ISBN: 978-81-972400-5-8

5. Green Finance Is a Tool for Sustainability

Dr. Manoj Kumar Dash

Assistant Professor,
School of Commerce and Management,
Arka Jain University.

Abstract:

Climate change has emerged as the political and economic problem in India. Government, investors, business and private individuals are starting to take proper action in response to the climate issue on decarburization technique. Moving to a low carbon or green economy would need extraordinary levels of capital investment. Green finance is relating to the financial support provided for the projects that deal with environmental protection projects for sustainable development. This paper considers the aspects of Green Banking and Green Bonds as a part of Green Financing. This study also evaluates the opportunities and challenges for Green Finance in India and attempts to give new insight about Green Finance as an useful tool of sustainability.

Keywords:

Sustainable Development, Green Finance, Awareness, Green Investment.

5.1 Introduction:

Green finance is essential for promoting sustainability and addressing environmental challenges. It plays a vital role in funding projects aimed at reducing greenhouse gas emissions, transitioning to renewable energy sources, and mitigating the impacts of climate change. By channeling funds towards climate-friendly initiatives, green finance contributes to the global effort to limit global warming and its adverse effects on ecosystems, communities, and economies. Investing in green finance supports sustainable development by directing capital towards projects that balance economic growth with environmental protection and social equity. Sustainable development goals, such as poverty eradication, clean energy access, and biodiversity conservation, can be advanced through targeted green investments. Green finance encourages businesses and financial institutions to assess and mitigate environmental risks associated with their operations and investments. By integrating environmental considerations into financial decision-making processes, stakeholders can better manage risks related to climate change impacts, resource scarcity, and regulatory changes. The transition to a low-carbon, sustainable economy requires innovation and technological advancements across various sectors. Green finance provides funding and incentives for research, development, and deployment of clean technologies, fostering innovation and enhancing the competitiveness of businesses in the green economy. Investing in climate resilience and adaptation measures is crucial for building resilience to the impacts of climate change, such as extreme weather events, sea-level rise, and disruptions to ecosystems and supply chains. Green finance supports projects that enhance infrastructure resilience, promote ecosystem restoration, and strengthen community adaptation efforts, thereby reducing vulnerability to climate-related risks. Consumers, investors, regulators, and other stakeholders increasingly expect businesses and financial institutions to demonstrate environmental responsibility and sustainability commitments. Embracing green finance not only meets stakeholder expectations but also enhances reputation, brand value, and long-term financial performance.

So, the need of protecting the environment and preserving natural resources is getting more attention among all the stakeholders because of increase in the problems like ozone layer depletion, global warming, increasing pollution levels, cut-throat competition for scarce non-renewable sources of energy, and other environmental issues. Green finance intends to create a balance between nature and economics. 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 energyand other related projects can be termed as green financing. Public sector investments are not sufficient tomeet the requirements under these projects. Initiatives from the private sectors and cross-border investments should be encouraged to meet the rising demands. At the same time, regulatory framework and proper policy actions are required to address the problems related to fund raising and the application ofthose funds. At the annual budget 2023, Rupees 35,00 crore has been allotted to achieve energy transition and net zero emissions and announced the “Green Credit Programme”. Through Green credit Government of India seeks to complement the domestic carbon market and reward companies, individuals, and local bodies for their sustainable action. The union budget for 2023-24 has provided for a budgetary allocation of Rupees 7,327 crore for the solar power including grid, off-grid and PM –KUSUM projects.

5.2 Literature Review:

Environment degradation, population growth, and climate change are becoming global issues due to rising human development and rapid economic growth during the past century (Neumann, 2022). The United Nations (2015) established 17 Sustainable Development Goals (SDGs), which currently serve as the cornerstones of its sustainable development agenda. These goals serve as a shared framework and a worldwide call to action. This has led to more than a hundred empirical studies on the economic effects of entrepreneurship during the last two decades. Total early-stage entrepreneurial activity, as measured by GEM, became the favoured metric for comparing the effects of entrepreneurship across nations (Neumann, 2021). 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. Dipika (2015). 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. Saches (2019)., can aid in the creation of a greener world. The terms green finance and sustainable finance are interchangeable, as are climate finance. Investments that improve the environment are referred to as green finance Habiba and Xinbang (2022). There are still considerable hurdles to overcome in developing a green financial market, even though it improves resource allocation efficiency and accelerates the transition to a more sustainable growth model (Yang, Chishti and shina,2021).

