Green Bond Framework

Hungary

July

2023

I. Introduction

In line with international efforts, Hungary is strongly committed to fight climate change and biodiversity loss. Further to its EU's Nationally Determined Contribution ("NDC") under the Paris Agreement, Hungary supported the EU climate neutrality target at the December 2019 European Council and will strive to achieve climate neutrality by 2050. Building on the National Energy and Climate Plan and the National Clean Development Strategy (2050), the Hungarian Government is implementing wide and overreaching climate, energy and environmental policies to transition the country to a low-carbon and environment-friendly economy.

In 2020, the Hungarian Government issued the inaugural Green Bond and published its Green Bond Framework. Since then there have been significant developments in the sustainable finance market. This updated Green Bond Framework ensures that issuances or re-openings of a Green Bond are in line with best market practices.

II. Hungary's climate change and environmental strategy

Within the Carpathian basin, Hungary's rich water resources, arable lands, forests and diverse ecosystem are already witnessing the consequences of climate change such as the reduction in biodiversity, the aggravation of floods and droughts, the deterioration of arable land, water and air pollution, the spreading of invasive species and pests and the growth of diseases attributable to environmental factors. The Hungarian Government is determined to address these environmental challenges, to decarbonise its economy to combat climate change and to leverage this opportunity to gain energy independency.

a. Long standing commitments to address climate change and environmental challenges

Already in 2005, under the **Kyoto Protocol**, Hungary committed to reduce its greenhouse gas ("GHG") emissions by 6% compared with the average level for the period 1985–1987 (base year) during the first commitment period from 2008 to 2012.

In 2008, the Hungarian Parliament approved the first **National Climate Change Strategy** ("NCCS") for 2008-2025 defining important areas of action to mitigate GHG emissions and to adapt to environmental and socioeconomic impacts of climate change. In 2013, a revision of the Strategy was elaborated and then submitted to the Parliament in 2015.

The **Second National Climate Change Strategy** ("NCCS2")[1] took into consideration the new context of international commitments after the *Paris Agreement*. The NCCS2, as approved by the Parliament in 2018, sets up a comprehensive framework of various policies on climate and green economy development for the period of 2018-2030, playing an important role of coordination of all the other sectoral strategies. This strategy also provides an outlook to 2050, including:

- **Hungarian Decarbonisation Roadmap (HDR):** priorities and action lines to reduce GHG emissions.
- **National Adaptation Strategy (NAS)**: covers the assessment of the expected effects of climate change in Hungary and its natural, social and economic consequences and the climate vulnerability assessment of ecosystems and industries.

Hungary has adopted several other strategic documents, such as:

[1] The Second National Climate Change Strategy, available here: https://magyarkozlony.hu/dokumentumok/6bcb816077f795960249fcc31c699245299be2da/letoltes (note only in Hungarian)

- The **National Energy Strategy** 2030[2] with an outlook to 2040 to reduce the importation of fossil energy. Its primary objective is to strengthen Hungary's energy independency. The strategy promotes clean, smart and affordable energy via climate-friendly transformation of the energy sector, further strengthening security of supply and fostering innovation, as well as economic development. It contains the implementation of six flagship programmes (further decarbonisation of the electricity sector, improvement of the energy efficiency of the economy, greening transport, energy-efficient and modern households, energy innovation pilot projects, awareness raising campaigns) and the ~40 measures that are needed.
- As requested by the EU Commission from all Member States, Hungary has published a **National Energy and Climate Plan**[3] to define the path to meet EU 2030 climate and GHG emissions reductions commitments. This plan defines for instance the following Hungarian targets by 2030: reduction of GHG emissions by at least 40% compared to 1990; minimum 21% share of renewable energy in final energy consumption; final energy consumption should not exceed the level of 2005 (785 PJ, if it exceeds, it will be covered from zero-carbon energy sources); decreased net import dependency rates: gas (around 70%), petroleum and oil products (maximum 85%), electricity (maximum 20%).
- The **Climate and Environmental Protection Action Plan**[4] introduces ambitious plans, such as the achievement of 90% share of the carbon neutral domestically produced energy by 2030, 27% increase of areas covered by forest of the country by 2030, or the launch of the Green Bus Programme.
- The **Long Term Renovation Strategy**[5]**,** to improve energy efficiency by reducing the energy consumption of buildings by implementing energy modernization of the domestic building stock. The strategy objectives include harmonisation with the energy and environmental objectives of the EU, modernisation of buildings, reducing energy poverty and reducing GHG emissions, laying down the foundation for achieving a sustainably operated, energy- and cost-efficient domestic building stock by 2050, including 35 measures.
- The **National Forest Strategy** (2016-2030)[6] was developed focusing on the following main areas: 1. The role of forests in rural development, 2. Development of state forest management, 3. Development of private forest management, 4. Nature conservation in forests, 5. Modern forest protection, 6. Sustainable wildlife management, 7. Rational use of forest, 8. Forestry public administration, 9. Research, education, 10. Effective communication meaning the introduction of environmentally friendly forest management and its effects through sectoral communication trainings and encouragement of sector players for communication in order to develop their activities and influencing the attitudes of the target audiences.
- The **National Water Strategy** (2017-2030)[7,8], to define the main goals for development of water management taking into account hydrological conditions, sustainability and professional organisations of water management in Hungary. The Strategy's goals include: improvement of water retention and demand/resource-management, rain water runoff and regulation systems to reduce risk of floods and droughts, rehabilitation of wetlands and oxbows, reconnection rivers to floodplains/side channels/tributaries with water supply and dredging, increasing habitat diversity, improvement river continuity for biota and sediment transport, using nature resources as renewable energy (water, thermal water) and also the public water utilities.
- The **National Biodiversity Strategy** (2015-2020), which sets objectives in several fields such as the protection of areas and species, the maintenance of landscape diversity, green infrastructure, ecosystem services, agriculture, sustainable forest management, protection of water resources, as well as combating invasive alien species. The government started to work

