United Kingdom of Great Britain and Northern Ireland's Nationally Determined Contribution







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The Paris Agreement provides for the international community to keep the increase in global average temperature to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5°C.

This submission communicates the United Kingdom of Great Britain and Northern Ireland's (the UK's) Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) in line with Article 4 of the Paris Agreement.

In its NDC, the UK is committing to reduce economy-wide greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels. The UK has prepared accompanying information to facilitate clarity, transparency and understanding (ICTU) of the UK's NDC in compliance with Decision 4/CMA.1.1

The UK is submitting its Adaptation Communication² to the UNFCCC in parallel with its NDC and in compliance with Decision 9/CMA.1.³ The Adaptation Communication sets out the UK's domestic and international ambition and action on adaptation and resilience.

The UK also intends to submit its Finance Biennial Communication by the end of 2020 in fulfilment of Article 9.5 of the Paris Agreement.

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¹ Decision 4/CMA.1 https://unfccc.int/documents/193407

² UK's Adaptation Communication to the UNFCCC https://unfccc.int/sites/default/files/resource/UK_adcom.pdf

³ Decision 9/CMA.1 https://unfccc.int/documents/193407

Information to facilitate clarity, transparency and understanding

In line with Article 4, paragraph 8 of the Paris Agreement and Decision 4/CMA.1 the UK submits the following ICTU.

1. Qı	1. Quantifiable information on the reference point		
а	(Reference year)	For carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O), the reference year is 1990.	
		For (hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3) the reference year is 1995.	
		These reference years are consistent with those used in the UK's domestic emissions reduction targets under the Climate Change Act (2008).	
b	Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year	Reference indicator: Net ⁴ greenhouse gas (GHG) emissions in MtCO2e. The reference indicator (MtCO2e) in the reference years (1990 and 1995) will be based on the 1990-2030 UK GHG Inventory submitted to the UNFCCC in 2032. The value for the target year (2030) will be based on applying a 68% fixed percentage reduction target to the reference indicator value.	
С	For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or polices and	Not applicable. ⁵	

⁴ Net emissions means total anthropogenic emissions minus total anthropogenic removals of greenhouse gases. GHG sinks are defined by the UNFCCC as 'any process, activity or mechanism which removes a greenhouse gas from the atmosphere.'

⁵ The use of not applicable acknowledges that certain guidelines are not always relevant to a Party's NDC depending on the type of NDC target that has been set.

	measures as components of nationally determined	
	contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information	
d	Target relative to the reference indicator	An economy-wide net reduction in GHG emissions of at least 68% by 2030 compared to reference year levels.
е	Sources of data used in quantifying the reference point	(Estimates will be based on the 1990-2030 UK GHG Inventory submitted to the UNFCCC in 2032.)
f	Information on the circumstances under which the Party may update the value of the reference indicator	The UK GHG Inventory is reviewed regularly by UN technical experts and is revised each year to incorporate methodological improvements, changes to international reporting guidelines and new data where necessary. Reference year and target year emissions will be based on the 1990-2030 UK GHG Inventory submitted to the UNFCCC in 2032. Information on updates will be included in the UK's Biennial Transparency Reports.
2. Tin	ne frame	
а	Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the	1 January 2021 - 31 December 2030.

b	meeting of the Parties to the Paris Agreement	(Single year target in 2020)
D	Whether it is a single-year or multi-year target, as applicable	(Single-year target in 2030.)
3. Sc	ope and coverage	
а	General description of the target	(An at least 68% economy-wide net reduction in GHG emissions by 2030 compared to reference year levels.)
b	Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines	The sectors, gases, categories and pools covered by the UK's NDC are based on the 2006 (IPCC Guidelines for National Greenhouse Gas Inventories, the 2013 IPCC Kyoto Protocol) (Supplement and the 2013 IPCC Wetlands Supplement. The UK also looks forward to) (implementing methodologies introduced by the 2019 Refinement to the 2006 IPCC) (Guidelines in the future). Sectors covered (Energy (including transport); Industrial Processes and Product Use (IPPU); Agriculture; (Land-use, Land-Use Change and Forestry (LULUCF); and Waste.) (Gases covered) (CO2, CH4, N2O, HFCs, PFCs, SF6 and NF3.) (Pools covered) (All LULUCF pools are included in the NDC: above ground biomass, below ground biomass, litter, deadwood soil organic carbon and stocks of harvested wood products.)

c How paragraphs 31(c) and (d) of decision 1/CP.21 were taken into consideration

The UK's NDC includes all sectors and GHGs covered by the UK's current reporting obligations under the United Nations Framework Convention on Climate Change (hereafter referred to as "the Convention") and the Kyoto Protocol.

Territorial scope of the UK's NDC

The NDC for the United Kingdom of Great Britain and Northern Ireland ("the UK's NDC") encompasses emissions and removals from England, Scotland, Wales and Northern Ireland.

It does not include emissions and removals from the UK's Crown Dependencies or Overseas Territories. The UK Government will consult with UK Crown Dependencies and Overseas Territories on extending the Paris Agreement and the UK's NDC to cover their emissions at an appropriate point in the future.

