ISSN:3048-6505 (Online)
Shodh Samarth- Research Journal of Commerce, Management & Economics
Vol.2(1), January 2025, pp. 1-10

IMPACT AND PROPRIETY OF GREEN FINANCE: INDIAN PERSPECTIVE

Dr. Sugandha Verma
Assistant Professor
Department of Commerce,
Rajkiya Mahavidyalaya Chinyalisaur,
Uttarkashi, Uttarakhand

Abstract

Requirements of human race and our planet are becoming eventually contradictory. But, serious efforts have also been started for the sake of future sustainability. Infrastructure and projects have been making feasible in terms of environmental issues. Norms for eco-friendly products and buildings are continuously mounting for paving the way towards sustainable economies. As a result of this, the concept of green finance has emerged as an innovative and unique phenomenon. This article underlines the introductory and theoretical background of green finance, policy and regulatory framework and its propriety at both national and international levels. Major initiatives and positive and negative scenarios on green finance have also been discussed by the author. Revisiting of existing literature, reports and data present some sort of improvement in the related field and gradually rising public awareness. Additionally, some suggestions have also been recommended in this attempt along with discussing the future prospects. Improvised pattern of management information system (MIS) and superior synchronization among authorities and stakeholders may lead towards long term sustainable economic escalation of the nation. Operationally sound and economically viable policies and strategies can pave the way for prospective and sustainable cost-effective benefits. In a nutshell, green finance is emerging as an international priority for every economy.

Keywords: Green finance, sustainable development, economic growth, green initiatives and green policies

Introduction

In the name of development, for the last so many years, civilization have been upgrading their technologies without paying due attention towards our natural resources. Now-a-days, requirements of human race and our planet have become contradictory in nature.

Pollution and over-exploitation of the earth's resources, continuous load of rising population, blind race to increase the numbers of Gross Domestic Product (GDP) and economic growth, destruction of greenery on the cost of industrialization, and so on constitute the modern scenario in almost every country on the globe. But positively, awakened sections of civil society do raise their voices for the conservation of mother earth. Undoubtedly, investment, funds and finance is very much required and play the vital role in the development of economies. Accordingly, the notion of "green finance" has emerged as an innovative and unique phenomenon, over the time.

This article attempts to explain the meaning and highlight the significance of green finance across the globe, to investigate and evaluate the growth and propriety of green finance, especially with Indian perspective, to note down and highlight the major initiatives taken in the related field and to discuss the shortcomings, future prospects and suggestions along with conclusive note.

Conceptual Framework of Green Finance

Definitions and meaning of green finance

On the international platform, there is no accurate and precise definition that is commonly accepted among the experts. The concerned literature contains the few definitions mentioned below:

i. Gao (2009): "Green finance, the term describes a broad range of funding for environment oriented technologies, projects, industries or businesses."

ii. International Finance Corporation, "Green finance is a broad term that can refer to financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable economy. Green finance includes climate finance but is not limited to it. It also refers to a wider range of other environmental objectives, for example, industrial pollution control, water sanitation, or biodiversity protection. Mitigation and adaptation finance is specifically related to climate change related activities. Herein, mitigation financial flows refer to investments in projects and programmes that contribute to reducing or avoiding greenhouse gas emissions whereas adaptation financial flows refer to investments that contribute to reducing the vulnerability of goods and persons to the effects of climate change" (IFC, 2013).

iii. Pricewaterhouse Coopers Consultants, "for the banking sector, green finance is defined as financial products and services, under the consideration of environmental factors throughout the lending decisions making, ex-post monitoring and risk management processes, provided to promote environmentally responsible investments and stimulate low-carbon technologies, projects, industries and businesses" (PWC, 2013).

iv. Lindenberg (2014) mentioned, "Green finance comprises

- the financing of public and private green investments (including preparatory and capital costs) in the areas of environmental goods and services, such as water management or protection of biodiversity and landscapes, and prevention, minimization and compensation of damages to the environment and to the climate, such as energy efficiency or dams,
- the financing of public policies , including operational costs, that encourage the implementation of environmental policies and environmental damage mitigation or adaptation projects and initiatives, for example, feed in tariffs for renewable energies,
- components of the financial system that deal specifically with green investments, such as the Green Climate Fund or financial instruments for green investments, for example green bonds and structured green funds, including their specific legal, economic and institutional framework conditions."

