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# Jordan Sovereign Green Bond Framework

November 2024

This document was prepared by an Inter-Ministerial Green Bond Committee comprising:

- Ministry of Finance
- Ministry of Planning and International Cooperation
- Ministry of Environment
- Central Bank of Jordan
- Ministry of Water and Irrigation
- Ministry of Transport
- Ministry of Energy and Mineral Resources
- Ministry of Public Works and Housing.
- Ministry of Agriculture
- General Budget Department (GBD)

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# **Executive Summary**

Jordan as any other country in the world was affected by the increasing climate changes such as flash floods, landslides, extreme weather events and drought, which impacts people, natural resources, and the economy, causing losses in the economy and properties, and thus creating pressing adaptation needs across sectors.

Jordan is committed to sustainable growth and development, and it has set mediumand long-term goals linked to climate change, disaster risk management and sustainable finance agendas, among others. It also recognizes sustainability as one of the main pillars in the Economic Modernization Vision 2033 and Disaster Risk Reduction has become a national priority. Several strategies and plans aim to promote investment in sustainable and green projects to achieve these goals. However, achieving these objectives requires mobilization of resources from both private and public sectors. Green bonds are one of the tools to help mobilize climate finance to invest in green and sustainable projects.

Within this context, Jordan is seeking to develop a green bond program, which would help achieve multiple objectives: support the achievement of national climate change objectives by mobilizing climate finance; diversify investor base; create awareness about Jordan's sustainability and climate related commitments among market participants, mobilize private capital for national priorities; catalyze the issuance of green bonds by private sector issuers; support the development and identification of climate-responsive investment pipeline. It also aims to improve the country's competitiveness, and to enable low-carbon growth in line with the commitments made under the Paris Agreement and Sustainable Development Goals and aligned with national environmental objectives and priorities.

Green Bond Guidelines for corporate issuances in Jordan were launched in 2021, and Jordan is now establishing a Sovereign Green Bond Framework to enable the issuance of sovereign green bonds in the country to fund environmentally beneficial public expenditures. Jordan intends to issue the first sovereign green bond by 2025. The Framework has been developed in accordance with the International Capital Markets Association (ICMA) Green Bond Principles (2021), and will be reviewed and updated regularly to ensure it fully aligns with international good practices.

#### 1. Introduction - Jordan's Environmental Ambition

#### 1.1. The need for climate action

Jordan is increasingly susceptible to climate change effects, with impacts already evident across urban and rural areas, experiencing more frequent, intense, and prolonged extreme weather events, such as, water scarcity, rainfall variability, and heat waves. Since 1960, annual maximum temperatures have increased by 0.3–1.8 °C, and minimum temperatures have risen by 0.4–2.8 °C across climate regions. The annual precipitation has declined by 5–20 percent, depending on the region. Future climate modeling shows (a) further decreases in total precipitation; (b) increasing variability in the location, timing, and quantity of rainfall; (c) warmer average temperatures of up to 2.9 °C by 2050; (d) increased drought occurrence, length, and severity; and (e) more frequent extreme events<sup>1</sup>.

Thus, Jordan is committed to contribute to global efforts to combat climate change, achieving its climate change goals under the Paris Agreement and Sustainable Development Goals (SDGs) set by the United Nations (UN) 2030 Agenda. In recent decades, a series of initiatives have been implemented in Jordan to promote and advance the country's sustainable development, including environmental, social and governance policies, plans and programs, which are also described in this document. The Government has integrated the SDGs into its Vision 2025, and sustainability is at the center of Jordan's Economic Modernization Vision 2033 and other national strategies. In 2022, Jordan conducted its second Voluntary National Review of its progress towards achievement of the 2030 Agenda for Sustainable Development. The country has also prioritized environmental protection and committed to reducing greenhouse gas emissions and promoting renewable energy. By signing commitments and ratifying international agreements, such as the Paris Agreement, Jordan is doing its part to build a sustainable future for the planet and for future generations, developing a robust foundation of climate change leadership to position the country as an attractive destination for climate financing and investments.

#### 1.2. Jordan's Environmental and Climate Commitments

Jordan is a climate action leader in the Middle East and North Africa (MENA) region. Despite being a small GHG greenhouse gas (GHG) emitter, Jordan has set ambitious national, sub-national, and sectoral climate commitments, being amongst the most active countries in the region regarding involvement in international climate change efforts and response actions. Jordan was among the first group of developing countries to ratify the United Nations Framework Convention on Climate Change (UNFCCC) in 1993 and make an accession to the Kyoto Protocol 2003. Jordan submitted its first Nationally Determined Contributions (NDCs) under the Paris Agreement in 2015, raising its macroeconomic emissions reduction target from 14% to 31% compared to its 'Business as Usual' (BAU) scenario<sup>2</sup> in its updated NDC in October 2021, and developed its NDC Action Plan in 2019. In addition, Jordan's National Energy Strategy 2020-2030 focuses on energy security with an ambitious goal of reaching a share of 50 percent renewables in the electricity mix by

<sup>&</sup>lt;sup>1</sup> World Bank. <u>Jordan Country Climate and Development Report, 2022</u>.

<sup>&</sup>lt;sup>2</sup> Jordanian Ministry of Environment, 2021. Nationally Determined Contribution (NDC): https://unfccc.int/NDCREG

2030 and 9% energy efficiency improvement across all sectors<sup>3</sup> (see Annex 2. Energy mix in Jordan).