In the UK GHG Inventory submission to the UNFCCC, the UK will continue to report emissions on behalf of the Crown Dependencies (Jersey, Guernsey, Isle of Man) and the Overseas Territories (Bermuda, Cayman Islands, Falkland Islands, Gibraltar) which have joined the UK's instrument of ratification of the Convention. These emissions currently constitute approximately 1% of the UK emissions total.⁶

International Aviation and Shipping emissions

Emissions from International Aviation and Shipping are not included in the scope of this NDC in line with advice from the Climate Change Committee (CCC), the UK's independent advisors. The UK currently reports these emissions as a memo item in the UK's GHG

⁶ Under the UK's Climate Change Act the scope of emissions covered is limited to those emitted in the UK and UK coastal waters. Therefore, emissions from UK Crown Dependencies and Overseas Territories are not included in UK carbon budgets.

d	Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans	Inventory, ⁷ and is supportive of efforts to reduce these emissions through action under the International Civil Aviation Organisation and the International Maritime Organisation. Not applicable.
4. Pla	anning processes	
а	Information on the planning processes that the Party undertook to prepare its nationally determined contribution and, if available, on the Party's implementation plans, including, as appropriate:	
a(i)	Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner	Domestic institutional arrangements The United Kingdom of Great Britain and Northern Ireland is a Party to the UNFCCC and the Paris Agreement. The UK's NDC represents a single, economy-wide emissions reduction target for England, Scotland, Wales and Northern Ireland. The UK employs a range of institutional structures – at national, sub-national and local level - to enable economy-wide emissions mitigation, as well as numerous policies and measures to underpin delivery. The Department for Business, Energy and Industrial Strategy (BEIS) is responsible for the strategic oversight of the UK's international climate and energy policy, and for the UK Government's domestic climate and energy policy. The Devolved Administrations ⁸ in

⁷ Final UK GHG emissions national statistics (1990 to 2018), Table 8 https://data.gov.uk/dataset/9568363e-57e5-4c33-9e00-31dc528fcc5a/final-uk-greenhouse- gas-emissions-national-statistics

8 The Devolved Administrations refers to the Scottish Government, Welsh Government and Northern Ireland Executive.

Scotland, Wales and Northern Ireland have control over certain policy areas to deliver emissions reductions, while the UK Government retains control over a number of other policy areas. The approach taken by each government will differ, drawing on the range of powers at their disposal.

The legally binding Climate Change Act (2008) sets a framework for the UK to reduce GHG emissions and build capacity to adapt and strengthen resilience to climate risks. The Act originally committed the UK to cut its emissions by at least 80% below the 1990 baseline level by 2050. In 27 June 2019, this target was amended, committing the UK to a legally-binding target of net zero emissions by 2050, set on a whole-economy basis.

The Climate Change Act introduced carbon budgets for the UK Government, which cap emissions over successive five-year periods and must be set 12 years in advance. The first five carbon budgets cover the period from 2008-32, with the sixth carbon budget (2033-38) due to be set by mid-2021.

The Act also established the CCC – the independent statutory body that advises the UK Government and Devolved Administrations on climate change mitigation and adaptation, including emissions reduction targets. When providing advice, the CCC considers the UK's international obligations under the Paris Agreement and the UNFCCC.

As climate change policy is devolved, the Devolved Administrations in Scotland and Wales have their own statutory emissions reduction targets. Progress towards these targets also contributes to achievement of UK-wide targets.

The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amends the Climate Change (Scotland) Act 2009, raising the ambition of Scotland's domestic targets. This sets in law Scotland's target to reach net zero GHG emissions by 2045, and interim

⁹ The UK's Adaptation Communication provides further detail on UK domestic and international adaptation ambition and action.

¹⁰ UK Climate Change Act (2008) http://www.legislation.gov.uk/ukpga/2008/27/contents

targets of 56%, 75% and 90% reductions in emissions by 2020, 2030 and 2040 respectively, relative to a 1990/1995 baseline. Scotland sets annual targets, in contrast to the five-yearly carbon budgets set by the UK and Welsh Governments.

The Environment (Wales) Act (2016)¹¹ requires Welsh Ministers to reduce all emissions in Wales by at least 80% by 2050, against a 1990/1995 baseline. In 2018 the Senedd endorsed the CCC's recommendations and set Wales's targets for 2020 (27%), 2030 (45%) and 2040 (67%), as well as Wales's first two carbon budgets (2016-20 and 2021-25). Following further advice from the CCC, in 2021 the Welsh Government will ask the Senedd to legislate more ambitious targets to 2050, including for 2030.

Northern Ireland contributes to UK-wide carbon budgets. Northern Ireland's current energy strategy is set out in the Strategic Energy Framework for the period 2010-20.¹² Northern Ireland's Department for the Economy is progressing the development of a new longer-term energy strategy to cover the period 2020 to 2050 within the context of achieving net zero emissions by 2050.

For more information on the UK and Devolved Administrations approach to tackling climate change, please see Sections 3.1, 3.2 and 4 of the UK's Fourth Biennial Report¹³ and the CCC's Insight Briefings.¹⁴

The decision on the UK's NDC headline target was led by BEIS and agreed through UK Government governance structures at official and ministerial levels. The target level in the UK's NDC was informed by the UK's commitments under the Paris Agreement, the legally-

¹¹ Environment (Wales) Act (2016) https://www.legislation.gov.uk/anaw/2016/3/contents/enacted

¹² Northern Ireland Strategic Energy Framework https://www.economy-ni.gov.uk/articles/strategic-energy-framework-2010

¹³ UK's Fourth Biennial Report to the UNFCCC https://unfccc.int/documents/208378

¹⁴CCC Insight Briefings: Sharing the UK approach to addressing climate change https://www.theccc.org.uk/publication/insights-briefings-sharing-the-uk-approach-to-addressing-climate-change/

binding net zero commitment, and guidance from the CCC. The ICTU was prepared in collaboration with UK Government departments and the Devolved Administrations.

