



Vidhyayana - ISSN 2454-8596

An International Multidisciplinary Peer-Reviewed E-Journal

www.vidhyayanaejournal.org

Indexed in: ROAD & Google Scholar

Recent trends of Green Finance in India

Name of 1st Author:

Dr. Kairvi Rathod

Assistant Professor, Department of Management, Faculty of Business & Commerce,

Atmiya University, Rajkot.

Name of 2nd Author:

Rinki Thobhani

Student of IMBA Sem 6, Department of Management, Faculty of Business & Commerce,

Atmiya University, Rajkot.



Abstract:

Green finance is the flow of finance towards sustainable development activities. It involves increase in financial flow from private and public sector organizations for activities that provide dual benefits of economic as well environmental nature. The various sources of green finance are green bonds, green banks, etc.

Keywords: Green finance, sustainable development, green bonds

Introduction:

Green Finance is the subset of Sustainable Finance. It refers to the increase in financial flows from private and public sectors to environment friendly development priorities and aiding in sustainable development. Though there are many challenges in its path, it's very important to work on it for the economy as it aids in achieving a balanced goal of environmental benefits along with economic growth. There are various sources of green finance called green finance instruments such as green bonds, green banks, carbon financing, etc. India is still in an emerging state. In this paper, we will see the recent trends and the future prospects of development of green finance in India.

Objectives of the study:

- The purpose of the study is to identify the recent trends of green finance in India and make people aware about it.
- To study the basic concept of green finance by taking a look on recent trends and available sources of green finance in India.

What is green finance?

Green finance also called as 'environmental finance' refers to the course of financial flow towards green activities. It refers to the increment in money flow towards sustainable activities that helps to achieve dual goal policy: economic as well as environment goal. Though green finance and sustainable finance are similar, they are different.



Why is green finance important in India?

Green finance is central to the overall discussion on sustainability of economic growth. Rapid economic development is often achieved at the cost of environment. Dwindling natural resources, degraded environment and rampant pollution are hazardous to public health and pose challenges to the sustainable economic growth.

Research Methodology:

The study is based on the secondary data available and collected from various reports, articles, and other references and academic databases available on Google and internet explorer.

Review of literature:

1. **Parvadavardini Soundarrajan, Nagarajan Vivek (2016)** study titled 'Green Finance for sustainable green economic growth in India' curtains down the meaning, work, strengths and challenges of green finance. Green finance stated the infrastructure of green growth- finally green growth is an orchestra composed of the technical developed company, the financial company, the government and the consumer.
2. **Sharif Mohd. and Vijay Kumar Kaushal (2018)** study titled 'Green Finance; A step towards sustainable development' states that India has a great potential to create green infrastructure needed for green finance by overcoming the barriers and creating awareness among the corporate citizens for more sustainable development. The study was based on the main objective to build up green financing at grass root levels of the nation. The research included gatherings from secondary sources available. The study concluded that in sustainable and financial development, green finance became a global concern.
3. **Babita Jha, Priti Bakhshi (2019)** study brings down the focus on that India should not only focus on domestic investors. The green finance instruments should be designed such that it should attract both local and international investors. The objective of the study was:
 - To analyze trends in green finance in India
 - To understand various green finance initiatives taken by the public and private sector organizations / banks in India.



- The study was based on secondary data taken from various financial reports published by the government and private sectors.
4. **P. Dhoot and S. Awate (2021)** study titled ‘Green Financing: An emerging form of sustainable development in India’ was based on descriptive research. Its objectives were to study the kind of green finance products and services offered by the Indian markets and to analyze the trends in green finance in India. Data for the study was collected from various reports and financial institution websites. It stated that the Indian green finance market is in an emerging state and it has not been able to attract an ample number of investors. It curtains down that current market practices, regulations monitoring the market are becoming a great hurdle in the success of financial instruments.
5. **Gincy Charles, Bijin Philip (2020)** study stated the progress on various aspects of green finance with the objectives of:
- To study recent trends and future scopes in green finance in India
 - To analyze challenges and opportunities of green finance in India
 - To study various investment avenues in green finance in India.

The study concluded that to shape economic development in a sustainable manner, India needs to come up with green financial strategies and products.

6. **Sumedha Bhatnagar, Dipti Sharma (2022)** study stated that Green financing (GF) is an approach through which countries can encourage economic growth in convergence with environment supportive activities through innovative development of the financial industry. Green financing (GF) is an approach through which countries can encourage economic growth in convergence with environment supportive activities through innovative development of the financial industry. The results obtained from the analysis also suggest that the development of GF requires an integrative approach of the government, financial system, policymakers, private sector and non-governmental organizations for market diversification and risk mitigation.



