

Green Finance in India: An Initiative Towards Sustainable Development

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Abstract

India's economic growth is noteworthy; however, it encounters considerable environmental challenges such as pollution, deforestation, and climate change, all of which adversely affect public health and economic advancement. In response, the government has implemented strategies focused on sustainable development and the reduction of carbon emissions, placing a strong emphasis on promoting green finance-investments that prioritize environmental sustainability and social responsibility. This approach to financing is increasingly recognized as essential for tackling climate change and fostering sustainable development. Recently, there has been a notable increase in green finance initiatives, supported by collaboration among financial markets, banks, investors, microfinance institutions, insurance companies, and government entities. There is a growing emphasis on eco-friendly technologies, green bonds, and climate-resilient blue economies. Additionally, public sector financing should align with the environmental goals set forth in the Sustainable Development Goals (SDGs).

Keywords: Sustainability, Climate Change and Renewable Energy

Introduction

Green finance encompasses financial activities aimed at promoting a low-carbon, sustainable economy while addressing environmental issues and climate change. It focuses on funding initiatives that reduce greenhouse gas emissions and support renewable energy. In contrast, sustainable finance incorporates Environmental, Social, and Governance (ESG) criteria into investment strategies to foster long-term economic growth and responsible environmental management. With the global economy's heavy reliance on fossil fuels, leveraging financial mechanisms is crucial in combating climate change. Both green and sustainable finance play vital roles in directing investments toward environmentally responsible projects and integrating ESG considerations, ultimately reducing emissions and promoting a resilient economy that prioritizes social and environmental well-being.

Definition of Green Financing

Green financing involves allocating financial resources to support sustainable development, as defined by the UN Environment Programme. This includes funding from various sectors, such as banking and investments, aimed at addressing environmental challenges. Key areas of focus include renewable energy, green bonds, eco-friendly technologies, and energy-efficient infrastructure,

all designed to reduce carbon emissions. Additionally, green finance supports biodiversity preservation, water sanitation, pollution control, and public policies that promote environmental sustainability. The terms ‘green finance,’ ‘sustainable finance,’ and ‘climate finance’ collectively address environmental concerns.

Green financing aims to create innovative financial platforms that prioritize emission reduction and biodiversity enhancement in India. The green fintech sector is evolving to automate financial services while promoting environmental sustainability.

Objectives of the Study

This study aims to clarify the types of green financing available in India, assess current initiatives, and identify challenges in the sector.

Green Financing Types in India

As sustainable development efforts grow, green financing has become crucial for supporting eco-friendly initiatives, including investments and loans for clean transportation, renewable energy (solar, wind, biogas), and recycling in green buildings. Funding comes from public, private, and non-profit organizations. The ‘Landscape of Green Finance in India 2022’ report highlights the public sector’s key role and a 139% increase in private sector contributions, emphasizing the need for ongoing advancements and the rise of new non-banking financial companies (NBFCs) and green lenders offering diverse financing options.

Rooftop Solar Loans

Rooftop solar panels are essential for harnessing solar energy in India, providing electricity and heating while reducing costs. Installation expenses can be a hurdle, but green financing options, like loans from banks and NBFCs, offer manageable EMIs. Ecofy offers competitive rates for rooftop solar loans. Interested? [Click here](#).

EV Loans

Electric Vehicles (EVs) are a sustainable alternative to traditional cars, producing minimal emissions. Financing for EVs, including cars and two- and three-wheelers, is available through banks and NBFCs, addressing buy-back and warranty concerns. Ecofy’s partnerships provide solutions to these issues. [Click here](#) to learn more.

SME Loans

Businesses are increasingly prioritizing sustainability through pollution control, recycling, and renewable energy initiatives. New startups need financial support, which green financing can provide. Ecofy offers a variety of loans-long-term and short-term-with competitive EMIs and quick approvals to assist eco-friendly businesses. Despite challenges in verifying environmental claims, the green financing sector in India is expanding, supported by private and public initiatives.

The Government’s Role in Green Financing

In 2008, the Indian government launched the National Action Plan on Climate Change, including missions like the Green India Mission and the National Solar Mission to promote sustainable development. To support these initiatives, the government established funds such as the National Clean Energy Fund (NCEF) in 2010, which finances clean energy projects through coal tax revenues, playing a key role in advancing renewable energy efforts.

