown separately.

Targets and intention of the German Government

Knowledge is a key driver of sustainable development, not only at the national level but also on the global scale. Germany's efforts to strengthen international knowledge-sharing are important in this context. For this reason, the aim of the German Government is to increase the total number of students and researchers from developing and emerging countries by 10% from 2015 to 2020 and to keep the number stable at that level thereafter.

Content and development of the indicator

The data for the indicator are official student statistics and the statistics on university personnel collated by the Federal Statistical Office. Data from the Federal Statistical Office both are complete counts based on the administrative data maintained by Germany's institutions of higher education. The indicator includes all students enrolled in the winter semester starting in the relevant year. To obtain that statistic, all the higher-education institutions access the required data via their administration programs on the day set for the survey. The number of researchers is recorded on the reporting date of 1 December. Researchers in this context are defined as full-time and part-time academic staff at German institutions of higher education (excluding undergraduate assistants). PhD candidates who are enrolled as students at an institution of higher education and simultaneously employed as academic staff can result in duplicate entries in the indicator.

The total number of all students and researchers from developing and emerging countries at German institutions of higher education in 2019 was 285,000. At 92.7%, students accounted for by far the larger share of the total indicator value.

In the 2019/20 winter semester, 264,555 students from developing and emerging countries were enrolled in German institutions of higher education. This corresponds to 9% of all enrolled students. The number of students from developing and emerging countries has increased steadily from the 134,462 recorded in 2005. The only decline recorded was in 2007. The figure for the 2019/20 winter semester represented a 6.6% increase on the approximately 250,000 students recorded in the 2018/19 winter semester. In winter semester 2019/20, a total of 13,067 students came from LDCs – 13.4% more than the previous year.

Of the students from developing and emerging countries, 44,490 came from China, 38,902 from Turkey and 25,149 from India. In total, 42.0% of them were female. Whereas the European developing and emerging countries send

roughly equal numbers of women and men to study in Germany (54.0%), less than a quarter of students from Oceania are women (23.5%). The proportion of women among students from LDCs was slightly more than a quarter (27.1%).

In 2019, around 21,000 researchers from developing and emerging countries were members of academic staff at German institutions of higher education. They accounted for 5.1% of all academic staff at German institutions of higher education. The proportion of people from developing and emerging countries was thus markedly smaller among researchers than among students. Their numbers increased by 9.3% compared to the previous year and have more than tripled since 2005. A total of 681 researchers came from LDCs in 2019 (0.2% of all academic staff). The equivalent figure for the previous year was 687, so there was a slight reduction.

The target of raising the number of students and researchers from developing and emerging countries by 10% compared to the 215,000 recorded for 2015 was already achieved in 2017.

German Government activities relating to the indicator

Education, science and innovation are drivers of sustainable development. They therefore feature prominently in the 2030 Agenda, including in SDG 17: Partnerships for the goals. This is why the German Government works to improve developing countries' access to technology and nurture their capacity for innovation through the medium of international partnerships. The intention is also to enhance those countries' absorptive capacity, so that they can put the technology to effective use and deploy it in pursuit of their own development goals. International knowledge-sharing, especially on technical matters, plays a central role here. Germany wants to use its multifaceted capabilities and experience to help its partner companies sustainably strengthen their academic sectors and their innovation and technology systems. It therefore pushes for greater international knowledge-sharing and seeks to create more opportunities to allow students and researchers from developing countries, especially from LDCs, to study and/or conduct research in Germany. The focus here is on degree programmes in technical subjects.

Previous measures

In addition to various vocational and university education projects, Germany has established university partnership and scholarship programmes, e.g. via the German Academic Exchange Service (DAAD) and the Alexander von Hum-

boldt Foundation (AvH). These foster the availability and quality of university education in partner countries as well as exchange among students and researchers across national borders.

Through the Federal Ministry for Economic Cooperation and Development, for example, the German Government has successfully supported the granting of scholarships to particularly talented students from developing and newly industrialised countries through the DAAD's EPOS programme for development-related postgraduate courses for over 30 years. That programme enables future specialists and managers from Germany's partner countries to qualify themselves for positions of responsibility in their home countries through one of the eligible degree programmes – there are currently over 40 options – offered at German universities, so that they can play an even more effective role in resolving development-related issues in future.

Alongside the courses of study as such, the programme also supports periods of practical experience as well as students' reintegration in their countries of origin. With the assistance of the Federal Ministry for Economic Cooperation and Development, the DAAD and the Alexander von Humboldt Foundation responded flexibly to the COVID-19 pandemic and expanded the options they offered for long-distance collaboration. More conferences, for example, are being held virtually, and scholarship holders are given the choice of interrupting or postponing their studies or working from home.

To name another example, the Federal Ministry of Education and Research supports the Alexander von Humboldt Foundation in its implementation of AGNES, the African-German Network of Excellence in Science. AGNES is intended to foster regional connections and exchange among excellent scientists in sub-Saharan Africa and their collaborative partners in Germany. This involves inducting young researchers into the Humboldt network, into Germany as a research venue and into the ongoing discussion about the expansion of scientific and academic capacities – not least in respect of the role to be played by research and innovation Planned additional measures in sustainable development in sub-Saharan Africa. Driven by the support of African scientists via the Alexander von Humboldt Foundation and by its own secretariat based in West Africa, the initiative funds not only exchange within Africa but also periods of research by outstanding African junior academics at German research institutions.

Furthermore, Germany is already supporting developing countries with regard to innovation and technology in various initiatives. Some of these promote the development and use of climate-friendly technologies. Others, such as the Green Innovation Centres for the Agriculture and Food Sector, aim to increase resource efficiency through the deployment of better technology. Further projects in the nexus of science, technology and innovation are furthering capacity building in the field of intellectual property

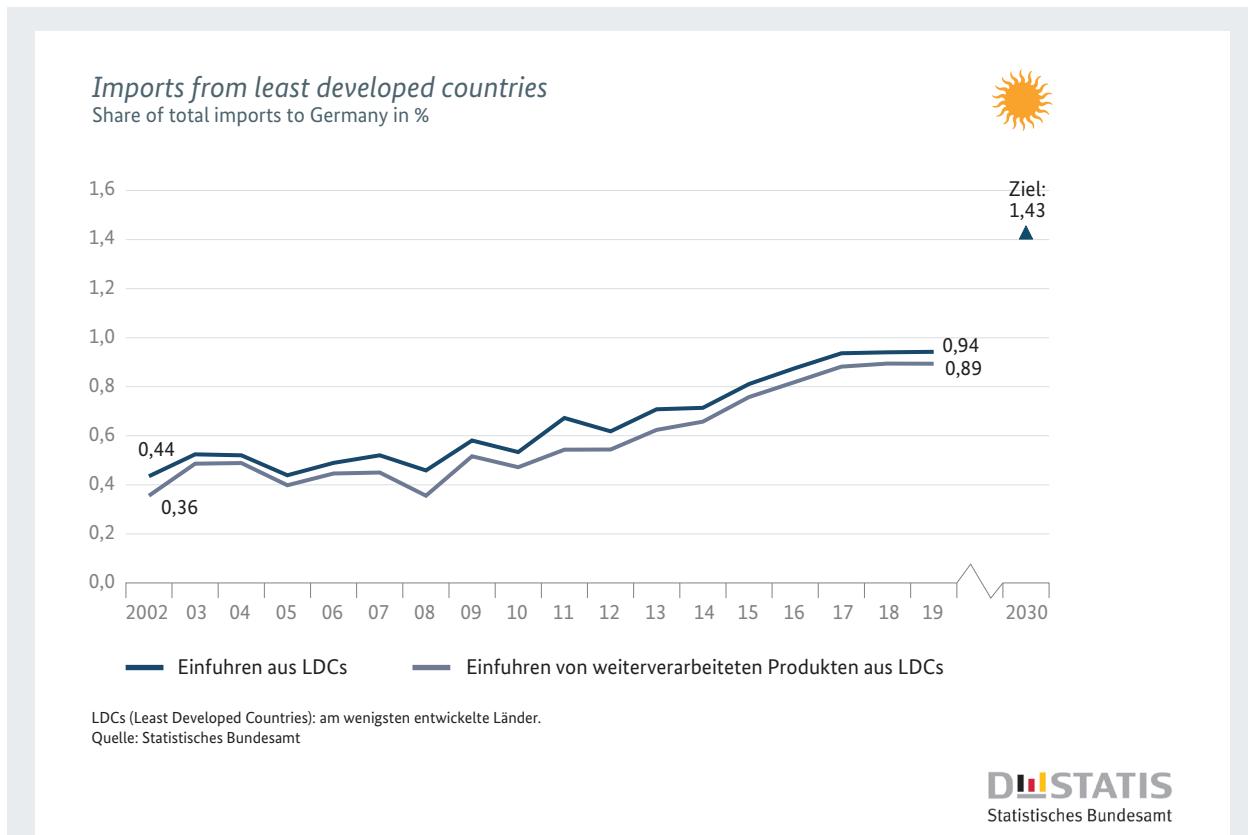
rights and improved access to technology, especially for the manufacture of essential pharmaceuticals in partner countries. Yet other initiatives seek to implement the findings of local and international research in the manufacturing sector, especially in small and medium-sized businesses. The successful implementation of all of these initiatives depends on enhancement of partner countries' capacity to absorb new technologies.