7. Prerana Sharma, Arup Roy (2021) study showed the present scenario of green financial instruments in India. The paper highlights the scope for introducing additional green financial instruments in India. Results reveal that Indian banks are active issuers of green financial instruments. Stock exchanges in India are also seen implementing green finance by modifying their operations and by abiding to International Sustainable Finance Initiatives.

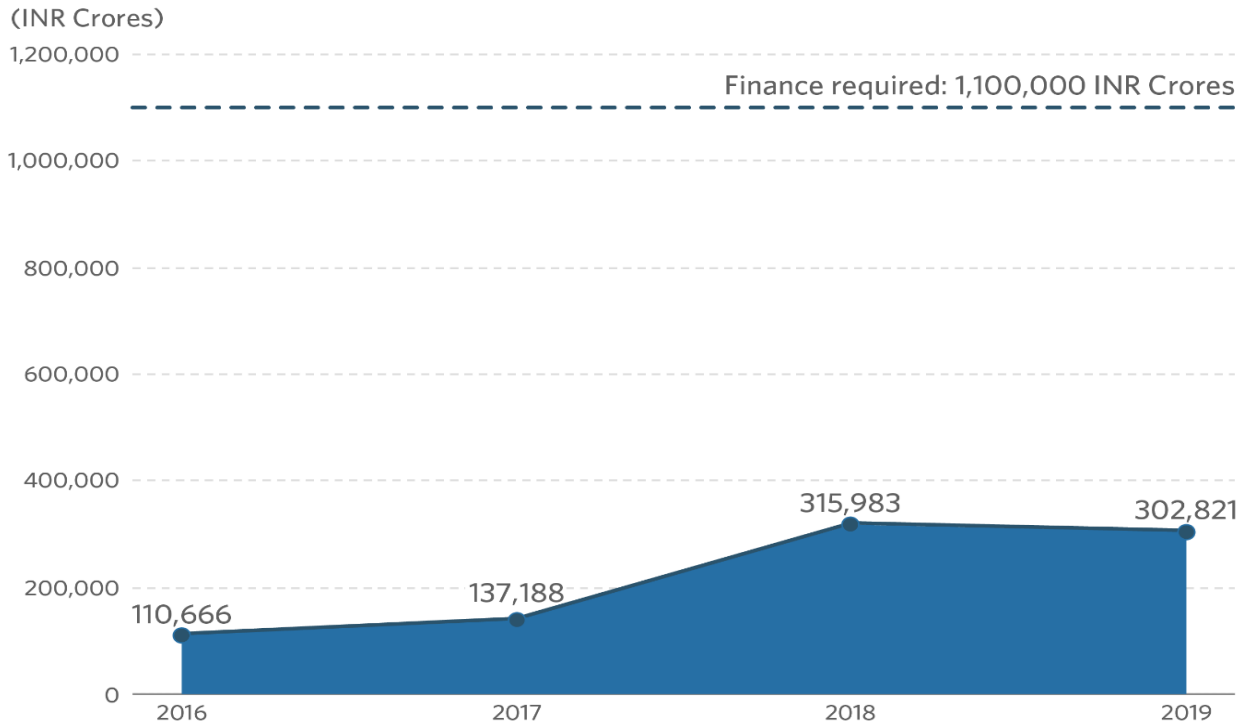
Recent trends of green finance in India:

Though India is making valuable efforts in green finance, still it is not up to the mark. The investments that have great positive impact on the environment or reduce the risk of climate change along with the economic benefits are the need of the hour. Due to large and the increasing population in India, India has to allocate large budget, international finance, and green private investments for achieving green objective i.e., to reduce climate change and fund its green transition. As per the Environment ministry in order to meet the environmental change, India will require USD 2.5 trillion. Out of this, USD 280 billion is required in the following five years (2021-2026) for green foundation alone.

Green finance flows in India are falling far short of the country's current needs. By conservative estimates, the current tracked green finance in India represents less than 25% of the total requirement across sectors just to meet NDCs. In 2019/ 2020, tracked green finance was INR 309 thousand crores (~USD 44 billion) per annum, approximately a fourth of India's needs.



Tracked green finance investments and the estimated finance required to meet current NDCs:



Source- <https://www.climatepolicyinitiative.org/publication/landscape-of-green-finance-in-india-2022/>

As per the report, flow of green finance has increased by 150% from 2017-18 to 2019-20. Basically, the increase was recorded from public sector by 179% and private sector by 130%.