Continuing its leadership, Jordan adopted its first National Climate Change Policy (NCCP) in 2013, which was the first comprehensive climate change policy in the region, and which has been updated for 2022-2050. In addition, the Climate Change By-Law of 2019 is also one of the few in the developing world, which established the umbrella policy framework as well as the National Climate Change Committee (NCCC).

To achieve its development goals within the context of climate change, the government has focused on transforming six priority sectors: energy, water, transportation, agriculture, tourism, and waste management. As such, Jordan adopted The National Green Growth Plan in 2017, making green growth a national priority, and developed sectoral National Green Growth Action Plans 2021-2025, establishing a priority investment framework to encourage investments for those six key areas. The implementation of these actions plans is estimated to cost over US\$1.8 billion from public and private funding sources, contributing towards the NDC goals.

Jordan also developed a National Adaptation Plan (NAP) in 2021 in alignment with the country's development strategy to strengthen the resilience of communities, institutions, water resources, natural ecosystems, and agricultural sectors, for the sake of sustainable development that is resistant to climate changes<sup>4</sup> as well as reiterating the urgency of implementing adaptation measures. Jordan is also preparing its Long-Term Low-Emission Development and Climate Resilient Strategy 2050 (LTS), which is aligned with the Fourth National Communication submitted to the UNFCCC in 2023, and aims for climate-resilient economic and social development, involving stakeholder consultations and a net-zero emissions approach.<sup>5</sup> The LTS 2050 is expected to be submitted to UNFCCC by 2025.

In response to the challenges posed by climate change, the government has charted a proactive path toward resilience and sustainability, becoming Disaster Risk Reduction a national priority. The Natural Disaster Risk Reduction Strategy 2023-2030 serves as a roadmap to improve understanding of prevailing disaster risks and assessment of the current Disaster Risk Reduction (DRR) system and its capacity to achieve DRR objectives. These objectives are determined by the National Centre for Security, Management and Crises.

In addition, the Economic Modernization Vision 2033, adopted in 2022, promotes environmental sustainability as one of the main pillars for future growth setting different goals such as improve Jordan's ranking in the Global Environmental Performance Index and Global Sustainability Competitiveness, expand on renewable energy, promote improved energy and water efficiency, develop sustainable transport systems, and improve waste management.

<sup>&</sup>lt;sup>3</sup> Jordan Energy Strategy, 2020-2030, Jordanian Ministry of Energy and Mineral Resources. https://www.memr.gov.jo/EBV4.0/Root\_Storage/EN/EB\_Info\_Page/StrategyEN2020.pdf

<sup>&</sup>lt;sup>4</sup> Hashemite Kingdom of Jordan. (2021). The National Climate Change Adaptation Plan of Jordan. URL [Last accessed on December 6, 2023]: <a href="https://www.moenv.gov.jo/ebv4.0/root\_storage/ar/eb-list\_page/final\_draft\_nap-2021.pdf">https://www.moenv.gov.jo/ebv4.0/root\_storage/ar/eb-list\_page/final\_draft\_nap-2021.pdf</a>

<sup>&</sup>lt;sup>5</sup> World Bank Group. 2022. Jordan Country Climate and Development Report. CCDR Series; © World Bank, Washington, DC. http://hdl.handle.net/10986/38283 License: CC BY-NC-ND.

The updated Climate Change Policy (CCP) 2022-2050 was adopted in September 2022 to guide the development of a climate-resilient society and support the global trajectory to carbon neutrality by 2050 by promoting a low-carbon economy, aligned with the goals set in Jordan's Economic Modernization Vision and the UNFCCC. All sectors will be encouraged to use the CCP 2022-2050 as a framework document to incorporate climate change into their long-term strategic plans, envisioning Jordan to be better prepared and more resilient to climate change impacts by 2050<sup>6</sup>. Jordan has adopted a large body of general and sector-specific climate policies and strategies at national and sub-national levels - See Annex 1 for key strategies, policies, and legal documents on climate change in Jordan.

# The policies, actions, and instruments accompanying the CCP 2022-2050 are expected to:

- a) Mitigate climate change by reducing greenhouse gas emissions and promoting a low-carbon economy.
- b) Adapt to climate change by adopting practices that reduce climate vulnerabilities and increase climate resilience.
- c) Promote sustainable development by fostering inclusive and sustainable growth, job creation, and overall improvement in people's quality of life (i.e., food and water security, access to clean energy, health conditions, etc.).

The CCP 2022-2050 integrates a monitoring and evaluation framework that can be used to achieve the dual objective of evaluating its implementation and establishing an improved transparency framework, building on existing multi-tiered integrated MRV system.

On this regard, Jordan is already a global leader in climate change monitoring and reporting with its first-of-its-kind, multi-tiered Monitoring, Reporting, and Verification (MRV) framework. Launched in 2021 and currently operationalized across more than 20 government agencies, the centralized repository serves as a comprehensive record of the nation's climate mitigation efforts. The MRV system allowed Jordan to demonstrate 1.7 M tC02 emissions reduction from government projects for the period 2016-2022, which contributes to the achievement of the government of Jordan climate commitments towards unconditional target of its NDC. The system is expected to be expanded to include adaptation initiatives in the near future.

