



THE FUTURE OF GREEN FINANCE IN INDIA: LEGAL REFORMS NEEDED FOR NET ZERO GOALS

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Abstract:

This paper looks at how green finance can help India reach its target of net-zero emissions by 2070. It highlights the importance of green finance in securing funds for eco-friendly projects, such as renewable energy, improving energy efficiency, and reducing pollution. The study reviews the current state of green finance in India, points out challenges like unclear regulations and limited access to funding, and suggests legal reforms to make green finance more effective. Some proposed reforms include creating clear rules for green projects, encouraging companies to adopt Environmental, Social, and Governance (ESG) standards, and offering incentives to boost green investments. The paper also takes a look at how India's green economy efforts have developed over time, especially from the 2010s onward, thanks to global climate agreements and tools like green bonds. Although progress has been made, the paper stresses the need for continuous effort to stay on course toward the net-zero goal.

Keywords: *Green finance, net-zero emissions, legal reforms, sustainable development, India*

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Introduction:

As climate change becomes an increasingly urgent issue, countries around the world are setting ambitious targets to reduce greenhouse gas emissions. India, as a rapidly developing nation, has committed to achieving net-zero emissions by 2070. Reaching this goal will require not only advances in technology and effective policies but also a strong system of green finance—financial resources directed toward sustainable development projects. Green finance plays a crucial role in funding initiatives like renewable energy, energy efficiency, pollution control, and sustainable agriculture, all of which are key to India's shift towards a low-carbon economy.

However, India's green finance sector faces challenges such as unclear regulations, limited access to funding, and a lack of clear legal guidelines. This

paper explores the future of green finance in India and highlights the legal and financial reforms needed to reach the country's net-zero target. By analysing the current state of green finance, identifying key obstacles, and recommending necessary reforms, the paper aims to show how India can strengthen its green finance system to support a more sustainable and environmentally friendly future.

Importance of the Study:

This study is crucial for understanding how green finance can support India's journey to achieve net-zero emissions by 2070. It explores how investments in clean energy, energy efficiency, and sustainable practices can be funded through green finance. By examining the current financial and legal systems, the study highlights challenges such as limited capital and regulatory hurdles. The goal is to offer insights that

can help policymakers and financial institutions make the necessary changes to boost green finance, facilitating India's transition to a more sustainable and low-carbon economy.

Objectives of the Study:

1. To assess the current state of green finance in India.
2. To identify the legal barriers to green finance growth.
3. Propose reforms to improve the effectiveness of green finance for achieving net-zero emissions.

Review of Literature:

India's transition towards a low-carbon economy underscores the crucial role of green finance, legal frameworks, and international collaboration. A key development in this area is the World Bank's (2024) approval of an additional \$1.5 billion to support India's move towards a low-carbon future. This financial boost is essential for implementing renewable energy initiatives and reducing carbon emissions, highlighting the importance of global cooperation in tackling climate change.

The literature significantly focuses on green finance, which supports eco-friendly investments and sustainable development. Sharif and Kaushal (2018) explore how green finance fosters sustainable growth by promoting investments in clean energy and other environmentally conscious projects. The Reserve Bank of India's (2019) report on green finance outlines the country's efforts to incorporate financial tools that support renewable energy and curb environmental damage. These initiatives are vital for India's green growth objectives.

Environmental laws and policies are also critical to India's sustainability efforts. Rajamani (2007) discusses how public interest litigation helps ensure environmental regulations are followed and promotes fairness in legal processes. In a similar vein, Verma (2021) addresses the challenges India faces in enforcing environmental laws, pointing out the gap

between policy formulation and actual implementation.

Additionally, Stuligross (1999) examines the political and economic factors that hinder effective environmental regulation in India. He suggests that political interests and economic considerations often interfere with the enforcement of environmental policies, making it more difficult to achieve long-term environmental goals.

The financing of renewable energy also emerges as a major theme. The World Bank's (2013) report on financing renewable energy options emphasizes both the challenges and opportunities for funding sustainable energy projects in developing countries, including India.

Finally, the Government of India's National Green Hydrogen Mission (2021) focuses on developing clean energy solutions, particularly green hydrogen, to reduce emissions across key sectors.

Research Methodology:

This study employs a qualitative approach, analyzing existing literature, policy documents, and financial reports to assess the current state of green finance in India. Data from reputable sources such as the Climate Policy Initiative, World Bank, and Reserve Bank of India are utilized to identify trends, challenges, and opportunities in the green finance sector.