Planned additional measures

Germany will reinforce and expand the ongoing projects and innovations in order to support innovation potential in partner countries and promote the development and use of new technologies, especially in technical areas. The programmes run by the DAAD and Alexander von Humboldt Foundation with German Government funding will contribute to the achievement of the national target measured by this indicator. For example, a new scholarship will be added to the EPOS programme as of 2020 using funds from the special Training and Employment initiative. With more funding, around 120 individual scholarships are to be granted to students from seven African partner countries. They can be used for a selection of master's programmes offered by German universities which, with integrated elements of practical application and a focus on especially forward-looking sectors of the economy, play an important role in qualifying outstanding students from African partner countries for the long term.

17.3 Imports from least developed countries

Opening markets – Improving trade opportunities for developing countries



Definition of the indicator

The indicator shows what share of imports to Germany come from the least developed countries (LDCs), measured in EUR.

Targets and intention of the German Government

For global sustainable development to succeed, it is important to improve the trading opportunities available to developing and emerging countries. They need an open and fair trading system that will allow them to offer raw materials as well as processed products on the world market. The German Government has therefore set itself the target of doubling the proportion of its imports that come from LDCs between 2014 and 2030.

Content and development of the indicator

Information about imports to Germany is compiled from the foreign-trade statistics of the Federal Statistical Office.

The type of the goods imported is recorded in detail in addition to their country of origin, value and weight. The service sector is not included in the foreign-trade statistics.

The various countries' classification as LDCs is taken from the list of ODA recipients maintained by the OECD's Development Assistance Committee (DAC). The indicator uses the list of LDCs valid according to the DAC for each particular reporting years. If the status of a country changes, this will have an impact on the indicator even if the value of imports from that country remains unchanged. However, changes in countries' status have scarcely affected the development of the indicator in the period shown.

The issue of reimports means that the possibility of duplicate entries in the numerator and denominator of the indicator cannot be ruled out. The fact that the imports from LDCs are viewed in relation to all German imports must also be taken into account. The consequence is that the value of the indicator depends not only on the absolute quantity of imports from LDCs but also on the value of all imports.

Alongside Germany's total imports from LDCs, the indicator also shows what share is made up of processed products. The intention here is to address the question, at least to some extent, as to whether Germany mainly uses LDCs as sources of basic materials for industrially produced goods or whether the LDCs themselves have a stake in the manufacturing process and the associated value creation. These include all goods not classified as raw materials in the classification according to product groups of the food and industrial economy (EGW). The term thus does not encompass products extracted from nature and not or hardly processed, such as petroleum, ores, timber in the rough or vegetable textile fibres. Conversely, cereals, vegetables, live animals, meat and milk are classified as processed products.

Imports from LDCs accounted for 0.94 % of all imports to Germany in 2019 and were valued at EUR 10.4 billion. This equates to an increase of 116 % compared with 2002, when that share was just 0.44 %. However, the positive trend only goes back to 2008. The share of imports of processed products from LDCs rose even more sharply between 2002 and 2019 (+151%). It reached 0.89 % of total imports to Germa-

ny in 2019 – compared to 0.36 % in 2002 – which equates to a value of around EUR 9.9 billion. That share has stagnated in the last three reporting years. Nonetheless, if the increase over the last five years continues, is it to be expected that the benchmark will be reached.

Closer analysis of the various countries of origin reveals that almost three quarters of Germany's imports from LDCs in 2019 came from Bangladesh (57 %) or Cambodia (16 %). If one looks not only at the LDCs but at all developing and emerging countries, their share of total imports to Germany in 2019 was 21.8 %, and processed products from those countries accounted for 20.11 % (up from 13.67 % and 12.17 % respectively in 2002). Imports from LDCs, both in terms of all goods and in terms of processed goods, thus account for a rather small share of imports from developing and emerging countries. As is shown above, however, their share of Germany's total imports has increased more dramatically over time. Not only among developing and emerging countries but also more generally, China plays the most major role. Of all German imports in 2019, 9.97 % came from China alone, with processed goods making up 9.94 %.

German Government activities relating to the indicator

Developing countries depend on regulated international trade for their sustainable economic development. What is more, brisk commercial exchange helps to lower the risk of conflict between the trading states. However, particularly developing countries with low revenues and LDCs still face major challenges when trying to integrate themselves into global value chains and can make only limited use of the opportunities offered by international trade. The German Government therefore works to encourage exports from developing countries, especially LDCs, in fulfilment of an obligation to which great importance is ascribed, not least by the Addis Ababa Action Agenda. The German Government particularly foregrounds imports of processed products to Germany.

While the indicator initially charted German imports from all developing countries, it now focuses on the share of imports from LDCs. This amendment was a response to the fact that a major portion of the import growth of recent years is attributable to the sharp rise in imports from China and other newly industrialised countries, which are also classified as developing countries. A change was therefore needed, as the indicator is supposed to measure the access to the global market enjoyed by those countries which face the greatest challenges in this regard. Imports of processed products are particularly relevant in this context and must be considered separately. Focusing on the share of imports from LDCs also places the emphasis on boosting LDCs'

competitiveness. This is crucial for them to more fully exploit the potential of international trade for their development. This indicator is coupled to SDG target 17.11 of the 2030 Agenda, which calls for exports from developing countries to be significantly increased and, in particular, for the LDCs' share of global exports to be doubled by 2020.

Previous measures

Germany is active in the Aid for Trade initiative as the second-largest contributing country worldwide. Created in 2005, the initiative aims to increase developing countries' trading capacity. It seeks not only to improve developing countries' opportunities on global markets but also to help those countries meet social-welfare, labour and environmental standards. The European Union moreover grants all LDCs duty- and quota-free market access for all product groups apart from weapons, ammunition and accessories as part of the Everything but Arms (EBA) initiative.