# 1.3. Transformation of Financial Markets / Enabling Environment for Sustainable and Green Finance

Jordan has made significant progress in mobilizing resources to meet the estimated financing need of US\$5.7billion in its 2015 NDCs. The Second Biennial Update Report (2nd BUR) to the UNFCCC estimates that Jordan had mobilized nearly US\$3.7 billion by 2020. This includes investments in key sectors such as, water and wastewater treatment plants, solid waste, and green transport solutions. The

<sup>&</sup>lt;sup>6</sup> Hashemite Kingdom of Jordan. (2021). National Climate Change of the Kingdom of Jordan 2022-2050. Jordan. URL [Last accessed on December 6, 2023]: <a href="https://www.undp.org/sites/g/files/zskgke326/files/2023-03/National%20Climate%20Change%20Policy%20of%20the%20Hashemite%20Kingdom%20of%20Jordan%202022-2050.pdf">https://www.undp.org/sites/g/files/zskgke326/files/2023-03/National%20Climate%20Change%20Policy%20of%20the%20Hashemite%20Kingdom%20of%20Jordan%202022-2050.pdf</a>

estimated total cost to meet the mitigation commitments of the updated NDC is \$7.5 billion. The government aims to raise \$565 million independently to achieve the unconditional 5% reduction target. The rest (\$6.97 billion) relies on the availability and access to international financial institutions, and the private sector funding.

Meeting these commitments under the Paris Agreement will require mobilizing investments and thus, enabling environment for the sustainable finance market, facilitating sustainable investments in the country. The private and financial sector is a major agent of the economic transformation, and it is key that it is aligned with the Paris Agreement goals as it could significantly contribute to addressing the financing gap for the transition to a resilient and low-carbon economy. Within this context, the Government of Jordan launched Green Bond Guidelines for corporate issuances in 2021, and now the Government of Jordan has developed a Sovereign Green Bond Framework in order to fund environmentally beneficial public expenditures. The first corporate green bond was issued in Jordan in March 2023. Moreover, in November 2023, the Central Bank of Jordan launched the Green Finance Strategy 2023-2028, which is seen as a blueprint in the region and beyond, for greening the financial system. The strategy aims to transform the financial sector in a leading force for green finance mobilization and enhanced resilience against climaterelated and environmental risks while also enabling Jordan to become a regional leader in sustainable finance. The Central Bank of Jordan is currently also conducting an innovative climate risk assessment for Jordan's financial sector, which will inform climate-responsive regulations and policies.

# 1.4. Social aspects

Throughout Jordan's history, numerous programs have been designed to support citizens in meeting their basic needs and addressing the risks they may face due to poverty. The Public Health System, the Public Education System, the social safety net, the School Feeding Program, social security reforms, cash transfers replacing fuel subsidies, the 2002 poverty reduction strategy, and recently, in 2019, the National Social Protection Strategy (NSPS) 2019-2025 have been developed.<sup>7</sup>

Under the framework of the Kingdom's vision for solidarity, productivity, and justice, the NSPS aims to address the government's commitment to Jordanians in breaking the intergenerational cycle of poverty and providing a social protection floor. The launch of the Strategy marked a significant turning point in Jordan's social protection sector, emphasizing improved targeting, strengthened institutional capacity, and enhanced coordination.

One of the pillars of The Economic Modernization Vision focuses on the quality of life and improving the living standards (housing, education, healthcare, good and safe living conditions) of all citizens. The pillar highlights the need of creating jobs and higher income opportunities across governorates, supplemented by developing an ecosystem that supports the creation of higher standards of living, more inclusive lifestyle options and experiences, and active citizen participation in the community.

<sup>&</sup>lt;sup>7</sup> Hashemite Kingdom of Jordan. (2019). National Social Protection Strategy 2019-2025. Jordan. URL [Last accessed on December 8, 2023]: <a href="https://www.unicef.org/jordan/reports/jordan-national-social-protection-strategy-2019-2025">https://www.unicef.org/jordan/reports/jordan-national-social-protection-strategy-2019-2025</a>

# 2. Jordan's Sovereign Green Bond Framework

Jordan intends to issue green bonds to fund investments and expenditures that will help supporting climate adaptation efforts and facilitate Jordan's transition to a low-carbon economy and advance the SDGs, as outlined in the previous section. This Sovereign Green Bond Framework (the Framework) describes the criteria and the governance process for the issuance of sovereign green bonds in adherence to best practices in the market. The Committee will review this Framework regularly to ensure alignment with Jordan's environmental priorities and the framework's alignment with market standards such as the International Capital Markets Association (ICMA) Green Bond Principles (GBP). Any future updates to the Framework, including updates to the list of Eligible Categories and new market developments, will be proposed and approved by the Inter-Ministerial Committee responsible for developing this framework and coordinating the selection of projects that will be supported by green bond proceeds. Any major update will be subject to an external review by a qualified provider of Second Party Opinion.

By issuing green bonds, the Kingdom intends to align its funding strategy with its commitment to the Paris Agreement, its environmental priorities, and the UN SDGs. To enable the issuance of green bonds, the Medium-term Debt Management Strategy was updated to include green bonds in its debt management and funding toolkit.

## 2.1. Alignment with Market Principles

Jordan's Green Bond Framework adopts the four core components and key recommendations of the ICMA GBP published in June 2021 (with June 2022 Appendix):

- 1. Use of Proceeds.
- 2. Process for Project Evaluation and Selection.
- 3. Management of Proceeds; and
- 4. Reporting. The Framework follows the recommendations of the GBP regarding External Review.

#### 2.2. Use of Proceeds and Exclusions

Under this Framework, the Government can issue green bonds, proceeds of which will be exclusively allocated to budgetary expenses related to Eligible Green Projects as described further in this Use of Proceeds section. An amount equal to the net proceeds of the green bonds will be allocated to finance or refinance Eligible Green Projects. Any expenses related to Eligible Green Project financed and/or refinanced by another dedicated source or other Government agency will be excluded to ensure suitable oversight and to avoid double-counting.