Policies and measures

Delivery of the UK's NDC will draw on a range of policies and measures already in place, as well as policies and measures that will be developed in the future. For example, in November 2020, the UK Prime Minister set out his ambitious Ten Point Plan for a green industrial revolution. Spanning clean energy, buildings, transport, nature and innovative technologies, the plan will mobilise £12 billion of government investment to create and support up to 250,000 highly-skilled green jobs in the UK, and unlock three times as much private sector investment by 2030.¹⁵

More broadly, the Clean Growth Strategy¹⁶ describes the UK Government's current policies and measures to decarbonise all sectors of the UK economy through the 2020s and beyond. Ahead of COP26, the UK intends to publish a comprehensive Net Zero Strategy, setting out the government's vision for transitioning to a net zero economy by 2050, making the most of new growth and employment opportunities across the UK. The Net Zero Strategy will constitute the UK's revised Long-Term Low Emission Development Strategy to the UNFCCC. The UK also intends to publish ambitious individual plans across key sectors of the economy, including an Energy White Paper, Transport Decarbonisation Plan, England Peat Strategy and Heat and Buildings Strategy ahead of COP26.

The UK is dedicated to promoting equality and inclusion, including women's empowerment and gender equality. Public authorities must fulfil responsibilities set out under the UK's Equality Act (2010),¹⁷ which covers a range of protected characteristics. The UK continues to consider equality issues in domestic decarbonisation policies. For example, specific policies

¹⁵ The UK Government's 10 Point Plan https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution

¹⁶ UK's Clean Growth Strategy https://www.gov.uk/government/publications/clean-growth-strategy

¹⁷ The Equality Act (2010) https://www.legislation.gov.uk/ukpga/2010/15/contents

and targets have been established to enhance diversity, gender equality and women's participation in the offshore wind and nuclear sectors. These have been set out in the Offshore Wind and Nuclear Sector Deals.

The Scottish Government is committed to delivering a green recovery after the impact of Covid-19, and plans outlined in the Programme for Government 2020/21¹⁸ are among a range of measures to protect biodiversity, create green jobs and accelerate a just transition to net zero. Scotland's climate change legislation requires the preparation of regular strategic delivery plans for meeting Scotland's statutory emissions reduction targets. An update to the 2018 Climate Change Plan¹⁹ - which covers the period to 2032 - to deliver the new and more ambitious statutory climate change targets in the 2019 Act (including a 75% reduction by 2030), and as part of a green recovery from Covid-19, will be published in December 2020.

In March 2019, the Welsh Government published Prosperity for All: A Low Carbon Wales,²⁰ setting out 100 policies and proposals from all emissions sectors and Ministerial portfolios for meeting the first Welsh carbon budget (2016-20). Many policies, for example achieving a zero-emission bus fleet by 2028, have a longer lifespan and will therefore feature in the plan for the second Welsh carbon budget (2021-25). This is due to be published in autumn 2021. The Welsh Government is keen to ensure a fair and equitable transition to a decarbonised society and is working with the Wales Centre for Public Policy to develop governance options for achieving this goal.²¹

Northern Ireland's current energy strategy is set out in the Strategic Energy Framework for the period 2010-20. Northern Ireland's Department for the Economy is currently progressing

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¹⁸ Protecting Scotland, Renewing Scotland: The Government's Programme for Scotland 2020-2021 (2020) https://www.gov.scot/publications/protecting-scotland-governments-programme-scotland-2020-2021/pages/10/

¹⁹ Climate Change Plan: third report on proposals and policies 2018-2032 (2018) https://www.gov.scot/publications/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/

²⁰ Prosperity for All: A Low Carbon Wales, Welsh Government (2019) https://gov.wales/low-carbon-delivery-plan

²¹ Why a 'Just Transition'? Decarbonisation and economic justice (2019) https://www.wcpp.org.uk/commentary/why-a-just-transition-decarbonisation-and-economic-justice/

the development of a new longer-term energy strategy to cover the period 2020 to 2050 within the context of net-zero emissions by 2050.

Public participation and engagement

The level of the UK's NDC has been informed by guidance from the CCC, in the context of the UK's legally-binding net zero commitment. In producing its advice for government the CCC relies on a range of evidence, including expert and stakeholder sources. For example, the CCC has in the past run public calls for evidence, roundtables and workshops with non-governmental organisations (NGOs), industry stakeholders and trade associations, and held more than 200 meetings with individual stakeholders across all sectors. More information on this can be found in the CCC's Insight Briefings.²²

The UK Government sought views on the approach to decarbonising the economy in 2017, recognising that clean growth has to be a shared endeavour between government, individuals, companies from different sectors, academia, trade associations, NGOs and local government. This included several specific public consultations that were launched in 2017 and 2018.²³ Since the publication of the Clean Growth Strategy, the government has also run many other public consultations and calls for evidence relevant to the UK's climate ambitions.²⁴

The approach to the UK's NDC was discussed in meetings with NGOs, civil society and business groups, and covered in correspondence with representatives of these groups and

²² Advising on the level of the UK's carbon budgets, CCC (2020) https://www.theccc.org.uk/wp-content/uploads/2020/10/CCC-Insights-Briefing-4-Advising-on-the-level-of-the-UKs-carbon-budgets.pdf

²³ These included consultations on the strategic approach to the aviation sector, on the design of a new industrial heat recovery programme, measures to help businesses use energy more productively, an improved energy and carbon reporting framework for businesses, and on improving energy efficiency regulations and performance standards in private and social rented housing.