[2] The National Energy Strategy 2030, available here: https://www.enhat.mekh.hu/s/nemzeti_energiastrategia_2030.zip (note only in Hungarian)
[3] The National Energy and Climate Plan, available here: https://energy.ec.europa.eu/system/files/2022-08/hu_final_necp_main_en.pdf
[4] The Climate and Environmental Protection Action Plan, available here: https://2015-2019.kormany.hu/download/5/07/c1000/Climate%20and%20environmental%20protection%20action%20plan_EN.pdf
[5] The Long Term Renovation Strategy, available here: https://energy.ec.europa.eu/system/files/2021-07/hu_2020_ltrs_0.pdf (note only in Hungarian)
[6] The National Forest Strategy (2016-2030), available here: http://erdo-mezo.hu/wp-content/uploads/2016/10/nemzeti_erdostrategia_2016.pdf (note only in Hungarian)
[7] The National Water Strategy (2017-2030), available here: https://www.vizugy.hu/vizstrategia/documents/997966DE-9F6F-4624-91C5-3336153778D9/Nemzeti-Vizstrategia.pdf (note only in Hungarian)
[8] The National Water Strategy Summary, available here : http://eduvizig.hu/sites/default/files/nemzeti-vizstrategia.pdf (note only in Hungarian)

on the renewed **National Biodiversity Strategy** (2021-2030)[9], that is a comprehensive strategy for the preservation and sustainable utilization of Hungary's biological diversity, and is developed in accordance with international and European Union regulations. The strategy is currently under approval.

- Hungary's **National Hydrogen Strategy**[10] setting up priority objectives to reach until 2030, including production of large volumes low-carbon and decentralized carbon-free hydrogen, decarbonisation of industrial consumption, partly with hydrogen, green transport and electricity and (natural) gas support infrastructure. To implement the strategy as soon as possible, there are 6 comprehensive, so-called prioritised projects including the Green Truck Programme, the Green Bus Programme Plus, establishment of hydrogen valleys in Hungary, the Hydrogen Highway Project, the Blue Hydrogen Project and Research, development and innovation.

b. Hungary's current international commitments

Hungary was the first EU member state to ratify the **Paris Agreement** in 2016 and then committed to reduce its GHG emissions by 40% in 2030 (compared to 1990 levels). Hungary is well on track to reach this goal.

To tackle climate change, we have set strong strategic goals in the field of climate and energy policy in Hungary: we reduce GHG emissions by 40%; increase the share of renewable energy from the current 13% to 21%; and in the field of energy efficiency, final energy consumption by 2030 should not exceed the 2005 level (785 PJ).

Comparison of EU and Hungarian targets for 2030 *(status in 2021)*

	EU 2030 targets[11]	Hungary 2030 targets[12]	Recent Hungary situation (2021)
Reduction of total domestic GHG emission *compared to 1990*	min. - 40%	min. - 40%	- 33%[13]
Share of renewable energy in gross final energy consumption	min. 32%	min. 21%	14.1%[14]

Source: EU Commission

In the context of the European Green Deal of December 2019, the Hungarian Government is further committed to make the country climate-neutral by 2050 and to make climate neutrality the ultimate goal of the **National Clean Development Strategy 2050,** which was finalized and adopted by the Government in 2020. In order to achieve this goal, the country plans to:

- reduce GHG emissions by 95% until 2050 compared to 1990 levels
- compensate the remaining 5% by enlarging sink capacities, mainly by afforestation

[9] Draft of the renewed National Biodiversity Strategy (2021-2030), available here: https://www.biodiv.hu/hu/dokumentumok/kategoriak/nemzeti-biodiverzitas-strategia (note only in Hungarian)
[10] Hungary's National Hydrogen Strategy, available here : https://cdn.kormany.hu/uploads/document/a/a2/a2b/a2b2b7ed5179b17694659b8f050ba9648e75a0bf.pdf
[11] European Commission, "2030 climate & energy framework", https://ec.europa.eu/clima/policies/strategies/2030_en
[12] https://energy.ec.europa.eu/system/files/2020-01/hu_final_necp_main_hu_0.pdf
[13] European Commission, "Progress made in cutting emissions", https://climate.ec.europa.eu/system/files/2023-04/hu_2022_factsheet_en.pdf
[14] Hungarian Energy and Public Utility Regulatory Authority: Share of Renewable Sources in Gross Final Energy Consumption, 2005-2021 https://mekh.hu/download/5/93/31000/6_1_share_of_renewable_en_sources_2005_2021.xlsx

