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GREEN FINANCE AND ITS IMPLICATIONS IN INDIA

Dr. E. APPA RAO

Assistant Professor, Department of Commerce and Management Studies, Adikavi Nannaya University, MSN Campus, Kakinada Andhra Pradesh, India.

Email : apparao.cms@aknu.edu.in

ABSTRACT:

Green financing has emerged as a buzzword amid the 21st-century crisis of global warming and climate change. The term refers to financial flows and investments in sustainable projects, products and policies, with lending decisions being taken on the basis of environmental screening and risk assessment. Green finance has gained substantial attention globally as a means to fund projects and initiatives that promote environmental sustainability and combat climate change. In India, where economic growth is often juxtaposed with environmental challenges, green finance plays a critical role in promoting sustainable development. This article explores the concept of green finance, its emerging trends in India, the policy frameworks supporting its growth, and the implications it has for both the financial sector and the broader economy. The paper examines the challenges, opportunities, and the way forward for India to harness green finance in a manner that ensures environmental sustainability while fostering economic development.

Key words: Green finance, Sustainable investment funds, Carbon markets and trading, Green banking, Sovereign Green Bonds ('SGrBs'), PAT scheme

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INTRODUCTION

Globally, the paradigm of economic growth and development is undergoing a fundamental shift, and the reason is to make economic activities more environmentally sustainable. India, as the fourth-largest economy in the world, is charting an ambitious course towards becoming a global economic powerhouse. It is critically essential to harmonize this economic growth with India's commitment to environmental goals as a nation.

Sovereign Green Bonds ('SGrBs') have emerged as unique financial tools to address climate change and finance green development projects. Green bond issuances were pioneered by the World Bank and the European Investment Bank in 2008, laying the groundwork for the monetary policies of several nations. Countries such as China, France and Germany have emerged as leaders in the green bond market, with national governments playing critical roles by issuing bonds to generate debt. India's foray into the world of green bonds was in 2017, with the SEBI notifying guidelines on green bonds.

This market was bolstered further in 2023, with the Union Government developing a Framework for Sovereign Green Bonds, marking India's entry into the sovereign green bond scheme. The SGrB Framework reflects a deliberate endeavour to align the International Capital Markets Association's Green Bond Principles ('ICMA Principles'), which are considered to be the global benchmark for issuances of green bonds. The Framework establishes a Green Finance Working Committee ('GFWC') to support the Ministry of Finance in selecting and evaluating projects. It also asserts the importance of transparency and accountability, and the Public Debt Management Cell ('PDMC') is tasked with the responsibility of managing the proceeds of the SGrB issuance. The final pillar of the ICMA Principles pertains to reporting, which is crucial for maintaining investor confidence in the bonds, as well as integrity of the green bond market. This is especially pertinent in the context of "greeniums" or "green premiums", which are benefits received by green bond issuers, on account of investors being willing to accept lower yields due to the stamp of sustainability on the bond. The SGrB Framework mandates annual reporting on the allocation of proceeds, as well as the environmental outcomes of the projects funded.

India, with its rapidly growing economy and an ever-increasing demand for energy and natural resources, faces significant environmental challenges, including air pollution, water scarcity, deforestation, and climate change. As the country progresses towards industrialization and urbanization, finding a balance between growth and sustainability becomes paramount. Green finance, which refers to the allocation of capital for projects that have a positive environmental impact, emerges as a key tool in this process.

Green finance integrates environmental, social, and governance (ESG) criteria into financial decisions. It includes financing for renewable energy projects, energy efficiency measures, sustainable agriculture, and pollution control initiatives. In India, the importance of green finance is amplified by its vulnerability to climate risks and the urgency to transition to a low-carbon economy.

Research Question: What is the present state of green finance adoption in the Indian market? What are the potential future implications of green finance on the Indian economy?

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Research Objective: To evaluate the current status and future prospects of green finance on Indian economy.

Research methodology: To fulfill the above research objective, this study is based on secondary data collected from various reliable online sources, like high impact journals, research papers, news articles, and other trusted platforms.

In order to assess the present state and potential future implications of green finance on the Indian economy, a comprehensive analysis is necessary.

ANALYSIS OF STUDY

Green finance is a broad concept that includes funding mechanisms, financial products, and investments aimed at supporting projects that reduce environmental harm or enhance sustainability. These initiatives focus on renewable energy, energy efficiency, waste management, sustainable agriculture, clean transport, and carbon markets, among others.