Eligible expenditures may include assets, capital expenditures, operational expenditures including research and development expenses, which are funded, in whole or in part, directly or indirectly, through the public Budget, as well as subsidies or tax foregone (or a combination of all or some of the foregoing). Eligible expenditures will be limited to those occurring in the two (2) calendar years prior to

issuance (look-back period), the calendar year of the issuance and two (2) calendar years following the issuance (look-forward period) of the green bond.

Eligible Green Projects will follow the definition and eligibility criteria for climate responsive projects issued by MoEnv in 2021 under the Climate Change By law No. 79 (2019). Jordan is currently developing a National Green Taxonomy, which, once adopted, will become a basis for defining Eligible Green Projects, complementary to the mentioned MOENV instructions. According to these instructions, eligibility criteria for a project, program, or activity to qualify as 'climate responsive project' includes the following:

(a) It is listed in Jordan's NDC, National Adaptation Plan, National Communication, Climate Investment plans, climate change policy or climate change related strategy documents issued by the government

Or

- (b) It fulfills one or more of the following conditions:
  - 1. Reduces greenhouse gas emissions.
  - 2. Reduces consumption of energy (fuel or electricity).
  - 3. Reduces water consumption or/and improves food security.
  - 4. Reduces pollution from burning of any type of fuel, waste, or other material.
  - 5. Reduces methane emissions from waste, livestock, and other sources.
  - 6. Installs any type of renewable energy or energy efficiency technology.
  - 7. Contributes to strengthening the monitoring of health risks arising from climate change.
  - 8. Improves efficiency or reduces loss or enable recycling of water.
  - 9. Improves quality of infrastructure against extreme weather events common to Jordan (e.g., flash floods, landslides, extreme heat, etc.).
  - 10. Increases afforestation, reforestation and improves land-use practices.
  - 11. Implements education, training, capacity building, and awareness related to any of the items (1 to 7) above.

The following lists the categories of Eligible Green Projects according to ICMA GBP, examples of projects (examples) within the categories and maps the categories to the UN SDGs.

| ICMA Eligible<br>Green Project<br>Categories                        | Eligibility Criteria   | UN SDGs     | Examples of<br>Eligible Green<br>Projects in<br>Jordan   | Alignment with<br>Eligibility Criteria<br>under Climate<br>Change Bylaw No.<br>79 (2019) <sup>8</sup> |
|---|--|-------------|--|---|
| Renewable Energy Environmental Objective: Climate Change Mitigation | <ul> <li>Investments and expenditures (including subsidies/grants) in generation and transmission of renewable energy, including:</li> <li>Solar photovoltaic (PV) and solar thermal heating</li> <li>Onshore and Offshore wind energy facilities</li> <li>Hydropower which meets any of the criteria below:         <ul> <li>Lifecycle GHG emissions of less than 100g CO2e/kWh</li> <li>Power density greater than 5w/m2</li> <li>Run of river plant and does not have an artificial reservoir</li> </ul> </li> <li>Bioenergy derived from biofuel<sup>9</sup> or biomass</li> <li>Green hydrogen produced using renewable energy into the power and gas grid: retrofit of gas transmission and distribution networks<sup>11</sup> that enables the integration of green hydrogen and other low-carbon gasses in the network, smart energy grids, smart meters</li> <li>Research and development of products or technology for renewable energy generation, including the</li> </ul> | 7 CHARGONIA | Renewable Energy and Energy Efficiency in wellfields and water pumping stations  - PV Renewable Plants and Installations  - Operation and Maintenance of the whole value chain (ESCO) applied to a full water supply system  - Design and installation of Pumping Station and Storage Tank, Storage reservoir, water transmission pipeline, distribution reservoir | It installs any type of renewable energy or energy efficiency technology                              |

 <sup>8</sup> Instructions of climate responsive definition and eligibility criteria
 9 Note: for bioenergy derived from biofuel, the production of biofuel feedstock must not take place on land with high biodiversity.
 Also, land with a high amount of carbon should not be converted for biofuel feedstock production.

 $<sup>^{10}</sup>$  Note: Lifecycle GHG emissions should be below 100g CO2e/kWh

 $<sup>^{11}</sup>$  Note: mandatory leak detection and repair of existing pipeline and network elements will be required to minimize methane leakage

|   | manufacture of wind turbines and solar panels   |  |   |  |
|---|---|--|---|--|
| Energy Efficiency Environmental Objective: Climate Change Mitigation  | Investments and expenditures for energy efficiency improvements of infrastructure that result in an energy consumption below the average national energy consumption of equivalent infrastructure.  Research and development of products or technology and their implementation that reduces the energy consumption of underlying assets, technology, products, or systems, including LED lights, improved chillers, improved lighting technology, district cooling and heating, smart grids, and heat recovery.  Conversion of thermal plants to combined heat and power gas power plants. <sup>12</sup> | 9 NOUSTRY INNOVATION AND INFRASTRUCTURE    | Programs that support energy efficiency improvements in public administration, commercial and residential buildings | It installs any type of renewable energy or energy efficiency technology                 |
| Pollution Prevention and Control Environmental Objective: Pollution Prevention and Control Transition to a Circular Economy | Investments and expenditures for projects dedicated to reducing land pollution and waste generation, including waste prevention, waste collection and management, product recycling and reuse, waste to energy activity with materials recovery and recycling prior to incineration and soil remediation.  Investments and expenditures for projects dedicated to reducing air pollution, and GHG emissions control.  | 12 RESPONSIBLE CONSCIUNTION AND PRODUCTION | Development of waste management activities such as waste prevention, waste reduction and recycling.                 |  |
| Clean Transportation Environmental Objective: Climate Change Mitigation   | Investments and expenditures in clean transportation systems and related infrastructure that reduce GHG emissions in transportation, such as:  • Zero-carbon transport:   | 11 SECTIONAL OTHER                         | Electric Vehicle<br>(EV) Charging<br>Stations and<br>Service Provision<br>in Greater<br>Amman                       | It reduces pollution<br>from burning of any<br>type of fuel, waste, or<br>other material |