5.3 Research Objectives:

- To study the various aspects of green finance and it types which is helps in achieving sustainability goals.
- To identify the challenges and opportunities of green finance.

5.4 Research Methodology:

The research paper is descriptive in nature. The data is collected from secondary sources collected through publishedsources such as reports, journals, research articles, and websites.

5.4.1 Types of Green Finance:

Green finance encompasses a variety of financial instruments and mechanisms designed to support environmentally sustainable projects and initiatives. Here are some common types of green finance:

Green Bonds: Green bonds are debt securities issued to raise capital for projects with environmental benefits. The proceeds from green bonds are earmarked for projects such as renewable energy development, energy efficiency improvements, sustainable infrastructure, and climate adaptation initiatives.

Sustainable Loans: Sustainable loans are loans provided to finance projects or activities that have positive environmental or social impacts. These loans may include green loans, which are specifically designated for environmentally sustainable projects, or sustainability-linked loans, where the terms and conditions are tied to the borrower's sustainability performance.

Green Funds and Investment Portfolios: Green funds and investment portfolios are investment vehicles that focus on environmentally sustainable assets and companies. These funds may invest in renewable energy projects, green technology companies, sustainable agriculture, clean water initiatives, and other environmentally friendly ventures.

Carbon Finance: Carbon finance involves the buying and selling of carbon credits or offsets to finance projects that reduce greenhouse gas emissions. Carbon credits represent a reduction in emissions achieved through projects such as renewable energy generation and energy efficiency improvements.

Green Insurance: Green insurance products provide coverage for environmental risks and liabilities, including those related to climate change impacts, natural disasters, pollution incidents, and environmental damage. Green insurance may incentivize risk reduction and resilience-building measures through premium discounts or other incentives.

Green Equity Investments: Green equity investments involve purchasing shares or ownership stakes in companies that are actively engaged in environmentally sustainable activities or have strong environmental performance.

These investments may include green technology firms, renewable energy companies, and sustainable businesses across various sectors.

Socially Responsible Investing (SRI) and Environmental, Social, and Governance (ESG) Integration: SRI and ESG integration strategies consider environmental, social, and governance factors alongside financial considerations when making investment decisions. These approaches may involve screening out investments in environmentally harmful industries, actively selecting investments with positive environmental impacts, and engaging with companies to improve their sustainability performance.

Green Microfinance: Green microfinance provides small-scale financial services, such as loans, savings accounts, and insurance, to support environmentally sustainable livelihoods and businesses in underserved communities. These services may facilitate investments in renewable energy technologies, eco-friendly agriculture, and conservation initiatives at the grassroots level.These are just a few examples of the types of green finance available. The field of green finance continues to evolve, with new instruments, products, and innovations emerging to address.

5.4.2 Data Analysis:

Climate trends and events have a direct deportment on the economy. It has an impact onthe financial institutions and the financial system. The transformation of the global economy needed to achieve net-zero emissions by 2050 would be universal and significant. It has need of $9.2 trillion in annual average spending on physical assets, which is $3.5 trillion more than what is being spent recently.

5.1: Data Analysis

Reviewing Policy and Regulatory Environment: The program will assist countries in reviewing their policy and regulatory frameworks related to financing systems.

This includes analyzing existing policies and regulations and identifying areas for improvement to better support sustainable finance initiatives.

Developing Sustainable Finance Roadmaps: UN Environment will work with countries to develop sustainable finance roadmaps tailored to their specific needs and priorities. These roadmaps will outline strategic steps and priorities for integrating sustainability considerations into financial systems and promoting green investments.

Assisting Central Banks and Regulators: The program will provide support to central banks and financial regulators in improving the regulatory framework of domestic financial markets. This may involve developing guidelines, standards, and regulations that encourage sustainable finance practices and mitigate environmental and social risks.

