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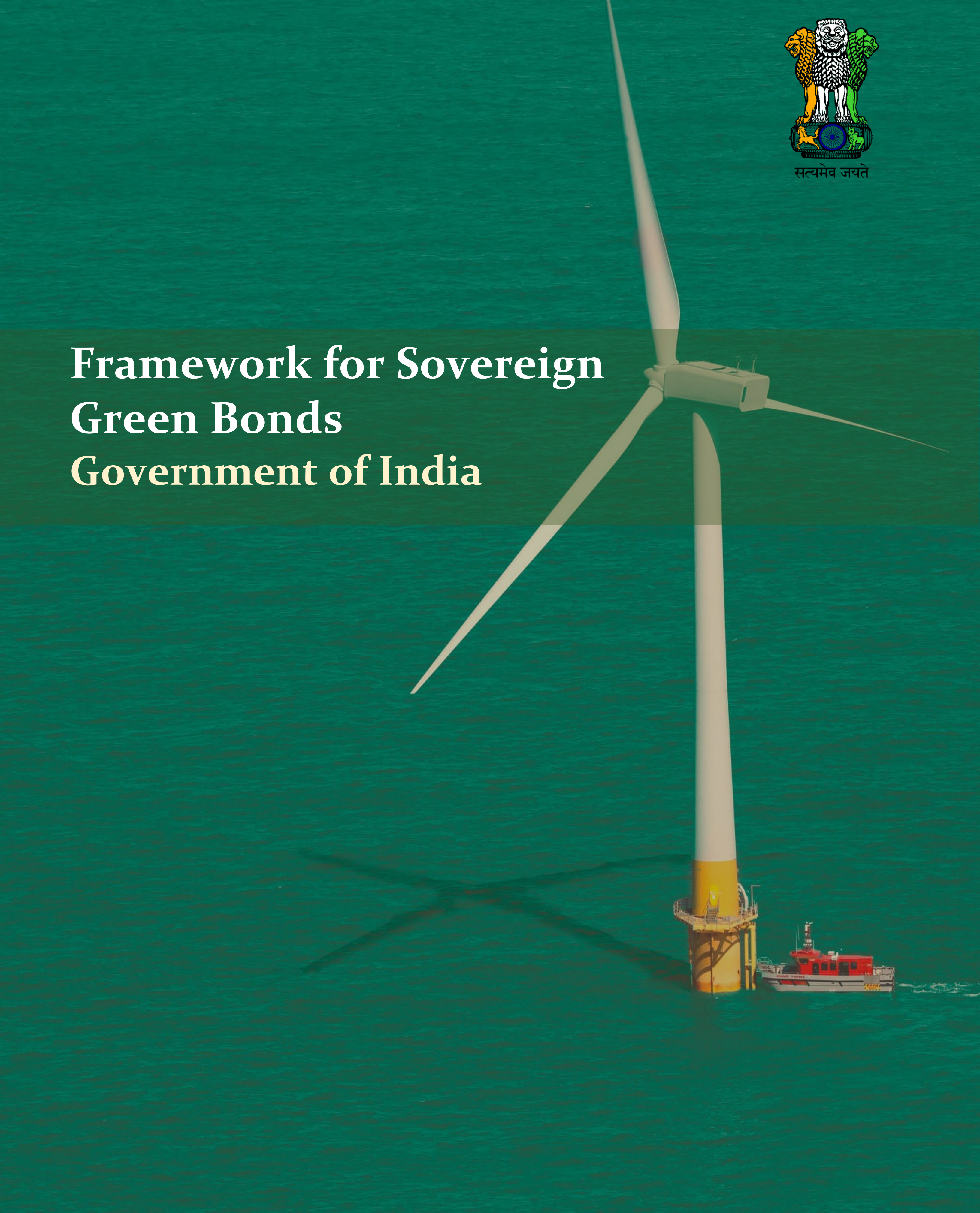

Framework for Sovereign Green Bonds

Government of India

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Framework for Sovereign Green Bonds