Recently, one of the main barriers in excess of green finance in India is known to be the lack of a green taxonomy. Due to the lack of green taxonomy, cost of green bonds seems to be high wherein their interest rate seems to be lower from investors. However, overall finance flows to mitigation sectors have increased, most of the flows remain concentrated in select sectors that have more market maturity. Additional policy support and investment mobilization are required to mobilize earlier-maturity sectors such as decentralized energy sources and EVs.

In India, residential and commercial buildings utilize more than 37 percent of the country's electrical energy, and certified green buildings save up to 20 percent to 30 percent on energy, and 30 percent to 50 percent on water. Hence, both the need, and the scope of green building construction in India are promising. As per Sandeep Bhattacharya of the Climate Bonds Initiative, "The end objective would be that nearly all financial

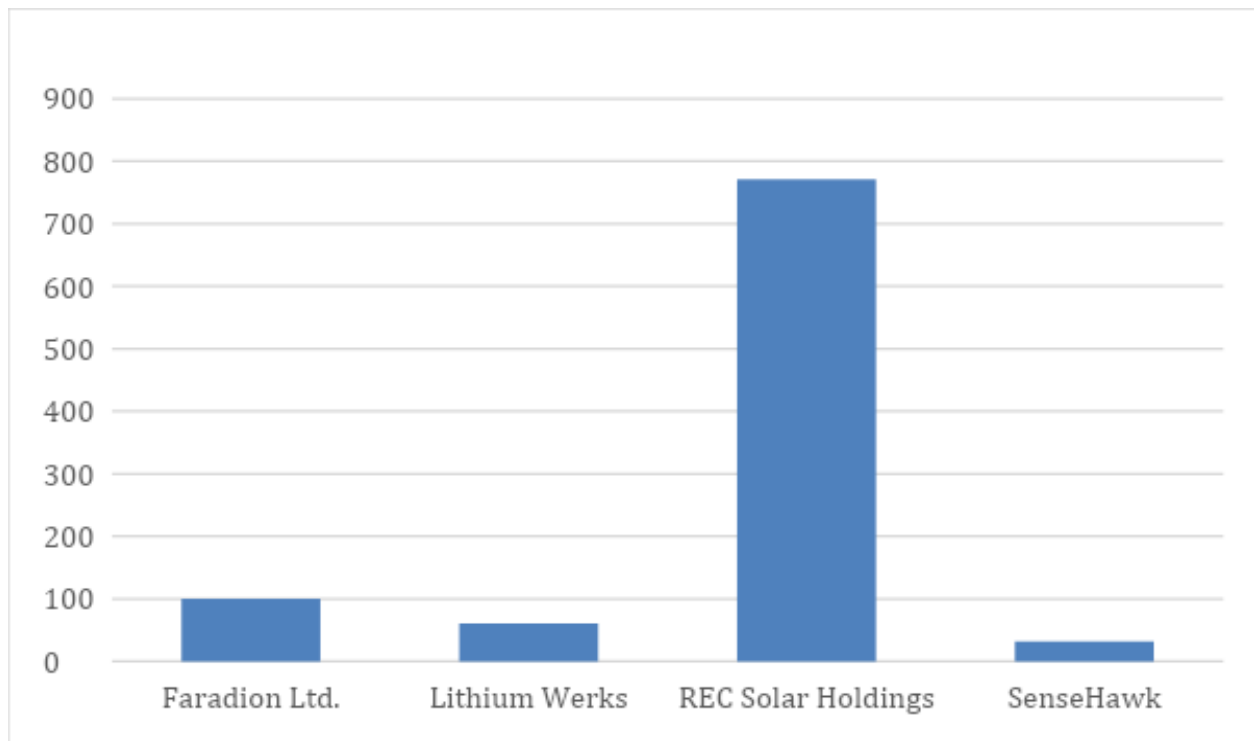


transactions are green and thus ‘green’ from green finance drops off.”

Reliance Industries & Green finance:

RIL has a goal to become a net carbon zero by 2035. In 2021, in order to finance its largest overseas purchase, REC Solar Holdings in Norway, RIL made its green finance debut by raising \$736 million **green loan**. Along with this, RIL has purchased stake in in Mumbai based Sterling & Wilson Solar. In order to achieve the target of becoming a net carbon zero by 2035, RIL is also making investment over USD 10 billion (Rs. 75000 crores) in building the ecosystem for **New Energy and New Materials in India**. The New Energy business was expected to be an optimal mix of clean and affordable energy solutions that are reliable such as hydrogen, wind, solar, fuel cells and batteries.

