

The Landscape of Climate Finance in India: Issues with Access and Utilisation

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KEY TAKEAWAYS

- Private finance and climate bonds can provide strategic avenues to state governments for mobilising capital and infusing liquidity into the market.
- Harnessing domestic funds for mainstreaming climate finance and improving convergence across government schemes such as the MGNREGA can strengthen climate adaptation.
- Enhancing state capacity for accessing different forms of blended finance is critical to achieving sustainable and climate-friendly growth targets.

The UNFCCC defines climate finance as "local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change." It refers to the transfer of resources for such projects from developed, well endowed (in terms of capital) countries to developing countries.

India received significant funding to finance its climate action initiatives between 2010 and 2018. India was the recipient of the highest international climate funds amongst South Asian and BRICS nations during this period. The Clean Technology Fund provided USD 775 million to the energy sector between 2010 and 2018, the highest amongst all the international climate funds. 95% of the total funds were in the form of loans. Financing from bilateral sources and multilateral development banks, and international climate funds, has been heavily focused on climate mitigation, especially in the energy sector.

However, most clean energy projects remain on paper as mere policies, with little to no concrete action on the ground. Coal plants in India still receive one of the highest sectoral funding, about INR 50,000 crores. An ORF report¹ also cites that "India has amended its Environment Impact Assessment (EIA) Act, reducing the time given to the public to submit their objections to large infrastructure projects". Cost advantages due to weakened environmental regulations can adversely affect poorer states in getting their fair share, as manufacturing across the globe relocates.

The Government of India has demonstrated a renewed commitment towards climate action via adaptation and mitigation projects. For example, the Centre has established a National Adaptation Fund with initial funding of Rs.100 crore as budgetary support towards climate change. The government also announced that under the National Solar Mission, 100 gigawatt (GW) of solar capacity would be installed by 2022.

While private-sector financing of climate action is a crucial component of climate adaptation policy, there are multiple limitations in analysing climate finance provided by the private sector; **most reports that track private climate finance's flow indicate that the investments are heavily skewed towards the renewable energy sector.** This can be attributed to significant initiatives and decisions taken by the Government of India over the past decade to demonstrate its commitment towards phasing out fossil fuels, which attracted investments from private stakeholders in the renewable energy sector. However, there is significant scope to attract further investments from the private sector towards addressing climate change

¹Sarma, n. (2020). Green Recovery: Opportunities for India. Issue no. 425.

"The yearly monsoon season, lasting from June to September, severely affected India in 2018. The state of Kerala was especially impacted – 324 people died because of drowning or being buried in the landslides set off by the flooding, the worst in one hundred years".

- Global Climate Risk Index, 2020

issues, in sectors other than renewable energy, using innovative financial instruments such as climate bonds. A press release² by the UNEP in June 2020 revealed that **declining renewable energy prices could encourage governments to work towards achieving the Paris Agreement goals by paying attention to clean energy projects meant to recover their respective economies from the downturn caused by the COVID pandemic.** According to the report, "The all-in, or levelized, cost of electricity continues to fall for wind and solar, thanks to technology improvements, economies of scale and fierce competition in auctions. Costs for electricity from new solar photovoltaic plants in the second half of 2019 were 83 per cent lower than a decade earlier". This further underlines the need for public finance to support new technologies.

A new initiative at LEAD at Krea University aims to support state governments in developing strategies to finance their climate initiatives and build climate-friendly infrastructure. The project assists state governments in setting up a formidable climate finance network consisting of multiple stakeholders such as multilateral institutions, the private sector, non-profits, research institutions, think tanks and endowment funds. This platform will play a crucial role in enabling state governments to access external capital from state and private funds.

This is critical for India, as it faces an ever-growing population, a considerable proportion of which is vulnerable to the impacts of climate change. According to the Global Climate Risk Index 2020,³ **India ranks fifth on the list of countries most vulnerable to climate change out of 181 countries.** WHO's 2018 fact sheet⁴ explains that countries with a weak health infrastructure will have to bear the most significant impacts of climate change. Because of the vast inequality in terms of income levels and weak public health infrastructure, India faces considerable challenges in ensuring necessary public health facilities for all citizens. A 2017 UN report⁵ claims that "initial inequality causes the disadvantaged groups to suffer disproportionately from the adverse effects of climate change, resulting in greater subsequent inequality". The report observes that low-income

² UNEP(2020). Falling clean energy costs provide opportunity to boost climate action in COVID-19 recovery packages

³ Eckstein, D. et. al. (2020). Global Climate Risk Index 2020: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2018 and 1999 to 2018. Germanwatch.