Supporting Multi-Country Policy Initiatives: UN Environment will collaborate with countries to support multi-country policy initiatives at sub-regional, regional, and global levels. This may include sharing best practices, coordinating efforts, and advocating for policy reforms that promote sustainable finance across borders.

Building on Current Initiatives: The program will build on existing initiatives, such as private climate finance, to leverage lessons learned and scale up successful approaches. This demonstrates a commitment to continuity and effectiveness in promoting sustainable finance.

Engaging with Policy Makers and Private Sector Leaders: UN Environment will work closely with policy makers and private sector leaders to connect them with green economy initiatives. This collaborative approach aims to foster dialogue, build partnerships, and mobilize resources for sustainable development.

Catalyzing Policy Action: Through its activities, UN Environment aims to catalyze policy action that inspires and informs both public and private investors. By raising awareness, providing guidance, and showcasing successful examples, the program seeks to drive positive change towards sustainable finance.

In India, the Council on Energy, Environment and Water has already estimated that a total investment of US$ 10.1 trillion would be needed to meet our net zero commitments by 2070. This underscores the urgency of efforts for transitioning to a low carbon economy. Ensuring access to adequate transition finance andsupporting technology would be critical in this process. RBI had also undertaken a Survey on Climate Risk and Sustainable Finance among leading scheduled commercial banks. In financing the transitionto a low-carbon economy and supporting the national climate commitments the role of bank is very vital. there are two key aspects which banks is emphasizing to focuson - first, relying on their time-tested expertise in financial intermediation byacting as an effective conduit for channelizing finance to carbon efficient sectors and industries in alignment with national policies and goals. Second, improving the management of financial risks in their books which may originate from climate change. Such risks range from the direct physical risks emanating from adverse climate-related events to loss of reputation and legal risks.

From the current financial year FY 2022-23, SEBI has mandated Business Responsibility and Sustainability Reporting for the top 1000 listed companies on the basis of market capitalization in India. The disclosures under the BRSR framework would incentivize green financing and help banks and financial institutions in estimating their climate-related exposure to these listed companies. The Sustainability-Linked Bonds and Sustainability Linked Loans market has been a fast- growing segment globally in the sustainable finance market. India has seen the introduction of sustainable finance instruments such as sustainability-linked loans. Liberalized External Commercial Borrowings (ECBs) norms have also enabled Indian companies to raise offshore finance through green bonds, social bonds, sustainable bonds, and sustainability- linked bonds. In line with global trends, the issuance of sustainable debt has risen sharply in India during Calendar Year 2021 taking it to the 2nd place among emerging economies in cumulative Green Bond Issuances. Mechanisms such as blended finance and risk-sharing facilities are also being utilized to finance climate and sustainability-related projects.

The revolutionize to a low-carbon economy necessitates significant investments, which can only be funded through profound private-sector engagement. The inclusion of Environmental, Social and Governance (ESG) factors into private investments transforms a risk management strategy. It is the driver of innovation of new investment avenues that provides long-term value for the company and society. To avoid ‘green washing’, the notion of green financing should be more explicit. A uniform set of basic green finance criteria is also required to shift capital flows toward green and sustainable initiatives, as well as for market and risk monitoring and benchmarking. Additionally, green finance assets might benefit from disclosure standards and norms. Voluntary green finance concepts and standards, supplemented by legislative incentives, must be applied and monitored across all asset classes.

Figure 5.2: Green Financing

Green financing could be promoted through changes in countries’ regulatory 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.

Multi-stakeholder partnerships will be promoted to include major actors in financial markets, banks, investors, micro-credit entities, insurance companies along with public sector.

