

India: Fuelling Transition Financing

By Dr. M. Jayadev, Professor of Finance and Accounting, Indian Institute of Management Bangalore (IIMB)

The challenging task before global financial markets and intermediaries is sustainability; conventional finance is grounded in efficient market theory, while the modern finance paradigm focuses on the environmental and social consequences of firms' investment and financing decisions. Globally, policymakers and regulators are emphasising integrating finance with sustainability. Recent extreme weather events, such as heat waves, droughts, floods and wildfires, are intensified indicators of climate risk, which poses a growing threat to economic growth. South Asia is one of the most vulnerable regions to climate change because of its large population and degradation of natural resources.

In India, due to heavy flooding, more than 4,000 people were killed in 2013, and the livelihoods of several hundred families were devastated. This was largely due to the rampant construction of hydropower projects in the [Himalayan states](#)¹. Melting glaciers, extreme precipitation and unstable paraglacial zones are the major sustainability risks of hydropower projects. For India, with largely an agro-based economy, the adverse effects of climate risk are visible. Unseasonal rains, strong winds, thunderstorms and lightning caused adverse impacts on wheat-crop yields in several parts of Punjab and Haryana last March. Climate change is manifesting itself at an alarming scale, posing serious threats to livelihoods and infrastructures while endangering health, food, energy and water security.

India's commitments

India has made significant advancements in addressing climate change and fostering sustainable development. The country presented nationally determined contributions (NDCs) to the UNFCCC (United Nations Framework Convention on Climate Change) in 2015, with updates presented at COP 26 (2021 United Nations Climate Change Conference or Conference of the Parties 26). At COP26 in 2021, India's commitment to the environment leading up to 2030 included (i) developing 500-GW (gigawatt) non-fossil-fuel energy capacity, (ii) creating an energy mix comprising 50 percent renewable energy, (iii) reducing total projected carbon emissions by one billion tonnes, (iv) reducing the carbon intensity of its economy to less than 45 percent and (v) achieving net zero by 2070. **Under the Paris Agreement**, countries agreed to reduce global greenhouse-gas emissions substantially to enable the long-term global average surface-temperature increase to be kept well below 2 degrees Celsius (°C) above pre-industrial levels and pursue efforts to limit it to 1.5°C.

The ["Economic Survey 2023-2024"](#)², tabled by the Parliament of India, claims several achievements.

India successfully reduced emission intensity *vis-à-vis* its gross domestic product (GDP) by 33 percent between 2005 and 2019, thus achieving the initial NDC target for 2030, 11 years ahead of schedule. The country achieved 40 percent of its electric-installed capacity generated through non-fossil fuel sources, nine years ahead of the 2030 target. Between 2017 and 2023, India added around 100 GW

of installed electric capacity, of which approximately 80 percent has been attributed to non-fossil-fuel-based resources.

India's contributions to climate action are significant through its international efforts: the International Solar Alliance (ISA), the Coalition for Disaster Resilient Infrastructure (CDRI), the creation of LeadIT (Leadership Group for Industry Transition), Infrastructure for Resilient Island States (IRIS) and the International Big Cat Alliance (IBCA).

India has achieved the highest Climate Change Performance Index [\(CCPI\)](#)³ score among G20 (Group of Twenty) members in 2024, reflecting India's commitment to mitigating climate risks.

Significant capital reallocations and additional financing are needed to meet these global objectives. The International Finance Corporation (IFC) has estimated that between 2018 and 2030, the funding requirements for investing in renewable energy, greening the vehicle fleet and making future building stock green and resilient to climate-change risks in South Asia alone would be more than [US\\$410 billion, US\\$670 billion and US\\$1.5 trillion, respectively](#)⁴. Thus large demand for transition finance,

The Glasgow Financial Alliance for Net Zero (GFANZ) defines transition finance as “investment, financing, insurance, and related products and services that are necessary to support an orderly, real-economy transition to net zero”.

