

India's climate action



Nirupama Soundararajan and Arindam Goswami consider India's commitment to net zero emissions, which puts the environment and sustainability centre stage in policymaking

In 2015, 193 countries committed to 17 Sustainable Development Goals (SDGs). The term 'sustainable development' has gained immense popularity in India's policymaking circle in the last decade. It received a renewed push with the Honourable Prime Minister of India Narendra Modi unveiling India's *Panchamrit* plan at the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), putting environment and sustainability centre stage.

With 17 per cent of the world population, India is a large country and therefore justifiably, the government is particularly focussed on ensuring reduction in carbon emission and creating a green economy with a renewed vigour and interest.

However, India's commitment to net zero emissions by 2070 cannot just be a political aspiration; it also has to be a collective objective of the local governments, the industry in particular, and the people as a whole.

When broken down, the nation has before it two key responsibilities. The first is to ensure that the industry and the public imbibe the principles of sustainable development into their everyday choices and into business as usual, and this is where environment, social, and governance (ESG) principles play a key role. Second, to develop a vibrant financing model that will help fund the necessary changes that will have to be made by industry.

Today, the role of ESG in the context of Indian business ecosystem has gone beyond the role of an extension of the corporate social responsibility (CSR) mandate.

This said, the first step towards adoption of ESG reporting was pushed by the Ministry of Corporate Affairs through the National Voluntary Guidelines (NVGs) on Corporate Social Responsibility (CSR) in 2009 and continued till the Securities Exchange Board of India (SEBI) mandated the filing of Business Responsibility Report (BRR), and from May

2021 the Business Responsibility and Sustainability Report (BRSR), a standardised reporting format in line with the global ESG reporting metric system, that replaced the BRR.

Despite its implementation, the efficacy of ESG ratings have often been questioned. A wide range of literature suggests a positive correlation between superior ESG ratings and financial valuations.

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The ambit of ESG ratings is wide, varying from broad social and environmental issues to more localised issues around ensuring workplace diversity. Evidence suggests that investors demand higher yields for bonds with heavier carbon footprints and social bonds denominated in the US dollar or the euro have been issued at a price premium compared to standard bonds (Scatigna *et al* 2021)¹.

Janicka and Sajnóg (2022)², in their study concluded that public companies in the European Union undertaking ESG reporting have better financial performance than those not undertaking ESG and tend to be valued higher by the market.

Investors are also more interested in investing in companies that are more ESG conscious. Investors believe that companies that are more conscientious about their strategies are better prepared for long term sustainability.

In the last two years, the pandemic has acted almost as a litmus test. Not surprisingly, companies with better ESG rankings performed better in the last two years, validating the hypothesis that companies with better ESG ratings are indeed better prepared for force majeure events.

This was the case in both Europe (Englehardt *et al* 2021)³ and in India too (Beloskar and Rao, 2022)⁴. It is therefore no surprise that ESG ratings in India are also growing at a rapid pace. Bloomberg estimates that by 2025, one-third of total AUM would be ESG investments. The value of these investments is pegged at US\$53 trillion by 2025⁵.

Despite its rapid growth into the mainstream, the rise of ESG investing has been neither smooth nor linear. Since its very inception, ESG investing has been critiqued and challenged by investors and companies alike.

It was first questioned by the institutional investors themselves who argued that adherence to ESG guidelines will impact their fiduciary duty of maximising the value of shareholders irrespective of social, environmental, or broader governance issues.

However, with the rising concerns and awareness around climate and social issues, such arguments have been put to rest.

Another common criticism has been on the lack of standardisation in the definition of ESG parameters and in the rating methodology. Billio *et al* (2020)⁶ argue that this lack of standardisation mitigates any positive impact on the financials of the company.

There also exists a counter (and fair) argument to standardisation, that suggests that bringing in uniformity will enforce a one-size-fit-all framework across countries, which may be detrimental to many developing countries.

For India, finding this balance will be crucial and challenging to achieving the desired success in meeting the SDG goals.

Interestingly, in India, the impact of ESG ratings across company sizes is yet unknown. The Indian industries comprise of a large number of micro, small, and medium enterprises (MSMEs). The compliance burden on these companies is already high. Introducing ESG compliance may increase their burden rather than do any good.