⁴ WHO(2018). Climate change and health.

⁵ Islam, S., N., and Winkel, J. (2017). Climate Change and Social Inequality. DESA Working Paper No. 152. UN.

population segments will suffer from a) increased exposure, b) increased susceptibility and c) decreased ability to cope. Moreover, as a developing economy with large infrastructural projects in the pipeline, India needs to keep the environmental consequences of development projects in check. Climate change mitigation and adaptation projects can provide an insurance mechanism towards the climatic risks that vulnerable segments face.

Green development can also foster job opportunities for the country's burgeoning workforce and employable segments.

In the wake of COVID-19, there were significant job losses,⁶ due to a drop in economic activity and supply chain disruptions. With recovery efforts underway, there is an opportunity to boost climate-friendly infrastructure building and development projects and generate employment opportunities at scale. An important question hence arises - will this route be better for employment levels than the traditional, 'brown' recovery one? A study⁷ conducted by Cambridge Econometrics suggests that green recovery plans can stimulate income, employment and GDP better than return-to-normal stimulus measures, with the added benefit of reducing emissions. Green development can tie into other missions and funding opportunities such as smart cities, national clean air action plan and state action plans on climate change. Though states have access to various finance mechanisms for green development, there has been massive underutilisation of these funds for such projects.

LEAD's work will help identify best practices and develop case studies that show how funds are blended to deliver development solutions, which are sustainable and robust to climate impacts. The project will entail conducting a rapid assessment of the barriers and opportunities based on interviews with experts and policymakers, as well as the project team's research and expertise. As part of this initiative, LEAD hosted a webinar on the landscape of climate finance in India, which brought together the experiences of key stakeholders in proposal development, programmatic strategy for climate action, monitoring and



⁶ <https://www.bbc.com/news/world-asia-india-53938621>

⁷ ANS (2020). Green recovery plans can boost jobs more than 'return to normal' stimulus: Study. The Economic Times

evaluation, scaling-up of projects through mainstreaming and engaging with the private sector.⁸ The webinar attempted to provide insights into the challenges, outlook and ways forward by catalysing new support and paving the way for future climate action in the country as several states in India are redesigning their climate action plans. This note summarises key insights from the webinar and literature review.



⁸ On 8th October, 2020 LEAD at Krea University hosted a webinar on climate finance to discuss the issues with access and utilization. The panel consisted of diverse stakeholders - Central government representative, state government representative, civil society organization and private sector, respectively. This included Dr. Surendra Babu from NABARD, Dr. Sweta Rajpurohit from GEER Foundation, Ms. Neha Kumar from Climate Bonds Initiative (CBI) and Dr. Annapurna Mitra from Observer Research Foundation (ORF).

"There is a need to use green finance, not just for renewable energy projects or waste management but for facilitating long-term industrial development, job creation and infrastructure deployment without being locked into a carbon-intensive future."

Mr. Pustav Joshi,
Climate Change Policy and
Negotiations Lead, UK Trade
Economics and Prosperity,
Foreign Commonwealth
Office, Government of UK

Enabling ecosystem for green financing

In the current context, where sub-national governments are faced with a liquidity crunch, and the impetus is on job creation and the broader government policy of self-reliance, state governments can raise green finance from the market, to create an ecosystem where the funding is used efficiently by collaborating with the private players. The pandemic has given policymakers and development actors an opportunity to turn around from our unsustainable consumption and production patterns'. However, such an approach requires considerable investments in green pandemic recovery. The UN data highlights that 'spending on renewable energy can generate 2.5 times more jobs than fossil fuels'. Moreover, cleaner air can reduce the burden of disease from air pollution, which costs some countries 7 percent of their GDP.

Private finance and climate bonds

A bond is a collection of projects that are financed collectively. The quality of a bond relies on the quality of its underlying projects. Climate bonds, or green bonds, are financial instruments that are linked to projects that will hopefully result in positive environmental benefits. Supporting states in creating a pipeline of investment-worthy green infra projects can increase the quality and therefore returns and uptake of climate bonds.

The details of 'climate bonds' were delineated by Ms. Neha Kumar of the Climate Bonds Initiative (CBI). First initiated in 2007, the idea behind climate bonds was to shift big capital towards climate solutions to act as a catalyst for policy changes. Today, bonds provide an immense capital pool of USD 100 trillion globally which is particularly suitable for long-term financing. Additionally, there is a clear sense about the flow of money as user proceeds are well-defined, assets are predefined, and there is transparent reporting on its usage. Bond investors are primarily risk-averse institutions. As a result, climate bonds are mainly used for refinancing purposes, subsequent to the initial high-risk stage of project financing.