Efforts for Enhancing Green Economy and Green Finance:

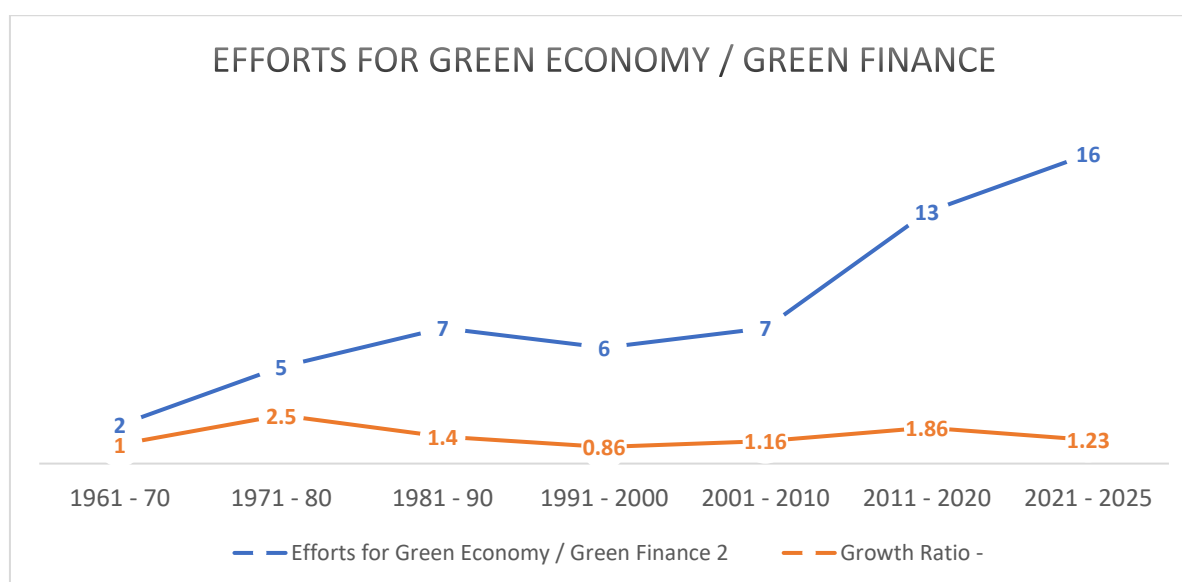
To support green finance, it's important to have clear laws that define what qualifies as a green project, helping prevent misleading claims. Financial institutions need clear guidelines on how to include Environmental, Social, and Governance (ESG) factors in their work. Strengthening environmental laws and offering tax benefits for sustainable projects can encourage more green investments. Also, the public and private sectors should work together to reduce risks, simplify approvals, and speed up green projects.



Here is a structured table outlining legal reforms for enhancing green finance in India:

Year	Efforts for Green Economy / Green Finance	Growth Ratio	Percentage Change (%)
1950 - 60	2	-	-
1961 - 70	2	1.0	0%
1971 - 80	5	2.5	150%
1981 - 90	7	1.4	40%
1991 - 2000	6	0.86	-14.3%
2001 - 2010	7	1.16	16.7%
2011 - 2020	13	1.86	85.7%
2021 - 2025	16	1.23	23.1%

Source: Authors analysis



Source: Authors survey

The above data on efforts for Green Economy and Green Finance over the years highlights significant trends and shifts in environmental initiatives. In the initial decades (1950-1960 and 1961-1970), the efforts remained minimal, with only 2 efforts (Industrial Policy Resolution (Which encouraged state control over industries, including energy and resources, and Five-Year Plans (2nd Plan Focused on Industrialization, indirectly impacting environmental policies)) recorded in both periods, indicating limited attention to environmental concerns. The period from 1971 to 1980 saw a significant surge in efforts, rising to 5 (Third Five-Year Plan (Focused on agriculture

and irrigation, indirectly impacting environmental finance, Fourth Five-Year Plan (Recognized the need for environmental planning), Wildlife Protection Act, Water (Prevention and Control of Pollution) Act, Establishment of the Central Pollution Control Board (CPCB), National Forest Policy (Revised), Constitution (42nd Amendment) – Added Environmental Protection as a Directive Principle)), with a growth ratio of 2.5 and a 150% increase, reflecting the global rise in environmental awareness, possibly influenced by early environmental policies and the United Nations' Stockholm Conference in 1972. However, the 1980s saw more moderate growth,



reaching 7 efforts (Air (Prevention and Control of Pollution) Act, Air (Prevention and Control of Pollution) Act, Establishment of State Pollution Control Boards (SPCBs), Bhopal Gas Tragedy (Led to stricter environmental liability laws), Environment (Protection) Act, National Housing Policy (Encouraged sustainable urban planning), Hazardous Waste (Management and Handling) Rules) with a growth ratio of 1.4 and a 40% increase, which could be linked to the increasing focus on sustainable development discussions globally.