Devising credit-transition plans

Indian banks have substantial exposures to industries such as steel, cement, fertilisers and other heavy fossil fuels, including thermal-power projects. Banks need to explore innovative transition-financing models with attention to greenwashing. Transition plans are imperative for banks to mobilise capital funds, deposits and other financial resources to manage the financial risks that may arise from climate-related risks. Such plans must focus on transitioning the business models of respective firms and diverting bank borrowers from using conventional resources to sustainable resources. These transition plans must be crafted with strategic goals specific to each geographical region, industry and firm. Corporate firms must recognise climate and sustainability risks and architect appropriate plans across products and operations. If every company seeking transition finance came out with a detailed, comparable transition plan, it would be easy to allocate finance to support the implementation of those plans. Industry- and firm-based transition plans should be aligned with a 1.5°C economy. Industry-specific key performance indicators (KPIs) should be devised and transitions reported. The banking regulator, the Reserve Bank of India (RBI), has initiated steps to address the risks posed by climate change to the financial system, including financing renewable-energy projects under priority-sector loans according to the Sovereign Green Bonds framework, accepting green deposits and issuing draft disclosure frameworks for climate-related financial [risks](#)⁵. A review of banks' existing credit policies and recommended actions may be helpful in credit transitions.

- Making the best use of Indian banks' regulatory lending policy of 40 percent of loans being directed to agriculture and other priority areas (targeted lending). Banks can meet ESG (environmental, social and governance) goals by employing this instrument more effectively

and promoting loans to organic farming by reducing risk premiums and offering low interest rates.

- Prioritising loans to green supply-chain agencies for warehousing, transporting agricultural produce and building sustainable agricultural infrastructures.
- Lending to small and marginal farmers to address financial inclusion.
- Devising suitable transition policies for financing small and medium-sized enterprises (SMEs), which are large-scale suppliers to conventional industries.
- Issuing property loans to build houses within sustainability parameters. Making sustainability parameters mandatory for all affordable housing projects .
- Lending to promote solar-based power generators, biomass-based power generators, windmills, micro-hydel plants and non-conventional energy-based public utilities—namely, street-lighting systems and remote villages’ electrification.
- Lending to build social infrastructures, such as schools, as well as drinking-water, sanitation and healthcare facilities.
- Creating a climate-risk management framework. Because India is a large country, developing a wide range of geographic ecosystems with uniform climate-risk prudential measures would be challenging. The four major types of agriculture to which banks extend credit are grains, commercial, horticulture and plantations. The climate risks across these crops differ; thus, quantifying and assessing the impacts of climate risk are major tasks. Banks may set high risk spreads for loan pricing and high risk weights for loan exposures sensitive to climate risks. This may discourage farmers, but the opportunities could also encourage farmers to move gradually from high-climate-risk farming to low-climate-risk farming, thus contributing towards a sustainable economy. A climate-risk management framework may be helpful in building natural hedging mechanisms for mitigating climate risks.

Systems thinking

Systems thinking is an important leadership competency needed for the effective execution of transition finance. The five areas identified by the United Kingdom’s sustainable-development organisation have provided direction for Indian banks.

- **System diagnosis:** Banks must develop the ability to analyse future scenarios regarding drought, rainfall and flood conditions, as well as conduct human-centred research to assess poverty conditions and needs for inclusive finance. Banks need to maintain technology-based systems and train the manpower to complete scenario analysis, generate reports and present them before the board for review and action.
- **Strategy design:** Different regions of [India face floods and drought conditions simultaneously](#)⁶. Designing strategies on priorities and assessments of externalities along with suitable financial instruments to address the financing requirements of the farmers of different regions is required.
- **Innovation for impact:** Banks and policymakers must aim for new technologies, financing instruments and technology-based solutions. The Government of India has asked banks to support the [Agriculture Infrastructure Fund \(AIF\)](#)⁷. The RBI is promoting [Public Tech Platforms](#)⁸, and banks must leverage new technology architectures and enhance the credit supply.

