

Green Finance-the Fostering Path Towards Sustainability

Dr. Dewali Chatterjee

Abstract:

As our world faces pressing environmental challenges, the need for sustainable financial solutions has become paramount. Green finance offers a pathway to aligning financial investments with environmental goals. Green finance plays a critical role in achieving inclusive, resilient and consistent economic growth by creating environmental benefits. It helps in increasing the flow of finance from the public, private and non-profit sectors to sustainable development priorities. Recognising the significance of green finance, UN Environment has been working in the alignment of the financial system of the countries to channelize the financial flows for attaining 2030 sustainable development goals. To build economic development in a sustainable manner, India also needs a national green finance strategy. It requires green infrastructure funding of about \$4.5 trillion by 2040. The contribution made by both public and private sector organisations/banks will play a crucial role in green financing. The present study therefore mainly emphasises the various green financing initiatives taken by the public and private sector organisations/banks in India. The study exhibits the various challenges in the area of green financing in India and also recommends measures to face those challenges. The study is descriptive in nature and is based on secondary data taken from various government reports published by the Government of India and other published reports of public and private sector organisations and banks in India.

Keywords: Green Finance, Sustainable Development, Green Investment Product, Awareness

1. Introduction:

From a societal perspective, green finance widens the accessibility of environmentally-friendly products and services, particularly benefiting vulnerable and marginalized groups. This contributes to a more inclusive path toward a low-carbon society, fostering socially equitable growth. Though there is no clear cut definition for Green finance, any monetary assistance provided for projects with the major aim of contributing to sustainability like the construction of green buildings, efficient management of energy, waste management, preservation of biodiversity, projects related to renewable sources of energy and other related projects can be termed as Green financing. Public sector investments are not sufficient to meet the requirements under these projects.

Green financing is to enhance the level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities. A critical part of this is to better manage environmental and social risks, take up opportunities that bring both an accelerating rate of return and environmental benefit and deliver greater accountability.

Green financing could be promoted through changes in countries' institutional and economic frameworks, harmonizing public financial incentives, increases in green financing from different sectors, alignment of public sector financing decision-making with the environmental dimension of the Sustainable Development Goals, increases in investment in clean and green technologies, financing for sustainable natural resource-based green economies and climate smart blue economy, increase use of green bonds, and so on.

Green financing or climate- smart financing helps to alleviate carbon emissions and increase environmentally friendly results over the long period of time. Market-based innovations are driving the development of green finance. According to the World Economic Forum investment in green infrastructure is projected to be \$5 trillion per year until 2030 and much of which will be in the developing world. India will also require infrastructure funding of about \$4.5 trillion by 2040 and this funding is projected to be utilized in national renewable energy targets, electric vehicles and green housing. UN Environment has been working with countries, financial regulators and finance sector to align financial systems to the 2030 sustainable development agenda – to direct financial flows to support the delivery of the Sustainable Development Goals(SDGs)

The main areas for the current work on green financing are:

- Supporting public sector on creating enabling environment zone
- Promoting public-private partnerships on financing mechanisms such as green bonds
- Capacity building of community enterprises on micro-credit

2. Literature Review-

Literature Review being the major aspect of the research work helps in understanding the past research work carried out regarding the topic and will give the base for formulation and analysis of research problem and help us to know the scope, limitations of the past research and gives an idea about the aspects not covered by past researchers. Jeffrey D.Saches et al (2019) analyzed that the investment in renewable and energy efficiency has been declining which would threaten the expansion of green energy and concluded that to achieve the sustainable development goals, Green Financing needs to be accelerated which covers green projects, green investments, green banking, financial technologies ,etc

Dr. Karthrin Berensmann et al (2016) discussed the role of major actors driving the development of green finance including banks, institutional investors, and international financial institutions. The researchers concluded that the extent to which the ambitious climate and sustainability goals can be achieved will largely depend on the determination with which the above-mentioned actors drive the development of green finance forward. Dipika (2015) studied the tendency that business organizations and the stakeholders are giving more importance to environmental protection and sustainable development. The researcher concluded that Green banking helps in improving economic growth and protects the environment. Thus, green lending should be given priority as part of sustainable development.

Sharif Mohd et al (2018) examined the role played by Green Finance as a solution to bring harmony between the environment and the economy and also discussed the various Green financial instruments available and the sustainability initiatives in India and opined that India has a great potential to create a green infrastructure needed for green finance.

Jha & Bhome (2013) did the empirical study on the steps that can be taken for going green in the banking sector and to check the awareness among bank employees, associates and the general public about green banking concept. They did this study by collecting data from 12 bank managers, 50 bank employees and 50 general customers. The authors were of the opinion that online banking, green loans, power saving equipment, green credit card, use of solar and wind energy and mobile banking were some of the strategies that should be followed for going green. The results of the study were, banks should adopt environmental standards of lending, which results in improving the asset quality of banks. The rate of interest on loans given for green projects should comparatively less than the normal rate of

interest. Companies can increase their profitability by reducing or recycling of waste generated and also by adopting sustainable measures to go green.