New EU and Hungarian targets *(post European Green Deal in December 2019)*

	EU targets	Hungary targets
2030 GHG emission reduction *(compared to 1990)*	- 50-55%	min. - 40%
2050 goal	Net zero GHG emissions	Net zero GHG emissions
2050 GHG emission reduction *(compared to 1990)*	-	- 95%

According to estimations, achieving this goal may cost approx. HUF 50 000 bn (~EUR 139 bn) i.e. 2 to 2.5% of the annual GDP. A part of such investment needs will be funded by the private sector, while another part is provided by EU funding, by the sale of CO_2 quota in the European Emissions Trading System ("EU ETS"), or is supported by the State Budget and will be partially financed by issuing Green Bonds under this Green Bond Framework.

III. Background of the updated Green Bond Framework of Hungary

The Government of Hungary recognizes that sustainable finance, and in particular Green bonds, can play a key role in accelerating the transition to a low-carbon economy. The rationale for issuing Green bonds for Hungary includes:

- enable funding for green government expenditures supporting Hungary's efforts to meet its 2030 emissions reduction target, and achieve net-zero emissions by 2050
- provide investors an opportunity to diversify their portfolios towards sustainable investments
- promoting the Hungarian domestic and international Green bond market

Following a decision from the government, Hungary published its Green Bond Framework and issued its first ever Green bond in 2020. Since then, Hungary has been active on the capital market and issued Green bonds in an amount exceeding 1.6tn HUF (as of December 2022), in several currencies (incl. EUR, HUF, Yen, and Yuan). The strategic ambition remains to issue Green bonds in the domestic market as well as in several international markets.

Nevertheless, in the recent years there have been significant developments in the field of sustainable finance. A part of the European Commission's 'Action Plan: Financing Sustainable Growth', the EU Taxonomy has been implemented with a Delegated Act on the first environmental objectives, climate change mitigation and adaptation, as well as a Complementary Delegated Act on gas and nuclear. An agreement has also been reached on the EU Green Bond Standard and is expected to be enforced by 2023.

As a response to these developments and in order to be in line with market practices, the Hungarian Government has decided to update its Green Bond Framework to take into account the EU Taxonomy Climate Delegated Act as well as the upcoming EU Green Bond Standard[15], on a best effort basis.

Given that the sustainable finance market will continue to evolve, Hungary might provide future updates to this Framework to remain consistent with shifting investor expectations, best market practices and regulatory developments.

[15] European Commission, "European green bond standard", https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/european-green-bond-standard_en

IV. Green Bond Framework

The Green Bond Framework of Hungary ("Framework") has been established in line with the voluntary guidelines of the Green Bond Principles version '2021 (with June 2022 Appendix 1)' published by the International Capital Markets Association ("ICMA"). The Framework further intends to take into account the most recent market practices, in particular the EU Taxonomy and the upcoming EU Green Bond Standard to the extent possible. The Japanese Ministry of Environment Green Bond Guidelines (2022 edition)[16] and the China Green Bond Principles (2022 edition)[17] by the China Green Bond Standard Committee are also taken into consideration when developing this Framework.

The Framework will be presented along the following components:

(a) Use of Proceeds

(b) Process for Expenditure Evaluation and Selection

(c) Management of Proceeds

(d) Reporting

(e) External review

a. Use of Proceeds

An amount equal to the net proceeds of Hungary's issuances under this Framework is intended to finance or refinance, in whole or in part, expenditures within Hungary's central government budget that fall within one of the green categories and comply with the eligibility criteria presented in the below table ("Eligible Green Expenditures").

Eligible Green Expenditures might include investment expenditures, intervention expenditures, tax expenditures and selected operating expenditures. Eligible Green Expenditures may also include expenditures towards government agencies and other public sector entities, provided that these entities do not raise any Green funding themselves. Furthermore, budget expenditures, which already obtain dedicated funding (e.g. EU funding, proceeds from the sale of EU ETS allowances, a dedicated tax, or multilateral development banks such as the European Investment Bank and other supranational entities) have been excluded, to avoid double counting. In the event where Hungary would co-finance green projects, it will be ensured that Eligible Green Expenditures only include the amount financed by the Hungarian Government.

The eligibility criteria consider, on a best effort basis, the substantial contribution criteria from the EU Taxonomy Climate Delegated Act on climate change mitigation and climate change adaptation. In addition, Hungary takes into account the Do No Significant Harm criteria, to the extent possible. Under this Framework, Hungary's initial focus was to align with the Do No Significant Harm criteria for selected activities under the Clean Transportation category, selected activities under the Energy efficiency (incl. Green buildings) category, and the Renewable Energy category. Please see the EU Taxonomy assessment in the SPO for more details. Hungary intends to gradually extend the Do No Significant Harm analysis to additional categories and economic activities, on a best efforts basis.