Planned additional measures

By maintaining its targeted support for LDCs within the framework of Aid for Trade, Germany can help improve the integration of LDCs into the global system of trade. Germany will continue to encourage the growth of productive capacities in LDCs through its Aid for Trade projects, especially with regard to processed goods produced in line with social-welfare, labour and environmental standards.



Chapter D.

Outlook

In the wake of the COVID-19 pandemic, Germany and the entire world are facing unprecedented challenges.

Even before the outbreak there was significant pressure to act in many areas, both nationally and globally, and that pressure has grown massively in the interim.

The task now is to set the right course. The short-term measures that have been and will continue to be taken under the present circumstances can often have a long-term impact, and can therefore succeed only if they factor sustainability into the mix. The coming months and years will help to determine whether or not the international community will be able, in the long term, to meet the central challenges that sustainable development presents.

One third of the set time period has passed since the countries of the world set themselves the global Sustainable Development Goals in the 2030 Agenda of 2015. Achieving them remains imperative if the world and the people who live here are to have a future worth living. That makes it all the more important to use the next ten years to make wide-ranging progress. We need a Decade of Action more than ever.

This is true not only at the national level, but also internationally. We need a multilateral approach, in particular under the umbrella of the United Nations, as a power for peace, and in Europe within the institutions of the EU and in bilateral co-operation. The fate of Germany and of Europe as a whole is closely bound up with the fate of the other countries and regions of the world. The COVID-19 pandemic has demonstrated that with singular clarity.

We must take the next steps quickly, because we still have a long way to go to achieve a truly sustainable world. Speed is not enough on its own, however. We also need the stamina to go the distance. We want to go fast, and we want to go far. Indeed, we must.

The German Government will therefore make the most of what remains of this legislative term to push ahead with the implementation of the plans set out in this Strategy. These include, in particular, the Joint effort for sustainability. We can only achieve a sustainable future if we work together.

All in all, efforts to achieve sustainability will be an ongoing task that extends across election periods, and that continues to demand politicians' attention throughout election cycles to come.

The path to sustainable development, be it globally or nationally, has been made even more arduous by the pandemic, yet tread it we must. We must set the right course now, in all areas, to achieve the profound change that is so needed. Together, we can do it. Success is in our own hands.

Overview: Content and management of the German Sustainability Strategy (Sustainability Management System)

I. Significance, basis and scope of sustainability as an instrument of control

1. Sustainable development (sustainability) is the guiding principle behind the policies of the German Government. As a goal and yardstick of government action at national, European and international levels, it must be observed when enacting measures in all policy fields. The planetary boundaries of our Earth together with the objective of a dignified life for all form the ultimate constraints for political decisions.
2. Sustainability aims to achieve intergenerational equity, social cohesion and quality of life, and to assume international responsibility. With this in mind, economic performance, the protection of natural resources, and social responsibility are to be united to ensure that developments are viable in the long term.
3. The German Sustainable Development Strategy is the 2016 revision of the 2002 Strategy (National Sustainable Development Strategy), with the present update. It sets out a process of policy development for the longer term and offers guidance with regard to this process.
4. Primary responsibility for sustainable development at the national level rests with the Federal Chancellery, in order to emphasise its importance for all policy areas and safeguard monitoring and control across all ministries.
5. Making sustainability a reality depends to a large extent on how all levels interact:
 - a) International level
Germany is committed to achieving progress on sustainable development within the United Nations framework – and the High Level Political Forum (HLPF) in particular – as well as in other formats such as the G7 and G20, and bilaterally.
 - b) European level
Germany
 - is committed to strengthening sustainability and to implementing the 2030 Agenda at the European level, specifically via a shared implementation strategy and the link between it and national strategies; and

– cooperates closely with other European countries on sustainable development issues, the European Sustainable Development Network being one vehicle here.

c) Länder and local government

The Federal Government and the Länder communicate regularly in the relevant forums with the aim of improving the coordination of activities and goals. Particular emphasis is placed on the Federation-Länder Exchange on Sustainable Development. The Strategy is based on the joint declaration by the Federation and the Länder of 6 June 2019 on sustainable development. Municipal umbrella organisations are also involved in the work of the Strategy.

6. Social stakeholders: the Joint Effort for Sustainability

The German Government regards sustainability as a community project that should involve all social stakeholders.

– Stakeholders from civil society (the public, trades unions, religious organisations and civic associations) are an integral part of achieving sustainability in many different ways, and are constantly involved. Among other things, consumers make individual contributions by selecting products and using them in a socially acceptable, environmentally friendly and economically useful manner.

– The private sector – businesses, chambers of commerce and associations – are called upon to do their part to support sustainable development. For example, businesses are responsible for their own production processes, products and services, and the associated supply chains, as well as for upholding human rights. Informing consumers about the health and environment-related properties of the products and about sustainable production methods is part of this responsibility.

– The scientific community plays an important part in the updating and implementation, based on knowledge and facts, of the German Sustainable Development Strategy.

– The arts and the media sketch out the kind of society in which we want to live in the future, and function as drivers of innovation for sustainable development

II. Sustainability management concept

1. The ministries within the German Government use the sustainable development management concept to assess and develop measures in their particular areas of responsibility. This concept contains the following three elements:

- Principles of sustainable development (see 2. below)
- Indicators and targets (see 3. below)
- Monitoring (see 4. below).

2. Principles of sustainable development

The following principles set out the fundamental requirements for sustainable policy. They intended as an aid to putting the guiding principle of sustainable development into practice. The principles are based on the 2030 Agenda for Sustainable Development, and set in the context of the pressing need to transform our society and our economy.

(1) Apply sustainable development as a guiding principle at all times and in all decisions

The overriding goal and benchmark of all actions is to safeguard the Earth's natural resources on a permanent basis and to enable all people to live a life in dignity now and in the future.

To this end, economic efficiency, the protection of natural resources, social justice and equal participation must be synthesised in all decisions, while taking account of systemic interrelationships and technological and societal innovations, so that developments for present and future generations are environmentally and socially sustainable on a global scale. Political action must be coherent

(2) Assume global responsibility

- a) In line with the United Nations 2030 Agenda for Sustainable Development and the Paris Climate Agreement, the following must be combined at global level:
 - The fight against poverty, hunger, social inequality and exclusion;
 - Respecting, protecting and guaranteeing human rights;
 - Comprehensive participation for all in economic and social development;

- Protection of the environment, especially the climate, including compliance with environmental boundaries in a regional and global context;

- Responsible government action under the rule of law.

b) Germany must consider and encourage sustainable development in other countries. Wherever possible, our actions in Germany must not cause burdens for people or the environment in other countries.

(3) Strengthen the natural resource base on which life depends

a) To strengthen the natural resource base and keep within planetary boundaries, material cycles must be closed as quickly as possible and/or brought into alignment with ecosystem process and functions. To this end:

- Renewable natural goods (e.g. woods and fish populations) and soils may be used only within the bounds of their ability to regenerate and without impairing their other environmental functions;

- Non-renewable natural goods (e.g. mineral raw materials and fossil fuels) must be used as sparingly as possible. Renewable resources are to replace the use of non-renewable resources, provided this reduces the environmental impact and this use is also sustainable in every aspect;

- Substances may be released into the environment only in line with the precautionary principle and within the environmental boundaries of the sustainability of natural systems (environmental responsiveness).

b) Dangers and unjustifiable risks to human health and nature must be avoided.