1. Introduction

India's commitment to the preservation of the environment is enshrined in Article 48-A of the constitution. Over the years, India has taken steps both at national and sub-national levels to balance environmental sustainability with economic growth. Initiatives such as the Namami Gange Mission, plastic waste management, National Clean Air Programme are a few examples of these. As a populous, tropical developing country, India faces a bigger challenge in coping with the consequences of climate change than most other countries. Climate Change is a global phenomenon but with local consequences. Realizing this, the National Action Plan on Climate Change (NAPCC) was launched in 2008 with eight National Missions. The NAPCC aims at fulfilling developmental objectives with a focus, inter alia, on reducing emission intensity of the economy, improving energy efficiency, increasing the forest cover and developing sustainable habitat standards. The National Adaptation Fund on Climate Change (NAFCC) was launched in 2015 with an objective to enhance the adaptive capacity of the most vulnerable sections of the population and ecosystems focusing on the climate-sensitive sectors such as agriculture, water, forestry and the coastal and Himalayan ecosystem.

1.1 Background on India's Commitments and Stated Policies

India adopted an ambitious Nationally Determined Contribution (NDC) under the Paris Agreement on a 'best effort basis' keeping its developmental imperatives in mind.[1]

The NDC targets announced in 2015 were to

i) reduce emission intensity of GDP by 33-35 per cent by 2030 as compared to 2005 levels;
ii) create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030
iii) increase the share of non-fossil fuel-based energy resources to 40 per cent of installed electric power capacity by 2030. India's commitments

[1] Economic Survey 2021-22

under the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement reflect the principle of equity and the principle of common but differentiated responsibilities and respective capabilities in the light of national circumstances.

India's third biennial update report submitted to the UNFCCC in 2021 reports a reduction in emission intensity between 2005 to 2016 to be 24 per cent. According to the Central Electricity Authority, India's share of non-fossil fuel sources in installed capacity of electricity generation increased from 30.5 per cent in March 2015 to 40.2 per cent at the end of December 2021.

Further, the National Hydrogen Mission for generating hydrogen from green energy sources which aims to use hydrogen blended with CNG as a transportation fuel and an industrial input to refineries to lower carbon emission and improve air quality has also been announced.

At COP 26, India underlined the need to start the one-word movement 'LIFE' which means 'Lifestyle For Environment' urging for mindful and deliberate utilization instead of mindless and destructive consumption of natural resources. The Hon'ble Prime Minister of India in Glasgow in November 2021 further enhanced the ambition on addressing climate. These include five nectar elements *(Panchamrit)* of India's climate action:

1) **Reach 500GW non-fossil energy capacity by 2030**
2) **50 per cent of its energy requirements from renewable energy by 2030**
3) **Reduction of total projected carbon emissions by one billion tonnes from now to 2030**
4) **Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels**
5) **Achieving the target of net zero emissions by 2070**

India now stands committed to reduce Emissions Intensity of its GDP by **45 percent by 2030**, from 2005 level and achieve about **50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030**

1.2 India's vision for achievement of updated NDC[2]

India's updated NDC will be implemented over the period 2021-2030 through programs and schemes of relevant Ministries/departments and with due support from States and Union Territories. Government has launched many schemes and programs to scale up India's actions on both adaptation and mitigation. Appropriate measures are being taken under these schemes and programs across many sectors, including water, agriculture, forest, energy and enterprise, sustainable mobility and housing, waste management, circular economy and resource efficiency, etc. As a result of the aforesaid measures, India has progressively continued decoupling of economic growth from greenhouse gas emissions. The Net Zero target by 2030 by Indian Railways alone will lead to a reduction of emissions by 60 million tonnes annually. Similarly, India's massive LED bulb campaign is reducing emissions by 40 million tonnes annually.

India's climate actions have so far been largely financed from domestic resources and it is now targeting generation of additional global financial resources as well as transfer of technology as committed under UNFCCC and the Paris Agreement.

