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# **EXAMINING GREEN FINANCE REGULATIONS IN INDIA: KEY CHALLENGES AND FUTURE DIRECTION**

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## **ABSTRACT**

As India works harder to make its financial markets more in line with climate and sustainability goals, green finance regulation is an important and urgent area of legal research. There are still big problems, even though there have been some recent improvements in regulations. These include the Reserve Bank of India (RBI)'s tighter ESG disclosure standards, the Securities and Exchange Board of India's (SEBI) need for Business Responsibility and Sustainability Reporting (BRSR), the launch of sovereign green bonds, and the proposed Climate Finance Taxonomy. These include variances in regulatory requirements, the absence of a widely accepted definition of "green" investments, regulatory discrepancies with global norms, and the hazards of greenwashing, all of which undermine market confidence. This paper looks closely at India's current legal and regulatory frameworks for green finance to see if they are good enough and make sense. It points out problems that make it hard for the private sector to get involved and for money to be put to good use on sustainable projects. India has promised to have net-zero emissions by 2070, and there is an urgent need for a lot of climate finance to be made available. This research shows that regulating green finance is a must right now in order to make India's financial system more fair and sustainable.

**Keywords:** Green Finance, Regulatory Framework, Sustainable Finance, Greenwashing, Net-Zero.

## **INTRODUCTION**

Green finance—by embedding environmental criteria in all monetary judgments—is the only route to releasing the massive funding the nation needs to honour its climate pledges and chart a long-term low-carbon, climate-resilient economy. India's comprehensive Nationally Determined Contributions (NDCs) imply a vast and ongoing financial demand, and at present the capital currently labelled as green is catching only a small piece of the overall pie.

To narrow this chasm, core institutions such as the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI) have moved beyond mere intent and launched operational frameworks<sup>1</sup>. The RBI, for example, has created a climate-risk disclosure code, reaffirming the firewall for renewable energy so that projects are clearly designated as priority lending, and has opened a regulated channel for green deposits. SEBI, in parallel, converted voluntary intent into obligation by requiring detailed Business Responsibility and Sustainability Report (BRSR) filings from all listed companies. It has widened its sustainable finance label to incorporate instruments that were previously not formally recognised, such as social bonds, sustainability bonds, and variable-rate sustainability-linked bonds. India, by these and other measures, is one of the largest issuer of green bonds in the set of Asian emerging markets<sup>2</sup>. Yet even with these concerted statutes and announcements, the actual commissioning of green finance programmes continues to stall at scale.

## A BACKGROUND ON GREEN FINANCING

Green financing essentially integrates the strong component of green practices into financial management and promotes a resilient, growing, and sustainable economy<sup>3</sup>. It comprises a number of financial aids available for green economic development, including but not limited to, green bonds, loans, and grants from national and international agencies. In India, the increasing importance of green financing can be attributed to efforts to deal with climate change, carbon emission reductions, and promotion of inexhaustible energy and sustainable development.

Green finance was birthed from increasing environmental awareness toward the end of the 20th Century. The 1970s became an era of heightened awareness regarding ecological issues, notably fueled by events like the first Earth Day and the establishment of several agencies for environmental protection at the national and international level<sup>4</sup>. That was the time when the foundation was laid for the incorporation of environmental issues into economic paradigms.

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<sup>1</sup> Climate Policy Initiative, *Landscape of Green Finance in India: India's Green Investment Flows in FY 2021/22* (Dec.2024), <https://www.climatepolicyinitiative.org/wp-content/uploads/2024/12/Landscape-of-Green-Finance-in-India-2024.pdf>.

<sup>2</sup> Green Artha, *The India Climate Finance Report* (Oct. 2024), <https://andeglobal.org/wp-content/uploads/2025/02/2024-The-India-Climate-Finance-Report.pdf>.

<sup>3</sup> Harpreet Kaur Jaura, *Challenges of implementing green finance initiatives in India: A quantitative investigation*, 13 Eur. Econ. Letters 1036 (2023).

<sup>4</sup> *Green Finance Tools Education in Vietnam: A Mixed Method Study*, ch. 1.2, "Instruments of Green Finance" (Pressbooks pub., 2024), <https://pressbooks.pub/greenfinancetoolseducationinvietnam/chapter/chapter-1-2/>

Academic discussions on sustainability began in the 1970s, emphasizing that economic development should not compromise environmental integrity. The 1987 Brundtland Commission report<sup>5</sup> defined sustainable development as meeting present needs without compromising future generations' ability to meet their own needs, a concept now a key principle of green finance.

The engagement of the financial sector with environmental issues evolved slowly through the late 1980s and 1990s. Increasingly, financial market participants began to recognize that the deployment of capital could advance environmental goals along with financial returns. It became, therefore, a motivation for setting up special-purpose financial instruments, the most remarkable of these being green bonds. Although some regard the issuance of green bonds by the European Investment Bank in 2007 as the formal start of this sector, the concept had already been successfully piloted in some earlier projects<sup>6</sup>.