The minimum social safeguards in the EU Taxonomy require that eligible activities be conducted in accordance with key international standards of responsible business conduct. Hungary meets such standards through its legislation and Constitution and is also a signatory to the OECD Guidelines for

[16] The Japanese Ministry of Environment, "Green Bond Guidelines Green Loan and Sustainability Linked Loan Guidelines", currently only available in Japanese, https://www.env.go.jp/content/000062495.pdf

[17] China Green Bond Standard Committee," China Green Bond Principles", currently only available in Chinese, https://www.nafmii.org.cn/ggtz/gg/202207/P020220801631427094313.pdf

Multinational Enterprises, the United Nations Principles on Business and Human Rights, and the International Labour Organization's core labour conventions.

Furthermore, a mapping against the UN Sustainable Development Goals as well as the Economic Activities and Environmental Objectives under the EU Taxonomy has been done for each category, to the extent possible, in this table. The examples of expenditures are included for illustrative purposes only and are not exhaustive, so they shall not be limited to those specified.

Green categories	Description of eligible green expenditures	Examples of eligible expenditures
Clean transportation **SDG mapping:**  **EU Environmental objectives & activities (if relevant)** *Climate change mitigation* 6.1. Passenger interurban rail transport 6.3. Urban and suburban transport, road passenger transport 6.5. Transport by motorbikes, passenger cars and light commercial vehicles 6.13. Infrastructure for personal mobility, cycle logistics 6.14. Infrastructure for rail transport 6.15. Infrastructure enabling low-carbon road transport and public transport	*Eligible expenditures aimed at reducing dependence on fossil fuel transport* *Note that the expenditures financed under this category also need to meet the EU Taxonomy substantial contribution criteria for relevant economic activities as defined in Appendix 1* ▪ Railway and road passenger transportation, including one of the following: - Trains and passenger coaches that have direct zero tailpipe CO2 emissions - Tram-trains that have zero direct tailpipe CO2 emissions when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode) - Buses with direct zero tailpipe CO2 emissions or until 2025, belong to the categories M2 & M3 with bodywork classified as CA, CB, CC and CD and comply with the latest EURO VI standard ▪ Light duty vehicles, including one of the following: - Zero tailpipe CO2 emission vehicles (e.g. hydrogen, fuel cell, and electric) - Until 2025, vehicles with tailpipe emission intensity below 50 gCO2/km ▪ Infrastructure dedicated to one of the following: - Rail transport - Public and low-carbon road transport - Active mobility Infrastructures dedicated to the transport of fossil fuel are excluded	▪ Integrated Transport Development Operational Programme Plus ('IKOP Plusz') - Investment expenditures related to the extension, improvement and maintenance of the rail infrastructure (including inter-urban, suburban and regional rail infrastructure) such as railway tracks, electric power stations, bridges, signalling networks, trackside infrastructure and associated subsystems - Investment in electric rolling stocks and high capacity passenger trains, bi-modal rolling stocks, and hydrogen fuel cell trains - Investment in low-carbon metro, tram and bus lines development and upgrade - Financing of the railway public transport services (i.e. the public service share of the railway infrastructure management and operation, as per EU Directive) - Registration tax exemption for electric vehicles for private individuals - Investment expenditures related to cycle lanes and network
Land use & living natural resources **SDG mapping:**  **EU Environmental objectives** *Climate change mitigation* 1.2. Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event 1.3. Forest management 1.4 Conservation forestry *Climate change adaption* *The protection and restoration of biodiversity and ecosystems*	*Eligible expenditures for sustainable land use and protection, as well as promotion of biological diversity* ▪ Sustainable agriculture according to national legislation or EU legislation ▪ Sustainable forest management according to national legislation ▪ Protection and restoration of biodiversity and ecosystems	▪ Hungary's Common Agricultural Policy (CAP) - Agri-environmental payments to farmers for using environment/climate-friendly land management practices, including organic farming - Area-based payments to support Natura 2000 agricultural and forest management - Financing of investments related to sustainable forest management - Subsidies and operational expenditures in support of National Parks as well as gene conservation institutions and tasks ▪ The National Biodiversity Strategy and the National Nature Conservation Programme - Financing of measures for area-based conservation and restoration, and financing of measures targeting specific species with the support of EU funds, such as LIFE Nature and Biodiversity sub-programme and EEOP

Energy efficiency (incl. Green buildings)

SDG mapping:

EU Environmental objectives & activities (if relevant)

Climate change mitigation

7.1 Construction of new buildings

7.2. Renovation of existing buildings

7.3. Installation, maintenance and repair of energy efficiency equipment

7.5. Installation, maintenance and repair of instruments and devices for measuring,

regulation and controlling energy performance of buildings

7.6. Installation, maintenance and repair of renewable energy technologies

7.7. Acquisition and ownership of buildings

Eligible expenditures to promote the development of energy efficient buildings and projects that increase energy savings and energy efficiency