1.3 Context for Indian Sovereign Green Bonds

In keeping with the ambition to significantly reduce the carbon intensity of the economy, the Union Budget 2022-23 announced the issue of Sovereign Green Bonds (para 103). The budget para 103 is reproduced as below:

> *'As a part of the government's overall market borrowings in 2022-23, sovereign Green Bonds will be issued for mobilizing resources for green infrastructure. The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy.'*

[2] https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1847812

The issuance of Sovereign Green Bonds will help Government of India (GoI) in tapping the requisite finance from potential investors for deployment in public sector projects aimed at reducing the carbon intensity of the economy.

This Green Bond Framework (Framework) sets forth the obligations of the Government of India as a Green Bond issuer. The Framework applies to all sovereign Green Bonds issued by the Government of India. Payments of principal and interest on the issuances under this Framework are not conditional on the performance of the eligible projects. Investors in bonds issued under this Framework do not bear any project related risks.

Department of Economic Affairs, Ministry of Finance reserves the right to modify this Framework according to international best practices or in accordance with the Government of India's international commitments and environmental priorities. Changes to the Framework will be reviewed by an independent provider.

The framework is designed to comply with four components and key recommendations of the International Capital Market Association (ICMA) Green Bond Principles (2021)[3]. These principles recommend delineation of a clear process and disclosure by the issuer to enable the investors and banks and others to understand the characteristics of the green bond.

The four core components as outlined by ICMA green bond principles are:

i. Use of proceeds;
ii. Project evaluation and selection;
iii. Management of proceeds; and
iv. Reporting.

In order to improve transparency, the ICMA also recommends that:

a) the issuer set out a Green Bond Framework which is accessible to the investor, and
b) advises the issuer to provide for an external review.

3 Green Bond Principles » ICMA (icmagroup.org)

In line with the recommendations, the draft framework for sovereign green bonds is presented below. The Framework and other Sovereign Green Bond related information are available on the Department of Economic Affairs website (https://dea.gov.in).

2. Core Components of the Framework

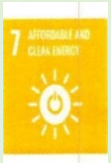
2.1 Use of Proceeds

A ‘green project’ classification is based on the following principles:

- Encourages energy efficiency in resource utilization
- Reduces carbon emissions and greenhouse gases
- Promotes climate resilience and/or adaptation
- Values and improves natural ecosystems and biodiversity especially in accordance with SDG principles

Government of India will use the proceeds raised from Sovereign Green Bonds (SGrB) to finance and/or refinance expenditure (in parts or whole) for eligible green projects[4] falling under ‘Eligible Categories’ defined in Table 1.

Table 1: Eligible Category of Projects and the SDGs impacted are as follows:

Green Project Category	Environmental Objective	Eligibility Criteria
Renewable Energy  	Climate Change Mitigation, Net Zero Objectives	• Investments in solar/wind/biomass /hydropower energy projects that integrate energy generation and storage. • Incentivizing adoption of renewable energy
Energy Efficiency	Climate Change Mitigation	• Design and construction of energy-efficient and energy-saving systems and installations

[4] ICMA Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds, June 2021

Green Project Category	Environmental Objective	Eligibility Criteria
		in government buildings and properties. • Supporting public lighting improvements (e.g. replacement with LEDs). • Supporting construction of new low-carbon buildings as well as energy-efficiency retrofits to existing buildings • Projects to reduce electricity grid losses.
Clean Transportation	Climate Change Mitigation	• Promote public transportation including its electrification and transport safety. • Subsidies to adopt clean fuels like electric vehicles including building charging infrastructure.
Climate Change Adaptation	Climate Change Adaptation	• Projects aimed at making infrastructure more resilient to impacts of climate change, as well as investments in information support systems, such as climate observation and early warning systems.