3. Research objectives

- To study the various aspects of green finance that helps in attaining sustainability development goals(SDGs)
- To identify the types of green financing products
- To examine various challenges in the area of green financing in India

4. Research Methodology

The study is descriptive in nature and is based on secondary data taken from various government reports published by the Government of India and other published reports of public and private sector organisations and banks in India.

5. Result & discussion

Green finance in India is made up of a variety of sources, including

a. Green Banking

It deals with encouraging eco-friendly practices with the help of banking activities. Green banking helps in the protection of the environment and thus contributes to the welfare of nature and the financial sector. It operates by integrating technological improvements, changing stakeholders' expectations, and operational innovations.

GREEN BANKING PRODUCTS

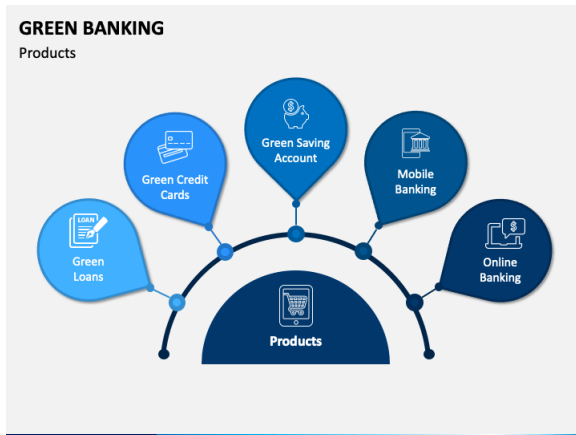
Green Loans: means giving loans to a project or business that is considered environmentally sustainable.

Green Mortgages: refers to type of mortgage that provides you a money-saving discount or a bigger loan than normally permitted as a reward for making energy-efficient improvements or for buying a home that meets particular energy-efficiency standards.

Green Credit Cards: Be it in form of environmentally friendly rewards or using biodegradable credit card materials or promoting paperless banking, credit cards are going green.

Green Saving Accounts: In case of Green Saving Accounts, banks make donations on the basis of savings done by customers .The more they save, the more the environment benefits in form of contributions or donations done by banks.

Mobile banking and online banking: These new age banking forms include less paperwork, less mail, and less travel to branch offices by bank customers, all of which has a positive impact on the environment.

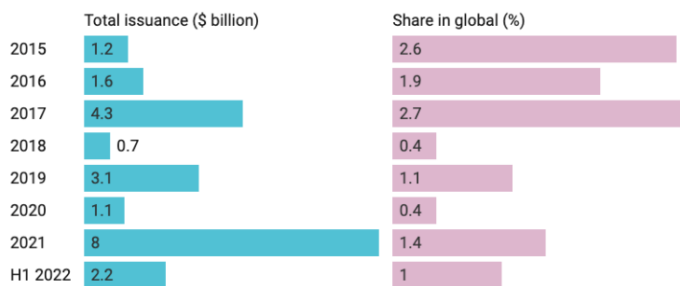


b. Green bonds

Green bonds are debt instruments that raise capital to finance environmental or climate-related projects. While green bonds are similar to conventional bonds as they have a fixed or variable interest rate, they differ since they are specifically designated for financing or refinancing environmental projects that have positive effects on the environment or the climate such as the use of renewable energy, energy efficient transportation, clean energy, sustainable water management and the reduction of greenhouse gas emissions. They are issued by Government, Corporations or International Development Banks.

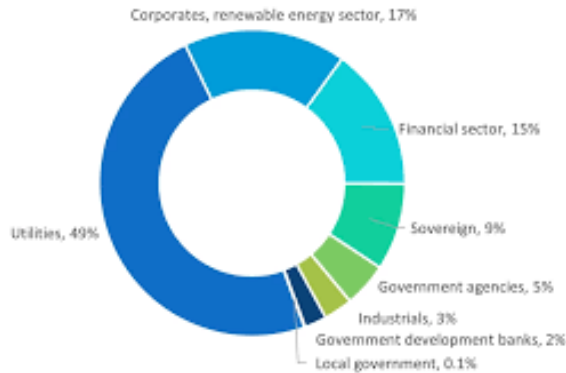
Green bond issuances in India reached an all-time high in 2021

Green bond issuances in India



India leads Asian emerging markets (excluding China) in green bond issuance

Green bonds are a key source of funding for green initiatives in India. As of February 2023, India's green bond issuances had reached \$21 billion, with the private sector responsible for 84% of the total.