- Energy efficient buildings, including one of the following:
  - New construction and major renovations of buildings that have or will receive a certification of either: BREEAM (Very Good or above), LEED (Gold or above) or any equivalent and recognized level of certification
  - For buildings built after 31st December 2020: the Primary Energy Demand (PED) is at least 10% lower than the threshold set for nearly zero-energy buildings (nZEB) requirements in national measures implementing Directive 2010/31/EU
  - For buildings built before 31st December 2020: Energy performance certificate of A, or alternatively the Primary Energy Demand (PED) is within the top 15% of the national or regional building stock[18]
  - Major renovations which lead to a reduction of primary energy demand (PED) of at least 30%
- Energy efficiency measures, meeting the EU Taxonomy substantial contribution criteria for relevant economic activities as defined in Appendix 1, including but not limited to one of the following:
  - Installation, maintenance and repair of energy efficiency equipment (e.g. installation and replacement of energy efficient light sources, and installation, replacement, maintenance and repair of heating, ventilation and air conditioning and water heating systems)
  - Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings (e.g. as the installation, maintenance, and repair of zoned or smart thermostats, lighting control systems, energy management systems and smart meters for gas, heat, cool and electricity)
  - Installation, maintenance and repair of renewable energy technologies (e.g. on-site, consisting of the installation, maintenance and repair of either solar photovoltaic systems, solar hot water panels, heat pumps, or thermal or electric energy storage systems as well as the ancillary technical equipment)
  - Environmental and Energy Efficiency Operative Programme Plus ("KEHOP Plusz")
  - Investments in energy efficiency retrofitting measures in public buildings, including improvements of thermal insulation
  - Subsidies to renewable energy projects in public sector buildings

[18] Magyar Nemzeti Bank, "Making homes more energy efficient is key to Hungary's energy independence", https://www.mnb.hu/letoltes/renato-ritter-making-homes-more-energy-efficient-is-key-to-hungary-s-energy-independence.pdf

Renewable energy

SDG mapping:

EU Environmental objectives & activities (if relevant)

Climate change mitigation

4.1. Electricity generation using solar photovoltaic technology

4.2. Electricity generation using concentrated solar power (CSP) technology

4.3. Electricity generation from wind power

4.5. Electricity generation from hydropower

4.6. Electricity generation from geothermal energy

4.8. Electricity generation from bioenergy

4.9. Transmission and distribution of electricity

4.10. Storage of electricity

4.11. Storage of thermal energy

4.12. Storage of hydrogen

4.14. Transmission and distribution networks for renewable and low-carbon gases

4.15. District heating/cooling distribution

4.21. Production of heat/cool from solar thermal heating

4.22. Production of heat/cool from geothermal energy

4.24. Production of heat/cool from bioenergy

Eligible expenditures to accelerate the development of renewable energies

Note that the expenditures financed under this category also need to meet the EU Taxonomy substantial contribution criteria for relevant economic activities as defined in Appendix 1

- Renewable energy infrastructure for electricity generation and production of heating/cooling, including one of the following sources:
  - Solar energy
  - Onshore and offshore wind energy
  - Geothermal energy, if life-cycle GHG emissions are lower than 100gCO2e/kWh
  - Bioenergy with 80% GHG emission reduction compared to fossil fuels, and sourced from a sustainable feedstock
  - Hydropower, if complies with either of following criteria: i. the life-cycle GHG emissions are lower than 100gCO2e/kWh, ii. is a run-of-river plant and does not have an artificial reservoir, or iii. the power density of the facility is above 5 W/m2
- Enabling assets promoting the deployment of renewable energy technologies, including one of the following:
  - Storage of energy (incl. electricity, hydrogen and thermal energy)
  - Transmission systems that transport electricity
  - Networks for the transmission and distribution of renewable and low-carbon gases (incl. hydrogen)

- Environmental and Energy Efficiency Operative Programme Plus ("KEHOP Plusz")
  - Subsidies to increase electricity production based on renewable energy sources
  - Investments in the installation of infrastructure for heating and cooling from renewable energy sources
  - Investments in the acquisition and installation of equipment and technologies for the production and storage of carbon-free hydrogen

Pollution prevention & control

SDG mapping:

EU Environmental objectives & activities (if relevant)

Climate change mitigation

5.5. Collection and transport of non-hazardous waste in source segregated fractions

5.9. Material recovery from non-hazardous waste

Pollution, prevention and control

Eligible expenditures related to fostering of pollution reduction and the development of a circular economy

- Waste management, including one of the following:
  - Infrastructure and technologies for material recovery of recyclables including waste collection and sorting
  - Infrastructure and technologies for waste processing and recycling (for non-hazardous waste only)
- Remediation and restoration of contaminated land

- Local operators and NGOs support
  - Investments and subsidies to municipalities and local utilities to support waste management services
- Environmental and Energy Efficiency Operative Programme Plus ("KEHOP Plusz")
  - Investments in infrastructure and processes for improved waste management and treatment
  - Investments in environmental remediation of polluted sites

Sustainable water & wastewater management

SDG mapping:

EU Environmental objectives & activities (if relevant)

Climate change mitigation

5.1. Construction, extension and operation of water collection, treatment and supply systems

5.2. Renewal of water collection, treatment and supply systems

5.3. Construction, extension and operation of waste water collection and treatment

5.4. Renewal of waste water collection and treatment

5.6. Anaerobic digestion of sewage sludge

Sustainable use and protection of water and marine resources

Eligible expenditures related to the promotion of sustainable management of water and wastewater