Green Project Category	Environmental Objective	Eligibility Criteria
Sustainable Water and Waste Management	Climate Change Mitigation	• Promoting water efficient irrigation systems. • Installation/upgradation of wastewater infrastructure including transport, treatment and disposal systems. • Water resources conservation. • Flood defence systems.
Pollution Prevention and Control	Climate Change Mitigation, Environment protection	• Projects targeting reduction of air emissions, greenhouse gas control, soil remediation, waste management, waste prevention, waste recycling, waste reduction and energy/emission-efficient waste-to-energy[5]
Green Buildings	Climate Change Mitigation	• Projects related to buildings that meet regional, national or internationally recognized standards or certifications for environmental performance.
Sustainable Management of Living Natural Resources and Land Use	Natural Resource Conservation	• Environmentally sustainable management of agriculture, animal husbandry, fishery and aquaculture. • Sustainable forestry management including afforestation / reforestation. • Support to certified organic farming.

[5] Feedstock will primarily include: Sewage, manure, wastewater, bagasse, biomass, wood pellets, etc.

Green Project Category	Environmental Objective	Eligibility Criteria
		• Research on living resources and biodiversity protection.
Terrestrial and Aquatic Biodiversity Conservation	Biodiversity Conservation	• Projects relating to coastal and marine environments. • Projects related to biodiversity preservation, including conservation of endangered species, habitats and ecosystems.

All eligible Green Expenditures will include public expenditure undertaken by the Government in the form of investment, subsidies, grant-in-aids, or tax foregone (or a combination of all or some of these) or select operational expenditures, R&D expenditures in public sector projects that help in reducing the carbon intensity of the economy and enable country to meet its Sustainable Development Goals (SDGs). Equity is allowed only in the sole case of metro projects under 'Clean Transportation' category, as all metro projects in the country access the public share of their total funding through equity investments. Metro projects are implemented through Special Purpose Vehicles (SPVs) meant exclusively for metro transportation projects, and no other project related funding are permissible.

The eligible expenditures are limited to government expenditures that occurred maximum 12 months prior to issuance. It will be endeavored that all the proceeds get allocated to projects within 24 months following issuance. Any expenditure already financed and/or refinanced by dedicated source/ other Government agency will be excluded to ensure suitable oversight and avoid double-counting. The devolution of funds will be in tranches and shall be dependent upon the achievement of the physical targets as specified in the approved project document.

Excluded Projects

- Projects involving new or existing extraction, production and distribution of fossil fuels, including improvements and upgrades; or where the core energy source is fossil-fuel based
- Nuclear power generation
- Direct waste incineration
- Alcohol, weapons, tobacco, gaming, or palm oil industries
- Renewable energy projects generating energy from biomass using feedstock originating from protected areas
- Landfill projects
- Hydropower plants larger than 25 MW

Expenditures directly related to fossil fuel are excluded. However, investments/expenditures aimed at a relatively cleaner Compressed Natural Gas (CNG) is allowed as an 'eligible expenditure' when used in public transportation projects only. Subsidy/incentive for private transportation using CNG is neither envisaged nor included.

2.2 Process for Project Evaluation and Selection

Ministry of Finance has constituted a "Green Finance Working Committee" (GFWC) with representation from relevant line ministries and chaired by Chief Economic Adviser, Government of India. GFWC will meet at least twice a year to support Ministry of Finance with selection and evaluation of projects and other relevant work related to the Framework. Initial evaluation of the project will be the responsibility of the concerned Ministry/Department in consultation with experts.

i. Constitution of the Green Finance Working Committee (GFWC)

GFWC has been established with clear lines of authority to oversee and validate key decisions on issuance of Sovereign green bonds under the Chairmanship of Chief Economic Adviser, Government of India and members from implementing departments, Ministry of Environment, Forests and Climate Change (MoEFCC), Niti Aayog (India's premier public policy think-tank), Budget Division of Department of Economic Affairs (DEA) and Infrastructure Finance Secretariat, DEA (Figure 1). While GWFC can co-opt additional members depending on the requirement, from time to time, other ministries and sector experts may be consulted to ensure that the selected projects are in line with the intended objectives

The terms of reference of GFWC are as follows:

- The committee will select green projects that fall into one or more of the eligible project categories under this Framework on basis of the initial evaluation report by the concerned Ministry/Department submitted to the GFWC, which will then review and approve projects for Green Funding.
- The allocation of the proceeds shall be reviewed in a time-bound manner by the GFWC to ensure that the allocation of proceeds is completed within 24 months from the date of issuance.