Dimensions of green finance

Hee (2010) explained, "Dimensions of green finance consist of

- financing green enterprises and technologies
- development of green financial products and green investors
- consideration of environmental risks in lending decisions
- efficient operation of emission trading market."

These dimensions have a great impact on financial industry, environmental improvement and economic growth.

Components of green finance

Besides this, experts opined, "the components of green finance have four categories

i. Retail finance – energy efficiency loans, green loans, green credit cards, green micro finance, etc.
ii. Asset management – green bonds, eco fund, natural disaster bonds, environmental impact bonds, social impact bonds, etc.
iii. Corporate / Investment finance – renewable energy finance, green securitization, climate resilient infrastructure finance, green venture capital fund, green equity, carbon financing, sustainable agriculture finance, biodiversity conservation finance, carbon credits, etc.
iv. Insurance – green insurance, carbon insurance, auto insurance, green projects insurance, etc." (Hohne et al., 2011).

Green Finance Initiatives in the World

- Circular Carbon Economy (CCE): In 2008, for the first time agenda was set in G20 summit. The issue came to light with attention to deal with harmful emissions. Besides this, various non-financial and financial programmes have been launched for environment protection and conservation.
- United Nation's Environment Programme (UNEP): Under the aegis of UN. For implementation of green finance among member countries 'Statement of Commitment by Financial Institutions on Sustainable Development' was started in 2011. Furthermore, Sustainable Stock Exchange was also set up (Ghosh et al., 2021), "it recommends the signatory countries' stock exchanges to come up with stock prices indices that track the stock performance of a set of companies operating in these countries, which are the leaders in recognizing the Environmental, Social and Governance (ESG) principles into their financing aspects. These indices are aimed at guiding investors who are interested in investing in green activities." In accordance, in India, National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) are part of this programme and they have been publishing and issuing ESG data indices and reports separately.
- The central bank of Bangladesh, Bangladesh Bank, mandated the reporting of various activities under Corporate Social Responsibilities (CSR) head for their commercial banks in the year 2008. In addition, "systematic environmental risk

analysis, as part of the credit appraisal, also has been made compulsory by the banks in 2011 extending it to the extension of the norms applicability on Non-Banking Financial Institutions (NBFIs) in 2013" (Umar et al., 2020). In the year 2017 the assessment of social risks was included too to be reported as a part of uniform risk reporting format drafted for the banks.

- France, in 2015, passed a law, namely 'The Energy Transition for Green Growth Law', "making the asset owners and managers responsible to report on how physical and transition risks impact, resulting from their activities and assets, the environmental status. It was aimed with launching of this policy that it would be helpful in linking disclosures to the broader efforts in order to decarbonise the energy sector" (Ghosh et al., 2020).
- United States Agency and Asian Development Bank provide bond guarantees and partial credit facilities to their partner banks and countries for green finance.
- According to Mathews (2013), "in 2006, China initiated the credit restrictions to the companies on the basis of environmental compliances. In 2010, the policy of differential reserve requirement was implemented in Lebanon for the commercial banks, wherein the banks having the larger share of green projects in the loan portfolio were required to hold lesser amount of reserves."
- Kuropka and Korzeniowski (2013) noted, "Brazil, in 2011, mandated the fulfilment of environmental considerations with the banks' Internal Process of Capital Adequacy Assessment through considering their lending exposure to the projects impacting the environmental and social hazards and risks. Furthermore, Brazil developed a system in 2017, wherein the banks are required to outline their risk assessment methods along with their exposure to environmental and social damages into their annual reports. Moreover, the establishment of various green financial institutions has been witnessed in Brazil on continuous basis."
- Similarly, Green Investment Bank was established in 2012 in the United Kingdom (UK) that is fully owned by the UK government.

Policies and Projects on Green Finance in India

Since 2007, the era of putting thrust on green finance was started. Reserve Bank of India (RBI), in December, 2007, passed a notification on "Corporate Social Responsibility, Sustainable Development and Non-financial Reporting – Role of

Banks" (RBI, 2019). It was noted, "in this attempt the importance of climate change and global warming in the context of sustainable development was underlined for the first time. Consequently, the National Action Plan on Climate Change (NAPCC) was formulated in 2008 with a vision to highlight the broad policy framework for justifying the impact of climate change. The Climate Change Finance Unit (CCFU) was created in 2011 within the Ministry of Finance to coordinate with the various institutions working particularly for the green finance in India" (RBI, 2019). Most importantly in 2012 as a major strategic move, the disclosure of sustainability requirements became mandatory. Furthermore, "Security and Exchange Board of India (SEBI) bounded the top 100 listed companies based on market capitalisation at BSE and NSE, to publish business responsibility reports annually since 2012 and it keeps it revising it from time to time. SEBI also issued guidelines, in May 2017, for green bond issuance describing the disclosure requirements. Moreover, the Ministry of Corporate Affairs imposed compulsory reporting of the improvements regarding Corporate Social Responsibilities (CSR) under the Companies Act, 2013" (Ghosh et al., 2021).