²⁴ These have covered the proposed closure of unabated coal power stations, electric vehicle charging, the Renewable Heat Incentive scheme, improving building Energy Performance Certificates, carbon capture usage and storage, new nuclear power projects, incentivising small-scale low-carbon generation, energy efficiency measures for low income and vulnerable households, and a new Government fund to help industry improve energy efficiency and shift to lower carbon energy.

		interested Parliamentarians. A copy of the UK's NDC will be laid in the UK's Houses of Parliament. Ahead of COP26 and beyond, the UK will continue to carry out a wide range of engagement with a cross-section of society including experts, industry, non-governmental organisations, trade bodies and the wider public, which will help shape plans and policies for reaching net zero emissions by 2050. For example, the UK intends to consult next year on a net zero consistent trajectory for the cap on emissions allowances under the new UK Emissions Trading System, and plan to consult shortly on the approach to aviation in the context of the UK's net zero ambition.
a(ii)	Contextual matters, including:	
a(ii)a	National circumstances, such as geography, climate, economy, sustainable development and poverty eradication	For the UK's national circumstances, including climate, population and economy, please see the UK's Seventh National Communication. ²⁵ Sustainable development and poverty eradication The UK is committed to the implementation of the UN Sustainable Development Goals (SDGs). For more information about the UK's approach to the SDGs, please see the UK's Voluntary National Review. ²⁶
a(ii)b	Best practice and experience related to the preparation of the nationally determined contribution	The UK's NDC follows the rules for transparency and understanding set out in Decision 4/CMA.1. As described in Section 4a(i), development of the NDC has been closely linked with the UK's domestic processes for delivery of the net zero commitment under the framework of the

The UK's Seventh National Communication to the UNFCCC https://unfccc.int/documents/198292
 UK's Voluntary National Review 2019 https://sustainabledevelopment.un.org/index.php?page=view&type=30022&nr=1185&menu=3170

er re gu Ni	range of UK Government departments were involved in setting the UK's economy-wide missions reduction target. This is crucial, given that ownership of the policies required to educe emissions is diffuse. Going forward, the UK will continue to follow UNFCCC uidelines and use domestic governance and engagement to track progress against the DC. or more information on the UK's domestic institutional structures and GHG inventory overnance, see Section 4a(i) of the UK's NDC.
cknowledged are Paris The integral of the photon of the p	eyond the communication of an NDC, the UK continues to make progress on priority policy reas that are crucial to the UK's overall approach to climate action. cood security and policy The UK's Agriculture Act ²⁸ obligates the UK Government to produce a domestic and ternational food security report every three years. The UK looks forward to publishing the rest report by the end of 2021. Indee the Kigali Amendment to the Montreal Protocol, the UK is taking ambitious action to have down the UK's use of hydrofluorocarbons (HFCs), including in refrigeration equipment for food storage and distribution and promoting the uptake of sustainable refrigeration and
С	el re re gu N N Fe gu N N Fe gu N N N N N N N N N N N N N N N N N N

CCC advice on the UK's 2030 NDC https://www.theccc.org.uk/publication/letter-advice-on-the-uks-2030-nationally-determined-contribution-ndc/28 UK Agriculture Act (2020) https://www.legislation.gov.uk/eur/2014/517/contents
 F-gas Regulation https://www.legislation.gov.uk/eur/2014/517/contents

any further measures the UK can take to reduce HFC use in favour of climate friendly, energy efficient alternatives.

The Scottish Government has committed to achieving the UN SDGs, including Goal 2 on ending hunger. The SDGs are incorporated in Scotland's National Performance Framework,³⁰ ensuring that these objectives are increasingly located at the centre of policymaking and delivery.

Ocean and marine environment

The UK Government's vision for the marine environment is for clean, healthy, safe, productive and biologically diverse ocean and seas. The sustainable use, protection and restoration of the UK's marine environment is underpinned by the UK Marine and Coastal Access Act (2009),³¹ the Environment Bill³² and Fisheries Act,³³ UK Marine Policy Statement,³⁴ UK Marine Strategy,³⁵ commitment to an ecologically coherent well-managed network of Marine Protected Areas, and Joint Fisheries Statement. The UK Government and Devolved Administrations work together closely on the UK Marine Strategy.

The UK Government's National Adaptation Programme³⁶ outlines how the UK will address marine climate risks by introducing a Sustainable Fisheries policy, giving consideration to climate change in marine planning, building ecological resilience at sea and protecting natural carbon stores through the UK's network of Marine Protected Areas.

³⁰ Scotland's National Performance Framework https://nationalperformance.gov.scot/

³¹ UK Marine and Coastal Access Act (2009) https://www.legislation.gov.uk/ukpga/2009/23/contents

³² UK Fisheries Act (2020) https://www.legislation.gov.uk/ukpga/2020/22/contents/enacted

³³ UK Environment Bill 2019-2021 https://services.parliament.uk/Bills/2019-21/environment.html

³⁴ UK Marine Policy Statement https://www.gov.uk/government/publications/uk-marine-policy-statement

³⁵ UK Marine Strategy: UK updated assessment and Good Environmental Status

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/921262/marine-strategy-part1-october19.pdf

36 UK's National Adaptation Programme https://www.gov.uk/government/publications/climate-change-second-national-adaptation-programme-2018-to-2023

The second Scottish Climate Change Adaptation Programme³⁷ responds to the main climate risks for Scotland. One of seven outcomes of the Programme relates to the marine environment, and sets out actions aimed at achieving the long-term outcome that coastal and marine environments are valued, enjoyed, protected and enhanced, and has increased resilience to climate change.