Lifecycle emissions are below 100g CO2e/kWH; or (i) until 2030 (date of approval of construction permit) the following is verified (and annually re-verified) by an independent third party: primary energy savings of at least 10%; (ii) direct GHG emissions are <270g CO2e/kWh; (iii) leads to reduction in emissions of at least 55% of GHG per kWh; (iv) Power and heat to be replaced cannot be sufficiently generated using renewable energy sources; (v) Newly installed production capacity does not exceed capacity of replaced facility; (vi) Switch to full use of renewable and/or low carbon gaseous fuels to take place by 31 Dec 2035.

|   | T  |  | T   |   |
|---|--|--|---|---|
| Pollution prevention and control  | <ul> <li>Investments in passenger and freight vehicles with zero tailpipe emissions, such as electric cars, hydrogen cars, electric trains</li> <li>Low-carbon transport:         <ul> <li>Investments in low-carbon passenger vehicles with tailpipe emissions intensity of max. 50g CO2/km until 2025 (from 2026 onwards, only vehicles with emission intensity of 0g CO2/km are eligible)</li> <li>Investments in infrastructure (excluding roads) to support the use of zero-carbon and low-carbon vehicles</li> </ul> </li> <li>Investments in transportation infrastructure for mass transportation (expansion of train/metro networks, projects in relation to capacity improvement, station upgrades)</li> </ul> |  | Municipality (GAM)  Intelligent Transport Systems (ITS)  Electric Bus Fleet in Amman, Karak, Ma'an, and Tafileh for Use in Public transport and Government Fleet - Phase 1  |   |
| Sustainable Water and Wastewater Management Environmental Objective: Sustainable Use and Protection of Water and Marine Resources | Investments and expenditures in projects and infrastructure dedicated to reducing water consumption, sustainably managed water resources, and reducing water pollution, including developing and improving water supply and management infrastructure and urban drainage.  | 6 DEAM WATER AND SAVETANDER  11 SUSTAIN AND FORMS  AND COMMUNITIES | Substituting fresh water with treated wastewater for irrigation use  - Design and development of wastewater networks, wastewater treatment plant, Sludge Disposal and Recycling, treated Wastewater Pipeline  - Rehabilitation of the irrigation water distribution network  - Support local farmers in | It improves efficiency or reduces loss or enable recycling of water |

|  |   |   | increasing water<br>and energy<br>efficiency,<br>productivity, and<br>sustainability by<br>installing Solar PV<br>pumps, water-<br>efficient systems,<br>and smart<br>irrigation systems |  |
|--|---|---|--|--|
| Climate Change<br>Adaptation<br>Environmental<br>Objective:<br>Climate Change<br>Adaptation  | Investments and expenditures in projects and infrastructure that would reduce risk exposure and/or severity of impacts of physical climate hazards, in order to ensure an adequate level of flood protection and resilience, such as flood early warning systems, flood control systems, drought management projects, infrastructure for disaster resilience, and upgrade of transportation network to higher climate resilient design standards.   | 13 CLINATE ACTION   | Monitoring<br>systems for the<br>identification<br>and<br>management of<br>disaster risks<br>associated with<br>climate change   |  |
| Green Buildings Environmental Objective: Climate Change Mitigation Climate Change Adaptation | Investments and expenditures in internationally, regionally, and nationally certified green buildings, including construction of new buildings or renovation of existing buildings (including public service, commercial, residential, and recreational), such as but not limited to:  • obtaining a minimum certification of "BREEAM Excellent," or "LEED Gold," or similar recognized standard  • having primary energy demand at least 20% lower than the one resulting from the local Nearly Zero-Energy Buildings (NZEB) (for buildings built after December 31, 2020)  • having reached at least EPC A level  • following Jordan Green Building Guide and Green Building Code  Investments and expenditures in building retrofits leading to an increase of at least 30% in energy efficiency of the buildings. | 11 SEET AND TOTAL | Energy Efficiency<br>and Green<br>Buildings<br>Retrofits in<br>Public Buildings<br>- Phase 1   | It installs any type of renewable energy or energy efficiency technology |

Environmentally Sustainable Management of Living Natural Resources and Land Use

Environmental Objective:

Protection and Restoration of Biodiversity and Ecosystems Investments and expenditures related to the acquisition, maintenance, and sustainable management of natural resources such as land, water, air, minerals, forests, and wild flora and fauna, including:

- Certified forests (Forest Stewardship Council (FSC), Program for the Endorsement of Forest Certification (PEFC), or equivalent)
- Environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes
- Sustainable agriculture practices and climate smart farming
- Environmentally sustainable fishery and aquaculture certified by a reputable third-party organisation, such as Marine Stewardship Council (MSC), Best Aquaculture practices (BAP) (at least 2 star) and Aquaculture Stewardship Council (ASC)
- Biodiversity conservation, protection, and patrol programmes



