



India's debut sovereign green bond framework

**A step towards bridging
India's climate financing gap**



December 2022

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On 1st Feb 2022, as part of the budget speech, India's Union Minister for Finance and Corporate Affairs, Smt. Nirmala Sitharaman announced a plan to issue sovereign green bonds for mobilising resources for green infrastructure. This comes after India raised the issue around the lack of climate finance and the need to set stronger climate finance commitments at multiple global forums, most recently at the 27th United Nations Conference of Parties¹ (COP). The final Sovereign Green Bonds framework of India was approved on 9th November 2022 to deploy proceeds in public sector projects which help in reducing the emissions intensity of the economy².

About green bonds

A green bond is like any other bond where a debt instrument is issued by an entity for raising funds from investors wherein the proceeds are allocated to climate mitigation, adaptation and other environmental conservation projects. They provide investors with an attractive avenue for investment and an opportunity to support environmentally and socially sound projects. Based on the type of issuer, the green bonds can be categorised into sovereign green bonds (governments), corporate green bonds (private sector) and supranational green bonds (bi-laterals and multi-laterals).

A sovereign green bond showcases country's commitment to build a low-carbon economy, lower the cost of capital for green projects by attracting new investors, and mobilise private capital for sustainable development. Such green issuances typically supplement other government actions on climate change and resilient infrastructure, and should not be viewed as an alternative. They are also critical to low-carbon transition as they enable the creation of a pipeline of green assets on the ground that can be financed through green finance markets.



1. COP27: India Insists on New Global Climate Finance Target by 2024. The Wire. Saini, G. 11th November 2022. Accessed on 11th November 2022.
2. Budget 2022 is a step towards innovative & sustainable development in New India to strengthen our Energy Transition journey and fight climate change; Power Minister. Press Information Bureau. Ministry of New and Renewable Energy. 01 Feb 2022. Accessed on 11th November 2022.

Current landscape of green bonds in India

Having set an aim of net-zero emissions by 2070 in the COP26 at Glasgow in 2021, India needs a regular flow of green financing to achieve its goals. The country will require an economy-wide investment of more than USD10.1 trillion³ between 2022-2070⁴. The green bonds market can potentially

add impetus to the country's climate action strategies.

Green issuance has grown significantly to USD18.3 billion cumulatively⁵, with 2021 being the most successful year yet for green bonds in the country with a record issuance of USD7 billion.

India green scorecard		
	In 2021	Overall/cumulative
Amount issued	USD7.0 bn	USD18.3 bn
Number of deals	24	73
Largest issue size	USD2.1 bn	USD2.9 bn
Average deal size	USD290.8 mn	USD259.2 mn