(4) Strengthen sustainable economic activity

a) The structural transformation required for global sustainable consumption and production and the technological advancements to be harnessed for this purpose should be financially viable as well as ecologically and socially sustainable, and should ensure intergenerational equity in the German and global contexts.

b) Energy and natural resource consumption and the use of transportation must be decoupled from economic growth. At the same time, the aim must be to curb the increase in demand for energy, resources and trans-

- port, and for consumption to decline as a result of efficiency gains (absolute decoupling).
- c) Sustainable agriculture and fishing must be productive, competitive and socially and environmentally compatible; they must protect and conserve biodiversity, soils and waters in particular, and take into account the requirements of both livestock farming that respects animal welfare, and precautionary consumer protections, especially where health is concerned.
- d) Public budgets are obliged to take account of intergenerational equity in all of the dimensions of sustainability. The financial markets must also factor in the demands of sustainable development.
- (5) Preserve and enhance social cohesion in an open society
- To strengthen social cohesion and leave no one behind:
- poverty and social exclusion should be overcome and prevented to the greatest possible extent, and inclusive prosperity promoted;
 - efforts should be made to achieve equivalent living standards in every region;
 - everyone should have an equal opportunity to share in economic growth;
 - Necessary adaptations to demographic change must be made at an early stage at the political and economic levels and in society;
 - everyone should be able to take part fully in social, cultural and political life without discrimination;
 - contributions should be made to reduce poverty and inequality worldwide.

(6) Use education, science and innovation as drivers of sustainable development

- a) The necessary qualifications and skills must be enshrined throughout the education system in the interests of education *for sustainable development*.

Opportunities to participate in high-quality education and acquire capabilities in sustainable development must be further improved, regardless of background, gender or age.

- b) All decisions must be based on scientific findings. Science and research are called upon to focus more intensively on the goals and challenges of global sustainable development.
- c) Sustainability aspects must be included consistently, right from the start, in innovation processes, especially in the context of digitalisation, so that opportunities for sustainable development can be seized and risks for people and the environment can be avoided. At the same time, willingness and scope to innovate must be broadened.

3. Sustainable development is measured in 39 areas using the following key indicators:

No.	Indicator field <i>Sustainability postulate</i>	Indicators	Targets
SDG 1. End poverty in all its forms everywhere			
1.1.a	Poverty <i>Limiting poverty</i>	Material deprivation	Keep the proportion of persons who are materially deprived considerably below the EU-28 level by 2030
1.1.b		Severe material deprivation	Keep the proportion of persons who are severely materially deprived considerably below the EU-28 level by 2030
SDG 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture			
2.1.a	Farming <i>Environmentally sound production in our cultivated landscapes</i>	Nitrogen surplus in agriculture	Reduction of the nitrogen surpluses of the overall balance for Germany to 70 kilograms per hectare of utilised agricultural area on an annual average between 2028 and 2032
2.1.b		Organic farming	Increase the proportion of organically farmed agricultural land to 20 % by 2030
2.2	Food security <i>Realising the right to food world-wide</i>	Support for good governance in attaining appropriate nutrition worldwide	Funds disbursed for the application of the guidelines and recommendations of the UN Committee on World Food Security (CFS) to be increased appropriately as a percentage of total spending on food security by 2030
SDG 3. Ensure healthy lives and promote well-being for all at all ages			
3.1.a	Health and nutrition <i>Living healthy longer</i>	Premature mortality (women)	To be reduced to 100 cases per 100,000 inhabitants (women) by 2030
3.1.b		Premature mortality (men)	To be reduced to 190 cases per 100,000 inhabitants (men) by 2030
3.1.c		Smoking rate among adolescents	Reduction to 7 % by 2030
3.1.d		Smoking rate among adults	Reduction to 19 % by 2030
3.1.e		Obesity rate among children and adolescents	Increase to be permanently halted
3.1.f		Obesity rate among adults	Increase to be permanently halted
3.2.a	Air pollution <i>Keeping the environment healthy</i>	Emissions of air pollutants	Reduction of emissions to 55 % of 2005 level (unweighted average of the five pollutants) by 2030

3.2.b		Share of the population with excessive exposure to PM ₁₀	WHO particulate matter guideline value of 20 micrograms/cubic metre for PM ₁₀ to be adhered to as widely as possible by 2030
3.3	Global health <i>Strengthening the global health architecture</i>	Germany's contribution to global pandemic prevention and response	Expenditure to be increased by 2030
SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all			
4.1.a	Education <i>Continuously improving education and vocational training</i>	Early school leavers	Reduce the proportion to 9.5 % by 2030
4.1.b		Persons with an academic or higher vocational qualification (30 to 34 year-olds with a tertiary or post-secondary non-tertiary level of education)	Increase the proportion to 55 % by 2030
4.2.a	Prospects for families <i>Improving the compatibility of work and family life</i>	All-day care provision for 0 to 2-year old children	Increase to 35 % by 2030
4.2.b		All-day care provision for 3 to 5-year old children	Increase to 60 % by 2020 and to 70 % by 2030
SDG 5. Achieve gender equality and empower all women and girls			
5.1.a	Equality <i>Promoting equality and a partnership-based division of responsibilities</i>	Gender pay gap	Reduce the gap to 10 % by 2020, maintained until 2030
5.1.b		Women in management positions in business	30 % women on supervisory boards of listed and fully co-determined companies by 2030
5.1.c		Women in management positions in the federal civil service	Equal-opportunity participation of women and men in civil service management positions by 2025
5.1.d		Proportion of fathers receiving parental allowance	65 % bis 2030
5.1.e	<i>Strengthening the economic participation of women globally</i>	Vocational qualifications of women and girls through German development cooperation	To be increased gradually by a third by 2030 compared to 2015 as the base year

SDG 6. Ensure availability and sustainable management of water and sanitation for all			
6.1.a	Water quality <i>Reduction of substance pollution in water</i>	Phosphorus in flowing waters	Not exceeding benchmark values for specific types of water bodies at all monitoring points by 2030
6.1.b		Nitrate in groundwater	Compliance with the nitrate threshold value of 50 mg/l at all monitoring points by 2030
6.2.a	Drinking water and sanitation <i>Better access to drinking water and sanitation worldwide, higher (safer) quality</i>	Number of people gaining first-time or upgraded access to drinking water owing to German support	6 million people per year by 2030
6.2.b		Number of people gaining first-time or improved access to sanitation owing to German support	4 million people per year by 2030
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all			
7.1.a	Resource conservation <i>Using resources economically and efficiently</i>	Final energy productivity	Increase by 2.1 % per year from 2008 to 2050
7.1.b		Primary energy consumption	Reduction by 20% by 2020, by 30% by 2030, and by 50% by 2050, all compared to 2008
7.2.a	Renewable energies <i>Strengthening a sustainable energy supply</i>	Share of renewable energies in gross final energy consumption	Increase to 18 % by 2020, to 30 % by 2030, to 45 % by 2040 and to 60 % by 2050
7.2.b		Share of electricity from renewable energy sources in gross electricity consumption	Increase to at least 35 % by 2020, 65 % by 2030, and greenhouse gas neutrality of electricity generated and consumed in Germany by 2050
SDG 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all			
8.1	Resource conservation <i>Using resources economically and efficiently</i>	Raw material input productivity	Trend of the years 2000–2010 to be maintained until 2030
8.2.a	Government debt <i>Consolidating public finances – creating intergenerational equity</i>	Government deficit	Annual government deficit less than 3 % of GDP To be maintained until 2030