What truly bolstered green finance was the clamor for international climate agreements. From 2005 onwards, the Kyoto Protocol started placing carbon trading and market mechanisms in the arena from where new classes of assets and investment opportunities have evolved. It showed how environmental policies can lead to appealing financial incentives for the environment and, in particular, for the benefit of developing countries.

Recent years have seen a remarkable display of innovations and a witness to exponential growth amongst the green finance sectors. There was heightened global interest in climate-committed investments following the Paris Agreement in 2015<sup>7</sup>. Such measures would therefore engage governments and institutions in a redirection of finance towards sustainable low-carbon developmental programs. This momentum has induced not only the fast-paced growth of green bond markets but has also seen the birth of new financial instruments, such as sustainability-linked financing, where loan conditions are tied to the achievement of specified environmental performance metrics by borrowers.

This momentous change in an intervening financial sector can be framed as shifting from an erstwhile passive position against environmental regulation to being an active partner

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<sup>5</sup> World Comm'n on Env't & Dev., *Our Common Future* (Oxford Univ. Press 1987).

<sup>6</sup> *Pressbooks pub.*, *supra* note 4, ch. 1.2.

<sup>7</sup> *Paris Agreement*, Dec. 12, 2015, T.I.A.S. No. 16-1104, 55 *I.L.M.* 740.

facilitating a move toward sustainable practices in the economic sector.

Among the many fast-growing economies of the world, India's role in world climate change and environmental degradation cannot be overstated. India being very much prone to the ramparts of climate change holds great significance, with the damages from inaction estimated to range anywhere from INR 2,607.5 trillion (USD 35 trillion) by 2070, losing about 12.5% of its Gross Domestic Product (GDP)<sup>8</sup> in that year. Highly suggestive of the aforementioned precepts is the immediate and pressing need for substantial investment in green infrastructure and environmental conservation, which in turn elevates the importance of green financing.

The financial sector is charged with mobilizing resources toward a low-carbon economy. Activities that work to align lending portfolios, investment policies, and risk management can be a driving force for green financing development. Unfortunately, India is still trailing behind in this aspect, leading to even more profound demands for proper regulations with the backing of society towards these enviable reforms.

## **GREEN FINANCING INSTRUMENTS AND MECHANISMS USED IN INDIA**

Climate finance in India comprises various finance instruments and mechanisms through which funds are provided to environmentally sustainable and climate-resilient projects and initiatives. These initiatives are critical to the climatic objectives of India, a developing economy that bears great vulnerabilities to climate change, as well as to its transition to a low-carbon future. The flora and fauna of green finance are drastically changing, bringing together a mixture of old and new methods supported by all stakeholders-governmental, financial institutions, and private investors.

### **Equity Instruments and Mechanisms**

Equity capital provides funding for climate innovations, particularly early-and-growth-stage climate-tech startups in India. VC and PE provide early-stage and growth capital. However, there is a substantial capital gap from \$1 million to \$10 million<sup>9</sup>. This is very critical for technically de-risked technologies that require funds to develop assets, scale markets, and

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<sup>8</sup> CEEW, *supra note 1*, at 3

<sup>9</sup> Aspen Network of Dev. Entrepreneurs (ANDE), The India Climate Finance Report (2024), <https://andeglobal.org/wp-content/uploads/2025/02/2024-The-India-Climate-Finance-Report.pdf>

commercialize products. Family offices and new foundations are also equity investors in innovative firms, often providing value-added forms of specialized business and technical expertise. Private equity is the most appropriate form of financing for scaling up well-proven climate technologies, with a particular emphasis on works in solar infrastructure projects. Equity financing would also be the ideal fit-for-purpose mechanism for the "first of its kind" type of innovation<sup>10</sup> such as battery technologies or biotech, since it aligns the long-term risk and reward of both capital providers and startup companies.

### **Debt Instruments and Mechanisms**

Debt is the key mode of capital investment in climate technologies, that is 60-80% of project financing. It helps startups scale up capital-intensive infrastructures and technologies, such as solar panels or manufacturing facilities. Some active debt providers include Tata Capital, cKers Finance, and Caspian Debt<sup>11</sup>; the Reserve Bank of India has made renewable energy projects priority lending sectors. The same is true for many banks, which offer concessional loan terms. However, venture debt is often failing to meet the needs of climate tech innovations in India that have been shot down due to high-risk perceptions, limited track records, and lack of risk-tolerant, long-term capital from traditional banks. Private NBFCs and Public Sector Undertaking NBFCs have provided a viable contribution to financing renewables, such that both of them have offered their own specialized financing schemes and Infrastructure Debt Funds to provide competitive debt financing.