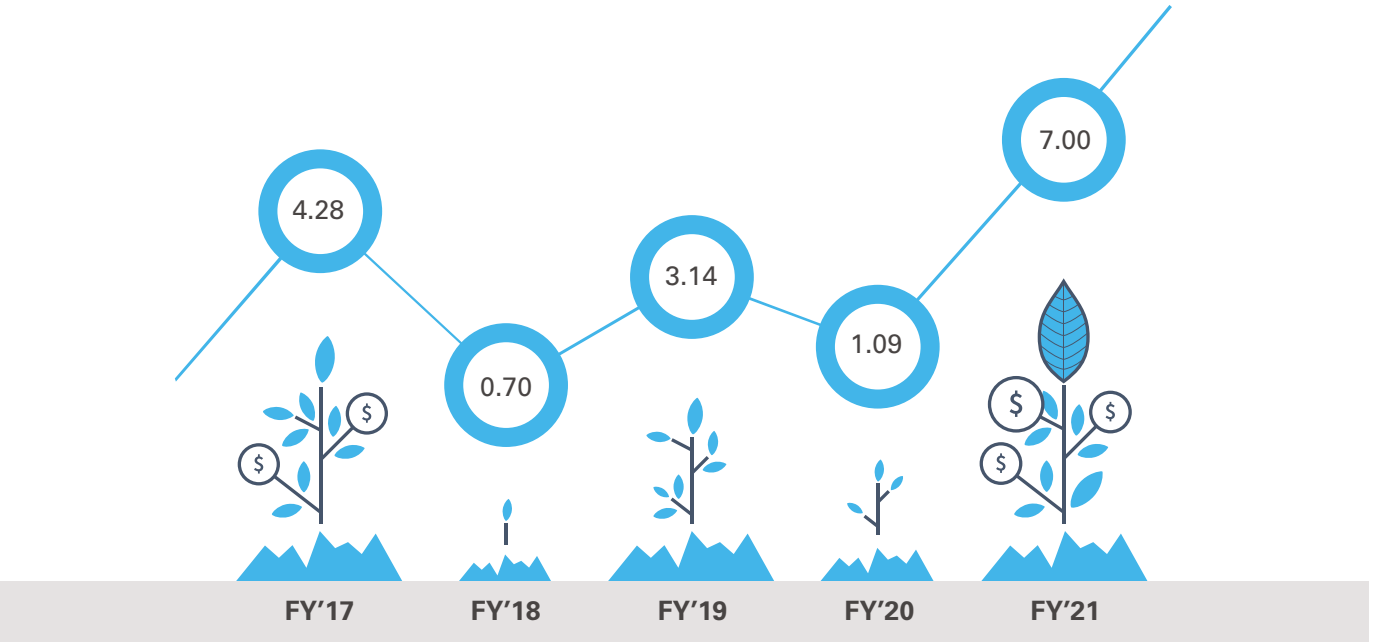
Source: a) India Sustainable Debt Market State of the Market 2021. Climate Bonds Initiative. May 2022. Accessed on 11th November 2022



3. Getting India to Net Zero. Asia Society Policy Institute. August 2022. Accessed on 11th November 2022.
4. The investment figure of USD10.1 trillion is the estimated requirement till

the year 2060. Additional investments would be required beyond this period.
5. India Sustainable Debt Market State of the Market 2021. Climate Bonds Initiative. May 2022. Accessed on 11th November 2022

Volume of green bond issuance in India (USD billion)



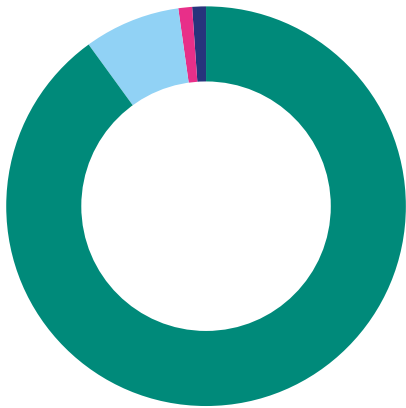
Source: Adapted from a) India Sustainable Debt Market State of the Market 2021. Climate Bonds Initiative. May 2022. Accessed on 11th November 2022.
b) India sets sights on record green bond issuance entering 2022. S&P Global Market Intelligence. Isjwara, R and Ahmad, R. January 2022. Accessed on 11th November 2022

Cumulatively, renewable energy dominates the green proceeds allocation. Off the USD18.3 billion issued via labelled green instruments: more than USD16.4 billion (90%) has been allocated to renewable energy and related activities⁶.

Green proceeds predominantly allocated renewable energy projects, followed by transport

India's sovereign green bond framework

India's sovereign green bond framework has been aligned to the internationally recognised International Capital Market Association (ICMA) Green Bond Principles, 2021. It envisages funding projects in nine categories to fulfil various environmental objectives such as climate mitigation, adaptation, resource conservation and biodiversity conservation.



Energy Buildings
Transport Water

Source: Adapted from a) India Sustainable Debt Market State of the Market 2021. Climate Bonds Initiative. May 2022. Accessed on 11th November 2022.