Climate bonds as a source of private finance do not face the constraints that traditional financial institutions face while expanding debt capital flows such as a mismatch between

assets and liabilities of banks and NBFCs. Moreover, in the current scenario where the banking sector is stressed due to the issue of non-performing assets, limits on sectoral spending and the liquidity crisis for NBFCs post the IL&FS default, climate bonds provide an ideal alternative source of private finance. Although the Indian green bond market accounts for a very small slice of the global market - around USD 11.4 billion worth of green bonds have been issued since 2015 - the Indian government is seriously looking at energising the green bond market by changing regulations such as mandating large corporates to raise one-fourth of their incremental borrowing through bond markets and reducing the minimum credit ratings required by the pension fund for investment from AA to A.



While India is the 4th largest market in terms of bond issuance amongst emerging economies, it significantly lags behind China, which has issued USD 111 billion worth of green bonds - nearly ten times the value of bonds issued by India. Moreover, the focus has primarily been on renewable energy projects - similar to the global trend. However, opportunities for green bonds exist not just in the green sectors like renewable energy but also in other sectors such as agriculture, where the Climate Bonds Initiative is looking at viable business models that can be linked to capital markets. Ms. Kumar also felt that India could do much better in the green bonds market through state-level issuances, which will help the state governments or state backed entities mobilise capital and infuse liquidity into the market.

In the post COVID era, sovereign and sub-sovereign bonds can play a crucial role in enabling access to climate finance. About 12 countries have already issued sovereign level bonds, many of which are certified by climate bonds as well. In India's case, state governments can issue rupee-denominated sovereign bonds, and the readiness of states to issue green bonds can be assessed on three parameters.

- Firstly, the capacity to absorb capital based on the current pipeline of projects and projected investment opportunities from future projects.
- Secondly, the commercial viability of the projects
- Thirdly, the credit worthiness of the issuer.

While state governments may typically fall under the high creditworthiness bracket as sovereign entities, other state-backed entities may not. The creditworthiness of the government will be assessed on the fiscal discipline of the states, overall debt burden, different economic strength parameters and limiting borrowing within the FRBM limits.

The green and sustainable finance agenda has been pushed by the European Union (EU), which is playing a lead role internationally to mobilise investments and contribute to the creation of climate resilience economies. The EU is also expected to introduce legislation backing a sustainable taxonomy which will include a green bond standard. This will have an impact on the green bond markets in emerging economies. Based on trends during the first half of 2020, Ms. Kumar highlighted that there had been a steep fall in the issuance of green bonds.⁹ The total issuance of 82% this year has been taken up by developed economies even though investments in emerging economies can fetch a 2-3 times higher rate of return than developed economies. This indicates the persistence of structural issues between developed and developing economies on the flow of finance. There is a need for greater dialogue between governments, private sector and financial institutions to reduce the perceived risks associated with green bonds eliminate barriers to financing.



Another important aspect relates to the emergence of the masala bonds market. Masala bonds are bonds with a rupee-denomination that are issued outside India by Indian entities. These bonds are issued in Indian currency and not the local currency. Thus, the investor will bear the loss in case of a fall in the rate of the INR. Indian corporate entities abroad are now tapping into the "green" masala bonds market, providing tremendous opportunity to grow the green finance market in India. A report¹⁰ on green masala bonds by the LSEG (London Stock Exchange Group) observes that "the recent Indian green bond issuances on London Stock Exchange confirm investors' confidence in the Indian rupee and in the quality of Indian issuers' green projects". It gives the examples of several Indian corporations such as Axis Bank, NTPC etc. that have issued green bonds and have been listed in the London Stock Exchange.

⁹ Pitcher, J (2020). Moody's slashes green bond sales forecast after poor quarter. Bloomberg Quint. <https://www.bloomberquint.com/onweb/moody-s-cuts-green-bond-sales-forecast-after-first-quarter-drop>

¹⁰ LSEG. Green Masala Bonds. URL: <https://www.lseg.com/markets-products-and-services/our-markets/masala-green-bonds>

Existing capacity and needs: Designing quality proposals

In India, NABARD is assisting small and marginal farmers in collectivising and using technology such as precision technology to overcome climate change-related problems. Organic farming is being particularly promoted to improve the soil ecosystem for farming and village communities. Using the Adaptation Fund under the UNFCCC framework, NABARD has sanctioned six projects pertaining to water resource management, agriculture and allied activities sector, creating agricultural resilience, coastal resource management program, management of ecosystem and creating resilience among small fishermen communities covering more than one lakh community citizens since 2015. Out of the total corpus of USD 276 million of climate change projects under NABARD, USD 176 million is being used for adaptation projects.