### **Bonds and Securities**

Now green bonds can be domestic debt securities issued by any government, municipality, or corporation in order to raise money for projects in energy efficiency, renewable energy and most importantly for sustainable infrastructure. In February 2023, India turned out to be the second-largest issuer in Asian emerging markets. This was possible due to the expanding green bond market in India. The government issued sovereign green bonds in 2022. It also promises INR 200 billion in 2024-25 to promote projects on the mitigation of climate change, clean mobility, renewable energy, and sustainable water/waste management<sup>12</sup>. The reformed guidelines introduced by SEBI in 2023 explicitly bring changes concerning green debt securities, in line with international standards, so that global investments towards India can be

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<sup>10</sup> *Id.* at 21

<sup>11</sup> ANDE, *supra* note 9, at 25

<sup>12</sup> Treelife, *ESG in India Handbook* (2024).

increased. Moreover, it has established a framework for Environment, Social and Governance (ESG) Debt Securities and has included social bonds, sustainability bonds, and sustainability-linked bonds<sup>13</sup> therein. Social bonds fund projects that alleviate social problems; sustainability bonds have pooled qualified green and social projects; and sustainability-linked bonds include the financial features associated with certain sustainability goals assessed against Key Performance Indicators (KPIs) and Sustainability Performance Targets (SPTs). Issuers of these bonds have to comply with the preliminary and continuous disclosure requirements and appoint independent third-party reviewers/certifiers to prove conformity with the recognized standards and deter "purpose-washing". The latest in these has been leveraging securitized debt instruments, which create pools of revenue-generating assets for a company to issue debt securities.

### **Philanthropic Funding and Grants**

Sources of funding from philanthropic capital become the strong backbone for funding long-term innovations, incubating resilient networks, and capacity building within the local community. This is reflected in the kind of grants offered by organizations like Rohini Nilekani Philanthropies Foundation, which allow grantees to undertake experimental and adaptive processes through multi-year unrestricted grants. Ecological Restoration Alliance (ERA) India, which is hosted under the auspices of Rainmatter Foundation and RNP, also contributes to ecosystem building. However, in India, there is very little funding for-profit climate innovations; private funders place their bets mostly in areas where human impacts become pronounced. The government sector and public grants generally misalign with the larger funding requirements for First-of-a-kind projects.

### **Government Initiatives and Subsidies**

The Indian government is creating new programs and subsidies such as PM-KUSUM in solar water pumping for farmers, the Green Credit Program that rewards voluntary actions for the environment, and the Direct Financial Assistance Scheme which provides financial assistance for EV purchase for the more extensive implementation of ESG compliance in the country. It mainly deals with tax incentives, allowing solar installations through capital subsidies and up to 60 % accelerated depreciation (in the first year) along with a 5 % reduction in the Goods and

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<sup>13</sup> SEBI, Framework for Environment, Social and Governance (ESG) Debt Securities (Other Than Green Debt Securities), Circular No. SEBI/HO/DDHS/DDHS-POD-1/P/CIR/2025/84 (June 5, 2025)

Services Tax (GST) charged on solar panels<sup>14</sup>. Section 80IA exemption from income tax allows new solar power plants to be 100 % exempt from taxes on profits for a period of 10 years. Besides the added benefits under Section 80EEB, which gives tax deductions of up to 1.5 lakhs on interest payments of vehicle loans as well as lower 5 GST rates, and exemptions in some states from green tax and motor vehicle tax, there are benefits available for EVs. Section 80JJA allows firms to account for income from collection and processing of biodegradable waste<sup>15</sup>. Besides, the government is in the process of developing a taxonomy for climate finance, which is the necessary framework for standardizing definitions and classifying green and climate finance.

### **Emerging and Innovative Financial Approaches**

A number of creative, innovative financial mechanisms are now available to bridge the capital gap in climate-related projects. These mechanisms include blended finance, Series B+ Equity, and public finance-linked instruments, such as Climate Resilience Bonds and Green Revolving Funds, which are designed to de-risk investments and enhance their financial viability. The Reserve Bank of India has also introduced green deposit facilities for eco-sustainable activities, while crowdfunding platforms such as Raise Green facilitate co-financing by the citizenry for climate infrastructure projects. Other alternative PE/VC types include Generation Investment Management's Just Climate Fund, which invests in heavy-asset sectors, with Result-based financing models providing incentives for attracting investors. Such initiatives include provisions for green projects in capital markets for which AIFs and InvITs will serve as instruments.

## **CONSTITUTIONAL FOUNDATIONS FOR ENVIRONMENTAL GOVERNANCE**

In India, the legal framework for sustainability finds its underpinning from constitutional mandates. To interpret Article 21 by the Supreme Court, extending the meaning of right to include a clean and healthy environment. Article 48A directs the State to protect and improve the environment and to conserve forests and wildlife, while Article 51A(g) enjoins all citizens with a fundamental duty to protect and improve these natural resources. These provisions put

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<sup>14</sup> IDFC FIRST Bank, *A Guide to Sustainable Living and Claiming Green Tax Breaks*, IDFC FIRST Bank Blog, <https://www.idfcfirstbank.com/finfirst-blogs/savings-account/sustainable-living-and-claiming-green-tax-breaks> (last visited Aug. 28, 2025).