Through its subsidiary, in order to attain sustainability and promote green activities, Reliance New Energy Ltd. Made following investments and acquisitions:



RIL has invested Rs. 150 billion in partnerships and value chain with reference to its new renewable energy business. RIL also targeted of building solar capacity of at least 100 GW by 2030.



Adani Green Energy Ltd. & Green finance:

Adani group made a green financing framework in August 2021. This framework was valid for all the green financial instruments used by the group that are **green bonds, loans and other financial instruments**.

These instruments are meant by the group to be invested in renewable energy projects as follows:

- 1) Solar projects or assets
- 2) Wind projects or assets
- 3) Hybrid projects or assets

Yes Bank & Green finance:

Yes, bank has identified **Green Bonds** as the key green financing instrument for improvising India to be a green nation. In February 2015, Yes Bank was the first one in India to issue green bonds. Since then, it has issued 3 green bonds raising \$260 million i.e., Rs. 1645 crores. The purpose of this issuance of green bonds was to invest in India's renewable energy sector. The green projects that received finance through the issuance of these green bonds expected to generate nearly 2.35 million MWh of electricity.

In FY 2021/2022, it was ready with Rs. 1769 crores of finance renewable energy projects aggregated to 562 MW.

Source of Green Finance:

1. Green Bonds – It is a green fixed instrument that is raised for green or say, sustainable activity. Sometimes, they are also referred as “climate bonds”. They may carry some tax incentives with them such as tax exemptions, tax credits, etc. The major issuer of green bonds is World Bank and it issued nearly \$ 14.4 billion of bonds through 2008-2020.
2. Sustainable equity – Homeowners and businesses can take the benefit of this type financing. Solar power is the most common type of example for this. By setting up solar panels on your home, you can receive tax credits or cash payments in return for the power generated by your solar panels. The benefit of this option is that it is stable and guaranteed over a 20-year timescale.



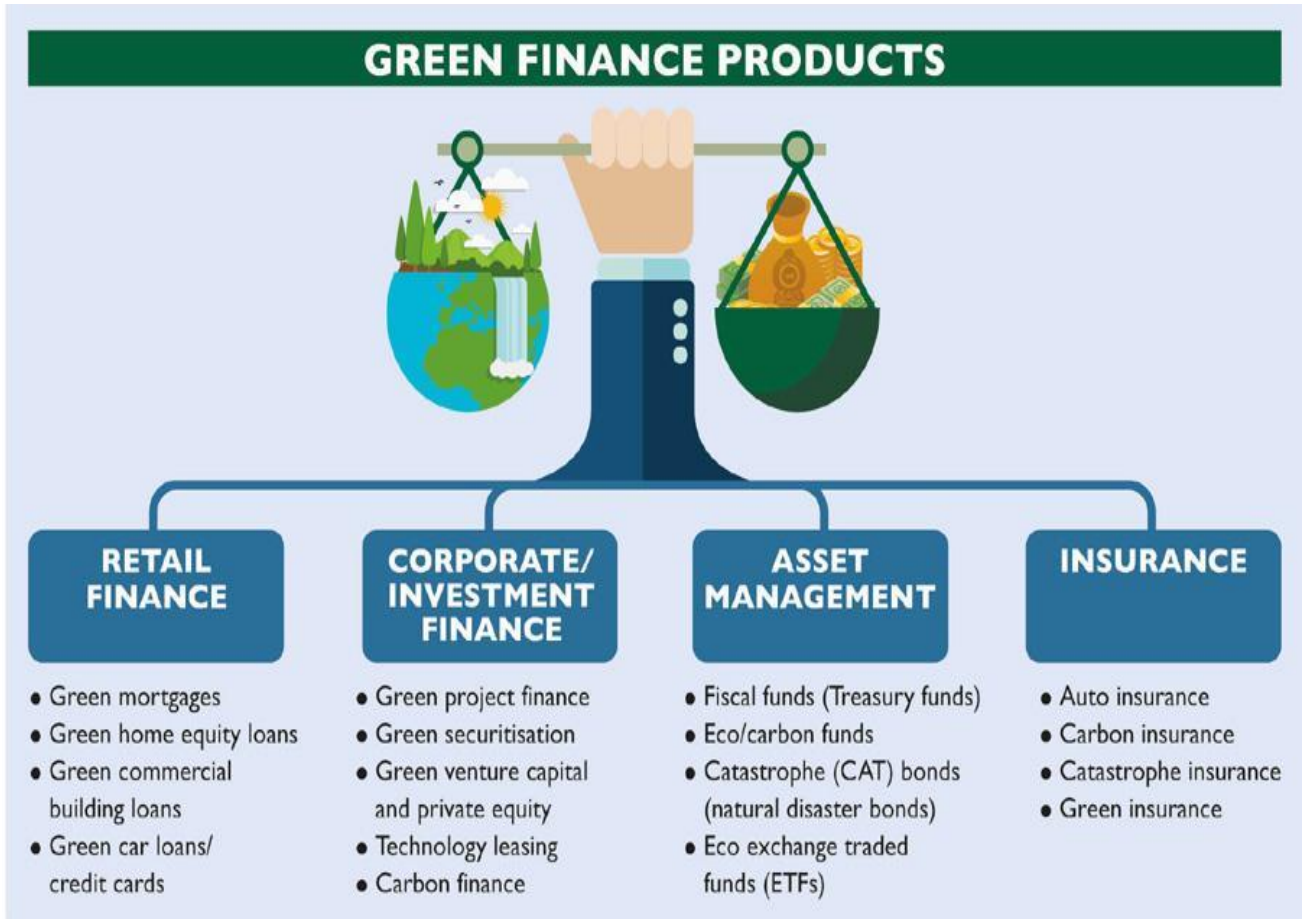
3. Green Credit Cards - Waste Management powers its green finance through green credit cards, which earn additional rewards for green financing for every dollar spent with Waste Management. If you spend a decent amount of capital on green projects each month, this option could be worth looking into.
4. Solar Investment Trusts (SEITs) – It's an instrument that is designed for aiding small scale rooftop solar developers to raise capital at lower cost. It is quite similar to mutual funds.
5. Sustainable Energy Bonds (SEBs) – These are the green finance instruments that can aid in transforming the economy to sustainable by offering debt exposure, sufficient returns, and standardized measures for impact investors.