Ecosystem
restoration
Improve
Irrigation
Efficiency in the
Jordan Valley
(Mid Ghors) by
rehabilitating
and upgrading
existing
irrigation
networks

Management and harvesting of rainwater by farmers in rural areas, for improved water storage and reduced soil erosion

Increase the use of aquaponics and hydroponics in urban and rural areas

It improves efficiency or reduces loss or enable recycling of water

#### Exclusions

Projects that support or promote the following activities will not be considered as Eligible Green Projects under this Framework:

- a) Burning of fossil fuel for power generation and transportation, except for projects related to combined heat and power gas power plants meeting the criteria described in the Eligible Green Projects.
- b) Rail or other transportation infrastructure dedicated for transportation of fossil fuels.
- c) Renewable energy projects generating energy from biomass using feedstock originating from protected areas.
- d) Landfill projects.
- e) Nuclear power generation.
- f) Transmission infrastructure and systems where 25% or more of electricity transmitted to the grid is fossil-fuel-generated.
- g) Hydropower plants larger than 25 MW, unless an official sustainability assessment is carried out by an accredited assessor using the Hydropower Sustainability ESG Gap Analysis Tool (HESG).
- h) Alcohol, defense, tobacco, gambling, or palm oil industries.

#### 2.3. Process for Project Evaluation and Selection

#### 2.3.1 Governance and Oversight

MOF has established an inter-ministerial working group (Committee) for the governance, oversight, evaluation, and selection of projects/expenditures intended to protect the environment, combat climate change, and enhance resilience to climate effects, to be supported by proceeds from the green bonds. The objective of the Committee is to oversee and obtain approvals for key decisions related to green bonds issued under this Framework. The Committee is chaired by the Ministry of Finance and the Ministry of Finance acts as the Secretariat and is responsible for coordinating Committee meetings. The Committee consists of representatives of the following ministries:

- Ministry of Finance
- Ministry of Planning and International Cooperation
- Ministry of Environment
- Central Bank of Jordan
- Ministry of Water and Irrigation
- Ministry of Transport
- Ministry of Energy and Mineral Resources
- Ministry of Public Works and Housing
- · Ministry of Agriculture
- General Budget Department

Sectoral technical experts support the activities and objectives of the Committee as needed. Decisions are taken with the majority of members present. The Chairman has the right of veto.

#### 2.3.2 Project Evaluation and Selection

One of the main functions of the Inter-ministerial Working Group is to assist with the process of evaluating and selecting the programs that will constitute eligible expenditure. This process will be based on the ongoing cooperation between the ministerial departments involved in the project, and will consist of the following phases:

- **Preliminary analysis of the Government Budget.** Ministries will identify and compile an initial list of potential green expenditures/projects based on the eligibility criteria set out in Section on Use of Proceeds and Exclusions and their level of preparedness (Ready for investment, Under Development, Under Conceptualization).
- Analysis of potentially eligible expenditure items for the issuance of green bonds. Each of the projects will include metrics to best define their environmental impact.
- **Determination of eligible programs and expenditure for annual green bond issuance.** Selection of the eligible projects that will become part of the portfolio.
- Continuous review and updating of program eligibility changes. As needed, the Committee will evaluate the submitted projects to ensure compliance with the Framework.
- Allocation and impact reports. The Ministry of Finance will track with input from the Inter-Ministerial Committee and other relevant government departments and line ministries any expenses related to the projects to the remaining Eligible Green Projects that can be financed in the subsequent year through another issuance.

#### 2.3.3 Environmental and Social Risk / Impact Management

Jordan has a comprehensive environmental risk assessment legislative framework. The framework will apply to Eligible Green Projects. In Jordan, environmental permitting for new developments is the responsibility of the Ministry of Environment (MoEnv), except for the Agaba Special Economic Zone (ASEZ). According to the Environmental Classification and Licensing Regulation 69 of 2020, Environmental Impact Assessments (EIAs) must be undertaken by accredited consultants for all projects. A Risk Assessment is to be included in an EIA if required by the EIA Committee, or if the project stores, produces or generates hazardous substances or wastes during any project phase. The review and recommendations on EIA studies is conducted by the Environmental Impact Assessment Committee whose members are composed of representatives from different governmental entities and the Royal Society for the Conservation of Nature (RSCN). The decision on the EIA study is issued by the Minister of MoEnv or the Secretary General noting the committee recommendations. The permitting process occurs in three stages: consent, license, and permit. The permit is required before initiating project operation.

Within ASEZ, Regulation 21 of 2001 on the protection of the environment (<a href="https://www.aseza.jo/EN/List/Law and Regulations">https://www.aseza.jo/EN/List/Law and Regulations</a>) includes EIA requirements. Developers are required to adhere to the development's implementation plan which covers the design of the project, the EMP, and other safety and environmental requirements.

Applications for new investments are submitted at a central system (One Stop Shop) and distributed internally to all permitting entities including environmental permits, civil defense, etc. All submissions related to an EIA study are reviewed by a technical committee that has 10 members as representatives from all environmental departments.

#### 2.4. Management of Proceeds

The Ministry of Finance will be responsible for the issuance of green bonds. The MOF-GBD will oversee the allocation and tracking of expenditures on Eligible Green Projects and will ensure the allocation of an amount equivalent to the net proceeds obtained from the issuance of its green bonds to Eligible Green Projects.