- In the event of postponement, or cancellation of an eligible green project, it shall be replaced with another eligible green project. To ensure this, the number of eligible projects, and total value of eligible expenditures associated with SGrB will be greater than the amount of the issue. This will bring in easy replaceability in case of ineligibility, or delays in execution and/or possible cancellations of projects.

- An annual report on the allocation of proceeds to the eligible projects along with description of projects financed, status of implementation, and unallocated proceeds will be brought out under supervision of GFWC.

- Impact of projects in respect of reduction in carbon intensity and environmental benefits will also be assessed and reported separately by GFWC.

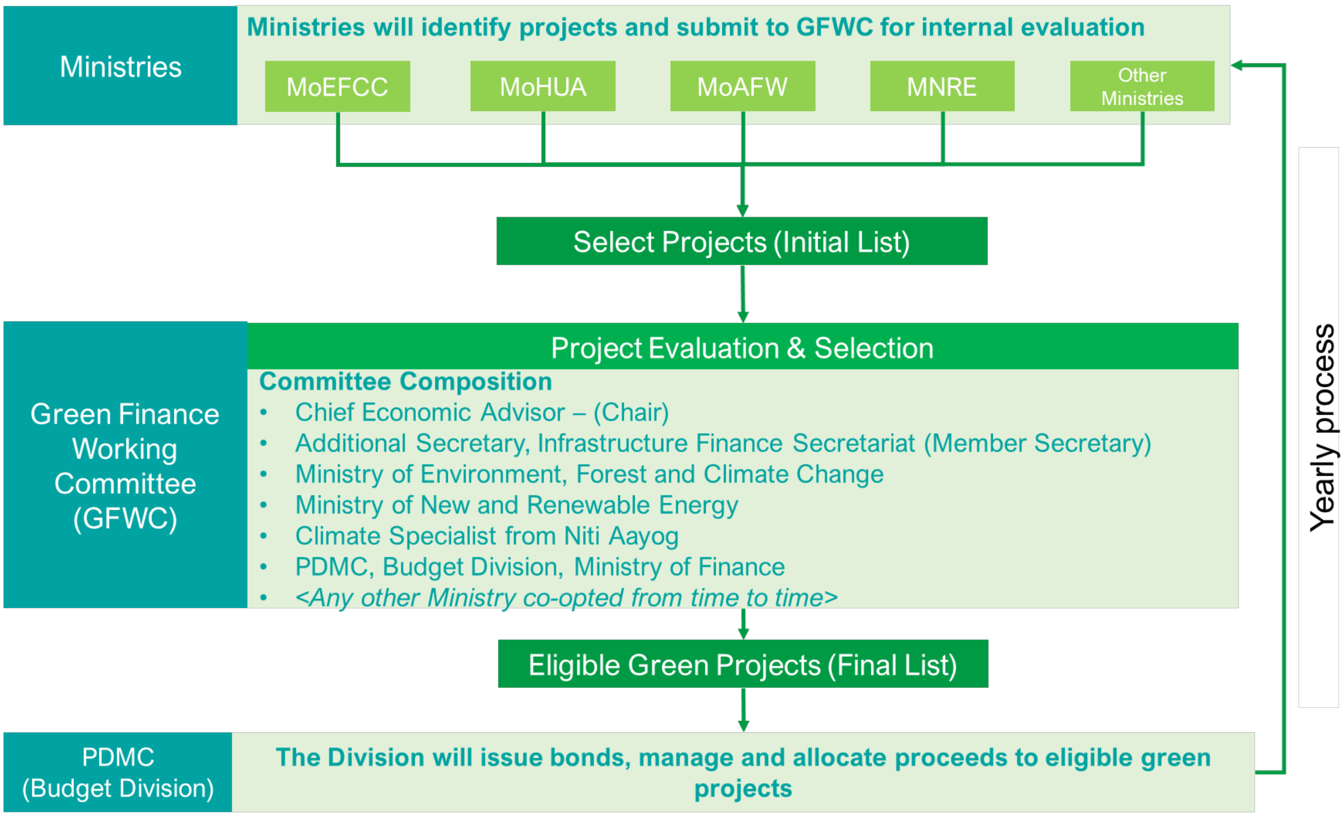


Figure 1: Procedure for Selection of Eligible Green Expenditures

ii. Initial Selection of Eligible Projects and Expenditures

Relevant Line Ministries will conduct an internal evaluation to come up with a list of eligible projects based on the Framework in addition to their level of preparedness (1= Ready for investment, 2= Under Development, 3= Under Conceptualization). Each of the projects will carry metrices to best define their environmental and social impact.

iii. Assessment and Evaluation of Final set of Eligible Expenditures

Members of the Green Finance Working Committee will evaluate the entire list of submitted projects, to the best of their abilities, for their adherence to the framework, and their alignment with green objectives. In this, they will be guided on matters of environmental and social fitment by the expert opinion of the Climate Specialist from Niti Aayog as well as the Representative from Ministry of Environment, Forest and Climate Change. Ministry of Finance will oversee the entire process of evaluation from the point of view of overall economic fitment.

iv. Periodic Selection of new eligible green expenditures

For every successive year, GFWC will meet to identify a fresh set of eligible expenditures in line with the Framework in consultation with Line Ministries. Ministries that are currently not part of GFWC will also be consulted for generating awareness towards sustainability and green projects within their purview, to identify new projects. Depending on the projects so selected, GFWC may co-opt new representatives from additional line ministries

v. Eligible green expenditures for green bond issuances