This would also, therefore, have an impact on their access to capital. Furthermore, there is no conclusive data to suggest that ESG ratings have any real on ground impact on environmental and social parameters, notwithstanding the fact that the impact on these parameters are a lot more difficult to compute than governance parameters.

Even so, the investment potential in India is enormous. According to a Standard Chartered report⁷, the potential for private sector investments in order to meet the objectives laid down by India for SDGs 6 (water and sanitation), 7 (affordable and clean energy), and 9 (industry, innovation, and infrastructure), by 2030 is a whopping US\$1.124 trillion.

By comparison, for China, the amount is US\$2.828 trillion and for Bangladesh it is US\$132 billion for the same SDGs. Broken down into its components, by 2030, India will require investments to the tune of US\$1.558 trillion for universal access to power, US\$377.4 billion for universal digital access, US\$505.5 billion for sizeable improvements in the transport sector, and US\$192.2 billion for universal access to clean water and sanitation.

This translates into an investment potential of US\$701.5 billion for power, US\$226.5 billion for digital access, US\$176.9 billion for transportation and US\$19.2 billion for clean water and sanitation.

When it comes to financing sustainable development, India began her journey in 2015 with the issuance of the first green bond by Yes Bank at 8.85 per cent for INR 1,000 crore (US\$149,252,731) for developing infrastructure.

The impact of the green bond, despite being a success in Europe and North America, was muted. The bonds were completely subscribed to by the International Finance Corporation (IFC). Anecdotal evidence suggests that there was no significant pricing advantage for either the issuer, Yes Bank in this case, or to the borrowers whose projects were invested in.

India's green, social, sustainability (GSS) debt issuance increased more than six-fold (+585 per cent) to reach US\$7.5 billion, with 89 per cent in under green theme in 2021 following a pandemic-induced decline in issuance in 2020. Cumulative volume has almost doubled in the last two years to represent US\$19.5 billion in value.

It was therefore not surprising that the green bonds issuances in India in 2021 was exceptional and set a new record in 2022. India issued US\$6.3 billion of green bonds in 2021. It was the strongest issue since the first issue in 2015.

Of these, US\$6.3 billion was raised through green bonds targeting renewable energy, US\$85 million towards low carbon buildings, and US\$20 million towards water management. Several 2021 Climate Bonds Certified deals also financed renewable energy projects, particularly solar and wind.

These were issued by Azure Power Energy (US\$414 million), Power Finance Corporation (€300 million/US\$352 million), Renew Power (US\$1 billion) and Vector Green Energy (INR 12.37 billion/US\$166 million)⁸.

Between September 2021 and February 2022, Adani Green Energy along with its three subsidiaries had raised a total of more than US\$1.21 billion through domestic (rupee denominated) and overseas (dollar denominated) green bonds⁹.

The Finance Minister of India Nirmala Sitharaman, while presenting the Union Budget 2022-23, announced the proposal to issue sovereign green bonds worth INR 24,000 crore (~US\$3.3 billion) to push green financing initiative in India. The sovereign green bond is expected to fund India's net zero emission by 2070 commitment.

This will be a big step for India, especially amongst the BRICS nations, as India will be the first country to issue such a bond. The green bond can be an effective tool for supplementing the renewable energy market with long term cost of capital.

This said, the government is yet to clarify on the quantum of bonds, the markets and, currencies in which they will be issued.

Some of the major factors that the government would need to consider is the tenure of the bond (typically green bond tenures are at least 15 years), the currency of issue, and how to attract the retail investor. While in most western countries, green bond issuances have been oversubscribed, in India this has not necessarily been the case.

India grapples with the same constraints as the rest of the world when it comes to green bonds. Definitions, or their lack thereof, have led to a great deal of confusion over what is and can be considered green.

CICERO, a second party reviewer of green bonds, offers 'shades of green' methodology, through which green bonds are graded 'dark, medium or light' green depending on the underlying project's contribution to *"implementing a 2050 climate solution."*

There is no fixed definition or binding carbon standards. This has kept some mandated green investors away, who prefer to do their own due diligence, thus raising the cost of investing and monitoring.