The Influence of Technology on Green Financing

Technological advancements in fintech, such as AI and Big Data analytics, are transforming green finance by enhancing the assessment of corporate environmental impacts and improving supply chain transparency. These innovations are vital for evaluating climate-related risks in fixed income investments and aligning with Sustainable Development Goals (SDGs). AI also aids in measuring companies' contributions to the SDGs and uses satellite imagery to monitor environmental changes, promoting a sustainable future.

The Role of Private Stakeholders in Green Financing

Private sector involvement is crucial for advancing green finance in India, complementing government initiatives. Many banks and financial institutions are issuing green bonds to fund sustainable projects, adhering to guidelines from the Securities and Exchange Board of India. Embracing green finance offers India significant benefits, including fostering sustainable development and reducing its carbon footprint, essential for long-term sustainability.

Green Finance Initiatives in India

On December 1, 2015, India signed an agreement with France to establish the International Solar Alliance (ISA) to combat climate change through global collaboration. As a developing nation, India faces increasing challenges in securing funding for green projects due to rising energy demands from economic growth and urbanization. Initiatives like Make in India and Smart City Projects aim to attract investments to meet this demand. By 2040, India is projected to have 600 million new electricity consumers, significantly increasing electricity needs (IEA 2015). Currently, the government relies on debt financing for green projects, with an estimated \$4.5 trillion needed for infrastructure investments by 2040, focusing on green housing and renewable energy. The Ministry of New and Renewable Energy (MNRE) oversees renewable energy initiatives, supported by three main financing schemes: Accelerated Depreciation (AD), Generation-based Incentive (GBI), and Viability Gap Funding (VGF).

Accelerated depreciation, initially introduced in 2009 for wind energy and reintroduced in 2014, serves as a crucial tax incentive for project developers, particularly in solar energy. The generation-based incentive compensates actual energy production at INR 2.00 per kWh for solar and INR 0.50 per kWh for wind. Viability gap funding offers one-time grants for economically viable infrastructure projects lacking financial sustainability, like bus routes in underserved areas, with the Solar Energy Corporation of India (SECI) leading these efforts.

Priority Sector Lending (PSL)

In April 2015, the Reserve Bank of India (RBI) designated green financing and renewable energy as a 'Priority Sector' to enhance economic competitiveness and job creation. Banks were required to allocate 40% of their net credit to priority sectors, including wind and solar energy. By 2019, funding for renewable energy surged, overcoming previous limitations that diverted funds to non-renewable sources. Banks like Bank of Baroda, Canara Bank, Central Bank of India, and Punjab National Bank have since broadened their priority sector lending to include housing, education, and renewable energy projects.

Formation of Green Banks

In 2016, the Indian Renewable Energy Development Agency (IREDA) became a green bank focused on financing eco-friendly projects and reducing carbon emissions. Its goal is to promote clean energy and attract private investments. Other institutions, like the State Bank of India and

Union Bank, have adopted this model, offering competitive loans for sustainable projects. SBI's 'Green Home Loan Scheme' supports sustainable housing, while Bank of Baroda aids small and medium enterprises in acquiring energy-efficient technologies, and ICICI Bank invests in clean energy.

Green Bonds

Green bonds are fixed-income securities for funding environmentally friendly projects, requiring credit ratings for financial stability. YES Bank launched India's green bond market in 2015, followed by IREDA's 'Green Masala bonds' in 2017, the first listed on the International Securities Market. By September 2021, Indian firms raised about \$4.96 billion through green bonds, with Ghaziabad Nagar Nigam issuing the first Green Municipal Bonds. India is the second-largest emerging market for green bonds after China, though greater investor awareness and incentives are needed.

Crowdfunding

Crowdfunding pools resources from multiple investors to finance projects, gaining popularity in India due to increased awareness and technology use. Platforms like 'Bettervest' and 'SunFunder' are attracting investments for green initiatives. Bettervest has supported projects like 'MeraGao Power' and 'Boond Engineering' to enhance access to renewable energy.

IREDA's Soft Loan Offerings

IREDA offers competitive soft loans to support environmentally sustainable projects, backed by international financial institutions. The European Investment Bank has allocated €150 million for renewable energy, while the World Bank has committed \$100 million for solar parks. IREDA also provides energy bill discounts and credit enhancement services. Recent initiatives include loans based on projected cash flows, bridge loans for generation-based incentives, and energy bill discounting schemes. In FY 2020-2021, IREDA approved loans worth INR 11,000 crore and disbursed INR 8,800 crore.