Once the Finance Bill is passed, Ministry of Finance will inform Reserve Bank of India (RBI) regarding the amount of eligible green expenditures for which proceeds from green bonds can be utilized. The Ministry will also keep track of how proceeds from the issuances are allocated and inform RBI about any remaining eligible green expenditures that can be potentially financed in the subsequent year through another issuance.

vi. Principles of selection of green projects by GFWC

- Eligible green expenditures are mapped to the environmental objectives of ICMA Green Bond principles, UN Sustainable Development Goals

(SDGs) and must be in accordance with the Framework in letter and in spirit.

- Eligible Green Expenditures must have alignment with the objectives of National Conservation Strategy and Policy Statement on Environment and Development, 1992; National Forest Policy, 1988; Policy Statement on Abatement of Pollution, 1992; and the National Environment Policy, 2006 Additionally all such expenditures will adhere to minimum social safeguards as accorded by the Constitution as well as the laws of the country (such as The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013)

- These expenditures must also be in agreement with respective state's environmental and social objectives and will only be included if they run no risk of 'double-counting' through any other mechanism/financing instrument. In any case, equity investment is not envisaged in any project other than metros.

2.3 Management of Proceeds

The proceeds will be deposited to the Consolidated Fund of India (CFI) in line with the regular treasury policy, and then funds from the CFI will be made available for eligible green projects. For the purposes of ensuring that the proceeds' allocation and accounting is transparent, clear and beyond doubt, a separate account will be created and maintained by the Ministry of Finance Government of India.

Public Debt Management Cell (PDMC) will keep a track of proceeds within the existing guidelines regarding debt management, and monitor the allocation of funds towards eligible green expenditures. Unallocated proceeds, if any, will be carried forward to successive years for investment in eligible green projects[6]

[6] As defined under Eligible Project Category under 'Core Components' of this Framework

only. It will be endeavoured that all proceeds are allocated within a span of two years from the date of issuance.