If any allocated Eligible Green Projects are removed from the Green Project Portfolio, the committee will strive to substitute those projects with suitable Eligible Green Projects. Replacement of the Green Project(s) will be done on a best effort basis, as soon as possible, and within a reasonable period of 12-24 months. Pending full allocation, the MOF-GBD will manage the unallocated proceeds of green bonds according to prudential liquidity policies. Payment of principal and interest on green bonds will be made according to the public debt provisions and will not be conditional on the selection or performance of the Eligible Green Projects.

#### 2.5. Reporting

The Government of Jordan intends to fully align, on a best effort basis, with the reporting recommendations outlined in ICMA's "Handbook – Harmonized Framework for Impact Reporting (June 2023)"<sup>13</sup>. MOF will be responsible for the preparation and co-ordination of the post issuance allocation and impact reports for the investors, with input from the Inter-Ministerial Committee and other relevant government departments and line ministries. An Allocation Report will be published annually until full allocation of an amount equal to the net proceeds obtained from the outstanding green bond issuance and include the following details:

- a) total amount allocated to Eligible Green Projects
- b) total amount allocated per Eligible Green Project Category
- c) remaining unallocated total amount
- d) breakdown of refinancing versus new financing

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<sup>&</sup>lt;sup>13</sup> ICMA, Handbook - Harmonized Framework for Impact Reporting (June 2023)

An Impact Report will be published on the expected environmental and/or social impacts of the Eligible Green Projects on an annual basis, subject to the availability of relevant data, until full allocation. In case of material changes, the issuer will update investors on a timely basis.

Examples of Potential Impact Reporting Metrics

| Eligible Green Project<br>Category          | Potential Impact Indicators   |
|---|---|
| Renewable Energy                            | <ul> <li>Installed renewable energy capacity (in MW)</li> <li>Annual renewable energy generation (in MWh)</li> <li>Annual GHG emissions avoided in tons of CO₂e</li> <li>Solar power-based energy generated (kwh) for self-consumption</li> </ul>   |
|   | <ul> <li>Social Co-Benefits (wherever possible to quantify)</li> <li>Number of households benefitted</li> <li>Number of under-privileged households benefitted</li> <li>Number of jobs created</li> </ul>   |
| Energy Efficiency                           | <ul> <li>Number of energy efficiency equipment and appliances installed</li> <li>Annual energy savings (in MWh).</li> <li>Annual GHG emissions avoided in tons of CO<sub>2</sub> emission</li> </ul>  |
| Pollution prevention and control            | <ul> <li>Amount of waste reused or recycled (tones or in % of total waste)</li> <li>Number of households / individuals served by digitized ecological islands</li> </ul>  |
| Clean transportation                        | <ul> <li>Number of people who use new low-carbon / zero-carbon public transport</li> <li>Number of new electric trains purchased or modernized/retrofitted</li> <li>Number of km of new electric railway lines created/maintained</li> <li>Number of active EV charging points</li> <li>Annual GHG emissions reduced/avoided (tCO2e)</li> </ul> |
| Sustainable Water and Wastewater Management | <ul> <li>Area of land or water conserved/recovered (km²)</li> <li>Area (km²) of marine/forest reserves under active monitoring</li> </ul>   |
| Climate Change Adaptation                   | <ul> <li>Number of flood defense infrastructure built and/or<br/>rehabilitated / km of flood defense infrastructure built and/or<br/>rehabilitated</li> </ul>   |
| Green Buildings                             | <ul><li>Estimated ex-ante annual energy savings (in MWh)</li><li>Number of buildings that have been financed</li></ul>  |

Environmentally Sustainable Management of Living Natural Resources and Land Use

- Size of land restored and protected (sq km)
- Population covered (headcount)
- Size of forest covered (sq km)

#### 2.6. External review

[To Be Defined] has completed an external review (Second-Party Opinion) of the Framework to confirm its alignment with the ICMA Green Bond Principles. The Second Party Opinion is publicly disclosed on the Ministry of Finance website: The Government of Jordan also intends to obtain an assurance report on the allocation of green bond proceeds provided by an external review provider, [To Be Defined].

#### Annex 1 Key strategies, policies, and legal documents on climate change

#### 1. Strategies

#### National:

- Jordan Economic Modernization Vision 2033
- Jordan Vision 2025 GIEP (former EDP) 2021–2023 Government Priorities 2021–2023
- The National Green Growth Plan (NGGP, 2017)
- Green Growth National Action Plans (GG-NAPs, 2020) for Energy, Water, Agriculture, Transport, Tourism, and Waste sectors

#### Amman:

- Amman Climate Action Plan: A vision for 2050 (2019)
- Amman Resilience Strategy
- Amman Green City Action Plan (2021)

#### Other Municipalities Sustainable Energy & Climate Action Plans (SEACAPS):

- Al Muwaqar Sustainable Energy Access & Climate Action Plan.
- Al Zarga Sustainable Energy Access & Climate Action Plan.
- Madaba Sustainable Energy Access & Climate Action Plan.
- Al Salt Sustainable Energy Access & Climate Action Plan.
- Balaama Sustainable Energy Access & Climate Action Plan.
- Umm El Jimal Sustainable Energy Access & Climate Action Plan.
- Al Russeifa Sustainable Energy & Climate Action Plan.
- Deir Alla Sustainable Energy & Climate Action Plan.
- Al Sarhan Sustainable Energy & Climate Action Plan.