Some of the key financial products related to green finance include:

1. **Green Bonds**: Debt securities issued to finance environmentally beneficial projects.
2. **Green Loans**: Loans provided for the development of sustainable infrastructure and renewable energy projects.
3. **Sustainable Investment Funds**: Mutual funds or exchange-traded funds (ETFs) that invest in green and sustainable projects.
4. **Carbon Markets and Trading**: Platforms where carbon credits are traded, allowing companies to offset their carbon emissions.

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Green Finance in India: Current Landscape

India's green finance sector has witnessed considerable growth over the last decade, with several developments at both the policy and market levels. Some notable aspects include:

1. **Government Initiatives**:

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- The Indian government has taken several steps to promote green finance, such as the establishment of the **National Action Plan on Climate Change (NAPCC)**, which outlines the country's strategies to address climate change.
- The launch of the **Perform, Achieve, and Trade (PAT) Scheme**, aimed at improving energy efficiency in energy-intensive industries, and the **National Clean Energy Fund (NCEF)**, which supports clean energy projects, are significant steps.
- The creation of the **Green India Mission**, which focuses on afforestation, sustainable agriculture, and water conservation.

2. **Regulatory Framework**:
   - The **Securities and Exchange Board of India (SEBI)** has introduced guidelines for the issuance of Green Bonds, ensuring transparency and standardization.
   - The **Reserve Bank of India (RBI)** has also played a pivotal role by encouraging banks to integrate environmental, social, and governance (ESG) criteria into their lending practices.
   - The **Ministry of Finance** has emphasized the importance of mobilizing green finance and fostering a green bond market to facilitate the transition to a low-carbon economy.
3. **Green Banking and Financial Institutions**:
   - Banks such as **State Bank of India (SBI)**, **ICICI Bank**, and **Yes Bank** have developed green banking initiatives, offering loans and financing options for renewable energy and energy-efficient projects.
   - The establishment of **India's first Green Bank**, the **Indian Green Bank**, aims to provide dedicated financing to green projects.
4. **Market Developments**:
   - India's green bond market has seen significant growth in recent years. The **India Infrastructure Finance Company Ltd. (IIFCL)** and private sector companies have issued green bonds, raising capital for renewable energy, clean transport, and water projects.

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- The **BSE Greenex** index, which tracks the performance of companies with strong ESG practices, has also gained traction among investors.

Implications of Green Finance in India

1. **Environmental Benefits**:
   - Green finance supports the transition to a low-carbon economy by funding renewable energy projects, energy-efficient technologies, and sustainable infrastructure. This reduces the environmental footprint of the country and helps mitigate the adverse effects of climate change.
   - By financing sustainable agriculture and water conservation projects, green finance also helps conserve natural resources, reduce pollution, and improve biodiversity.
2. **Economic Growth and Job Creation**:
   - Investment in green infrastructure and renewable energy can stimulate economic growth by creating jobs, particularly in the renewable energy sector, construction of energy-efficient buildings, and the development of sustainable urban transport systems.
   - Green finance contributes to the creation of new markets, such as electric vehicles, waste management, and solar power generation, leading to diversification of economic opportunities.
3. **Financial Sector Transformation**:
   - The shift towards green finance prompts financial institutions to develop new products and services tailored to sustainable investments. It encourages financial innovation and offers investors opportunities to diversify their portfolios with socially responsible investments.
   - Green finance also enhances the reputation of financial institutions that adopt ESG criteria and integrate sustainability into their business practices.

4. **Climate Resilience**:
   - By funding projects that enhance climate resilience, green finance helps Indian communities adapt to climate-related risks, including floods, droughts, and heat waves. Investments in disaster-resilient infrastructure and sustainable water management practices can reduce vulnerability and enhance the country's ability to cope with climate change.
5. **International Investment and Partnerships**:
   - Green finance presents opportunities for India to attract international investment, especially from foreign institutional investors, green funds, and climate-conscious investors. International organizations, such as the **Green Climate Fund (GCF)**, are increasingly supporting green projects in developing countries, including India.

PRESENT STATISTICS OF GREEN FINANCE

- In Fiscal Year (FY) 2021-22, India's green finance reached approximately **US$50 billion (INR 3.7 trillion)**, indicating a 20% increase from FY 2019-20.
- **Mitigation finance** accounted for the largest share, with clean energy drawing 47%, energy efficiency 35%, and clean transportation 18%.
- **Adaptation finance** has nearly tripled since FY 2019-20, with 98% of this capital coming from domestic sources. Key focus areas include disaster risk management (42%), flood and cyclone mitigation (32%), and on-farm adaptation in agriculture (24%).
- India needs an estimated **US$2.5 trillion in climate finance** by 2030 to meet its updated Nationally Determined Contributions (NDCs) and a colossal **US$10 trillion** by 2070 to achieve net-zero emissions.