Despite these efforts, states lack the technical capacity to raise additional funding and utilise it effectively. Dr. Mitra of the Observer Research Foundation (ORF) highlighted the role of civil society organisations (CSOs) in filling this capacity gap by providing a bouquet of policy options to policymakers to solve different issues. CSOs can also play the role of facilitators who bring together different types of stakeholders such as government, private citizens, businesses, farmers, academics and other players in the financial sector to spur interaction, stimulate thinking and develop and implement new ideas.

Dr. Rajpurohit of GEER Foundation highlighted some of the key challenges in designing quality proposals to access climate finance by describing the experience of GEER Foundation in applying for funding from the NAFCC. The first significant challenge is being informed about different financing options and finding out about RFP openings in time to design a good proposal. It is also essential to be well-oriented about the purpose, objectives, priorities, eligibility, and expected outcomes of the funds. For instance, a proposal by GEER Foundation went through three stages of state-level approval before it was finally submitted to NABARD. Preparing estimates for the project was another major challenge that entailed going through multiple iterations of the targets and costs. These challenges were overcome based on learnings from

the Foundation's practical experience in applying for similar grants, their extensive experience in working in the Kutch region, and stakeholder consultations. Additional expertise was provided by GiZ and IORA Ecological Solutions to prepare the detailed project report (DPR).

Alternate financing options and challenges

State-level workshops conducted by NABARD and the Ministry of Environment, Forest and Climate Change in orienting different CSOs helped GEER Foundation understand the different types of funds available in the market, how to tap these funds, the requirements and priorities of the funds and how to successfully apply for funding. **Preparing the DPR is the most challenging stage of a proposal.** For GEER Foundation, it took 3-4 months to prepare the DPR for a NAFCC project which involved extensive research through data collection, data analysis and literature gathering; establishing additionalities through the project; setting the context and identifying the regions and communities in the Kutch region as well as identifying the components of the project. A good track record and execution of projects by experts has helped GEER Foundation in securing finances in the field of conservation and climate change from diverse sources such as MoEFCC through the National Adaptation Fund on Climate Change and National Mission on Strategic Knowledge for Climate Change, state-level funds through the Gujarat Climate Change Department and Gujarat Forest Department and multilateral organisations such as the World Bank and International Union for Conservation of Nature.

Dr. Mitra emphasised the importance of the role states play in attracting private finance for investments in different sectors like energy, transport, as policy imperatives differ based on local factors such as physical, agricultural, industrial size, GDP, development trajectory, etc. In this context, states play a crucial role in deciding the choice of policies to be adopted amongst various options. However, states face many constraints in attracting private finance and choosing the right policies. For instance, lack of finance and financial autonomy is a key constraint where they not only lack resources but also do not enjoy the freedom to raise additional resources as tax policies in India are now more centralised. Additionally, their spending is further constrained by the FRBM Act.



Conclusion and key take-aways

Accessing private finance through green/climate bonds emerged as a key recommendation from the webinar deliberations. Though the bond market is currently in a comparatively nascent stage in India, there is potential for the state governments to access climate finance to fund not only renewable energy projects but projects in other sectors such as agriculture as well.

Mainstreaming domestic funds will make available finance for the state governments to draw on and utilise for their intended climate actions. **While the webinar did not delve deeper into issues of access to domestic funds, there is a need to acknowledge the crucial role these avenues can play in catalysing self-sustainable financing alternatives and reducing dependence on external funds.** For example, institutional investors such as life insurance corporations or pension funds such as CDPQ with long-term horizons and patient capital could be the most suitable for green finance. Public finance pools – including multilateral funds – could be used mostly to 'leverage-in' private capital.

In the context of COVID-19, state governments in India can emphasise a green economic recovery in terms of jobs and employment creation, infrastructure development and sustainable industrial development rather than taking the business as usual approach of pursuing carbon-intensive growth. However, concerted efforts are required to build state capacity for accessing different forms of blended finance, tap domestic funds, and improve the convergence of climate action programs with other flagship schemes such as MGNREGA.



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