- Water and wastewater management, including one of the following:
  - Infrastructure and technologies for clean water and water efficiency
  - Infrastructure and technologies for wastewater treatment
  - Construction or maintenance of water collection and urban drainage infrastructure including storm water management and sewer separation
- Local operators and NGOs support
  - Investments and subsidies to municipalities and local utilities to support water and wastewater management services
- State Reconstruction Fund for Water Utilities
  - Intervention expenditures to support reconstruction of drinking water and wastewater pipelines
- Hungary's Common Agricultural Policy (CAP)
  - Subsidies to individual farm owners and local institutions to increase water efficiency

Climate adaptation

SDG mapping:

EU Environmental objectives

Climate change adaptation

Sustainable use and protection of water and marine resources

Eligible expenditures aimed to enhance adaptation and foster climate resilience, including one of the following:

- Measures supporting enhancing resiliency and managing risks associated with the effects of climate change, including flooding, wildfires, drought, and extreme weather events
- Measures supporting the monitoring and prediction of weather and environmental conditions
- Measures supporting community monitoring of climate change, outreach and capacity building, risk assessments, and increasing preparedness

- Environmental and Energy Efficiency Operative Programme Plus ("KEHOP Plusz")
  - Financing related to monitoring and information systems on Hungarian water resource and flow conditions, facing climate change
- Meteorological services
  - Financing related to air quality protection

Research, innovation & awareness raising

SDG mapping:

EU Environmental objectives

Climate change mitigation

Climate change adaptation

Eligible expenditures aimed at enhancing and facilitating knowledge and innovation about climate and environmental topics, including one of the following:

- Sustainable agriculture
- Sustainable forestry
- Promotion of the use of renewable energy and energy efficiency

All intangible expenditures, such as administrative costs, are only included, if they are deemed relevant and necessary for the realization of the researches

- Hungary's Common Agricultural Policy (CAP)
  - Support to individual farm owners and local institutions to implement energy efficiency measures through education and advisory services
  - Support to individual farm or forests owners to implement sustainable land use practices through education and advisory services

Exclusion criteria

In the context of this Green Bond Framework, expenditures that are clearly dedicated to the following sectors will be excluded in the allocation of proceeds from the Green Bonds.

- Nuclear power
- Armament and defence sector
- Fossil fuel production and power generation

b. Process for Expenditure Evaluation and Selection

For the governance of Hungary's Green Bond Framework, the Ministry of Finance in cooperation with the Government Debt Management Agency Private Company Limited by Shares ("ÁKK") has set-up a Steering Committee ("SC") and an Inter-Governmental Working Group ("IWG") composed by senior officials and representatives respectively of ÁKK and the following Ministries:

- Ministry of Finance (Chair)
- Ministry of Energy
- Ministry of Construction and Transport
- Ministry of Economic Development
- Ministry of Agriculture
- Ministry of Interior
- Ministry of Culture and Innovation
- Prime Minister's Office.

General evaluation and selection process

The evaluation and selection of Eligible Green Expenditures is performed on an annual basis by the IWG. The IWG works closely with relevant representatives of other ministries or state entities when needed, to ensure a sufficient level of expertise when discussing the inclusion and evaluation of potential green expenditures.

Each relevant ministry is requested to provide a list of budget expenses with the necessary level of detail to demonstrate alignment with Hungary Green Bond Framework's definition of Eligible Green Expenditures (i.e. in line with section IV.a. above). Each of the budget lines have been individually screened by the dedicated team of the Ministry in charge of the project via specific line reference codes. As a next step, the IWG reviews the potential eligible expenditures, verifies whether the expenditures comply with the eligibility criteria and definition of Eligible Green Expenditures. The Ministry of Finance is in charge of coordinating the process. The Steering Committee approves the selected expenditures as Eligible Green Expenditures as part of the Integrated Green Bond Report.

Process for Eligible Green Expenditures evaluation and selection	
Tasks	**Responsible entity**
Steering Committee and IWG chairmanship **Coordination of identification process**	Ministry of Finance
Identification of potential green expenditures	Each relevant ministry, and in particular: ▪ Ministry of Finance (Chair) ▪ Ministry of Energy ▪ Ministry of Construction and Transport ▪ Ministry of Economic Development ▪ Ministry of Agriculture ▪ Ministry of Interior ▪ Ministry of Culture and Innovation ▪ Prime Minister's Office ▪ ÁKK
Evaluation and selection of potential green expenditures	Inter-Governmental Working Group
Approval of Eligible Green Expenditures	Steering Committee

Reviews, updates and reporting on an annual basis

Once approved, the IWG commits to monitor the continued compliance of the expenditures with the eligibility criteria and exclusion criteria of the Green Bond Framework. Potential environmental and/or social risks related to the Eligible Green Expenditures are identified and managed through Hungary's general, comprehensive laws and control procedures. All expenditures financed through Green Bonds must comply with the existing legal framework. Moreover, the IWG will monitor potential ESG controversies associated with the approved expenditures, at least on an annual basis. Any expenditure primarily identified as eligible but subject to significant ESG controversies will be excluded from the pool of eligible expenditures.