Overview: Content and management of the German Sustainable Development Strategy

8.2.b		Structural deficit	Structurally balanced government budget, general government structural deficit must not exceed 0.5 % of GDP To be maintained until 2030
8.2.c		Government debt	Ratio of government debt to GDP must not exceed 60 % To be maintained until 2030
8.3	Provision for future economic stability <i>Creating favourable investment conditions – securing long-term prosperity</i>	Gross fixed capital formation in relation to GDP	Appropriate development of the ratio To be maintained until 2030
8.4	Economic performance Combining greater economic output with environmental and social responsibility	Gross domestic product per capita	Steady and appropriate economic growth
8.5.a	Employment Boosting employment levels	Employment rate, total (20 to 64-year-olds)	Increase to 78 % by 2030
8.5.b		Employment rate, older people (60 to 64-year-olds)	Increase to 78 % by 2030
8.6	Global supply chains <i>Enabling decent work worldwide</i>	Members of the Textiles Partnership	Significantly increase by 2030
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation			
9.1.a	Innovation <i>Shaping the future sustainably with new solutions</i>	Private and public expenditure on research and development	At least 3.5 % of GDP per year by 2025
9.1.b		Rollout of broadband – share of households with access to gigabit broadband services	Universal gigabit network rollout by 2025
SDG 10. Reduce inequality within and among countries			
10.1	Equal educational opportunities <i>Improving educational success of foreigners in German schools</i>	Foreign school graduates	Increase the proportion of foreign school leavers with a least a secondary general school certificate and bring into line with that of German school leavers by 2030

10.2	Distributive justice <i>Preventing excessive inequality within Germany</i>	Gini coefficient of income after social transfers	Gini coefficient of income after social transfers to be below the EU-28 figure by 2030
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable			
11.1.a	Land use <i>Using land sustainably</i>	Expansion of settlement and transport area in ha per day	Reduction to under 30 ha on average per day by 2030
11.1.b		Loss of open space area	Reduce the loss of per capita open space area
11.1.c		Density of settlements	No reduction in density of settlements
11.2.a	Mobility <i>Guaranteeing mobility – protecting the environment</i>	Final energy consumption in goods transport	Reduction by 15–20 % by 2030
11.2.b		Final energy consumption in passenger transport	Reduction by 15–20 % by 2030
11.2.c		Accessibility of medium-sized and large cities by public transport	Reduction of average travel time by public transport
11.3	Housing <i>Affordable housing for all</i>	Housing cost overload	Reduce the proportion of people who are overburdened to 13 % by 2030
11.4	Cultural heritage <i>Improving access to cultural heritage</i>	Number of objects in the German Digital Library	Increase in the number of objects in the network of the German Digital Library to 50 million by 2030
SDG 12. Ensure sustainable consumption and production patterns			
12.1.a	Sustainable consumption <i>Making consumption environmentally and socially compatible</i>	Market share of products certified by publicly managed eco-labelling schemes (in future: market share of products and services bearing trustworthy and demanding eco- and social labels)	Increase the market share to 34 % by 2030
12.1.ba		Global environmental impact by private household consumption – use of raw materials	Steady reduction
12.1.bb		Global environmental impact by private household consumption – energy consumption	Steady reduction

Overview: Content and management of the German Sustainable Development Strategy

12.1.bc		Global environmental impact by private household consumption – CO ₂ emissions	Steady reduction
12.2	Sustainable production <i>Steadily increasing the proportion of sustainable production</i>	EMAS eco-management	5,000 locations of organisations by 2030
12.3.a	Sustainable procurement <i>Giving shape to the public sector's exemplary role in sustainable procurement</i>	Paper bearing the Blue Angel label as a proportion of the total paper consumption of the direct federal administration	Increase the proportion to 95 % by 2020
12.3.b		CO ₂ emissions of commercially available vehicles in the public sector	Significantly reduce
SDG 13. Take urgent action to combat climate change and its impacts			
13.1.a	Climate protection <i>Reducing greenhouse gases</i>	Greenhouse gas emissions	Reduce by at least 40 % by 2020 and by at least 55 % by 2030, in each case compared to 1990; greenhouse gas neutrality to be achieved by 2050
13.1.b	Contribution to international climate finance	International climate finance for the reduction of greenhouse gases and adaptation to climate change	Double finance by 2020 compared to 2014
SDG 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development			
14.1.aa	Protecting the oceans <i>Protecting and sustainably using oceans and marine resources</i>	Nitrogen input in coastal and marine waters – nitrogen input via the inflows into the Baltic Sea	Adherence to good quality in accordance with the Ordinance on the Protection of Surface Waters (annual averages for total nitrogen in rivers flowing into the Baltic may not exceed 2.6 mg/l)
14.1.ab		Nitrogen input in coastal and marine waters – nitrogen input via the inflows into the North Sea	Adherence to good quality in accordance with the Ordinance on the Protection of Surface Waters (annual averages for total nitrogen in rivers flowing into the North Sea may not exceed 2.8 mg/l)
14.1.b		Share of sustainably fished stocks of fish in the North and Baltic Seas	All fish stocks used for commercial purposes to be sustainably managed in accordance with the Maximum Sustainable Yield (MSY) approach by 2020

SDG 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss			
15.1	Biodiversity <i>Conserving species – protecting habitats</i>	Biodiversity and landscape quality	Reach the index value of 100 by 2030
15.2	Ecosystems <i>Protecting ecosystems, conserving ecosystem services and preserving habitats</i>	Eutrophication of ecosystems	Reduction by 35 % by 2030 compared to 2005
15.3.a	<i>Preventing deforestation and protecting soils world-wide</i>	Preservation or restoration of forests in developing countries under the REDD+ rulebook	Increase payments by 2030
15.3.b		German gross bilateral development expenditure for the implementation of the UN Convention to Combat Desertification	Increase payments by 2030
SDG 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels			
16.1	Crime <i>Further increasing personal security</i>	Criminal offences	Reduce the number of criminal offences recorded per 100,000 inhabitants to less than 6,500 by 2030
16.2	Peace and security <i>Taking practical action to combat proliferation, especially of small arms</i>	Number of projects to secure, register and destroy small arms and light weapons carried out by Germany in affected regions of the world	At least 15 projects a year by 2030
16.3.a	Good governance <i>Combating corruption</i>	Corruption Perceptions Index in Germany	Improvement by 2030, compared to 2012
16.3.b		Corruption Perceptions Index in partner countries for German development cooperation	Improvement by 2030, compared to 2012
SDG 17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.			
17.1	Development co-operation <i>Supporting sustainable development</i>	Official development assistance as a proportion of gross national income	Increase the proportion to 0.7 % of gross national income by 2030

17.2	Knowledge transfer, especially in technical areas <i>Sharing knowledge internationally</i>	Number of students and researchers from developing countries and LDCs per year	Increase the number by 10% from 2015 to 2020, then stabilise
17.3	Opening markets <i>Improving trader opportunities for developing countries</i>	Imports from least developed countries	Increase the proportion by 100 % by 2030 compared to 2014

4. Monitoring

- a) The progress made in implementing the Strategy and planned further measures are reported and the Strategy is enhanced regularly:

Every two years, the Federal Statistical Office publishes an Indicator Report. The Office is responsible for the technical analysis of the indicators and their development.

The Strategy is updated once per legislative term, as part of comprehensive Strategy reporting. These reports evaluate progress with Strategy implementation, contain specific measures to achieve the set goals, and further develop the Strategy.

The reports are made available to the German Bundestag for information purposes.

- b) The public is comprehensively involved at an early stage in updating the Strategy.
- c) In addition, once per legislative term the individual ministries report to the State Secretaries' Committee on Sustainable Development on how all of the component parts of their ministry policies help to further the implementation of the German Sustainable Development Strategy and the SDGs. Particular attention is paid here to conflicting objectives, and to how these goals interact with other targets. The ministry reports are published and transmitted to the Parliamentary Advisory Council on Sustainable Development for information purposes.

