

Issue

Brief

ISSUE NO. 731
SEPTEMBER 2024

The Role of Capital Markets for Raising Green and Transition Finance

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Abstract

Climate change is a global commons problem requiring concerted actions by all. While recognising this, the United Nations Framework Convention on Climate Change has also acknowledged the principle of ‘common but differentiated responsibilities and respective capabilities,’ which assigns greater responsibilities to developed countries in mitigating greenhouse gas (GHG) emissions and reducing their carbon footprint. There have also been deliberations at successive meetings of the Conference of the Parties (COP) on developed countries providing financial and technical support to developing states. Despite commitments, however, developed countries have failed to transfer any significant amounts to the developing countries. Such delays have only worsened the situation, amid the increasing incidence and intensity of extreme weather conditions and natural calamities worldwide. Developing countries are more vulnerable to the massive consequences of these events and face an uphill task in arranging funding to finance their climate mitigation and adaptation requirements.

India is a vast country with a 1.4-billion population,¹ a per capita income of approximately US\$2,500 per annum,² and significant income disparity. India is also among the countries most affected by extreme weather events.³ Although India's per capita annual GHG emission in 2021 was only 1.6 carbon dioxide equivalent (CO₂e) metric tons as compared to, say, the 13.8 CO₂e metric tons of the United States (US), China's 7.5 CO₂e metric tons, and the global average of 4.3 CO₂e metric tons, it was the third largest incremental annual emitter of GHG in the world that year.

India has outlined ambitious targets to contain climate change impacts and meet its nationally determined contributions under the Paris Climate Agreement. These targets should also help the country achieve the Sustainable Development Goals by 2030, besides fulfilling its net-zero GHG emissions commitment by 2070⁴—even as it aspires to become a developed country by 2047. Given its geographical size, population and diversity, however, India faces unique obstacles to these targets. For instance, over 75 percent of its districts (home to 638 million people) are categorised as hotspots for extreme climate events.⁵ The climate financing strategies have to be appropriately mainstreamed in the overall development model.

Various studies have projected different macro-level estimates of India's funding requirements to combat climate change in the medium to long term. While the exact estimates may differ, all point to a substantial financing requirement. To arrive at the potential modes of financing for this requirement, it is perhaps best to begin by focusing on the medium term (up to 2030). In an October 2022 report, McKinsey estimated that India will require an annual average funding of US\$100 billion between 2021 and 2030 to finance its mitigation plan, including the actions needed to meet its international commitments.⁶ However, India's current total annual investment for mitigation activities is about US\$44 billion. This raises a critical question: Where will the additional funds come from?

At present, the primary sources of climate finance in India are development finance institutions (DFIs), comprising multilateral development banks (MDBs) and bilateral DFIs, commercial and financial institutions, public sector undertakings (PSUs); and union and state government budgets. Apart from the commercial and financial institutions, the other sources are unlikely to meet the additional financing requirements, in any substantial manner, in the foreseeable future. DFIs have limitations in terms of overall resource availability

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in addition to other pressing priorities such as long-term infrastructure financing. Moreover, extracting any sizeable additional climate funds from the MDBs appears unlikely unless they undergo crucial reforms;^a the union and state governments are also facing fiscal constraints and their debt-to-GDP ratios are high and unsustainable; and the PSUs have limited capabilities and are resource-constrained.

This leaves private players and financial institutions, both domestic and foreign, as the possible sources of funding. To facilitate investments from these sources, it is essential to have a better idea of the granular, sector-wise funding requirements. This will depend on a well-defined government plan of action to meet its commitments in the medium term. Several crucial questions will need to be answered: Which are the hard-to-abate sectors? What is the strategy to reduce emissions in these sectors and mandate specific targets for them? Which projects can be appropriately structured to make them investible and commercially viable? Which projects are less investible and will require government or regulatory intervention to de-risk them?

a This point was also brought out in the G20 meeting held in New Delhi in September 2023.

The Demand and Supply Sides of Green and Transition Finance

Although many different institutions have estimated India's climate finance requirements, it is for the government to make a fair assessment and own the numbers; after all, it is the government's international commitment to reduce emission intensity of GDP, by 2030, by 45 percent over 2005 levels.⁷ Developing a well thought out plan to move to a low-carbon economy and executing it systematically is necessary to avoid any financial stability risks.

The GDP projections for 2030 under different energy-mix scenarios will present various options to reduce the emission intensity of GDP. The carbon-intensive and hard-to-abate sectors should be segregated and made the subject of a more aggressive and measurable plan to reduce emissions. Sector-specific GHG emission targets should be fixed for industrial sectors, such as steel, aluminium, cement, and thermal power, and eligible entities in these industries should be mandated to meet the prescribed targets. For example, if the steel sector currently emits 2.5 metric tons of CO₂e/ton of steel production on average,⁸ with a target to reduce this to, say, 1.6 metric tons of CO₂e by 2030 in a phased manner, each eligible entity producing steel of that specification would need to follow the phase-down plan. Even for the sectors that do not fall in the 'hard-to-abate' category, a sectoral granular exercise is needed, with a clear action plan. To monitor progress, the period up to 2030 may be divided into time blocks, with a fixed target for each.