In November 2019 the Welsh Government published the first Welsh National Marine Plan.³⁸ This sets out policy for the next 20 years to achieve healthy and resilient seas and marine ecosystems, in support of a thriving, sustainable economy. The Plan provides the strategic framework to enable renewable energy generation at sea.

The draft Marine Plan for Northern Ireland,³⁹ published in April 2018, supports the UK Marine Protection Strategy and the UK Government's vision for the marine environment. The sustainable development of Northern Ireland's marine area is further underpinned by the Marine Act (Northern Ireland) 2013⁴⁰ and the Marine and Coastal Access Act 2009.⁴¹ The Plan represents the first step in sustainably managing Northern Ireland's marine area in supporting economic, environmental and social objectives.

Terrestrial biodiversity

The UK will fulfil its responsibilities under the Convention on Biological Diversity, ⁴² the Ramsar Convention⁴³ and the Leaders' Pledge for Nature;⁴⁴ and implement the Convention

³⁷ Climate Ready Scotland: climate change adaptation programme 2019-2024 (2019) https://www.gov.scot/publications/climate-ready-scotland-second-scottish-climate-change-adaptation-programme-2019-2024/pages/6/

³⁸ Welsh National Marine Plan (2019) https://gov.wales/welsh-national-marine-plan-document

³⁹ Draft Marine Plan for Northern Ireland https://www.daera-

ni.gov.uk/sites/default/files/consultations/daera/Marine%20Plan%20for%20NI%20final%2016%2004%2018.PDF

⁴⁰ Marine Act (Northern Ireland) 2013 http://www.legislation.gov.uk/nia/2013/10/contents

⁴¹ UK Marine and Coastal Access Act (2009) https://www.legislation.gov.uk/ukpga/2009/23/contents

⁴² UK Country Profile, Convention on Biological Diversity https://www.cbd.int/countries/?country=gb

⁴³ UK Profile, Ramsar Convention <a href="https://www.ramsar.org/wetland/united-kingdom-of-great-britain-and-northern-ireland-northern-northern-ireland-northern-ireland-northern-n

⁴⁴ Leaders' Pledge for Nature https://www.leaderspledgefornature.org/

on Biological Diversity's vision that by 2050 biodiversity is valued, conserved, restored and wisely used, maintains ecosystem services, sustains a healthy planet and delivers benefits essential for all people. This will provide significant climate mitigation and adaptation benefits.

UK domestic biodiversity policy is devolved. In England, the UK Government's 25 Year Environment Plan (25YEP)⁴⁵ set out the aim to support nature's recovery and restore historical losses, including for the marine environment. Since then, the government has brought forward the Environment Bill, with measures to restore and enhance nature in England, and is developing a new Environmental Land Management scheme to achieve the 25YEP goals for nature and the net zero target. In England, the government will publish a new strategy for nature following agreement of new global biodiversity targets under the Convention on Biological Diversity, expected in 2021.

The Scottish Government is committed to delivering improved and enduring benefits to the natural environment through the Environment Strategy for Scotland.⁴⁶ Sitting beneath this, the Scottish Biodiversity Strategy⁴⁷ will take account of the new post-2020 global biodiversity framework and targets for the Convention on Biological Diversity's 2050 vision. The Scottish Biodiversity Programme⁴⁸ has been created to coordinate all activity on biodiversity including the development of a future strategic framework for biodiversity in Scotland.

The Nature Recovery Action Plan (NRAP) is the National Biodiversity Strategy and Action Plan for Wales.⁴⁹ It sets out how the Convention on Biological Diversity's Strategic Plan for Biodiversity and the associated Aichi Biodiversity Targets are addressed in Wales. The NRAP has been refreshed for 2020-21 to prioritise the maintenance and improvement of

 $^{^{\}rm 45}$ A Green Future: Our 25 Year Plan to Improve the Environment

 $[\]underline{\text{https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf}$

⁴⁶ The Environment Strategy for Scotland: vision and outcomes https://www.gov.scot/publications/environment-strategy-scotland-vision-outcomes/

⁴⁷ Scottish Biodiversity Strategy https://www.gov.scot/policies/biodiversity/scottish-biodiversity-strategy/

⁴⁸ Scottish Biodiversity Programme https://www.nature.scot/scottish-biodiversity-programme-overview

⁴⁹ Nature Recovery Action Plan, Welsh Government (2015) https://gov.wales/nature-recovery-action-plan

resilient ecological networks and transformative change. Relevant actions include developing the new Sustainable Land Management scheme and the National Forest for Wales, work to improve the condition of Protected Sites Network, and the National Peatland Action Programme. The NRAP will be realigned to address the post-2020 framework for the Convention on Biological Diversity in line with commitments made under the Edinburgh Declaration and the Leaders' Pledge for Nature.

In Northern Ireland, the Department of Agriculture, Environment and Rural Affairs (DAERA) completed a public discussion exercise on a future Environment Strategy for Northern Ireland in February 2020. This will be Northern Ireland's first overarching Environment Strategy and the findings of the public discussion will inform its development. The Department intends to issue the draft strategy for public consultation in spring 2021.

Education and skills

The UK Government is strengthening awareness and building consensus in tackling climate change through various education initiatives at all stages of life, including: a new education course on climate science for 16 to 18 year olds; a Green Home Grant Skills Training competition to support training for installation of energy efficient and low carbon heating measures; and initiatives as part of the UK's Sector Deal on Offshore Wind.

The UK also supports gender balance programmes in physics and computing to increase Science, Technology, Engineering and Mathematics (STEM) take up amongst girls. For example, the UK Government is funding the Institute of Physics to deliver the Improving Gender Balance research trial. This randomised control trial will scale up an approach that has shown significant early promise in increasing girls' uptake of A level physics.