<sup>15</sup> *Id.*

an essentially constitutional obligation on the shoulders of both public and private persons to engage in environmentally sustainable activities, thus indirectly supporting the green finance agenda. Indian courts have been the active players in embedding principles of sustainable development into law. In *Vellore Citizens Welfare Forum v. Union of India*<sup>16</sup>, the Supreme Court opined that economic growth ought not to be at the expense of ecological integrity, introducing legal doctrines such as “polluter pays” and the precautionary principle. Moreover, in *MC Mehta v. Union of India*<sup>17</sup>, The judiciary imposed stringent due diligence requirements on industries practicing in India, thereby denouncing that environmental costs have to be internalized by businesses and financial institutions. The National Green Tribunal (NGT), created under the National Green Tribunal Act, 2010<sup>18</sup>, has the adjudication of environmental disputes as its primary function and imposes heavy financial penalties to NGT projects or orders the cessation of their operations, thus indirectly modifying the risk profiles and favouring ESG compliance.

## **INDIA’S LEGAL AND POLICY FRAMEWORK FOR GREEN FINANCING**

The evolving regulatory framework of India for green finance actually has gained strength and adaptability in supporting the transition of the country toward sustainability and its ambitious commitment towards net zero emissions by 2070. The framework is complemented with active government policies, forward-looking guidelines of financial sector regulators like the Reserve Bank of India and Securities and Exchange Board of India, and a broadening umbrella of innovative instruments in financing. These concerted efforts have been envisioned for fast-tracking open flow of capital into climate-friendly investments and enhancing transparency and attractiveness to investors.

### **Foundational Regulatory and Policy Measures**

India's green-finance policy has been a decade-old affair, in which the Reserve Bank of India defined the role of banks in responding to the global warming and climate risks concerning their operations way back in 2007<sup>19</sup>. In 2011, the National Action Plan on Climate Change (NAPCC) was introduced and the Climate Change Finance Unit (CCFU)

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<sup>16</sup> *Vellore Citizens' Welfare Forum v. Union of India*, (1996) 5 S.C.C. 647 (India)

<sup>17</sup> *M.C. Mehta v. Union of India*, (1987) 1 S.C.C. 395 (India)

<sup>18</sup> National Green Tribunal Act, No. 19 of 2010, India Code (2010)

<sup>19</sup> Reserve Bank of India, *Report on Trend and Progress of Banking in India* (2007).

was established in the Ministry of Finance in that very same year<sup>20</sup>. Since 2012, SEBI has imposed continuative requirements on sustainability reporting, and BRSR came into effect in the financial year 2022-2023<sup>21</sup>. Corporate Sustainability Reporting also found a way into the Companies Act 2013 enjoining CSR spending and the reporting requirements within corporate governance, embedding it within<sup>22</sup>. In 2017, at the time of the recommendation by the Corporate Governance Committee, the boards were existing in a situation where a review of the company's strategies, budgets, risks, and ESG issues were recommended to happen annually<sup>23</sup>.

### Key Regulatory Bodies and Directives

From 2017, SEBI helped the green market instruments by setting up disclosure standards for the issuance of green bonds and in 2023, a separate category of ESG funds was created. This enabled asset management companies to launch multiple ESG schemes under stricter disclosure norms, instilling confidence among investors<sup>24</sup>. As part of its sustainability efforts, RBI has authorized banks and NBFCs to issue green deposits for select purposes such as clean transportation, energy efficiency projects, water and waste management, biodiversity conservation, and climate adaptation. The Reserve Bank had also put on hold, in 2024, draft guidelines related to a Disclosure Framework for Climate Related Financial Risks. The RBI has allowed banks and NBFCs to create green deposits for certain uses like clean transportation, energy efficiency projects, water and waste management, biodiversity protection, and climate adaptation, in its part. In 2024, the RDB also issued draft guidelines on a disclosure framework for climate-related financial risks. In its part, the RBI has allowed banks and NBFCs to create green deposits for application in particular areas-clean transport, projects related to energy efficiency, water and waste management, biodiversity protection, and climate adaptation. In 2024, the RBI had issued draft guidelines concerning a Discharge Framework on Climate-

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<sup>20</sup> Press Information Bureau, Gov't of India, *National Action Plan on Climate Change* (2008), <https://pib.gov.in/newsite/PrintRelease.aspx?relid=49715>

<sup>21</sup> Sec. & Exch. Bd. of India, Circular No. SEBI/HO/CFD/CMD-2/P/CIR/2021/562, *Business Responsibility and Sustainability Reporting by Listed Entities* (May 10, 2021), [https://www.sebi.gov.in/legal/circulars/may-2021/business-responsibility-and-sustainability-reporting-by-listed-entities\\_50096.html](https://www.sebi.gov.in/legal/circulars/may-2021/business-responsibility-and-sustainability-reporting-by-listed-entities_50096.html)

<sup>22</sup> The Companies Act, No. 18 of 2013, § 135, INDIA CODE.