Issuers face reputational risk and potential accusations of 'greenwashing' if proceeds are not used for their intended purposes or if issuers are unable to prove that proceeds have funded projects with a positive impact.

Furthermore, infrastructure companies in India have not always had a good credit history to command the highest rating. In addition, apart from the biggest names in the power generation sector, viz. NTPC and Tata power, no other company has the credit rating to be able to issue bonds in the capital markets.

Due to the nature of the business, power generation is very capital intensive and relies heavily on debt for funding, which further hampers new companies from being able to raise debt in the capital markets.

With the sovereign green bond in the pipeline, policymakers may want to replicate the German 'Green Twin Bonds' which are identical to conventional bonds in terms of maturity and coupon rate but with a smaller issue volume compared to conventional bonds.

Another important step would be to develop a uniform framework with metrics to identify and categorise green projects. Such a metric should further consist of parameters to determine the quality of a green project (light green, deep green etc.).

Policymakers must develop a methodology to evaluate the impact of a green projects and publish such analysis in a timely manner to create transparency for investors and public. This would also promote investor confidence in the market and help such projects to access further funds in future.

The funds raised through Sovereign Green Bonds must be available to both the public sector as well as the private sector, even if that entails strict scrutiny of ESG parameters and Environment, Health, Safety (EHS) standards of the project to be considered as green.

For power projects, especially clean energy projects (including wind, solar, hydrogen etc.), state governments must fix Power Purchase Agreement (PPA) prices in the long run and must avoid frequent policy changes to such agreements.

Policymakers in India should consider setting up a specialised institution backed by the Government or supported by a third-party agency to act as a guarantor for corporates issuing green bonds or other green debt instruments.

Such an agency may charge a fee from the issuer and ensure that the fund raised through such issuance of debts are indeed used in green projects. Such an institution may also be responsible for penalising issuers for missing their green objectives. This would promote investor confidence and help in market development.

Such an agency may be set up on the lines of the Export Credit Guarantee Corporation (ECGC) in India and/or Japan International Cooperation Agency (JICA) and Japan Bank for International Cooperation (JBIC) of Japan. The agency should be also empowered to impose penalty on defaulters for missing annual green objectives.

Involving local government bodies will be crucial to meeting India's SDGs goals by 2030. Hence it also makes sense to introduce more local level bonds focussed on local level objectives, pertinent to industries in certain geographic locations.

For example, a sustainable bond focussing on reducing air pollution in Delhi specifically for Delhi based industries will be of more value for local governance and have further ground impact. A suitable model to consider is that of Municipal Bonds issued by the Bangalore Municipal Corporation and the Municipality of Chennai which helped local government in undertaking projects related to infrastructure development in the area.

Another novel development in India has been the introduction of an Emissions Trading System (ETS). India has run a pilot of ETS, also known as carbon trading, in Surat in collaboration with the Government of Gujarat and researchers from Harvard Kennedy School, Yale, the Energy Policy Institute at the University of Chicago (EPIC), and The Abdul Latif Jameel Poverty Action Lab (J-PAL).

It was in fact the world's first emissions trading system for particulate pollution. This emissions trading program was built on the earlier innovation by the Gujarat Pollution Control Board (GPCB) that used continuous emissions

monitoring systems to track industry emissions in real time. About 350 industries around Surat had installed continuous emissions monitoring systems and would transmit real-time, high-quality emissions data.

This new scheme took advantage of this technology's modern, transparent approach to monitoring. Under the Surat's ETS, in its third phase which began on November 16, 2019, the cap on the total mass of suspended particulate matter emissions was set at 276 tons per industrial unit¹⁰.

The cap was based on an assessment of emissions data from the government's continuous emissions monitoring system (CEMS). For the November 16 to December 31 trading period in 2019, the GPCB distributed 80 per cent (220.8 tons worth of emissions) of permits free to participant industries at the start of trading.

The pro-rata allocations were based on the boiler and heater capacity of an industrial unit. The remaining 20 per cent of emission permits were auctioned by GPCB through the National Commodities and Derivatives Exchange (NCDEX) Limited e-market.