Since 2010, there has been a 31% increase in girls' entries to STEM A levels in England, and there are now one million women working in core STEM occupations. Between 2010

and 2019, the number of women accepted onto full-time STEM undergraduate courses also increased by 34% in the UK.

In December 2020, the Scottish Government will publish a Climate Emergency Skills Action Plan (CESAP) to set out long term skills opportunities and how to manage the challenge of a just transition to net zero. In addition, Scotland's Curriculum for Excellence,⁵⁰ incorporates an emphasis on the cross-cutting theme of Learning for Sustainability – a term that brings together sustainable development education, global citizenship and outdoor learning. The Learning for Sustainability Action Plan⁵¹ will help to ensure that all children and young people in Scotland have the opportunity to experience this vital area of education.

The Welsh Government is investing in people to develop the skills needed for a low-carbon, circular economy, including reskilling workers in existing industries. The Welsh Government will seek to exploit the opportunities of this transition to secure greater added value in sectors like energy and housing (timber in construction and modular housing).

Sustainable lifestyles and sustainable patterns of consumption and production

The UK is committed to delivering a national shift to healthy diets supported by a sustainable food system which contributes towards a reduction in GHG emissions.⁵² The Resources and Waste Strategy⁵³ sets out England's plans to move away from a linear economy, towards a more circular and sustainable economy in which natural resources are used efficiently and waste is minimised.

⁵⁰ Scotland's curriculum – Curriculum for Excellence https://scotlandscurriculum.scot/

⁵¹ Learning for sustainability: action plan (2019) https://www.gov.scot/publications/learning-for-sustainability-vision-2030-action-plan/

⁵² National Food Strategy terms of reference (2019) https://www.gov.uk/government/publications/developing-a-national-food-strategy-independent-review-2019/developing-a-national-food-strategy-independent-review-2019-terms-of-reference

⁵³ Resources and Waste Strategy for England (2018) https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england

The Scottish Government recognises the transition to net zero will require significant lifestyle changes. Scotland's Energy Efficient Scotland Route Map⁵⁴ sets out the vision that by 2040 Scotland's buildings will be warmer, greener and more energy efficient. Scotland's National Transport Strategy⁵⁵ sets out the commitment to implement a sustainable travel hierarchy, where people make travel choices that minimise the long term impacts on the climate and improve the lives of future generations by promoting health and wellbeing. Scotland's Making Things Last strategy⁵⁶ sets out priorities to achieving its commitment to moving towards a more circular economy – where products and materials are kept in high value use for as long as possible. In the 2020 Programme for Government,⁵⁷ Scotland has committed to developing a local food strategy.

The Welsh Government has consulted on a new Circular Economy Strategy.⁵⁸ This proposed a range of actions which seek to keep resources in use for longer and avoid waste. The final strategy will be published in the coming months. The Welsh Government is also stimulating innovation through its Circular Economy Funds, awarding around £40m to businesses and publicly-funded bodies to date.

Northern Ireland published the second iteration of the national Waste Prevention Programme Stopping Waste in its Tracks⁵⁹ in 2019. The programme aims to decouple waste from growth and the actions contained within are designed to help Northern Ireland transition to a low-carbon circular economy.

Health and air pollution

⁵⁴ Energy Efficient Scotland: route map (2018) https://www.gov.scot/publications/energy-efficient-scotland-route-map/

⁵⁵ Scotland's National Transport Strategy https://www.transport.gov.scot/our-approach/national-transport-strategy/

⁵⁶ Making Things Last: a circular economy strategy for Scotland (2016) https://www.gov.scot/publications/making-things-last-circular-economy-strategy-scotland/

⁵⁷ Protecting Scotland, Renewing Scotland: The government's Programme for Scotland 2020-2021 (2020): https://www.gov.scot/publications/protecting-scotland-governments-programme-scotland-2020-2021/pages/10/

⁵⁸ https://gov.wales/circular-economy-strategy

⁵⁹ Northern Ireland Waste Prevention Programme (2019) https://www.daera-ni.gov.uk/consultations/waste-prevention-programme-northern-ireland-2019

The UK recognises the potential for carbon emission reduction policies to improve air quality, but also the risk that some approaches can increase human exposure to air pollution. The UK's support decarbonisation approaches that strive to improve air quality and minimise adverse impacts on human health, balanced with action to achieve reductions in carbon emissions. Air pollution is the top environmental risk to human health in the UK, which is why the UK's Clean Air Strategy⁶⁰ sets out how the UK will tackle all types of air pollution, making the air healthier to breathe and protecting nature. This will save lives and reduce health inequalities, in line with protecting the right to health as set out in the Paris Agreement.