The procedure, the responsibilities and the division of tasks described below are detailed in the Rules of Procedure for the preparation of the Integrated Green Bond Report. The Rules of Procedure can only be amended upon the prior consent of the Steering Committee.

For more details about the step-by step process, see below.

1. **Expenditures screening**: During this phase, each ministry does a line-by-line analysis to ensure that all the potential eligible expenditures are identified and provide the IWG with all the relevant information they have to ensure the identification of eligible expenditures under the criteria described in section IV.a of this Framework
2. **Evaluation of expenditures**: After the screening phase, the IWG consolidates the information provided by the ministries and perform an analysis to assess the compliance of the potential green expenditures with regards to the Hungarian Green Bond Framework. In this step, the IWG also makes sure to exclude budget expenditures which already have obtained dedicated funding to avoid double counting
3. **Selection of potential eligible expenditures:** Based on this analysis, the IWG then performs a selection of the eligible green expenditures that could be included under the Hungarian Green Bond Framework
4. **Validation of eligible green expenditures:** The Ministry of Finance prepares the table containing the eligible green expenditures which is validated with the IWG by providing data and participating in interviews and consultations.
5. **Annual review of expenditures**: The IWG performs an annual review of the expenditures and assesses the compliance of the expenditures with regards to the eligibility criteria of the Green Bond Framework
6. **Replacement of ineligible expenditures:** In case of material ESG controversy or non-compliance with the criteria described in this Framework, the IWG reallocates the proceeds to expenditures compliant with the Framework
7. **Updates of the Framework:** The IWG regularly updates the Green Bond Framework if necessary to reflect both the evolution of the sustainable finance market and the green expenditures of the Hungarian Government
8. **Reporting:** The IWG is in charge of the publication of an Integrated Green Bond Report presenting the allocation and impact reporting. The Steering Committee is responsible for approving this report

c. Management of Proceeds

The Ministry of Finance is in charge of the tracking of Eligible Green Expenditures, which will be performed annually on a notional basis, ensuring that the allocation of proceeds do not allow for listing of the same budget allocation twice.

The IWG will collect the data and monitor the level of Eligible Green Expenditures, which may include expenditures i) within the 2 budget years preceding the year of issuance (with a priority given to expenditures within the n-1 budget year, to the extent possible), ii) made in the same year as the issuance and/or iii) future budget expenditures in the limit of 2 years after the issuance.

The allocation of the proceeds of the Green Bonds issued by Hungary will be reviewed by the IWG and then approved by the Steering Committee as part of the Integrated Green Bond Report, on an annual basis and until full allocation. For that purpose, IWG will hold meetings on a regular basis, and the Steering Committee will meet annually.

Pending the full allocation of the proceeds of the newly issued Green bonds to Eligible Green Expenditures, the Ministry of Finance will keep record of the unallocated proceeds. In the unlikely case when proceeds for a year turn out to be superior to the available expenditures of the current and two previous years, the remaining unallocated proceeds will be allocated to Eligible Green Expenditures from the next calendar year's budget. Unallocated proceeds are managed according to the general liquidity management policy of the Hungarian Treasury.

In specific cases, such as the potential issuance of Green Panda bonds, the Green bond allocation process will be adjusted to satisfy the local requirements. For example, pending full allocation, the net proceeds of the Green Panda(s) will temporarily be invested according to the general liquidity management policy of the Hungarian Treasury, with a maximum investment horizon of 12 months.

Process for Management of Proceeds	
Tasks	**Responsible entity**
Data collection and monitoring of Eligible Green Expenditures	Inter-Governmental Working Group
Approval of proceeds allocation	Steering Committee
Keeping record of unallocated Green Bond funding	Ministry of Finance

d. Reporting

Hungary is committed to provide investors with transparent reporting about the issuance of Green Bonds. An Integrated Green Bond Report, combining an allocation report and an environmental impact report, will be published in the year following issuance and annually thereafter until full allocation of the Green Bonds, or in case some initial estimates need to be refined. The reporting will be based on the requirements of the ICMA Green Bond Principles and can be adjusted in the case of new requirements and developments regarding the content and type of reporting. Hungary will follow, to the greatest extent possible, the recommendations presented in the ICMA Harmonized Framework for Impact Reporting (June 2022), considering the updates associated with the guideline. The reports will remain available on the ÁKK's website Green Bond section until the maturity of the bonds.

The IWG is responsible for the preparation of the Integrated Green Bond Report, which is intended to be published in Q4 each year following the annual State Budget audit. Hungary may choose to report on allocation on a more frequent basis to accommodate for specific recommendations of local markets, such as the China Green Bond Principles, in the case of the issuance of Green Panda bonds.

Each relevant Ministry will collect the reporting data and draft the Integrated Green Bond Report's sections. Each relevant Ministry is responsible to monitor the allocation of respective Green Eligible Expenditures in cooperation with their Budget Department. The IWG will be responsible for the review and the Steering Committee will be responsible for the approval of the Integrated Green Bond Report. The Ministry of Finance is in charge of coordination.