A preliminary survey of the 158 participating plants in the scheme, by EPIC India stated that the Surat ETS is projected to reduce particulate emission by 29 per cent while lowering the cost of particle emissions, and increase average and individual industry profits, relative to status quo regulations¹¹.

Media report suggests that further research has found that the ETS pilot succeeded in reducing emissions by 24 percent with little cost to the industry¹².

In August 2022 the Indian parliament passed the Energy Conservation (Amendment) Bill, 2022 which proposes that the central government specify a carbon credit trading scheme, where the central government or any authorised

agency may issue carbon credit certificates to entities registered under and compliant with the scheme, while such entities can trade these certificates in the secondary market¹³.

This will further encourage penetration of renewables in energy mix, and effective implementation. The Bureau of Energy Efficiency (BEE) has also released a blueprint for national carbon market in India.

Much like for green bonds, policy groundwork is essential. Policymakers need to come out with regulatory guidelines for ETS along with explicit directives for all participants on the ETS ie. market makers, issuers, intermediaries, assurers etc.

India also needs to set measurement standards for taxonomy in the ETS market. There is also value in creating a baseline for measuring carbon emission reduction. Currently, there is no sector specific guidelines to specify how much of carbon reduction should each sector undertake.

Domestic companies should work towards creating a decarbonisation fund which can fund decarbonisation projects. Licenses for undertaking such a fund can be accessed through collaboration of foreign companies with domestic companies.

Policymakers should come out with innovative ways and incentives for companies to participate in the Voluntary Carbon Credit Market. Policymakers should clarify and create guidelines to address the difference between carbon offset and carbon credit.

India has made significant strides in her relentless effort to meet the 2030 SDG goals. However, the deadline is not far off. Time is of the essence and the government should make every effort in creating the necessary policy

environment and enabling regulations to collectively push industry, civil society, and all policy agencies in one direction. ■

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Endnotes

1. Scatigna, M, Xia, D, Zabai, A and Zulaica O, December 2021, "Achievements and challenges in ESG markets", *BIS Quarterly Review*, Bank of International Settlement
2. Janicka, M, Sajnóg, A, 2022, "The ESG Reporting of EU Public Companies—Does the Company's Capitalisation Matter?", *Sustainability*, 14, 4279. <https://doi.org/10.3390/su14074279>
3. Engelhardt, N, Ekkenga, J, Posch, P, (2021), *ESG Ratings and Stock Performance during the COVID-19 Crisis*. *Sustainability* 2021, 13, 7133. <https://doi.org/10.3390/su13137133>
4. Beloskar, VD & Rao, SVDN, (2022), "Did ESG Save the Day? Evidence From India During the COVID-19 Crisis" *Asia-Pacific Financial Markets* <https://doi.org/10.1007/s10690-022-09369-5>
5. <https://www.bloomberg.com/professional/blog/esg-assets-may-hit-53-trillion-by-2025-a-third-of-global-aum/>
6. <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/csr.2177>
7. <https://av.sc.com/corp-en/content/docs/Standard-Chartered-Opportunity-2030.pdf>
8. *IBID*
9. <https://mercomindia.com/adani-green-288-million-solar-wind-hybrid-rajasthan/> (accessed on 19th July 2022)
10. <https://www.indiaspend.com/explainers/surat-emission-trading-scheme-gujarat-works-to-reduce-air-pollution-763554#:~:text=Under%20emissions%20trading%20systems%2C%20it,Ludhiana%20plan%20to%20follow%20suit> (accessed on August 20, 2022)
11. https://epic.uchicago.in/wp-content/uploads/2019/10/ETS_INDIA_ResearchSummaryFinal-.pdf (accessed on August 20, 2022)
12. <https://www.hindustantimes.com/india-news/gujarat-to-launch-india-s-first-carbon-trading-market-among-large-polluters-101653415939802.html> (accessed on August 20, 2022)
13. <https://www.livemint.com/news/india/electricity-amendment-bill-2022-to-be-tabled-in-parliament-in-monsoon-session-rk-singh-11659717436110.html> and <https://prsindia.org/billtrack/the-energy-conservation-amendment-bill-2022> (accessed on August 19, 2022)