Along with the initiatives mentioned above, there are several financial and fiscal incentives currently operative in India. "These incentives have been made in accordance with India's commitments under the Paris Agreement 2015 to lessen the greenhouse gas emission intensity by 33 to 35 per cent and to attain 40 per cent of installed electric power capacity from non-fossil resources by 2030. At present, the Government of India offers subsidy of 30 per cent of the installation cost solar panels installed on rooftop of the residential and institutional buildings" (Ghosh et al., 2020). Additionally, the central government launched the two consecutive phases in 2015 and 2019 of the scheme 'Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME)' particularly for enhancing the smooth credit flows, decreasing the vehicles' purchasing price and creating and establishing the infrastructure for promoting the manufacturing and sale of green automobiles in our country. Besides this, for the purpose of developing excitement and motivation among the public favouring the e-vehicles, several banks have introduced the green car loans with attractions of lower interest rate and longer repayment option. At times, "RBI is undertaking the activities to sensitise the general public, investors and banks regarding the opportunities, need and challenges regarding green finance" (RBI, 2019).

A government-backed agency, Indian Renewable Energy Development Agency (IREDA), has been set up for encouraging clean energy investments. Further, "in May

2016, it was declared as India's first Green bank. Similarly, India Infrastructure Finance Corporation Limited (IIFCL) also initiated a dedicated scheme for financing the feasible green infrastructure projects in India" (Ghosh et al., 2020).

On the front of green lending, "in the year 2015 RBI has extended its coverage to small renewable energy sector under the Priority Sector Lending (PSL) scheme in the form of green finance initiative" (RBI, 2019).

Likewise, green bonds also entered into the picture. "Green bonds are the bonds that are issued by any corporate unit, sovereign entity, inter-governmental groups and their proceeds are invested and utilised for funding environmentally sustainable projects" (Hohne et al., 2011). The data available from Bloomberg depict that since the inception of green bonds in India (2015) the journey is successfully continuing and rising as compared to many developed and emerging economies. In general, the tenure of green bonds ranges from five to less than ten years. Additionally, Indian Railway Finance Corporation Ltd. (2017), Rural Electrification Corporation Limited (2017) and Indian Renewable Energy Development Agency Ltd. (2017, 2019) have issued these bonds containing the maturity time 10 years and above. Another feature of green bonds in India is that approximately 76 per cent of these bonds are denominated in US dollar.

Critical Analysis of Initiatives on Green Finance

As a positive scenario we can witness the rising level of general public awareness in our country. The initiatives, policies, schemes and institutions established and started either in the public or private sector have promoted the discussions and activities among the various social and organisational groups.

However, the negative scenario contains ambiguities and plurality of green lending or green loan definitions, high borrowing costs, wrong and manipulated claims regarding environmental compliances, complicated legal procedures and huge amount of paper work and formalities, lack of proper management information system (MIS) that creates information gaps. Additionally, "in India there are various reporting mechanisms, like perform-achieve trade (PAT) and renewable purchase obligations (RPO), for monitoring green house gas emissions, but it lacks a national measurement, verification and reporting platform particularly to track the growth and progress of climate finance in the country" (Ghosh et al., 2021). Further, scaling up green finance, addressing green washing concerns, improving data quality and transparency in reporting, enhancing regulatory frameworks, managing climate risks and liabilities, establishing balance between economic and environmental goals, ensuring inclusivity and social equity are some of the major concerns to be looked into deeper. Not only this, our country is benefitted by having large size of domestic market due to a big number of population, but the penetration of green products and instruments has been remain smaller so far.