In June 2023, the government notified a framework for Carbon Credit Trading Scheme (CCTS). The scheme entails driving the market by setting GHG emission intensity reduction targets for entities in selected sectors. The entities that exceed the set targets will be issued carbon credit certificates, while those failing to achieve the targets can meet the shortfall by purchasing these certificates from the market. The scheme aims to develop a well-functioning regulated domestic carbon credit trading market, with transparent price discovery. CCTS should be operationalised at the earliest to help the firms/entities achieve the targets in a cost-effective manner.

Once mandated and a pathway prescribed to reduce emissions, entities in different sectors can prepare definitive plans to meet their transition financing requirements, and explore various options for their specific projects. They would work out the requirements under different types of instruments (such as debt, equity, and hybrid). This will give the lenders and investors a clearer picture. This exercise will also help in identifying the required policy and regulatory interventions to facilitate raising transition finance.

The Demand and Supply Sides of Green and Transition Finance

Similarly, the government should coordinate a bottom-up granular exercise to work out the fund requirement to undertake adaptation activities. The sectors likely to be most affected by climate change (for instance, infrastructure, agriculture, forestry, and aquaculture) and the major players involved therein should prepare definitive financing plans for undertaking adaptation measures.

Investors are intrinsically driven by the returns on investment. Notably, ESG investment has gained steam in recent years, particularly in the developed countries. This indicates that some investors, especially the institutional investors, are willing to sacrifice, to some extent, returns on investments if they are convinced that the investments will result in better social or environmental outcomes.

Despite the recent regulatory push, ESG investments are yet to pick up in India in any significant manner. As a part of its borrowing programme, the Indian government raised INR 160 billion (US\$1.91 billion) as sovereign green bonds (SGBs)⁹ in 2022-23 by issuing two tranches of five- and ten-year bonds.¹⁰ The ‘greenium’ (the premium investors are willing to pay for green bonds because of their sustainability impact) reduced from six basis points in the first tranche to between one and five basis points in the second tranche. Even this insignificant greenium might perhaps be a result of the Reserve Bank of India (RBI) coercing banks to buy the SGBs. Still, although these bonds have found a limited appetite, there is an expectation that the SGBs would create an ecosystem that fosters a greater flow of capital into green projects. SGBs will also provide a pricing reference for private sector entities in India for their Rupee-denominated borrowing for ESG-linked debt.

The Securities and Exchange Board of India (SEBI) has had guidelines for issuing green bonds since 2017, which were updated in 2023.¹¹ However, the total amount raised under these guidelines so far is only around US\$43 billion.¹² As such, even though the increase in ESG-themed mutual funds since 2020 is a positive sign, these have had limited success, with their total assets under management at only around INR 100 billion (US\$1.19 billion) as of March 2023.¹³

It would be helpful to segregate green projects into those that can be appropriately structured to make them investible and commercially viable, and others that are less investible and thus require government or regulatory intervention to de-risk the investments. Many projects would likely fall on the

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borderline of the two categories. The markets and investors will need to do their own due diligence to take a view on such categorisation.

An important assessment to be made is the amount of foreign funding needed in green projects. Developing countries (excluding China) are likely to need two-thirds of their capital requirement to come from international sources during the 2023-2030 period, to meet their goals. India likely faces a similar situation. To be sure, many serious players in India, especially those in the renewable energy sector, have followed the external commercial borrowings route to raise significant foreign funds through a combination of loans and bonds.¹⁴

Tapping Capital Markets in India

The Indian economy is dominated by banks that account for about 60 percent of the total flow of credit to the non-financial sector.¹⁵ The banks thus need to play a far more active role in financing green projects in the country, and will need to improve their risk assessment capabilities and revisit capital adequacy norms to finance green projects. However, even with improved preparedness, banks may still not be able to finance long-gestation projects due to potential asset-liability mismatch. Notably, many green and transition projects will likely fall in the long gestation period category, with back-end returns. The capital market, with its various instruments, provides a good financing option for such projects.

The Indian capital markets have come of age in recent years, with the total market cap of listed companies at about 120 percent of GDP as of 2023.¹⁶ India's capital market has a best-in-class regulatory architecture. This was seen in recent years amid successive global shocks that roiled the international financial markets. The onset of COVID-19 in March 2020, Russia's ongoing war in Ukraine, and the Gaza conflict that started in October 2023 have disrupted the supply chains and international trade, and altered the global economic order. Green transition agendas are increasingly becoming interconnected with the concerns of national securities.