The ÁKK will coordinate the review process of the Integrated Green Bond Reporting (including the Allocation and Impact Chapter) by an independent third-party, ahead of final approval by the Steering Committee (see section IV. d.).

Process for Green Bond reporting	
Tasks	**Responsible entity**
Coordination of reporting process	Ministry of Finance
Data collection and Integrated Green Bond Report drafting	Each relevant ministry, and in particular: ▪ Ministry of Finance (Chair) ▪ Ministry of Energy ▪ Ministry of Construction and Transport ▪ Ministry of Economic Development ▪ Ministry of Agriculture ▪ Ministry of Interior ▪ Ministry of Culture and Innovation ▪ Prime Minister's Office ▪ ÁKK
Review and pre-validation	Inter-Governmental Working Group
External Review[19]	Sustainalytics
Final approval	Steering Committee

Allocation reporting

The allocation reporting will seek to demonstrate that the proceeds have been allocated in accordance with the present Green Bond Framework's criteria for Eligible Green Expenditures. To the extent feasible, the reporting will include the following information:

- General information about the issuance(s) of the past year, incl. the total proceeds raised
- The amount allocated to Eligible Green Expenditures as of the end of the reporting period, incl. a breakdown by green category and year (current or preceding)
- Amount of temporary unallocated funds (if any)
- Any developments that led to changes regarding the eligibility of green expenditures
- Percentage of alignment of expenditures with the EU Taxonomy (if any)

Impact reporting

The impact reporting will provide information on the Eligible Green Expenditures based on existing publicly available data and subject to the availability of the relevant information. The approach to impact reporting may be updated over time to align with emerging reporting standards and depending on Hungary's own information reporting and collection system. The impact reporting aims to provide information on output indicators, but also environmental impact indicators (expected to focus on carbon impact metrics where it can be quantified). Methodologies used to calculate these indicators will be published in the Integrated Green Bond Report. For illustration purposes, the impact report may provide information on the following output and impact indicators (note will depend on the allocation of proceeds).

[19] *See section V "External Review" below*

Eligible Green Expenditures	Output indicators	Environmental impact indicators
Clean transportation	- Accumulated amount of electrified rail infrastructure (kilometres) - Passenger-kilometres (i.e. the transport of one passenger over one kilometre) and/or passengers; or tonne-kilometres (i.e. the transport of one tonne over one kilometre) and/or tonnes - Number of electric vehicle charging stations installed - Number of environmentally friendly vehicles deployed	- Annual energy savings (in MWh) - Annual GHG emission avoidance (in CO_2 equivalent) - Annual passenger train kilometres
Land use & living natural resources	- Hectares of sustainable agriculture - Hectares of sustainable forest - Hectares and share of protected areas - # of Natura 2000 sites - Number of species at risk benefitting from conservation action	- Annual GHG emission avoidance (in CO_2 equivalent)
Energy efficiency (incl. Green buildings)	- # of applications - # and nature of beneficiaries - # of building subject to energy performance improvements - # of certified buildings constructed	- Annual energy savings (in MWh) - Annual GHG emission avoidance (in CO_2 equivalent)
Renewable energy	- # of projects - Total renewable energy capacity (in MW)	- Annual energy production (in MWh) - Annual GHG emission avoidance (in CO_2 equivalent)
Pollution prevention and control	- Amount of waste diverted from landfill - Amount of waste that is prevented, minimized, reused or recycled - #/percentage of communities undertaking solid waste management improvement projects - Area of land remediated / rehabilitated (for polluted sites)	Annual GHG emission avoidance (in CO_2 equivalent)
Sustainable water & wastewater management	- # of wastewater assets receiving investments - Annual volume of water managed - Annual volume of wastewater treated (m3/a and p.e./a and as %) - Water networks efficiency rate - Rate of water network leakage	- Annual water savings (m3/a, reduction in water use in %)
Climate adaptation	- # and nature of projects that support climate change adaptation / resilience - # of communities that have completed hazard mapping, risk assessments, or adaptation plans - # of structural and/or natural assets with an improved structural capacity to adapt to climate change, disasters and weather	
Research, innovation & awareness raising	- Number of funded research or education projects - Number of publications - Listing of main initiatives or presentation of key examples	

e. External Review

Hungary is providing a pre-issuance verification and will seek to provide a post-issuance review. Hungary will also consider to engage external reviewer(s) as deemed necessary to fulfil local issuance requirements.

Green Bond Framework pre-issuance verification

Hungary has engaged Sustainalytics to provide an independent Second Party Opinion on this Green Bond Framework. The Second Party Opinion is publicly available and updated as the case may be, on the ÁKK website Green Bond section.

For potential issuance of Green Panda bonds, an additional transactional external review report will be provided.

Allocation and Impact Reporting post-issuance review

Hungary will engage an independent third party to provide assurance on the allocation and impact reporting. This process will be made on an annual basis until full allocation.

- Verification of the allocation reporting will confirm that an amount equal to the net proceeds of the Green Bonds have been allocated in compliance with the criteria and objectives of this Green Bond Framework
- Verification of the impact reporting will confirm the alignment with recognized market guidelines, the soundness of process and methodology of reporting developed and the metrics chosen