Limitations of the study:

- The study is limited to the aspect in India only
- The study cannot be applied to global levels
- Time available for the study was limited
- Lack of awareness among population regarding green finance

What is the scope of green financing?

The scope of green finance is related to issuing green finance instruments for turning the economy into a sustainable one. The scope involves issuance of green bonds, sustainable equity and other sources of green finance for transforming economy to a green economy that will help to achieve the various goals of sustainable development.



MEDIA SERVICES RESEARCH (IFC/UNESCAP/HSBC/CLIMATE BONDS INITIATIVE)/INFOGRAPHICS BY NISANSALA PERERA

Conclusion:

Green finance is the free flow of finance towards sustainable activities. It is the base for green economy. The flow of green finance in India is quite noticeable but it's not yet sufficient. In order to achieve the target of NDCs, there is a need of hour to increase the green finance flow. There are various available sources of green finance in India, just there is a need to spread more awareness among the citizens and government need to take steps for eliminating the biggest recent barrier i.e., lack of green taxonomy. Though there is a good contribution of private sector in green finance flows, it needs to be improved to achieve the targets.



Vidhyayana - ISSN 2454-8596

An International Multidisciplinary Peer-Reviewed E-Journal

www.vidhyayanaejournal.org

Indexed in: ROAD & Google Scholar

Reference:

- Parvadavardini Soundarrajan, Nagarajan Vivek (2016): Green Finance for sustainable green economic growth in India, *Agric. Econ - Czech*, 62 2016(1): 35-44, 10.17221/174/2014-AGRICECON
- Sharif Mohd. and Vijay Kumar Kaushal (2018): Green Finance; A step towards sustainable development, *MUDRA- Journal of Finance and Accounting*, Volume 5, Issue 1, 10.17492/mudra.v5i01.13036
- Babita Jha, Priti Bakhshi (2019): Green Finance: Fostering Sustainable Development in India, *International Journal of Recent Technology and Engineering*, Volume 8, Issue 4, 10.35940/ijrte.D8172.118419
- Gincy Charles, Bijin Philip (2020): Green Finance: Recent Drifts, Confrontation and Prospect Opportunities for Sustainable Development in India, *Mukt Shabd Journal*, Volume ix, Issue iv, (1854-1865)
- P. Dhoot and S. Awate (2021): Green Financing: An emerging form of sustainable development in India, *Vidyabharati International Interdisciplinary Research Journal* 12(2) 698-712
- Prerana Sharma, Arup Roy (2021): Green Financial Instruments in India: a study on its current status and future prospects, *International Journal of Business Innovation and Research*, Volume 26, No.,2, 10.1504/IJBIR.2021.118445
- Sumedha Bhatnagar, Dipti Sharma (2022): Green Investment in Renewable Energy Projects: A Path to Cleaner Revival in Post-pandemic India, *Sage Journal*, 10.1177/09722629221132066
- Neha Khanna, Dhruva Purkayastha, Shreyans Jain (2022), *Climate Policy Initiative*.