<sup>23</sup> SEC. & EXCH. BD. OF INDIA, *REPORT OF THE COMMITTEE ON CORPORATE GOVERNANCE* 17–19 (Oct. 5, 2017), [https://www.sebi.gov.in/reports/reports/oct-2017/report-of-the-committee-on-corporate-governance\\_36177.html](https://www.sebi.gov.in/reports/reports/oct-2017/report-of-the-committee-on-corporate-governance_36177.html)

<sup>24</sup> Sec. & Exch. Bd. of India, Circular No. CIR/IMD/DF/60/2017, *Disclosure Requirements for Issuance and Listing of Green Debt Securities* (May 4, 2017), [https://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities\\_34786.html](https://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_34786.html)

Related Financial Risks<sup>25</sup>.

### **Innovation and Evolving Framework**

Innovations are being made in financial instruments to de-risk investments in green infrastructure through platforms like the India Innovation Lab for Green Finance, aided by the Ministry of New and Renewable Energy<sup>26</sup>. A priority right now is to roll out a green finance taxonomy that provides standard definitions, aligns with international benchmarks, and gradually reduces investors' unwillingness to invest with uncertainty.

Innovation-oriented yet grounded on sound regulations, market development, and policy alignment, the Indian legal and institutional architecture for green finance maintains a fine balance between rapid economic growth and climate sustainability. This will not only fast-track India to fulfill its unilateral climate obligations, but will also place India on the global map as a proud leader in scaling sustainable finance.

## **LEGAL AND REGULATORY GAPS IN INDIA'S GREEN FINANCE SECTOR**

Although substantial strides were made in evolving the possibility of a green finance ecosystem, it appears that most regulatory and policy frameworks in India are still bound by some inherent constraints that inhibit their efficiency and growth. Such constraints are definitional ambiguities, fragmented oversight, poor monitoring, and weak incentives that conspire against the building of investors' confidence and scalability in the sector.

### **Lack of a Standardized Green Taxonomy**

The absence of a single taxonomy defining what actually constitutes "green" investment is definitely the most fundamental of all gaps. Since there are no clear-cut criteria across asset classes and sectors, issuers usually impose their self-defined standards usually differing from the global standards, thereby limiting the access to the international capital markets. Though SEBI has come up with very initial guidelines for the issuance of green bonds<sup>27</sup>, they are nowhere near sufficient to make it compatible with globally applicable benchmarks. Thus, the

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<sup>25</sup> Reserve Bank of India, *Framework for Acceptance of Green Deposits* (Apr. 11, 2023), <https://rbi.org.in/Scripts/NotificationUser.aspx?Id=12375>

<sup>26</sup> Ministry of New & Renewable Energy, Gov't of India, *India Innovation Lab for Green Finance* (2023), <https://www.mmre.gov.in>

<sup>27</sup> Securities & Exch. Bd. of India, Circular on Disclosure Requirements for Issuance and Listing of Green Debt Securities, No. CIR/IMD/DF/51/2017 (May 30, 2017)

consequence of all of this is that finance goes significantly more into mature sectors like renewable energy, while emerging areas such as green hydrogen and sustainable agriculture are problematic to finance.

### **Fragmented and Inconsistent Regulatory Frameworks**

At present, India's green finance legislation is scattered across numerous authorities, giving the impression of compliance obligations in a patchwork form that complicate investment, both domestic and international. The requirements for reporting are generally in the form of international environmental, social, and governance (ESG) disclosure regimes, like SFDR of the EU, to which international investors usually demand commitment but does not usually apply within India<sup>28</sup>. However, the business responsibility and sustainability reporting (BRSR) frameworks were extended to all largest domestic listed entities yet still needing more standardization to enable wider use of them<sup>29</sup>. Moreover, subnational governments with climate or green budgeting have vastly different approaches to the themes, making them incomparable across states and weakening their integration with national climate targets. A harmonized national strategy is the way to go if it is going to dismantle this municipalocracy.

### **Transparency, Reporting, and Data Gaps**

A consistent and credible reporting architecture remains underdeveloped. Business operation depend on standards which mostly voluntary such as GRIHA, IGBC, LEED, and EDGE in real estate, create a confusion among investors in terms of varied quality and local applicability. Persistent data asymmetries, especially with regards to private sector adaptation finance, complicate a full understanding of flows and risks<sup>30</sup>. Budgetary classifications are often inconsistent with policy frameworks, complicating “green tagging” exercises<sup>31</sup>. India has yet to put in place such an integrated domestic measurement, reporting, and verification system for standardized tracking of green financial flows and outcomes<sup>32</sup>.

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<sup>28</sup> Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 Nov. 2019 on Sustainability-Related Disclosures in the Financial Services Sector, 2019 O.J. (L 317) 1.