6. India Sustainable Debt Market State of the Market 2021. Climate Bonds Initiative. May 2022. Accessed on 11th November 2022.

Renewable energy

Energy efficiency

Clean transportation

Climate change adaptation

Sustainable water and waste management

Pollution prevention and control

Green buildings

Sustainable management of living natural resources and land use

Terrestrial and aquatic biodiversity servation



This framework has also been reviewed externally by a second party opinion (SPO) provider with a 'Medium Green' rating that provides a positive view indicating that the framework lays out significant steps towards the long-term vision or low carbon and climate resilient future; yet the scope for improvement remains. For example, the principles for selecting green projects for some sectors are generic in nature that might potentially increase the risk of financing projects that are not completely green or create adverse climate related impacts.

However, it is noteworthy that in addition to mitigation, the framework also anchors adaptation by mainstreaming social safeguards and resilience through mention of the Land Acquisition, Rehabilitation and Resettlement Act, 2013, National Forest policy and adherence to minimum social safeguards amongst others under the project selection criterion. The framework excludes large hydropower projects and renewable energy projects that generate energy from feedstock sourced from protected areas to safeguard environmental risks and conserve natural resources respectively. Given the focus of the framework on augmenting adaptive capacities and social benefits; it is expected that the funds raised from sovereign green bond would prioritise adaptation activities that have received limited funding in the past.

Another interesting aspect of the framework is the institution of a 'Green Finance Working Committee' (GFWC) including representatives from different line ministries that would be responsible for selection of eligible green projects. While the Public Debt Management Cell (PDMC) will be responsible for tracking the allocation and expenditure of proceeds, the modalities of how the tracking process operates in practice is still to be seen. This includes processes around ensuring regular monitoring, transparent reporting and disclosure of verifiable information across different departments back to the PDMC.

Precedence for green bond issuance already exists in the Indian context with state-owned enterprises having been front-runners in issuance of such bonds. However, the issuance of a sovereign green bond can provide multiple benefits for all stakeholders including the sovereign itself.

Diversify the investor base

Raising capital through green bonds provides issuers an opportunity to diversify their investor portfolio through inclusion of environmentally conscious investors that had limited opportunity to contribute earlier. This is especially true for sovereigns that usually have a consistent investor base.

In 2016, The Government of Poland became the first in the world to issue a sovereign green bond. Post issuance of the bond, Poland witnessed a significant increase in its investor base with green investors making up to 61% of the investor pool, almost none of which had previously invested in sovereign bonds from Poland.

Raise confidence of other market participants or potential issuers

Sovereign issuers can serve as an exemplar for other types of issuers and provide a boost to the green finance market. It raises the profile of green bond issuance for other potential issuers by establishing good practices in issuance and management processes and standards for the whole market.

The Government of Indonesia issued its first US dollar denominated sukuk in March 2018. The issuance of a sovereign green bond provided the much-required boost to the market and was closely followed by the issuance of the first corporate US dollar denominated green sukuk by a Dubai headquartered retailer.

Set the course for lowering the cost of capital for green finance market in India

Listing a green bond on one or more exchanges creates greater awareness and increased access for potential investors thereby increasing the likelihood of reducing the borrowing costs. For smaller-scale green bonds, being listed can improve liquidity by enabling greater market connectivity and increasing the centralised liquidity, thereby expanding the number of investors who can subscribe to the bond. Bombay Stock Exchange (BSE)'s international arm, India International Exchange (INX), has a green listing and trading platform for fund raising and trading green, social and sustainable bonds exclusively⁷. Likewise, the National Stock Exchange (NSE IFSC) is also in the process of operationalising the International Sustainability Platform (ISX) that will allow market participants to trade different sustainable finance products⁸.

Fiji has listed its sovereign green bond on the London Stock Exchange. This listing helped the Government of Fiji to market their current issuances well, enhance pricing transparency as well as the capacity to access international investors willing to take Fiji dollar currency risk.