The Scottish Government published its Cleaner Air for Scotland strategy⁶¹ in 2015 setting out a series of actions for improving air quality across a wide range of policy areas, including coordinated action for delivering co-benefits for both air pollutant and GHG reductions. Following an independent review of the strategy in 2019, which made recommendations for additional action on air pollution over the period 2021-2025,⁶² a consultation on a draft new air quality strategy for Scotland is taking place between 30 October 2020 and 22 January 2021.⁶³

The Clean Air Plan for Wales: Healthy Air, Healthy Wales sets the Welsh Government's commitment and long-term ambition to improve air quality, and the steps it will take to deliver this.⁶⁴

The approach in Northern Ireland is similar to that adopted by the UK Government. Officials within DAERA recognise the policy synergies and tensions surrounding air quality and other policy areas such as climate change, energy and fuel usage and have been working collaboratively with other Northern Ireland Government Departments, on the development of

⁶⁰ UK Clean Air Strategy https://www.gov.uk/government/publications/clean-air-strategy-2019

⁶¹ Cleaner air for Scotland: the road to a healthier future (2015) https://www.gov.scot/publications/cleaner-air-scotland-road-healthier-future/

⁶² Cleaner Air for Scotland strategy: independent review (2019) https://www.gov.scot/publications/cleaner-air-scotland-strategy-independent-review/

⁶³ Cleaner Air for Scotland 2 - a consultation on a draft new air quality strategy for Scotland https://consult.gov.scot/environmental-quality/cleaner-air-for-scotland-2

⁶⁴ The Clean Air Plan for Wales: Healthy Air, Healthy Wales (2020) https://gov.wales/clean-air-plan-wales-healthy-air-healthy-wales

		a Discussion Document on the first Clean Air Strategy for Northern Ireland. The Discussion Document was launched for public consultation on 23 November 2020.65
b	Specific information applicable to Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16–18, of the Paris Agreement	Not applicable.
С	How the Party's preparation of its nationally determined contribution has been informed by the outcomes of the Global Stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement	In Paris, 2015, it was agreed that Parties would take stock of their collective efforts in a Facilitative Dialogue in 2018, later called the Talanoa Dialogue. It was decided that the Talanoa Dialogue would play a role in informing the next round of NDCs, and this was reinforced in Decision 1/CP.24. Several Talanoa events took place in the UK in 2018, including one involving the Fijian COP23 Presidency. The UK found this process valuable thanks to the rich and open exchanges, and learnt from the experiences and solutions shared by others, which alongside the latest science, informed UK approaches on the way forward.

⁶⁵ Northern Ireland Clean Air Strategy Discussion Document https://www.daera-ni.gov.uk/clean_air_strategy_discussion_document

		Following the Talanoa Dialogue, the UK took note, alongside other Parties, of the Call for Action, 66 which Parties were invited to consider when preparing their NDCs. The UK has responded by raising its ambition in its NDC. The UK recognises the need for the global community to go further to mitigate the harmful effects of climate change. The UK's NDC has been prepared using the best available science, including recent IPCC assessments such as the IPCC Special Report on Global Warming of 1.5C, as suggested in the Talanoa Call for Action. The UK is looking forward to participating in the first Global Stocktake in 2023, which will inform future NDCs.
d		rmined contribution under Article 4 of the Paris Agreement that consists of adaptation action lans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris on:
d(i)	How the economic and social consequences of response measures have been considered in developing the nationally determined contribution	Not applicable.
d(ii)	Specific projects, measures and activities to be implemented to contribute to mitigation cobenefits, including information on adaptation plans that also yield mitigation co-benefits,	Not applicable.

⁶⁶ Talanoa Dialogue Call to Action https://unfccc.int/news/join-the-talanoa-call-for-action

which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries

5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals

a Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's nationally determined contribution, consistent with decision 1/CP.21, paragraph

In accordance with the modalities, procedures and guidelines outlined in Decisions 4/CMA.1 and 18/CMA.1 of the Paris Rulebook, the UK will publish an annual National Inventory Report and Biennial Transparency Report by 31 December 2024 at the latest, and biennially thereafter, to the UNFCCC. The National Inventory Report will account for UK anthropogenic GHG emissions and removals and the Biennial Transparency Report will report on progress towards the UK's NDC through the use of a structured summary. To account for the UK's NDC, the UK will compare achieved net GHG emission reductions (in MtCO2e values) with the UK's NDC target for 2030.

The UK will comply with future UNFCCC reporting guidelines on tracking, and reporting on, progress against the UK's NDC. This will help inform future Global Stocktakes.

	31, and accounting guidance adopted by the CMA	For the IPCC methodologies and metrics that will be used to account for the UK's NDC, see Section 5(d). Final accounting towards the target will take place in 2032. It will be based on the 1990-2030 UK GHG Inventory, and compare 2030 net GHG emissions to a 1990 reference year for CO2, CH4 and N2O and a 1995 reference year for HFCs, PFCs, SF6 and NF3.67
		The UK intends to meet its NDC target through domestic emissions reductions. If the UK were to use voluntary cooperation under Article 6 of the Paris Agreement, such use would be accounted for in accordance with relevant decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (the "CMA").
b	Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies used in the nationally determined contribution	Not applicable.
С	Information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement.	The UK's current GHG Inventory is submitted in accordance with decision 24/CP.19 and utilises the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol (IPCC 2013 Kyoto Protocol Supplement). The UK's NDC will also adopt the 2013 Wetlands Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

⁶⁷ As stated in Section 1(a), these reference years are consistent with the UK's Climate Change Act (2008), domestic carbon budgets and the UK's Kyoto Protocol commitment. In 2018 F-gases made up 3% of UK net emissions (based on 1990-2018 inventory).