<sup>29</sup> Securities & Exch. Bd. of India, Circular on Business Responsibility and Sustainability Reporting by Listed Entities, No. SEBI/HO/CFD/CMD-2/P/CIR/2021/562 (May 10, 2021).

<sup>30</sup> Org. for Econ. Co-operation & Dev. [OECD], *Financing Climate Futures: Rethinking Infrastructure* 83–86 (2018).

<sup>31</sup> Int'l Monetary Fund, *Green Public Financial Management* 17–21 (2021).

<sup>32</sup> World Bank, *State of Green Finance in India* 42–44 (2022).

### **Greenwashing and Credibility Concerns**

Greenwashing, whereby companies exaggerate or falsely describe their financial products' sustainability, also jeopardizes the credibility of India's green finance market. While the Reserve Bank of India has made stricter disclosure norms for green bonds, enforcement of these remains unevenly applied and independent third-party verifying mechanisms are limited. India's green finance market is further undermined by greenwashing risks wherein firms misrepresent or exaggerate the sustainability of their financial products. The Reserve Bank of India has introduced stricter disclosure norms for green bonds; however, in enforcement, there remains a scope of unevenness, and independent third-party verification mechanisms are limited<sup>33</sup>. For strict penalties and external validation by 2025 in much-anticipated regulatory reforms<sup>34</sup>. For now, fear of being accused of greenwashing de facto blocks companies undertaking transition projects, which are not yet purely "green," from tapping into green finance instruments.<sup>35</sup>

### **Inadequate Policy and Regulatory Incentives**

Additionally, the renewable energy projects come under the wider power sector credit exposure limits that include also the high-carbon thermal projects, thus diluting the targeted capital flows. While solar and wind energy have enjoyed policy certainty, other important areas like distributed micro-grids, sustainable waste management, and climate-resilient agriculture still face policy confusion. Additionally, the shallow corporate bond market in India, combined with high hedging costs, low liquidity, and regulatory uncertainties, restricts access to affordable long-term capital<sup>36</sup>. Persistent payment delays, meanwhile, have raised "off-taker risk"<sup>37</sup> as a concern, affecting both foreign and domestic investors alike<sup>38</sup>.

### **Regulatory Enforcement and Investor Confidence**

Perhaps some studies might call it adequate, yet the overall evidence points to significant deficiencies in the areas of clarity, predictability, and implementation<sup>39</sup>. With no clear guidance on how to transition toward long-term climate commitments, investor confidence becomes a

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<sup>33</sup> Reserve Bank of India, *Disclosure Framework for Green Deposits* (Apr. 11, 2023).

<sup>34</sup> Ministry of Fin., Gov't of India, *Draft Consultation Paper on Green Finance Regulation* (2023).

<sup>35</sup> Natasha Landell-Mills, *Investor Concerns Over Greenwashing in Sustainable Finance*, 12 J. Sust. Fin. & Inv. 45, 47–49 (2022).

<sup>36</sup> Int'l Fin. Corp., *Emerging Market Green Bonds Report 2021* 36–38 (2021).

<sup>37</sup> Power Fin. Corp., *Report on Performance of State Power Utilities* 77–82 (2022).

<sup>38</sup> Reserve Bank of India, *Master Circular – Exposure Norms for Banks* (July 1, 2022).

<sup>39</sup> Asian Dev. Bank, *Green Finance State of Play in India* 66–69 (2021).

very fragile entity, almost beholden to uncertainty. On top of all these, most banks and financial institutions do not possess the capability to identify and evaluate climate-related credit or market risks, and therefore tend to underestimate 'brown' risks as compared with green investments<sup>40</sup>. Institutional capacity and raising a consistent set of clear and transparent metrics that can affordable help in ensuring that climate risk is incorporated into mainstream financial evaluation will be the critical components of building sustained trust within investors<sup>41</sup>.

## **RECOMMENDATIONS FOR STRENGTHENING THE LEGAL FRAMEWORK**

The elaborate legal architecture of green finance for India has the capability to overcome impending problems relating to sustainable investment, regulation of green instruments, and accountability mechanisms. Let's take a closer look at certain important aspects.

### **Developing a Standardized Taxonomy and Clear Definitions**

Such a taxonomy should specify definitions of 'green' and 'climate' investments while aligning with India's new Nationally Determined Contributions (NDCs, 2022) and its planned National Adaptation Plan. Importantly, the taxonomy is meant to be a 'living framework,' whose relevance can change with policy changes, economic diversification and with newer technologies like green hydrogen, the Internet of Things, and satellite-based earth observation. Adaptation finance, in particular, should provide specific and harmonized taxonomy for public and private institutions to improve scale<sup>42</sup>. Beyond taxonomy, sector-specific standards should be made to local conditions and have time schedules for achieving progressively better results<sup>43</sup>. For instance, in real estate, thresholds of minimum building efficiency requirements are to be set by the government for the same purpose while also defining paths towards achieving higher sustainability ratings in gradual process<sup>44</sup>.