7. Green, Social and Sustainable Bonds. India International Exchange. NA. Accessed on 11th November 2022.

8. International Sustainability Platform. National Stock Exchange. NA. Accessed on 11th November 2022.

Our green bond service offerings

KPMG in India offer a range of services to support issuers during the lifecycle of a green bond. We have been certified to provide green bond verification to the Climate Bonds Standard and all its member firms continue to play a role in the development of market standards and guidance.

01

Review financing options

KPMG in India professionals review and challenge your financing objectives and alternatives, enabling you to determine the capital structure and make the most of debt market appetite. KPMG in India professionals can help determine a preferred funding route, and act as a sounding board for your management team.

02

Design green bond criteria

KPMG in India can help you develop a green bond framework, 'green' criteria and specifications for the management of proceeds. KPMG in India professionals advise on project selection and evaluation, fund management processes and controls, and we benchmark your processes against industry best practice and evolving standards.

03

Execution

KPMG in India professionals advise on the presentation of your business' credit story and green credentials to potential investors, the issuance process of the debt, and liaise with stakeholders including credit rating agencies.

04

Ongoing stakeholder management

KPMG in India can help you assess the performance of a green bond through independent bond investor studies, giving you unbiased insight into bondholders' perspectives and into the profile of bondholders.

05

Third-party independent assurance

To increase the credibility of the bond, KPMG in India professionals can provide assurance on the issuer's processes and controls for selecting green projects and managing proceeds, as well as on the issuer's progress reports.

06

Monitoring and reporting

KPMG in India professionals can help you develop performance indicators and project evaluation metrics to monitor and report on the financial and environmental outcomes of projects. KPMG in India support you in reporting your company's internal and external stakeholders.

07

Capacity building

KPMG in India professionals have been providing training to bi-lateral/ multi-lateral organisations related to issuance of thematic bonds. The course raises awareness about how opportunities offered by innovative financing mechanisms, particularly green bonds, can be leveraged to meet the SDG and NDC targets.

Our client stories

First green bond in India

A large private bank in India sought to issue a green bond to finance renewable energy projects including solar, wind, hydro and biomass-based power. It was the first green bond to be issued in India and this provided an opportunity for the client to make a mark in the green bond market and set itself apart from its competitors.

Drawing on international green bond expertise and experience, KPMG in India provided third-party independent assurance as per the requirements of the Green Bond Principles (established by the International Capital Market Association or ICMA). Through our support, the client was able to ensure that its green bond processes, controls and procedures were robust and credible.

The bond was heavily oversubscribed by investors including major banks and financial institutions. KPMG in India provided assurance on the client's annual reporting for the bond, in line with the requirements of the International Standard on Assurance Engagements 3000 (ISAE 3000) and continues to do so.



Maiden green bond issuance for a public sector enterprise

In December 2017, a public sector enterprise issued its maiden USD500 million 10-year green bond from investors in Asia, Europe and Middle East, and offshore US. KPMG in India provided third-party independent assurance as per the requirements of the Climate Bonds Standard which led to their certification by the Climate Bond Initiative (CBI). The offering is listed on the London Stock Exchange (LSE) as well as the Singapore Stock Exchange. The proceeds are being used to finance eligible green projects under dedicated freight railway lines and public passenger transport.



Assuring green bond impact report for India's large public sector bank

India's large public sector bank issued three green bonds to raise capital for financing green projects such as solar energy and low carbon transport. To provide maximum credibility for investors, the bank asked KPMG in India to review the green bond impact report.

Our professionals reviewed documentation, evaluated the design and implementation of the reporting processes and controls, and interviewed staff responsible for managing the bond and reporting on the use of proceeds.

KPMG in India's ESG specialists issued an independent limited assurance report on the bank's Green Bond Update Report. This assurance helped enhance the credibility of the reported information, and helped to demonstrate to bondholders that the proceeds were used in accordance with the client's green bond criteria.



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