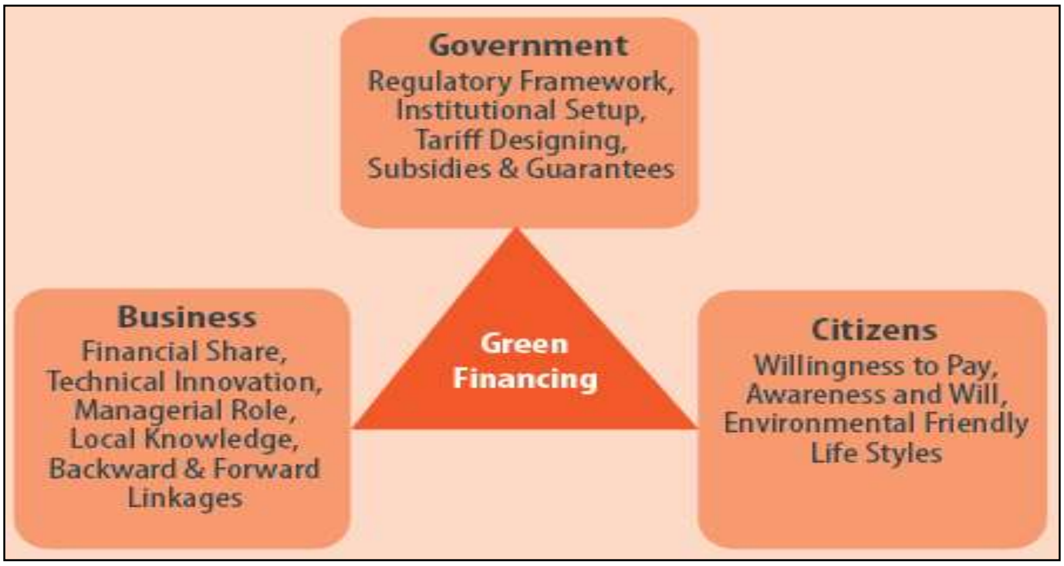

Figure 5.3: Green Financing

Green finance in India has been gaining traction in recent years, driven by a combination of factors such as increasing awareness of environmental issues, government initiatives, regulatory support, and growing investor demand for sustainable investments. Here's an analysis of the state of green finance in India:

5.4.3 Government Initiatives and Policy Support:

National Action Plan on Climate Change (NAPCC): India has launched several initiatives under the NAPCC, including the National Mission on Sustainable Habitat and the National Mission for Enhanced Energy Efficiency, which promote green finance for sustainable development.

Renewable Energy Targets: India has set ambitious renewable energy targets, aiming to achieve 175 GW of renewable energy capacity by 2022 and 450 GW by 2030. These targets drive investment in renewable energy projects and provide opportunities for green finance.

5.5 Regulatory Framework:

Green Bond Guidelines: The Securities and Exchange Board of India (SEBI) has issued guidelines for green bonds to ensure transparency and credibility in green finance markets.

Sustainable Finance Disclosure Regulation (SFDR): SFDR requires listed companies to disclose their environmental, social, and governance (ESG) performance, encouraging transparency and accountability in sustainable finance practices.

5.6 Renewable Energy Investments:

India has become one of the world's largest markets for renewable energy investments, attracting both domestic and foreign investors.

The government's incentives and subsidies for renewable energy projects, along with declining costs of renewable technologies, have contributed to the growth of green finance in the renewable energy sector.

5.7 Challenges and Opportunities:

Lack of Awareness: Despite progress, there is still a need to raise awareness among investors, businesses, and financial institutions about the benefits and opportunities of green finance.

Capacity Building: Building capacity among financial institutions and regulators to assess environmental risks, evaluate green investments, and develop innovative green finance products is essential.

Scaling Up Investments: While there has been significant investment in renewable energy, there is a need to scale up investments in other sectors such as sustainable agriculture, waste management, and clean transportation.

5.8 Future Outlook:

The growing momentum towards sustainability and climate action, combined with supportive government policies and regulatory frameworks, bodes well for the continued growth of green finance in India.

With increasing investor interest in ESG factors and sustainable investments, the demand for green finance products and services is expected to rise, driving innovation and expanding the green finance market in India.

In summary, while there are challenges to overcome, India's green finance landscape shows promise and potential for further development, positioning the country as a key player in the global transition to a low-carbon and sustainable economy.