#### Agaba Special Economic Zone Authority (ASEZA)

• Agaba Marine Reserve Management Plan (2022-2026)

#### Sectoral strategies:

- Central Bank of Jordan, Green Finance Strategy 2023-2028
- Jordan Energy Strategy (JES) 2020–2030
- Second Jordan's National Energy Efficiency Action Plan (NEEAP) 2018-2020
- National Water Strategy & Master Plan (NSMP) 2023 2040
- Climate-Smart Agriculture Action Plan (2021)
- National Strategy for Agricultural Development (2022–2025)
- National Agricultural Research Center Strategy (2019 2023)
- National Plan for Sustainable Agriculture (2025-2022)
- Strategy for Managing National and Agricultural Crises and Disasters (2018)
- Health Sector Strategic Plan 2018–2022
- Health Information System Strategic Plan 2019-2023
- National Climate Change Health Adaptation Strategy and Action Plan of Jordan (2012)
- National Tourism Sector Strategy 2020–2025
- Jordan Long Term National Transport Strategy and Action Plan
- Strategic plan for road safety 2019-2023

- National Biodiversity Strategy and Action Plan 2015-2020 (NBSAP, 2015)
- Aligned National Action Plan to Combat Desertification (2015-2020)
- The National Strategy and Action Plan for Municipal Solid Waste (NSAP)
   Management 2015-2034
- MWI Strategic Plan 2018-2020
- Jordan Green Building Codes (2013) / Green Building Rating System in Jordan
- National Social Protection Strategy (2019 2025)
- Sendai Framework for Disaster Risk Reduction (2015-2030) endorsement (2015)
- The Natural Disaster Risk Reduction Strategy (2019-2022)
- National Center for Security and Crisis Management (NCSCM) established in 2015
- National Disaster Risk Reduction Platform established under NCSCM in 2017
- Environmental Information System (EMIS) established at DOS
  - National Strategy Surveys for Agricultural Development 2019
  - Electronic and Electrical Wastes at Household 2018
- The Airport International Group Carbon Neutrality (AIG) adopted an Environment, Health and Safety Plan and issued an Environment & Safety Handbook
- National Non-Revenue Water Strategy for Jordan's Water Sector

#### 2. Policy documents

- National Climate Change Policy 2022–2050 (NCCP)
- National Climate Change Adaptation Plan (NAP), 2021
- Climate Change Policy for Resilient Water Sector (2024)
- Water Sector Policy for Drought Management 2024
- Groundwater Sustainability Policy 2024
- Surface Water Utilization Policy 2024,
- Water Reallocation Policy 2024
- Water Demand Management Policy 2024,
- Water Substitution and Re-Use Policy 2024,
- Efficiency and Renewable Energy in the water sector Policy 2024

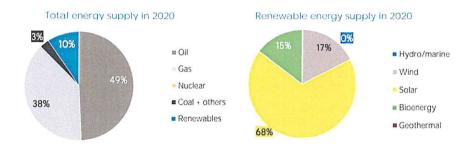
#### 3. Legal provisions and international commitments

- Jordan's NDCs to the Paris Climate Agreement 2021
- Long-Term Low-Carbon and Climate Resilient Strategy 2050 (LTS) ongoing
- Environment Protection Law No 6. of 2017
- The Climate Change Bylaw 79/2019
- Instructions on climate change expenditure definition, 2021
- Jordan Environment Fund (JEF) Bylaw 18/2018 (updated 2019)
- Law No. (13) of 2012, Renewable Energy & Energy Efficiency Law, amended in 2014
- RE & EE Fund By-law (JREEEF) 2015.
- Jordan Renewable Energy and Energy Efficiency Fund (JREEEF) Bylaw 49/2015
- The General Electricity Law No. 64 of 2003
- Waste Management Framework Law No 16 of 2020.
- The Natural Resources Law 19 of 2018
- Regulation 68 of 2020 on Management of Hazardous Materials and Wastes

### Annex 2. Energy mix in Jordan

The electricity sector in Jordan is on a low-carbon trajectory, with an increasing share of renewables. Jordan's current National Energy Strategy focuses on energy security with an ambitious goal of reaching a share of 50 percent renewables in the electricity mix by 2030<sup>14</sup>, significantly higher than the NDC target of 31 percent. In 2022, the Ministry of Energy and Mineral Resources (MEMR) launched the Low-Carbon Pathway (LCP) for the power sector in Jordan to set carbon emissions-related scenarios through 2050 as well as the ongoing LTS 2050 work.

Energy poses great challenges to Jordan due to its lack of indigenous energy resources and its dependence on imports, while it needs relatively large amounts of energy for sustainable development. Jordan currently imports about 90% of its energy mix, including crude oil, oil derivatives, and natural gas. Local sources, including renewable energy, do not contribute more than 10% of these needs<sup>15</sup>.



Source: Irena,2023<sup>16</sup>

The total primary energy consumed in Jordan in 2020 amounted to about 8.4 million tons of oil equivalent, of which crude oil and oil derivatives constituted 50%, while natural gas comprised 38%, renewable energy 11%, imported electricity 1%, and coal and lignite coke 2%. The per capita primary energy consumption reached 810 kgoe.

<sup>&</sup>lt;sup>14</sup> Jordan Energy Strategy, 2020-2030, Jordanian Ministry of Energy and Mineral Resources. https://www.memr.gov.jo/EBV4.0/Root\_Storage/EN/EB\_Info\_Page/StrategyEN2020.pdf

<sup>&</sup>lt;sup>15</sup> Jordan Fourth National Communication on Climate Change, 2022

<sup>16</sup> Irena https://www.irena.org/-