The 1990s marked a setback, with efforts declining to 6 (8th Five-Year Plan (Introduced environmental sustainability goals), National Conservation Strategy and Policy Statement on Environment and Development, The Rio Summit & Agenda 21 (India committed to sustainable development), Environmental Impact Assessment (EIA) Notification, National Forest Policy (Reaffirmed sustainable forestry), The Energy Conservation Act (Set the foundation for energy efficiency financing)), a 14.3% decrease from the previous decade. This decline may have been caused by the shift in focus toward economic liberalization and other geopolitical factors that overshadowed environmental initiatives. The early 2000s also showed slow progress, with efforts remaining at 7 (Energy Conservation Act, National Action Plan on Climate Change (NAPCC), National Biofuels Policy, National Electric Mobility Mission Plan, State Action Plans on Climate Change (SAPCC), Securities and Exchange Board of India (SEBI) Green Bond Guidelines, The Renewable Energy Development Agency (IREDA) Funding), but the period from 2011 to 2020 experienced a remarkable increase in efforts to 13((National Action Plan on Climate Change (NAPCC) – Revised, National Electric Mobility Mission Plan (NEMMP) 2020, India's Intended Nationally Determined Contributions (INDCs), Faster Adoption and

Manufacturing of Hybrid and Electric Vehicles (FAME), Renewable Energy Policy (Wind, Solar, Hydro), India's Renewable Energy Mission (175 GW Target by 2022), Pradhan Mantri Ujjwala Yojana (PMUY), Clean Energy Fund (CEF), SEBI's Green Bond Guidelines (Revised), National Policy on Biofuels, Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan (PM-KUSUM), The Goods and Services Tax (GST) Concessions on EVs and Renewable Energy, and Sovereign Green Bonds (SGBs) Issuance), with an 85.7% growth. This surge could be attributed to the growing global focus on climate change, international agreements like the Paris Agreement, and the rise of green finance through sustainable investments and financial instruments like green bonds.

Looking at the period from 2021 to 2025, efforts continued to grow, reaching 16 (National Green Hydrogen Mission, National Electric Mobility Mission Plan (NEMMP) 2020 (Ongoing), Atmanirbhar Bharat (Self-Reliant India) Initiative (Including green manufacturing support), National Action Plan on Climate Change (NAPCC) 2.0, India's Long-term Low Emission Development Strategy (LT-LEDS), Maharashtra Renewable Energy Policy (2021), India's 2070 Net-Zero Commitment (Announced at COP26), National Solar Energy Mission, Sovereign Green Bonds Issuance, Production-Linked Incentive (PLI) Scheme for Solar Energy, PM Gati Shakti - National Master Plan for Multi-modal Connectivity (Includes green infrastructure focus), National Hydrogen Policy, Maharashtra State Electric Vehicle (EV) Policy, India's Green Finance Taxonomy Development, and Carbon Markets & Carbon Pricing Policy Development), but at a slower pace compared to the previous decade, with a 23.1% increase. This indicates a stabilization in the growth rate as green economy initiatives become more mainstream, but also signals



the need for continuous and enhanced efforts to maintain momentum.

Suggestions:

Legal reforms in green finance are essential to achieve India's net-zero targets. Establishing a clear framework to define genuine green investments will prevent misleading claims and promote transparency. Regulatory bodies like RBI and SEBI should strengthen compliance standards for green bonds to ensure they genuinely fund sustainable initiatives. Introducing a Green Finance Act could mandate financial institutions to allocate a portion of their funds to eco-friendly projects. Implementing carbon pricing mechanisms, such as emissions trading and carbon taxes, can encourage industries to reduce their environmental impact. Additionally, companies should be required to disclose their sustainability practices, ensuring accountability. Encouraging public-private partnerships and offering tax incentives for green investments will further boost financial support. These measures will create a strong financial foundation for India's transition to a low-carbon economy and long-term sustainability.

Conclusion:

This research examined the evolution of green finance and environmental policies in India, revealing that while early efforts were minimal, significant strides have been made over the years, particularly following global environmental movements and international agreements. From the 1970s onward, India began taking more substantial steps in promoting green finance, with the past decade marking a considerable increase in initiatives. However, challenges remain, especially regarding clear regulations, financial incentives, and enforcement of green finance principles. For India to achieve its net-zero goals, it is crucial to implement legal reforms that define and support genuine green investments, improve regulatory oversight, and ensure greater transparency.

Strengthening public-private partnerships, offering tax benefits for sustainable investments, and developing a comprehensive framework for green finance will contribute to a more robust and effective system. These efforts will enable India to advance its green finance agenda and successfully transition toward a sustainable, low-carbon economy.

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Cite This Article:

Nigam A.O. (2025). *The Future of Green Finance in India: Legal Reforms Needed for Net Zero Goals.* In **Electronic International Interdisciplinary Research Journal: Vol. XIV** (Number I, pp. 15–21).