Ministry of Finance will set up a dedicated information system with a view to maintaining a complete Green Register including the details of the green bond issuance, proceeds generated, allocations made to eligible projects including information about the eligible projects (*summary of the project details, allocation of proceeds to each project, expected climate impact and the extent of unallocated proceeds, both aggregate as well as project-wise*). An amount at least equal to the net proceeds from the completed issuances under this Framework will be allocated to the financing and/or refinancing of expenditures that meet the eligibility criteria.

2.4 Reporting

Government of India commits to providing investors with transparent reporting on the allocation of proceeds of Sovereign Green Bonds as well as on the environmental impact of projects funded by the proceeds. The Allocation Report will be updated annually until full allocation of proceeds of outstanding Green Bonds and thereafter in case of any material changes, and will be brought under the supervision of GFWC. Department of Economic Affairs, Ministry of Finance will coordinate the preparation of the reports.

The annual report is expected to consist of the following:

a) Information about issuance
b) List of allocated proceeds to eligible projects and type of expenditure (tax, subsidies etc.)
c) Alignment of the eligible procedures with stated objectives
d) Description of projects financed and their status of implementation,
e) Total quantum of proceeds generated, allocated and remaining unallocated (if any)
f) Assumptions made, if any
g) Expected impact of the projects in quantitative indicators (to the extent possible (see Figure 2)) indicating reduction in carbon intensity, other environmental benefits and, where possible, social co-benefits.

As a well-functioning democracy, India has a strong independent audit system under the Comptroller and Auditor General (CAG) as specified by the Constitution. CAG audits all receipts and expenditures of Central and State Governments, including all Public Service Enterprises. The reports of CAG are placed before Parliament. Allocation and utilization of Green Bonds is also under the purview of audit by CAG.

Table 2: Examples of potential Impact Reporting Metrics

Green Bond Category	Examples of potential metrics
Renewable Energy	• Installed renewable energy capacity (in MW). • Annual renewable energy generation (in MWh). • Annual GHG emissions avoided in tons of CO_2e Social Co-Benefits (*wherever possible to quantify*) • Number of households benefitted • Number of under-privileged households benefitted • Number of jobs created
Energy Efficiency	• Number of energy efficiency equipment and appliances installed • Annual energy savings (in MWh). • Annual GHG emissions avoided in tons of CO_2 emission
Sustainable management of natural resources	• Area of land or ocean conserved/recovered (km^2). • Area (km^2) of marine/forest reserves under active monitoring.
Clean transportation	• Number of people who use new ecological public transport • Number of km of new electric train/road lines created/maintained

	• Annual GHG emissions avoided in tons of CO2 emission. • Air Quality improvement (PPM) Social co-benefits (*wherever possible to quantify)* • Employment generated – number of jobs created/supported • Number of MSMEs supported • Number of people with access to sustainable public transport systems
Sustainable Water	• Volume of water collected and/or treated (m3) • Increased water efficiency of systems (% reduction in water consumption/loss) • Number of households that have access to new potable water supply
Green Building	• Level of certification by property • Annual energy savings (in MWh) • Annual GHG emissions avoided in tons of CO2e

3. External Review

3.1 Second Party Opinion

This Green Bond Framework has been reviewed by CICERO which has issued an independent Second Party Opinion. It has approved the alignment of the Sovereign Green Bond Framework of the Government of India with the ICMA Green Bond Principles (2021).

3.2 Post Issuance External Verification

To provide timely and transparent information about the reporting of the allocation of funds from SGrBs issued under this framework, Government of India intends to engage a third-party external reviewer to provide an annual assessment on the alignment of the allocation with the framework's criteria. The external review will be conducted to:

i. verify that utilization of proceeds is in accordance with stated objectives of use of proceeds as mentioned in the Framework
ii. assess the management of proceeds and of unallocated proceeds, if any

The Framework, Second Party-Opinion, Post-Issuance Allocation Report will be made available on the following websites:

Ministry of Finance – www.finmin.nic.in
Department of Economic Affairs – www.dea.gov.in