Green Loans

Green loans, similar to green bonds, are provided by banks to finance environmentally friendly projects, including renewable energy, sustainable agriculture, and eco-friendly construction.

Sustainability-Linked Bonds and Loans

These financial products are linked to specific sustainability performance indicators, allowing for adjustments in interest rates or repayment terms if sustainability targets are met.

Green Equity Funds

These ETFs invest in companies focused on environmentally sustainable sectors, allowing investors to engage in green finance initiatives.

Eco-Friendly Mortgages

Financing options for buyers of energy-efficient homes or eco-upgrades, often featuring lower interest rates and fees.

Environmental Certificates

Financial instruments that certify the ecological benefits of products or initiatives, including Renewable Energy Certificates (RECs).

Socially Responsible Investment Funds

Funds that invest in projects aiming for financial returns while promoting positive social or environmental impacts, like clean energy and sustainable agriculture.

Sustainable Microfinance

Small loans from microfinance organizations for individuals or businesses practicing environmentally friendly methods, such as organic farming or renewable energy.

Challenges of Green Financing in India

Green Financing Faces Several Key Obstacles

1. **Lack of Awareness:** Many investors and financial institutions lack understanding of green finance and its benefits, highlighting the need for better education.
2. **Risk Assessment:** Unique risks, such as regulatory changes and technological obsolescence, complicate risk evaluation for green projects.
3. **Capital Accessibility:** Smaller businesses in developing areas struggle to secure green financing, indicating a need to bridge this gap.
4. **Regulatory Uncertainty:** An unpredictable regulatory environment raises concerns for investors about potential policy changes affecting profitability.
5. **Market Size and Liquidity Issues:** Green finance markets are smaller and less liquid than traditional ones, leading to higher transaction costs and reduced flexibility.
6. **Long-Term Investment Horizon:** Many green projects require long payback periods, deterring investors seeking quick returns.
7. **Higher Cost of Capital:** Green financing often has higher initial costs than conventional methods, limiting sustainable investment opportunities.
8. **Market Instability:** The sector is vulnerable to external factors like energy price fluctuations and geopolitical tensions, causing investment instability.
9. **Limited Diversification:** A lack of green assets restricts portfolio diversification, increasing concentration risks.

Despite these challenges, growing awareness of environmental issues and demand for sustainable investments are driving progress.

Conclusions

Green finance is essential for fostering a sustainable future in India by offering critical financial resources for eco-friendly projects. The synergy between government initiatives, private sector involvement, and cutting-edge technological innovations is propelling the expansion of green finance nationwide. Embracing green finance presents numerous advantages for India, such as advancing sustainable development, lowering carbon emissions, and enhancing energy security. It is anticipated that India will maintain its focus on green finance and reinforce its commitment to achieving a sustainable and environmentally responsible future.

References

1. Government of India, Ministry of Environment, Climate and Climate Change, Third National Communication and Initial Adaptation Communication to The United Nations Framework Convention on Climate Change, 2023, <https://unfccc.int/sites/default/files/resource/India-TNC-IAC.pdf>.
2. Hart S.L., Ahuja G. (1996), Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment*, 5: 30–37.

3. Jeucken M (2001): Sustainable Finance and Banking: The Financial Sector and the Future of the Planet. Earths can, London.
4. Jain S. (2020), “Financing India’s green transition”. ORF Issue Brief No. 338, January 2020, Observer Research Foundation.
5. Md. Kashif Ansari, Yukta Anand (2022), Green Finance In India: Trend And Challenges, Hans Shodh Sudha, Vol. 2, Issue 4, (2022), pp. 43-50.
6. Megha Chhaochharia (2021), Green Finance in India: Progress and Challenges, Research Journal of Humanities and Social Sciences, 2021; 12(4):223-6. Doi:10.52711/2321-5828.2021.00039.
7. Sameer Aggarwal (2023), How Green Finance is paving the way for India’s sustainable future, May 1, 2023, Environment, TOI.
8. Shreyans Jain (2020), Financing India’s Green Transition, ORF Issue Brief, Issue No. 338, January 2020.
9. <https://www.ecofy.co.in/blogs/types-green-financing-available-india-0>.