III. Institutions

1. The Federal Cabinet adopts changes and enhancements to the German Sustainable Development Strategy.
2. The State Secretaries' Committee on Sustainable Development
 - a) Updates the substance of the German Sustainable Development Strategy;
 - b) Monitors the development of sustainability indicators on a regular basis;
 - c) Is the point of contact for the Parliamentary Advisory Council on Sustainable Development, the Council for Sustainable Development and the Länder;
 - d) Acts as an advisor on current areas of Federal Government work related to sustainability.

All ministries are represented at permanent state secretary level on the Committee. The State Secretaries' Committee is chaired by the Head of the Federal Chancellery.

3. The meetings of the State Secretaries' Committee on Sustainable Development are prepared by a working group under the direction of the Federal Chancellery in which all of the ministries are generally represented by the directors in charge of the matters in question.
4. The Interministerial Sustainability Indicators Working Group, which is chaired by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and includes the Federal Statistical Office, conducts preparatory work with regard to the technical monitoring and improvement of the sustainability indicators.

5. In the German Bundestag, the Parliamentary Advisory Council on Sustainable Development monitors and supports sustainable development policy at the national, European and international levels.
6. The German Council for Sustainable Development (decision of the Federal Cabinet of 26 July 2000, as amended on 4 April 2007):
 - a) Advises the German Government with regard to questions of sustainable development,
 - b) Contributes to improving the Sustainable Development Strategy;
 - c) Primarily contributes to raising public awareness and to social dialogue surrounding sustainability.

The members of the Council are appointed by the German Chancellor.

IV. Strategy implementation procedures within the Federal Government

1. The ministries share responsibility for implementing the German Sustainable Development Strategy. To achieve the both the Strategy's goals and the global Sustainable Development Goals, they contribute within their defined scope of activity, work together interministerially, and coordinate their projects with Länder and local government. They involve private-sector and social stakeholders, as well as political actors, appropriately in their decision-making on policy.
2. On the basis of the Sustainable Development Strategy, the ministries gear their activities, including their administrative practices, to the need for sustainable development. The Ministry Coordinators for sustainable development work towards this. They are:
 - The central points of contact for issues relating to sustainable development;
 - Involved interministerially in implementing the German Sustainable Development Strategy and the 2030 Agenda in the policy of the ministry in question,
 - Involved at interdepartmental level in promoting the consideration of aspects of sustainability in the legislative and regulatory process, and in ministry strategies.
3. The impact of proposed legislation on sustainable development is examined and the results presented (§ 44 (1) sentence 4 of the Joint Rules of Procedure of the Federal Ministries (GGO), § 62 (2) in conjunction with § 44 (1) sentence 1 GGO). In this context, the ministries present

conflicts between the sustainability targets transparently and in the light of expected progress. The assessment is performed within the framework of the regulatory impact assessment by the ministry responsible for the legislative project. The web-based electronic sustainability impact assessment tool eNAP is applied to all regulatory initiatives to improve the quality of those assessments. This rule may be suspended in exceptional cases, subject to the approval of the competent Ministry Coordinator for Sustainable Development. Statements on the impact on sustainable development must also be made in the case of programmes that are particularly relevant to the goals that have been set.

4. The ministries continually monitor the implementation of measures under the Sustainable Development Strategy and, when required, notify the State Secretaries' Committee on Sustainable Development about problems that arise. They regularly adjust existing projects to the targets of the Sustainable Development Strategy, and check whether the latter could also be achieved by adjusting or terminating these projects.
5. As part of their own communications work, the ministries take care to highlight links with the Sustainable Development Strategy as well as to the 2030 Agenda, including in particular links to the Sustainable Development Goals. The ministries support the Press and Information Office of the Federal Government with interministerial communications.
6. The ministries and their executive agencies include sustainability criteria in their governmental actions in order to implement the Programme of Sustainability Measures, i.e. to translate sustainability into real-world administrative action. In doing so they are also helping to achieve climate neutrality by 2030.

Abbreviations

10 YFP	10-Year Framework of Programmes on Sustainable Consumption and Production	BImA	Institute for Federal Real Estate
		BImSchG	Federal Emission Control Act
		BKM	Federal Commissioner for Cultural and Media Affairs
		BLE	Federal Office for Agriculture and Food
		BLE NE	Federation-Länder Exchange on Sustainable Development
A4P	Action-for-Peacekeeping initiative	BMAS	Federal Ministry of Labour and Social Affairs
AA	Federal Foreign Office	BMBF	Federal Ministry of Education and Research
AAAA	Addis Ababa Action Agenda	BMEL	Federal Ministry of Food and Agriculture
ABS	Access and Benefit Sharing	BMF	Federal Ministry of Finance
ACT	Action Towards Climate-Friendly Transport	BMG	Federal Ministry of Health
AfD	Alternative für Deutschland	BMFSFJ	Federal Ministry for Family Affairs
AfNB	Alliance for Sustainable Procurement	BMI	Federal Ministry of the Interior
AfT	Aid for Trade	BMI	Body Mass Index
AG	Aktiengesellschaft, public limited company	BMJV	Federal Ministry of Justice and Consumer Protection
AGEE-Stat	Working Group on Renewable Energy Statistics	BMU	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
AI	Artificial intelligence		
AIDS	Acquired Immune Deficiency Syndrome	BMVg	Federal Ministry of Defence
AMIS	Agricultural Market Information System	BMVI	Federal Ministry of Transport and Digital Infrastructure
APSA	African Peace and Security Architecture		
ARB	Report on Poverty and Wealth	BMWi	Federal Ministry for Economic Affairs and Energy
AREI	Africa Renewable Energy Initiative	BMZ	Federal Ministry for Economic Cooperation and Development
Art.	Article		
APSA	African Peace and Security Architecture	Bn.	Billion
ASEM	Asia-Europe Meetings	BNB	Assessment System for Sustainable Building
ATI	Addis Tax Initiative	BNITM	Bernhard Nocht Institute for Tropical Medicine
AUKM	Agri-environmental and climate measure	BOF	Career Orientation for Refugees
AvH	Alexander von Humboldt Foundation	BÖLN	Federal Organic Farming Scheme and other forms of sustainable agriculture
AVV-EnEff	General Administrative Regulation on the Procurement of Energy-efficient Products and Services	BPA	Press and Information Office of the Federal Government
		bpb	Federal Agency for Civic Education
BA	Federal Labour Office	BRH	German SAI
BAföG	Federal Training Assistance Act	BTF	Bilateral Trust Fund
BAGSO	German National Association of Senior Citizens' Organisations	BZfE	Federal Centre for Nutrition
		BZgA	Federal Centre for Health Education
BAköV	Federal Academy of Public Administration		
BAT	Best Available Techniques	CAFI	Central African Forest Initiative
BBNE	Vocational training for sustainable development	CAP	Common Agricultural Policy
BBSR	Federal Institute for Research on Building, Urban Affairs and Spatial Development	CAPE	Climate Action Peer Exchange
BECCS	Bio-Energy and CCS	CATV	Cable Television
BEEG	Federal Parental Allowance and Parental Leave Act	CBD	Convention on Biological Diversity
		CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
BEG	Federal Funding for Efficient Buildings	CCU/CCS	Carbon Capture and Utilization/
BEHG	Fuel Emissions Trading Act		Carbon Capture and Storage
bff	Federal association of rape crisis centres and women's counselling centres in Germany	CCFLA	Cities Climate Finance Leadership
BFKM	Federal Centre for the Protection of Men against Violence	CDIA	Alliance
			Cities Development Initiative for Asia