Future Prospects, Suggestions and Conclusion

Studies have noted and observed (RBI, 2019) that there are vast number of opportunities that remain to be tapped in Indian context like establishing more coordination between environmental policies and green investment and initiatives should be taken to remove hurdles and frictions in the existing policy framework at both state and national levels. Adding to this, green finance consists of vast range of potential opportunities, such as, in the field of renewable energy, sustainable transportation, climate resilient and environment friendly infrastructure, green buildings and urban development, eco-tourism, sustainable forestry and organic agricultural practices, etc. As a result of this, some emerging trends are becoming visible, like, sukuk, green bonds, green fintech, renewable energy finance, circular economy funds, etc.

"Policy measures for developing and strengthening of corporate bond market, making consistency in corporate reporting, removing ambiguities and increasing clarity and standardization of green investment terminology, and lessening information asymmetry between recipients and investors may be some of the steps for addressing the shortcomings of market and framework of green finance in India" (Ghosh et al., 2020). Furthermore, some other approaches can also be adopted in this regard, such as expanding and promoting 'green buildings' that are specially designed to reduce the consumption of energy and water, improve solid waste management system and provide better and healthier living spaces. Distribution and production of renewable and non-conventional energy should be made profitable, particularly for smaller business units. In addition to this, the government at all levels should draft feasible and suitable fiscal incentives policies for appreciating the green projects in our country.

Conclusively, green finance is rapidly emerging as a priority section for private and public sectors as well. In this attempt, the introductory and theoretical background of green finance have been discussed along with policy and regulatory framework at the national and international levels, propriety of green finance in Indian context has been critically examined and evaluated and some suggestions in this regard have been presented by the author. Review of existing literature and analysis of existing scenario reveal some sort of improvement in green financing options and public awareness in recent years. Improved management information system (MIS) and better coordination among the government and stakeholders may lead towards long term sustainable economic growth of the country. Operationally sound and financially feasible policies and strategies can pave the way for prospective and sustainable economic benefits for India.

References

Gao, V. Z. (2009). Green finance for green industry and green economy. www.unido.org/fileadmin/user_media/UNIDO_Header_Site/Subsites/Green_Industry_Asia_conference_Maanila/Gao_pres.pdf (accessed on 16th October, 2024)

Ghosh, B., Kenourgios, D., Francis, A., & Bhattacharya, S. (2020). How well the log periodic power law works in an emerging stock market? *Applied Economic Letters, 28*(14), 1174-1180 https://doi.org/10.1080/13504851.2020.1803484

Ghosh, S., Nath, S., & Ranjan, A. (2021). Green finance in India: Progress and challenges. RBI Bulletin. https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/04AR_2101202185D9B6905ADD465CB7DD280B88266F77.PDF (accessed on 16th October, 2024)

Hee, J. N. (2010). Financial strategy to accelerate innovation for green growth (Seoul, Korean Capital Market Institute, 2010) www.oecd.org/dataoecd/4/4/45008807.pdf (accessed on 16th October, 2024)

Hohne, N., Khosla, S., Fekete, H., & Gilbert, A. (2011). Mapping of green finance. Lecture delivered by IDFC Members. Ecofys. https://www.idfc.org/wp-content/uploads/2019/03/idfc_green_finance_mapping_report_2012_06-14-12.pdf (accessed on 18th October, 2024)

International Finance Corporation. (IFC). (2013). Mobilizing public and private funds for inclusive green growth investment in developing countries – An expanded stocktaking report prepared for the G20 development working group, IFC Climate

Business Department; and Spratt and Griffith-Jones. (2013). Mobilizing investment for inclusive green growth in low-income countries, GIZ

Kuropa, I., & Korzeniowski, P. (2013). Forecasting the critical points of stock markets' indices using log-periodic power law. *Ekonometria, 1*, 100-110

Lindenberg, N. (2014). Definition of green finance, d.i.e. German Development Institute www.die-gdi.de (accessed on 16th October, 2024)

Mathews, J. A. (2013). The renewable energies technology surge: A new techno-economic paradigm in the making? *Futures, 46*, 10-22 https://doi.org/10.1016/j.futures.2012.12.001

Pricewaterhouse Coopers Consultants. (PWC). (2013). Exploring green finance incentives in China, PWC

Reserve Bank of India (RBI). (2019). Opportunities and challenges of green finance, Report on Trend and Progress of Banking in India (2018-19), pp. 17-18

Umar, Z., Kenourgios, D., Papathanasiou, S. (2020). The static and dynamic connectedness of environmental, social, and governance investments: International evidence. *Economic Modelling, 93*, 112-124 https://doi.org/10.1016/j.econmod.2020.08.007