		The UK looks forward to implementing methodologies introduced by the 2019 Refinement to the 2006 IPCC Guidelines in the future.
d	IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals.	The 2006 IPCC Guidelines for National Greenhouse Gas Inventories, 2013 IPCC Kyoto Protocol Supplement and 2013 IPCC Wetlands Supplement will be used for estimating GHG emissions and removals for the UK's NDC. The UK looks forward to implementing methodologies introduced by the 2019 Refinement to the 2006 IPCC Guidelines in the future. The IPCC's 5th Assessment Report on the Global Warming Potentials for a 100-year time horizon will be used to calculate CO2 equivalents of GHG emissions.
е	Sector-, category- or activity-spector as applicable:	cific assumptions, methodologies and approaches consistent with IPCC guidance, including,
e(i)	Approach to addressing emissions and subsequent removals from natural disturbances on managed lands	All emissions and removals reported in the UK GHG Inventory are included in the NDC, with no specific approach to exclude emissions from natural disturbances.
e(ii)	Approach used to account for emissions and removals from harvested wood products	The UK will reflect emissions and removals resulting from changes in the carbon pool of harvested wood products using a production approach.
e(iii)	Approach used to address the effects of age-class structure in forests	Not applicable.
f	Other assumptions and methodological approaches used for understanding the nationally determined contribution and, estimating corresponding emissions and removals, including:	

f(i)	How the reference indicators, baseline(s) and/or reference level(s), including, sector-, category- or activity-specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used	Final reference year and target year emissions will be based on the 1990-2030 UK GHG Inventory submitted to the UNFCCC in 2032. Emissions estimates in the UK GHG Inventory are made using methodologies outlined in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and subsequent IPCC guidelines (see Section 5(d)). The Inventory is revised annually and undergoes extensive review processes.
f(ii)	For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable	Not applicable.
f(iii)	For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated	Not applicable.
f(iv)	Further technical information, as necessary	Not applicable.

g	The intention to use voluntary cooperation under Article 6 of the Paris Agreement	While the UK intends to meet its NDC target through reducing emissions domestically, it reserves the right to use voluntary cooperation under Article 6 of the Paris Agreement. Such use could occur through the linking of a potential UK emissions trading system to another emissions trading system or through the use of emissions reductions or removals units.
6. Ho	w the Party considers that its	NDC is fair and ambitious in the light of its national circumstances
а	How the Party considers that its NDC is fair and ambitious in the light of its national circumstances	The UK's NDC represents a step forward for the UK's ambition to tackle climate change over the next ten years, as the UK accelerates towards meeting the legally binding commitment to net zero by 2050. It is a significant increase from the UK's previous contribution to the EU's Intended NDC of 40% by 2030, which was estimated to be a 53% UK reduction on reference levels. The level of the NDC is consistent with advice from the CCC. The CCC stated that an NDC of at least 68% 'would constitute a decisive commitment to a net zero emissions trajectory, consistent with the Paris Agreement' and 'would place the UK among the leading countries in climate ambition.' 68 BEIS led work across UK Government departments to identify the UK's highest possible ambition, taking account of robust analysis of domestic decarbonisation potential, guidance from the CCC, the temperature goal of the Paris Agreement and the equity principles identified in the IPCC 5th Assessment Report.
b	Fairness considerations, including reflecting on equity	The UK's NDC target level was set taking into account the temperature goal of the Paris Agreement and a range of IPCC recognised equity principles. The IPCC Special Report on the impacts of global warming of 1.5°C sets out global pathways which are consistent with limiting warming to 1.5°C above pre-industrial levels with limited or no overshoot. These

⁶⁸ CCC advice on the UK's 2030 NDC https://www.theccc.org.uk/publication/letter-advice-on-the-uks-2030-nationally-determined-contribution-ndc/

	•	show a reduction in global net anthropogenic GHG emissions of around 45% (40-60% interquartile range) by 2030 compared with 2010 levels. The UK's NDC targets a more rapid reduction than these global pathways: current estimates suggest that the UK's NDC would reduce GHG emissions by approximately 58% on 2010 levels. By reducing emissions by at least 68% on reference year levels (1990/1995), UK emissions per person will fall from around 14 tCO2e in 1990 to fewer than 4 tCO2e in 2030 69
		The CCC has advised that an NDC of at least 68% 'would align with the published pathways from the Intergovernmental Panel on Climate Change (IPCC) for a 1.5°C goal.'
С	How the Party has addressed Article 4, paragraph 3 of the Paris Agreement	The target in the UK's NDC is an ambitious and continued enhancement in the UK's mitigation efforts. It represents a progression beyond the UK's estimated contribution to the Intended NDC previously communicated by the European Union.
		In 2015, the European Commission and the then Council Presidency communicated a Joint Intended NDC on behalf of the European Union and its Member States (then including the UK) of an at least 40% domestic reduction in GHG emissions by 2030 compared to 1990. In its advice on the fifth carbon budget, the CCC estimated that this target implied a reduction in UK emissions of around 53% below 1990 levels. ⁷⁰
		The UK NDC commits the UK to reducing economy-wide GHG emissions by at least 68% by 2030 compared to reference year levels.
d	How the Party has addressed Article 4, paragraph 4, of the Paris Agreement	The UK's NDC is an economy-wide absolute emissions reduction target in compliance with Article 4.4 of the Paris Agreement.

⁶⁹ These estimates are subject to change in line with ongoing improvements to the UK's national GHG Inventory. Final reference year and target year emissions will be based on the UK 1990-2030 GHG Inventory submitted to the UNFCCC in 2032.

⁷⁰ This reflects estimates for the UK's emissions allocations in the traded and non-traded sectors.

е	How the Party has addressed Article 4, paragraph 6, of the Paris Agreement	Not applicable.	
7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2			
а	How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2	The UK's NDC represents the UK's contribution to the objectives of Article 2 of the Convention to stabilise GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Sections 4 and 6 detail the UK's mitigation ambition that will contribute to achieving Article 2 of the Convention.	
b	How the nationally determined contribution contributes towards Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement	See Section 4 and 6 on the UK's legislated commitment to reach net zero emissions by 2050 and how the UK's NDC contributes to that goal.	