CDM	Clean Development Mechanism	DIMR	German Institute for Human Rights
CdS	Conference of the heads of the state and senate chancelleries of the Länder	DKTI	German Climate Technology Initiative
CDR	Corporate Digital Responsibility	DNK	German Sustainability Code
CDR	Carbon Dioxide Removal	DSAA	Digital Skills Accelerator Africa
CDRI	Coalition for Disaster Resilient Infrastructure	DSSD	Data Science for Sustainable Development
CDU	Christian Democratic Union	EAC	Support to Pandemic Preparedness in the East African Community
CEDAW	UN Convention on the Elimination of All Forms of Discrimination against Women	EBA	Everything but Arms
CEFR	Common European Framework of Reference for Languages	ECOWAS	Economic Community of West African States
CEPI	Coalition for Epidemic Preparedness Innovations	ECW	Education Cannot Wait
CFE	Contingency Fund for Emergencies	EEAC	European Environmental Advisory Council
CFF	C40 Cities Finance Facility	EEG	Renewable Energy Sources Act
CFMCA	Coalition of Finance Ministers for Climate Action	EEZ	German Exclusive Economic Zone
CFP	Common Fisheries Policy	EWärmeG	Renewable Energy Heat Act
CFS	Committee on World Food Security (FAO)	EffSTRA	Energy Efficiency Strategy 2050 of the German Government
CHP	Combined heat and power	EITI	Extractive Industries Transparency Initiative
CIFs	Climate Investment Funds)	EKF	Energy and Climate Fund
CLIENT II	International Partnerships for Sustainable Innovations	ELD	Economics of Land Degradation
CLRTAP	Geneva Convention on Long-range Transboundary Air Pollution	ELES	Ernst Ludwig Ehrlich Scholarship Fund
CO ₂	Carbon dioxide	EMAS	Eco-Management and Audit Scheme
COM	European Commission	eNAP	Electronic sustainability impact assessment
COP 21	21st UN Climate Conference in Paris 2015 (Conference of the Parties)	EnEV	Energy Conservation Ordinance
COP 25	UN Climate Conference in Madrid 2019	ENSA	Development Policy School Exchange Programme
COVAX	COVID-19 Vaccines Global Access	eq	Equivalent
COVID-19	Coronavirus disease 2019	EPOS	Development-related postgraduate courses
CPI	Corruption Perceptions Index	ESA	European System of National and Regional Accounts
CSR	Corporate Social Responsibility	ESB	Energetischer Sanierungs fahrplan Bundesliegenschaften (energy-efficient modernisation plan for federal properties)
CSU	Christian Social Union	ESD	Education for Sustainable Development
ct/kwh	Cent per kilowatt hour	ESDN	European Sustainable Development Network
DAAD	German Academic Exchange Service	ESDW	European Sustainable Development Week
DAC	Development Assistance Committee	ESF	European Social Fund
DACCS	Direct Air Capture and CCS	ESG	Energy Efficiency Strategy for Buildings
DAFI	German Academic Refugee Initiative	ESMAP	World Bank Energy Sector Management Assistance Program
DAkkS	German Government accreditation body	EU	European Union
DAS	German Climate Change Adaptation Strategy	EUA	European Environment Agency
db	Deutsche Bahn	EUCPN	European Crime Prevention Network
DCGK	German Corporate Governance Code	EU-ETS	EU Emissions Trading System
DDB	German Digital Library	EU GAP III	EU Gender Action Plan III (for foreign relations)
DEG	German development finance institution	EU-NEC	EU Directive on National Emission Ceilings
DEU	Germany	EU-SILC	European Union Statistics on Income and Living Conditions
DFFF	German Federal Film Fund	EU-WFD	European Water Framework Directive
DGCN	German Global Compact Network		
DGE	German Nutrition Society		
Difu	German Institute of Urban Affairs		

FAO	Food and Agriculture Organization of the United Nations	GHPP	Global Health Protection Programme
FATF	Financial Action Task Force	GKV	Statutory health insurance
FCPF	Forest Carbon Partnership Facility	GMFP	German Motion Picture Fund
FDP	Freie Demokratische Partei	GO4SDGs	Global Opportunities for Sustainable Development Goals
FEAD	Fund for European Aid to the Most Deprived	GOARN	Global Outbreak Alert and Response
FFA	Federal Film Board	GPE	Global Partnership for Education
FFG	Film Subsidies Act	PGP	Gender Pay Gap
FFH-RL	Fauna-Flora-Habitat Directive	GRoW	Global Resource Water
FHK	Association of Women's Shelters	GSDR	Global Sustainable Development Report
FiDAR	Women on Board	GSDS	German Sustainable Development Strategy
FILL	Family and Intergenerational Literacy and Learning	GSP	Generalised Scheme of Preferences
FINA	Strategic Research and Innovation Agenda on the City of the Future	GTIN	Global Timber Tracking Network
FLEGT	EU Forest Law Enforcement, Governance and Trade action plan	GVFG	Community Transportation Financing Act
FLI	Friedrich-Loeffler-Institut	GW	Gigawatt
FOGS	Forensic Genetics for Species Protection	GWBA	Competition Act
FONA	Research for Sustainable Development framework of the BMBF	GWOPA	Global Water Operators' Partnerships Alliance
FONAP	Forum for Sustainable Palm Oil	ha	Hectare
FTIP	Federal Transport Infrastructure Plan	HABITAT	United Nations Human Settlements Programme
FTTB/H	Fibre To The Building / Home	HELCOM	Helsinki Commission (to protect the Baltic Sea)
FüPOG	Act for the Equal Participation of Women and Men in Management Positions in the Private Sector and Public Service.	HFCS	Household Finance and Consumption Survey (eurozone)
FC	Financial cooperation	HFC	Hydrofluorocarbons
FZulG	Research Allowance Act	HIV	Human immunodeficiency virus
		HLFP	High-level Political Forum on Sustainable Development
G5	Group of Five key emerging economies	IASS	Institute for Advanced Sustainability Studies
G7	Group of Seven (Canada, France, Germany, Italy, Japan, the UK, the USA)	ICC	International Criminal Court
G20	Group of Twenty (Argentina, Australia, Brazil, Canada, China, EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the UK, the USA)	ICLA	Infrastructure, Cities and Local Action
		ICN2	Second International Conference on Nutrition
		IDDRI	Institute for Sustainable Development and International Relations
		IEA	International Energy Agency
		IFF	Commitment to combating illicit financial flows
GaFG	All-Day Education and Care Funding Act	IKI	International Climate Protection Initiative
GAK	Joint Task for the Improvement of Agricultural Structures and Coastal Protection	IKZM	Integrated Coastal Zone Management
Gavi	The Vaccine Alliance	ILO	International Labour Organisation
GCM	Global Compact for Safe, Orderly and Regular Migration	IMA	Interministerial Working Group
GDP	Gross Domestic Product	IMF	International Monetary Fund
GEF	Global Environment Facility	INA	Sustainable Agricultural Supply Chain Initiative
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria	INDC	Intended National Determined Contribution
GFMD	Global Forum on Migration and Development	IntG	Integration Act
GG	German Basic Law (Grundgesetz)	INTOSAI	International Organization of Supreme Audit Institutions
GGO	Joint Rules of Procedure of the Federal Ministries	IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
GHD	Business, trade and services	IPCC	Intergovernmental Panel on Climate Change
		IPEG	International Programme on the Elimination of Child Labour