5.9 Benefits of Green Finance:

- Proficient energy management: Various incentives are provided for installing and using renewable energy resourcesand funding is provided for projects aimed at reducing wastage of energy under green financing.
- **Environmental protection:** As the major aspect of green financing is the funding of the projects aimed sustainable development, environmental protection is an important part of the funding. So, this concept will help in reducing pollution intensity, adapting to climate changes, extenuating depletion of the ozone layer, preserving biodiversity, etc. which are very much needed for the continued existence of living organisms.
- **Enhances reputation:** Since the increasing number of stakeholders wants to contribute to society through their investments, so it is to perform their social responsibility work. It will be giving priority to the companies that work towards improvement of the environment. Even the government provides incentives for eco-friendly projects. Hence green financing will help the organizations to build and enhance their standing in the long run.
- **Helps in attracting FDI:** Concerns about the protection of the environment are rising across the globe. As a result,foreign investors while investing in domestic companies will evaluate the projects taking into consideration the socialcost and the benefits. Thus, issuing green investment products will attract foreign direct investment to our country.

5.10 Limitations of Green finance:

- Ambiguity regarding definition: There is no standard uniform definition for green finance. It will become difficultfor investors to choose the right green projects as there is no clarity regarding the definition, which will lead to confusion. It works as a barrier for investment in green projects.
- No proper regulatory framework: There are no specific laws, rules, and regulations related to the evaluation of green projects. There are no particular policy actions regarding green investment. This regulatory gap acts as a obstacle for the growth and development the green investment.
- Lack of awareness: The lack of information and awareness will result in less capital accumulation in green investment products. This will lead to a disproportion in terms of demand and supply of funds.

5.11 Suggestions:

Investors can support green initiatives by buying green mutual funds, green index funds, green exchange-traded funds (ETFs), green bonds, or by holding stock in environmentally friendly companies.

5.12 Conclusion:

This study helps to growing knowledge on green finance and it shows how it is related to economic growth and sustainability. Sustainable development is requiring of the day for the corporate. So green finance is an effective tool of sustainability. It is more important for the present scenario. Investors are thinking beyond risk and returns, they are becoming more and more responsible towards society. It is necessary to protect the natural environment, so raising awareness among people of the is necessary.

Policymakers, researchers, environmentalists, government, investors, and financial institutions have to work together to clearly define the concept of green finance. A Proper regulatory framework has to be set to estimate the green projects. It helps to ensure that investors are not cheated in the label of green. India being a developing country should concentrate on renewable energy generation.

5.13 References:

1. Sharma, Arun; Iyer, Gopalkrishnan R.; Mehrotra, Anuj; Krishnan, R. (February 1, 2010). "Sustainability and business-to-business marketing: A framework and implications". Industrial Marketing Management. **39** (2): 330–341. doi:10.1016/j.indmarman.2008.11.005
2. Baumgartner, Rupert J.; Ebner, Daniela (2010). "Corporate sustainability strategies: Sustainability profiles and maturity levels". Sustainable Development. **18** (2): 76–89. doi:10.1002/sd.447
3. Moratis, Lars (2018). Sustainable Business Models: Principles, Promise, and Practice. Springer Cham. ISBN 978-3-319-73502-3.
4. Lathabhavan, R., 2021. Sustainable business practices and challenges in Asia: a systematic review. International Journal of Organizational Analysis.
5. Sachs, J.D., Woo, N., Yoshino, N., & Hesary, T. Hesary (2019). Why is Green Finance Important? *ADBI workingpaper* 917.
6. Dipika (2015). Green Banking in India: A Study of Various Strategies Adopted by Banks for SustainableDevelopment. *International Journal of Engineering Research & Technology*
7. Dikau, S., & U. Volz. (2018). Central Banking, Climate Change and Green Finance. *ADBI Working Paper 867*. Tokyo: AsianDevelopment Bank Institute.

- A/www.iisd.org/about-iisd/sustainable-development
- https://www.bankexamstoday.com/2017/02/green-banking-all-you-need-to-know.html
- https://www.iii.org/article/green-insurance
- https://www.scotsmanguide.com/browse/content/green-financing-benefits-business