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<sup>40</sup> Network for Greening the Fin. Sys., *Guide for Supervisors: Integrating Climate-Related and Environmental Risks into Prudential Supervision* 22–25 (2020).

<sup>41</sup> Reserve Bank of India, *Report of the Internal Working Group on Climate-Related Risks and Sustainable Finance* (July 2022).

<sup>42</sup> Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the Establishment of a Framework to Facilitate Sustainable Investment, 2020 O.J. (L 198) 13.

<sup>43</sup> Indian Green Building Council, *Eco-housing and Net-Zero Rating Framework* (2021).

<sup>44</sup> Int'l Monetary Fund, *Climate Finance and the Role of Taxonomies* 6–8 (IMF Staff Climate Note No. 2023/004, 2023), <https://www.imf.org/en/Publications/staff-climate-notes/Issues/2023/11/07/Climate-Finance-and-the-Role-of-Taxonomies-543092>

### **Strengthening Regulatory Structures and Incentives**

Both the country and sub-national levels must be updated on adaptations, and in addition comprehensive regulations on adaptation would be needed there. The climate risk assessment and disclosure requirements for infrastructure projects would also be included, along with the monitoring and reporting systems for resilience measures<sup>45</sup>. The purpose of regulatory clarity, alongside others, is to encourage new investments with the help of policy incentives designed carefully. Some of the alternatives are to provide green bonds with tax benefits—by way of lower or exempted withholding taxes—to improve their commercial viability. Other alternatives are to take another look at External Commercial Borrowing (ECB) guidelines to minimize tenor restrictions and set up concessionary schemes for credible green issuers. Consideration should also be given to allowing a green finance sub-target under the Priority Sector Lending framework, possibly in the range of 2%–2.5% of Adjusted Net Bank Credit, with eligibility tied to independent verification<sup>46</sup>. Strengthening municipal bond markets and exploring new instruments like adaptation bonds, together with SEBI and the RBI, will also widen financing options. A steady signal from the policies would be essential since it is the clarity of long-term government commitments to low carbon and resilient development pathways that will inspire confidence among the investors<sup>47</sup>.

### **Enhancing Transparency, Reporting, and Data Accessibility**

In finding that credible green finance entails strong disclosure and monitoring systems, all key regulators—the RBI, SEBI, IRDAI, and PFRDA—should work toward harmonizing the mandatory disclosure requirements with those of the TCFD and other international standards or frameworks<sup>48</sup>. There is also a need to enhance the accessibility of data, so that comprehensive information on climate finance becomes available regarding the clean energy, transport, and water sectors<sup>49</sup>. The objective behind this is to set up a consistent domestic measurement, reporting, and verification (MRV) system, capable of harmonizing the various methodologies, tracking the outflow of financing, measures the gaps, and brings in climate budgeting across states<sup>50</sup>. At present, country-like climate budgeting methods are inconsistent, thus not

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<sup>45</sup> RBI, *Framework for Climate Risk Disclosures* (2023); Ministry of Finance, *Costal Adaption Regulations* (under preparation).

<sup>46</sup> RBI, *Priority Sector Lending Green Sub-target Proposal* (2023).

<sup>47</sup> ETMarkets, *Finance Ministry Taxonomy Announcement... Investor Reaction* (May 2025).

<sup>48</sup> SEBI, *Business Responsibility and Sustainability Reporting (BRSR) Regulations* (May 2021); TCFD, *Final Recommendations* (2017).

<sup>49</sup> World Bank, *State of Green Finance in India* (2022).

<sup>50</sup> OECD, *Green Budgeting and MRV in Subnational Settings* (2021).

comparable. More visibility of outcome performance through advanced monitoring technologies will help strengthen investor confidence and mitigate the risks of greenwashing. Companies, too, must take an initiative to adopt stringent ESG reporting in excess of the minimum requirements<sup>51</sup>.

### **Mitigating Risks and Building Investor Confidence**

It is very important to develop innovative mechanisms that blend public finance with private finance to tackle the high-risk perception associated with green finance<sup>52</sup>. To reduce their risks, such a move may also help those sovereign investors to set up an array of instruments.<sup>53</sup> They should be empowered to channel capital through special facilities or green windows to existing investment funds into priority green sectors by development banks and financial institutions. Private investments in adaptation could be stimulated through minimum return guarantees, project preparation assistance, and innovative structures such as public-private partnerships. To mitigate risk further, credit guarantees, syndicated loans, and first-loss provisions can be facilitated by MDBs<sup>54</sup>. In addition, the costs of currency hedging need to be reduced, while the offshore issuance of local currency bonds has to be encouraged. Regulatory forbearance should also be granted to institutional investors such as mutual funds, insurance companies, and pension funds, permitting their investment in less-than-top-rated, albeit highly promising green projects. Loan aggregation, warehousing, and securitization can be viable solutions to the problem of excessively small sizes, while successful case studies of green investments in India can help assuage hesitancy caused by perception<sup>55</sup>.