The largest green bond issuer in India Greenko Group is funding hydro, solar, and wind power projects in several Indian states with its green bond proceeds. Ghaziabad Nagar Nigam, a civic body in Uttar Pradesh, is the first Indian local government to have issued a green bond (USD eq 20 million in 2021). Indore Municipal Corporation issued USD 87 million in green bonds in 2023.

c. Green insurance

Green insurance is a type of insurance that promotes sustainable practices and investment in projects related to climate change, energy efficiency, and renewable energy. It can also refer to insurance for sustainable products that provide environmental and socio-economic benefits. Green insurance can include environmental pollution liability insurance, climate insurance, and other insurance schemes related to environmental risk management.

Green insurance incentives for motor vehicles

Fossil fuels deplete our resources and contribute to pollution—and many insurers offer discounts for vehicles that don't gas guzzle.

- **Hybrid vehicle premium discounts** are offered by a number of auto insurance companies (and similar discounts may also be available on boat insurance for hybrid-electric boats and yachts).
- **Endorsements that allow hybrid replacement**—that is, optional coverage whereby, after a total car loss, the insured can replace his or her traditional automobile with a comparable hybrid vehicle.
- **Alternative fuel premium discounts**, which apply if your car uses an alternative energy source such as biodiesel, electricity, natural gas, hydrogen or ethanol.
- **Pay as You Drive (PAYD) programs**, which require the installation of a device to track the miles driven in your car. The PAYD offers policy discounts to drivers who, according to their sensor, drive fewer miles than the average—thus saving consumers money while reducing accidents, congestion and air pollution.

Green Credits Programme

The Green Credits Programme, launched by the Environment Ministry in October 2023, aims to create a market-based incentive for different kinds of environment-positive actions. The programme is not limited to carbon emissions reduction.

Currently, Carbon credits have a market-based system at national and international levels. This system allows companies or nations to claim carbon credits if they take action to reduce their carbon footprint. These credits can be traded for money. Companies that are unable to achieve their emission standards buy these credits to improve their performance.

As a starting point, it is envisioned that private companies would buy these green credits as part of their Corporate Social Responsibility (CSR) obligations. Unlike the carbon credit markets, which focus more on industry and corporations, the Green Credits Programme can benefit individuals and communities as well.

Green Deposits

Green deposits are a type of financial product that banks and financial institutions offer to promote environmentally sustainable initiatives and projects. These deposits are created to attract funds specifically for financing green and sustainable projects, such as renewable energy, energy efficiency, waste management, and other environmentally friendly initiatives.

There are several types of green deposits to choose from, including fixed deposits (FDs), savings deposits, recurring deposits, and certificates of deposits. Each of these deposits offers different features and benefits, enabling individuals and organisations to select the most appropriate option based on their investment objectives and personal preferences.

Benefits of Green financing

From an environmental perspective, green finance plays a pivotal role in advancing sustainable development and mitigating climate change. By redirecting capital towards green projects, it accelerates the transition to renewable energy sources, such as solar and wind power, reducing reliance on fossil fuels. This transition not only helps combat climate change by reducing greenhouse gas emissions but also promotes energy security and independence. Furthermore, green finance supports sustainable infrastructure development, including smart cities, green buildings, and efficient transportation systems. It also fosters conservation and biodiversity protection through investments in projects that preserve and restore natural ecosystems.

Challenges associated with Green Financing in India

- i. Data mining, collection, and analysis – This can be a task as there's a huge amount of data from various sources, especially when it comes to banks.
- ii. Issues related to compliance and reporting
- iii. Issues related to providing high-quality customer service
- iv. Issues related to streamlining the investment process

Conclusion

Considering the alarming increase in pollution level in India, it becomes imperative to tap the untapped potential of green Finance to finance green projects or investments. There is a need for blended finance which can reduce the overall cost of capital of private capital investors. The government of India should frame a clear green investment strategy focusing on long term, economy wide view

Reference

1. Ministry of Finance, Government of India. Economic Survey - Climate Change and Environment. India Budget. [Online] Ministry of Finance, January 28, 2023. [Cited: February 01, 2023.] <https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap07.pdf>.
2. RBI. Green Finance in India: Progress and Challenges, RBI Bulletin January 2021. RBI. [Online] RBI, January 31, 2021. [Cited: January 15, 2023.] https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/04AR_2101202185D9B6905ADD465CB7DD280B88266F77.PDF.
3. Green banking practices in Indian banks" by K.Sudhalakshmi and Dr.K.M.Chinnadorai, International Journal of Management and Commerce innovation
4. Hoshen, S., Hasan, N., Hossain, S., Mamun, A.A., Mannan, A., Mamun, A.A.(2017). Green Financing: An Emerging Form of Sustainable Development in Bangladesh. IOSR Journal of Business and Management, Vol (19) No (12)
5. International Monetary Fund. Climate Change Dashboard. [Online] 2022. [Cited: January 15, 2023.] https://climatedata.imf.org/datasets/8e2772e0b65f4e33a80183ce9583d062_0/explore.