- **Collaboration and engagement:** Collaboration and engagement with fintechs (financial-technology firms) streamline processes and enhance banks' capabilities in prioritised loan delivery. Fintech and partnerships with [shadow banks also optimise capital management](#)⁹.
- **Leadership and learning:** Indian banking has large branch networks, and each branch head is a leader; thus, leadership skills of open-mindedness and empathy are needed for the effective execution of climate finance.

Given these building blocks, the possible policy direction points to strengthening regulatory and supervisory frameworks, including (i) disclosure requirements, (ii) risk management, (iii) robust networking of third-party verification of green credentials and impact assessments of projects to address greenwashing concerns and (v) periodic stress testing as [part of risk-mitigation measures](#)¹⁰. Besides financing, access to technology and key minerals would also be critical for a successful green transition.

India's ethos was built on sustainability. Economic growth needs to be achieved on sustainable paths. India's philosophy considers the whole world a family and the Earth its only habitat; thus, addressing climate-risk challenges is part of protecting the whole world's well-being. Here, it would be pertinent to quote from the ancient Indian text which was promulgated during India's G20 presidency:

- “अयं निजः परो वेति गणना लघुचेतसाम्।
उदारचरितानां तु वसुधैव कुटुंबकम्॥”

“This is mine, that is yours-thus calculate the minds of narrow-hearted people. For the magnanimous ones, however, the whole world constitutes but a family.”

References

¹The Wire: “[For Seven Hydropower Projects in Uttarakhand, Environment Ministry Twists Facts,](#)” Kavita Upadhyay, October 3, 2021.

² Government of India: “[Economic Survey 2023-24.](#)”

³ Reserve Bank of India (RBI): “[Climate Change – The Emerging Challenge \(Remarks delivered by Shri M. Rajeshwar Rao, Deputy Governor, Reserve Bank of India – July 19, 2024 – at J P Morgan India Leadership Series Lecture in Mumbai\),](#)” July 25, 2024.

⁴ Bank for International Settlements (BIS): “[Shaktikanta Das: South Asia's current macroeconomic challenges and policy priorities,](#)” central bank speech by Shaktikanta Das, January 10, 2023.

⁵ Reserve Bank of India (RBI): “[Current Issues in the Indian Banking and Financial Sector \(Inaugural Address by Shri Shaktikanta Das, Governor, Reserve Bank of India – July 19, 2024 – at the Financial Express Modern BFSI Summit, Mumbai\),](#)” July 19, 2024.

⁶ Mongabay: “[Abrupt floods and drought-like situations in Assam disrupt farming practices,](#)” Bondita Baruah, March 30, 2023.

⁷ *Business Standard*: "[Agri ministry asks banks to promote Rs 1 trillion Agriculture Infra Fund](#)," July 12, 2023.

⁸ *The Economic Times*: "[RBI to launch pilot on Public Tech Platform for frictionless credit: Soon, you will get loans in minutes; how it will work](#)," Anulekha Ray, August 18, 2023.

⁹ IBS Intelligence: "[10 major Indian FinTech partnerships in October 2023](#)," Gloria Mathias, November 3, 2023.

¹⁰ Bank for International Settlements (BIS): "[Rajeshwar Rao: Climate change – the emerging challenge: Remarks by Mr Rajeshwar Rao, Deputy Governor of the Reserve Bank of India, at the J P Morgan India Leadership Series Lecture, Mumbai, 19 July 2024](#)," Rajeshwar Rao, July 29, 2024.

ABOUT THE AUTHOR

Dr. M. Jayadev is a Professor of Finance and Accounting at the Indian Institute of Management Bangalore (IIMB). His professional services have extended to the Basel Accords and banking and risk management for several banks. He is an Associate Member of the Indian Institute of Bankers (IIB) (or Indian Institute of Banking and Finance, IIBF) and a recipient of the Indian Council of Social Science Research (ICSSR) and University Grants Commission (UGC) Fellowships. He is the Shareholder Director of Union Bank of India (UBI).