### **Capacity Building and Cross-Sectoral Collaboration**

In this vein, the concerted actions of government, financial institutions, academia, and industry would have to be maintained to strengthen the green finances. "Interdisciplinary collaboration-crawling economics, finance, energy and environmental studies" can enlarge networks and may also foster innovation<sup>56</sup>. The integration of climate finance into development planning requires teamwork by the concerned ministries of the Centre, namely those of finance, environment, and housing<sup>57</sup>. State-level adaptation plans clearly delineating sectoral financing gaps would

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<sup>51</sup> ICAI, *ESG Reporting Handbook for Indian Firms* (2023).

<sup>52</sup> Government of India, *Sovereign Green Bonds Framework* (2022).

<sup>53</sup> Climate Policy Initiative, *Mobilising Capital Through Development Bank Green Windows* (2022).

<sup>54</sup> IMF, *De-risking Instruments for Climate Investment* (2022).

<sup>55</sup> CareEdge ESG, *Case Studies: Gujarat Solar Park, Tamil Nadu Wind* (2023).

<sup>56</sup> NITI Aayog, *Climate Finance Coordination Report* (2022).

<sup>57</sup> Ministry of Finance & Academic Institutions, *Green Finance Capacity Building Strategy* (2023).

better help in channeling public and private resource flows. There should be enhanced technical skill development for banks, regulators, and financial institutions through training, knowledge sharing, and adoption of international best practices. Roundtables involving institutional investors can help identify and implement advanced investment strategies based on ESG considerations, while government–industry partnership initiatives can help expedite the implementation of innovative financial mechanisms<sup>58</sup>. It would be a valuable contribution to bilateral cooperation and learning through knowledge partnerships between India and the UK for devising and implementing such green standards<sup>59</sup>.

### **Expanding Visibility of Green Investment Opportunities**

To channel capital effectively, there should be a well-developed, transparent pipeline of investible green projects. It would direct attention away from renewable energy and map sector-specific funding gaps into under-financed areas such as mid-sized-firm financing, waste management, and sustainable agriculture<sup>60</sup>. Additionally, flagship programs like the Smart Cities Mission could be utilized to bundle projects along water, transport, and waste management sectors into a diversified investment proposition<sup>61</sup>. The advancement of matchmaking platforms that connect institutional investors, banks, and equity funds with credible projects will further draw in private capital<sup>62</sup>.

### **Harnessing Technological Solutions and Innovation**

The role of technology in the expansion of green finance becomes transformative<sup>63</sup>. By leveraging fintech-based platforms—such as automated ESG risk assessment systems, customized green loan frameworks for NBFCs, and integrated regulatory compliance dashboards—it will help simplify due diligence and ensure conformance to sustainability guideline in real-time<sup>64</sup>. Greenwashing risks from fraudulent sustainability claims can be reduced because of the use of advanced monitoring tools<sup>65</sup>. Yieldcos and infrastructure investment trusts (InvITs) provide further different methods of investment, but their growth will need some more regulatory developmental work and market evolution<sup>66</sup>. The provision of

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<sup>58</sup> Industry Roundtables on ESG, FICCI (2023).

<sup>59</sup> UK-India MoU on Climate Finance Standards (2023).

<sup>60</sup> NITI Aayog, *Sector Financing Needs in Sustainable Sectors Report* (2022).

<sup>61</sup> India Briefing, *Climate Finance Taxonomy Overview* (June 2025).

<sup>62</sup> India Green Finance Portal Beta (2023).

<sup>63</sup> SEBI, *Fintech ESG Compliance Tools Guidance Note* (2023).

<sup>64</sup> OECD, *Digital Tools to Prevent Greenwashing* (2021).

<sup>65</sup> Climate Bonds Initiative, *InvITs in Emerging Markets Report* (2022).

<sup>66</sup> Grant Thornton, *Technology & Transparency in Indian Green Finance* (2024).

a regulatory framework conducive to the issuance of green financial instruments in the secondary market will support and accelerate this process.

## CONCLUSION

The green financing framework in India is currently at a very important juncture with various accomplishments and failures. Some recent upshots around sustainability disclosures by the Reserve Bank of India and SEBI's reforms, such as promoting green deposits, have created momentum to green financing. Notably, concerns around taxonomy, divided regulations, and risks stemming from greenwashing create hindrance toward scaling. While solar and wind projects have attracted their share of funding, the focus has largely remained on the renewable energy sector, with others being left underfunded. To address these issues, the country will need a standardized green taxonomy with compatible reporting and good monitoring mechanisms such that they bolster investor confidence through targeted policy incentives, risk-sharing structures, and bond market deepening. Capacity development of regulators and financial institutions with cross-sectoral cooperation should be supported. Green financing is a key pillar to ensure delivery of India's own vision of net-zero by 2070.