IPZ	City of the Future Innovation Platform	NATO	North Atlantic Treaty Organization
IRECs	Renewable Energy Conferences	NBÖ	National Bioeconomy Strategy
IRENA	International Renewable Energy Agency	NCP	National Contact Point for the OECD Guidelines for Multinational Enterprises
ISA	International Seabed Authority	NDC	National Determined Contribution
ISC3	International Sustainable Chemistry Collaborative Centre	NECP	National Energy and Climate Plans
ISCED	International Standard Classification of Education	NE(R)C-RL	Directive on the reduction of national emissions of specific air pollutants
ISCO	International Standard Classification of Occupations	nEHS	National emissions trading system
ISFL	BioCarbon Fund Initiative for Sustainable Forest Landscapes	NetzDG	Act to Improve Enforcement of the Law in Social Networks
IT	Information technology	NGEU	Next Generation EU
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture	NH3	Ammonia
IUU fishing	Illegal, unreported and unregulated fishing	l	Litre
KAAD	Catholic Academic Exchange Service	LDC	Least-Developed Country
KAUSA	Coordinating Agency for Vocational Training and Migration	LTE	Long-Term Evolution
KdB	Kaufhaus des Bundes	LTRS	Long-Term Renovation Strategy
KfW	Kreditanstalt für Wiederaufbau	LUCI	Leadership for Urban Climate Investments
kg	Kilogram	LULUCF	Land Use, Land Use Change, and Forestry
KiföG	Child Support Act	m ²	Square metre
KiGGs Wave 2	Second wave of nationwide study on the health of children and adolescents	MAB	Men and Biosphere
KiZ	Child supplement	Mbit	Megabit
KJP	Child and Youth Plan	MdB	Member of the Bundestag
KKB	Climate-Neutral Federal Government Coordination Unit	MDG	Millennium Development Goal
KNB	Centre of Excellence for Sustainable Procurement	MENA	Middle East and North Africa
KOK	German NGO Network against Trafficking In Human Beings	NM VOC	Non-Methane Volatile Organic Compound
KSB	Federal Cultural Foundation	NO _x	Nitrous oxide
KSG	Federal Climate Change Act	NPM	National Platform Future of Mobility
KWKG	Combined Heat and Power Act	NQZ	National Quality Centre for Nutrition in Daycare Centres and Schools
KWSB	Commission on Growth, Structural Change and Employment	NRW	North Rhine-Westphalia
		NS	National Socialism
MFF	EU Multiannual Financial Framework	ODA	Official Development Assistance
mg	Milligram	OECD	Organisation for Economic Cooperation and Development
m	Million	ÖGD	German public health service
MonViA	National Monitoring of Biodiversity in Agricultural Landscapes	OGP	Open Government Partnership
MRI	Max Rubner-Institut	OIE	World Organisation for Animal Health, formerly Office International des Epizooties
MSFD	EU Marine Strategy Framework Directive	ÖKOBAUDAT	Standard database for building life cycle assessments
MSP	Multi-Stakeholder Partnership	OSPAR	Oslo-Paris Convention for the Protection of the Marine Environment of the North-East Atlantic
MSY	Maximum sustainable yield	OSCE	Organisation for Security and Cooperation in Europe
NAP	National Action Plan		
NAPE	National Action Plan for Energy Efficiency		



P4R	Partners for Review (P4R) network	PpSG	Nursing Staff Reinforcement Act
PAGE	Partnership for Action on Green Economy	PrävG	Act to Strengthen Health Promotion and Preventive Health Care
PASCH	Schools: Partner for the Future	PROG	Partnership on Regional Ocean Governance
PBnE	Parliamentary Advisory Council on Sustainable Development	PROGREEN	Global Partnership for Sustainable and Resilient Landscapes
PEF	Pandemic Emergency Financing Facility	ProgRess	German Resource Efficiency Programme
PFEE	Energy Efficiency Platform	ProPK	Police crime prevention programme
PIAAC	Programme for the International Assessment of Adult Competencies	R&D	Research and development
PISA	Programme for International Student Assessment	RAI	Responsible Investment in Agriculture and Food Systems
PCS	Police Crime Statistics	REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
PM ₁₀	Particulate matter with an aerodynamic diameter less than 10 µm	SOEP	German Socio-Economic Panel
RECP	Renewable Energy Cooperation Programme	SPACES	Science Partnerships for the Adaptation to Complex Earth System Processes in Southern Africa
RED II	European Renewable Energy Directive	SPD	Social Democratic Party of Germany
REDD+	Reducing Emissions from Deforestation and Forest Degradation	SRHR	Sexual and reproductive health and rights
REFINA	Research for the Reduction of Land Consumption and for Sustainable Land Management	StabG	Promotion of Economic Stability and Growth Act
REM	REDD+ for Early Movers	StA NHK	State Secretaries' Committee on Sustainable Development
REN21	Renewable Energy Policy Network for the 21st Century.	STEMics	Science, Technology, Engineering and Mathematics
RENN	Regional Hubs for Sustainability Strategies	SGP	Stability and Growth Pact
RePhoR	Regional phosphorus recycling	t	Tonne
RKI	Robert Koch-Institut	TAG	Daycare Expansion Act
RMI	Raw Material Input	TA Luft	Technical Instructions on Air Quality Control
RNE	Council for Sustainable Development	TEEB	The Economics of Ecosystems and Biodiversity
SAICM	Strategic Approach to International Chemicals Management	TEU	Treaty on European Union
SDG	Sustainable Development Goal	TKG	Telecommunications Act
SDSN	Sustainable Energy for All Initiative networks	TREMOD	Transport Emission Estimation Model
SE4All	Sustainable Energy for All Initiative	TUMI	Transformative Urban Mobility Initiative
SED	Socialist Unity Party of Germany	UAL-AG	Directors' working group for sustainable development
SEEG	German Epidemic Preparedness Team	UBA	Federal Environment Agency
SES	Socio-economic status	UN	United Nations
SFB	Sustainable Finance Committee	UNAIDS	United Nations Programme on HIV/AIDS
SGB	German Social Code (Sozialgesetzbuch)	UNCAC	United Nations Convention Against Corruption
PM _{2,5}	Particulate matter with an aerodynamic diameter less than 2.5 µm	UNCCD	United Nations Convention to Combat Desertification
PPP	Public-Private Partnership	UN-CRPD	UN Convention on the Rights of Persons with Disabilities
PPCA	Powering Past Coal Alliance	UNDP	United Nations Development Programme
SISI	Sustainability in Science Initiative	UNECE	United Nations Economic Commission for Europe
SKEW	Engagement Global's Service Agency Communities in One World	UNEP	United Nations Environmental Programme
SME	Small and Medium-sized Enterprise	UNESCO	United Nations Educational, Scientific and Cultural Organization
SO ₂	Sulphur dioxide		

UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund; prior to 1987 United Nations Fund for Population Activities
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
UNODC	United Nations Office on Drugs and Crime
USA	United States of America
USD	US Dollar
UV	Ultraviolet light
VerA	Initiative to prevent apprentices from breaking off their training
VergStatVO	Public Procurement Statistics Ordinance
VGGT	Voluntary Guidelines on the Responsible Governance of Tenure
VLRs	Voluntary Local Reviews
VNR	Voluntary National Reviews
WASA	Water Security in Africa
WatE	Water reuse and desalination
WBGU	German Government's Scientific Advisory Council on Global Environmental Change
WED	Programme to combat home burglary
WFP	World Food Programme
WHG	Federal Water Act
WHO	World Health Organization
WIFF	Upskilling Initiative for Early Childhood Education and Care Staff
WLAN	Wireless Local Area Network
WOCAT	World Outlook on Conservation Approaches and Technologies
WPHF	Women's Peace and Humanitarian Fund
wpn2030	Scientific Platform for Sustainability 2030
WRegG	Competition Register Act
WRRL	Water Framework Directive
WSV	Federal Waterways and Shipping Administration
WTO	World Trade Organization
ZFD	Civil Peace Service
ZöL	Strategy for the Future of Organic Farming