The robustness of the Indian capital markets and their performance during such a tumultuous period, even in comparison to those of the developed economies, is notable. NIFTY 50 return (in US\$ terms) was 14.90 percent (11.19 percent) during 2020-21, 24.12 percent (21.68 percent) during 2021-22, 4.32 percent (-7.80 percent) in 2022-23, and 19.42 percent (18.73 percent) till January 2024,¹⁷ vis-à-vis S&P 500's 28.47 percent in 2020-21, -18.04 percent in 2021-22, and 26.06 percent in 2022-23.¹⁸ Entities seeking to raise equity via the public market can do so through modes such as an initial public offering, rights issue, or a qualified institutional placement. The disclosure regime for raising funds and the one for the end-use utilisation of funds raised is well established under Companies Act 2013, and SEBI's issue of capital and disclosure requirements (ICDR) regulations, 2018 and the listing obligations and disclosure requirements (LODR) regulations, 2015. SEBI's 2021 Business Responsibility and Sustainability Report (BRSR) guidelines¹⁹ simplify the challenge of choosing a reporting framework by introducing a unified, transparent reporting format and thus have proven to be a game changer in the listed space.

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The guidelines also provide interoperability with international reporting standards, including the Global Reporting Initiative, the Task Force on Climate-related Financial Disclosures, and the Sustainability Accounting Standards Board. In a bid to have more focused and measurable disclosures, in 2023, SEBI introduced the concept of core BRSR reporting, and the requirement for a third-party assessment or assurance on the disclosures made by the eligible listed companies. A glide path has also been provided for disclosures by the value chain participants, along with the third-party assurance requirement. This augurs well for attracting equity investments to meet sustainable financing requirements. Based on experience and if needed, the reporting formats could be modified in the future, in consultation with stakeholders.

Private equity investments can be made through alternate investment funds, private equity funds, and sovereign wealth funds. In July 2022, SEBI revamped regulations relating to ‘social impact funds’ (SIFs), which are registered as Category-I alternative investment funds and were previously known as ‘social venture funds’ (SVFs).²⁰ The Institute of Chartered Accountants of India has also established social audit standards (SASs), with SAS 500 pertaining to “ensuring environmental sustainability, addressing climate change including mitigation and adaptation, forest and wildlife conservation.”²¹ This should provide clarity to the investors looking to invest in these funds. Although the cumulative funds raised under SVFs/SIFs, as of end December 2023, is relatively small—around INR 6.41 billion (US\$0.07 billion)—going forward, appropriate regulatory adjustments in consultation with the stakeholders can make these vehicles more relevant for raising private funds for climate financing.²²

The biggest challenge for meeting the requirements for financing transition is the underdeveloped corporate bond market in India. Typically, green projects, like infrastructure projects, have a much higher debt-to-equity ratio as compared to manufacturing projects. Debt instruments currently constitute about 45 percent of India’s annual climate finance, but this is expected to increase in the future.²³ As of now, India’s corporate bond market lacks the adequate depth and liquidity. Although it has seen some improvements in the last decade, much needs to be done. The development of the corporate bond market lends itself to extensive research and discussion, with some papers already offering insights on the issue.²⁴


Regulatory Changes and Government Interventions

The government's top priority should be to establish a comprehensive and unambiguous taxonomy, including on what should be considered as 'green' investment. Having a clearly defined green taxonomy is essential to attract foreign investments in green projects. Given the sizeable requirement for foreign funding, India's taxonomy may need to emulate existing taxonomies, particularly that of the European Union, while accounting for contextual differences.

The government should actively coordinate with the RBI and SEBI to develop the domestic bond market. Raising climate finance in India is critically dependent on addressing this issue. RBI should take measures to deepen the domestic currency hedging market to reduce the hedging costs. Considering the long gestation period and back-ended pay-outs of green projects, this is a crucial prerequisite to increase foreign green investments. The Gujarat International Finance Tec-City (GIFT City), with a framework to raise funds in foreign currency, has the potential to emerge as Indian corporates' preferred option for green debt issuances. Notably, GIFT City's total green bond listings have already crossed US\$10 billion (as of end December 2023). The International Financial Services Centres Authority has formed an expert committee (consisting of representatives from industry, standard setters, and think tanks) to recommend a regulatory framework for transition finance instruments, and measures to promote raising transition finance through the GIFT International Financial Services Centre.

In an emerging economy like India, with multiple aspirational priorities, it will take time for domestic investors to imbibe an ESG investment culture. As such, less investible and risky projects would best be funded by MDBs or the Union government. To incentivise private investment in such projects, the government may consider extending support by, among others, giving credit guarantees for debt raising; reducing withholding tax to about 5 percent for foreign investors; and providing tax concessions on the lines of those given to infrastructure funds in 2015-16. Such benefits will need to be well targeted and the projects selected through due diligence.

Conclusion

India's equities market has the depth and wherewithal to play a role in meeting the country's climate finance requirements, but the debt market needs improvements to realise this potential. The demand for funds should be assessed in a more systematic manner, going into granular sectoral details. On the supply side, about two-thirds of the funding required till 2030 may come from international sources. Several government and regulatory interventions are needed to make climate financing a success, but, crucially, government support will continue to be needed for less investible and risky projects. 

This brief was originally published in ORF and CPI's monograph, *A Roadmap for Green and Transition Finance in India*, which can be accessed here: <https://www.orfonline.org/research/a-roadmap-for-green-and-transition-finance-in-india>.

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