Green Bond Market

- The total issuance of green bonds in India surpassed **US$21 billion by February 2023** and is estimated to reach **US$25 billion by March 2024**.
- Over 80% of the mobilized funds from green bonds have gone to the private sector.

- India issued its first sovereign green bonds in 2023, aiming to mobilize resources for green infrastructure projects.
- Despite significant growth, India's green bond issuances accounted for only 2.2% of worldwide issuances in 2023.

Green Loans and Sustainable Finance

- The India sustainable finance market size reached **USD 567.50 million in 2024** and is projected to reach **USD 2,336.30 million by 2033**, growing at a CAGR of 15.20% during 2025-2033.
- Banks are offering various green loan products, including green home loans, solar loans, electric vehicle (EV) loans, and green financing for SMEs.

ESG-Compliant Investment Instruments

- ESG (Environmental, Social, and Governance) funds in India currently hold an Asset Under Management (AUM) of nearly **₹10,946 crores**.
- A survey by the CFA Institute found that 60% of Indian investors consider ESG funds for their higher risk-adjusted returns.

Carbon Market

- India is developing a **Carbon Credit Trading Scheme (CCTS)**, set to begin trading in 2026. This scheme is a pivotal step towards achieving the country's climate commitments.
- The national Emissions Trading System (ETS) will initially cover nine energy-intensive industrial sectors, focusing on emissions intensity rather than absolute caps.
- India's voluntary carbon market is also expanding, with approved methodologies for generating voluntary carbon credits in areas like renewable energy, green hydrogen production, and mangrove afforestation.
- As of 2023, over 1,400 carbon credit projects were registered under global certification programs like Verra, with a significant portion in India.

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Challenges to Green Finance in India

Despite the growing interest in green finance, India faces several challenges in fully capitalizing on this potential:

1. **Lack of Awareness and Knowledge**: There is limited awareness among businesses, financial institutions, and the public about the benefits and opportunities associated with green finance. Financial literacy in ESG investing remains low, hindering the growth of the sector.
2. **High Cost of Green Investments**: Green projects often require higher upfront capital, which can deter private investors. The long payback period for some green projects also makes it difficult to attract conventional investors who prioritize quick returns.
3. **Limited Green Infrastructure**: While green finance is essential for transitioning to a sustainable economy, the lack of a robust green infrastructure hampers the growth of the sector. Policy frameworks and standards need to be aligned to support the development of green technologies and infrastructure.
4. **Risk of Green washing**: As green finance grows, there is a risk of companies claiming to be environmentally friendly without actually adhering to sustainable practices. The risk of green washing can undermine the credibility of the green finance market, affecting investor confidence.

The Way Forward: Recommendations for India

1. **Enhancing Awareness and Capacity Building**:
    - Government and financial institutions should conduct awareness campaigns to educate businesses and investors on the benefits and opportunities of green finance. Training programs and capacity-building initiatives can help enhance the financial literacy around ESG investing.
2. **Incentivizing Green Investments**:

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- The government could provide fiscal incentives, such as tax breaks or subsidies, to promote private sector investment in green projects. This would help mitigate the higher initial costs associated with green investments.

3. **Strengthening Policy and Regulatory Frameworks**:
   - A more comprehensive policy framework is needed to integrate green finance into mainstream financial markets. This includes creating clear standards for green bonds and financing mechanisms, as well as promoting transparency and accountability in green projects.
4. **Developing Green Infrastructure**:
   - The government should focus on creating a favorable environment for green technology development, such as renewable energy infrastructure, energy-efficient buildings, and electric vehicle infrastructure. Public-private partnerships can play a key role in driving green infrastructure projects.
5. **Monitoring and Reporting**:
   - A robust system for monitoring and reporting on the environmental impact of green finance projects is essential. This will ensure that the investments are genuinely contributing to sustainability and not merely serving as a marketing tool.

Conclusion

Green finance represents a transformative approach to financing environmental sustainability, economic growth, and climate resilience. In India, where environmental challenges are pressing, green finance has the potential to drive a transition to a more sustainable and low-carbon economy. However, realizing this potential requires overcoming significant challenges, including awareness gaps, financial constraints, and regulatory limitations. By strengthening policies, incentivizing green investments, and building capacity, India can harness the power of green finance to create a more sustainable future for its economy and its people.

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