

# GREEN BANKING AND FINANCING IN INDIA

Pinki Devi\*

*Open Researcher, Department of Commerce  
Jind, Haryana, India*

**Email ID:** pinkisihag10@gmail.com

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## Abstract

*In response to the pressing demand for financial resources while also addressing environmental concerns, the Green Banking and Finance movement was born. In the long run, green banking and green finance will benefit all sectors of the economy. "Green Finance" refers to the "organised financial activity that's been designed to deliver a better environmental consequence," according to the Economic World Forum. Encouraging environmentally responsible behaviours is a part of this. These include online banking, paperless transactions, CDs and web accounts in money market, green loans and green credit cards; or finding the bank that is playing the most active role in supporting local green initiatives.. Today, green banking is a significant part of the financial industry. An inclusive approach to banking is recommended in order to secure significant economic growth as well as advancement in environmentally-friendly practises. This article focuses on the many Green Banking initiatives undertaken by Indian commercial banks and explains the rationale behind the adoption of this policy. Commercial banks' green banking policies are also examined and compared in this article. On the subject of sustainable development, this paper examines Indian banks' recent efforts and the obstacles they encounter as they execute them.*

*Therefore, we propose various governmental measures and actions to encourage green banking and finance in India.*

## Paper Identification



\*Corresponding Author

## INTRODUCTION

Response to present rhetoric on progress that over-exploits the natural environment for economic gain led to the new pattern of sustainability. By allowing markets to operate within the correct structure of cost-effective rules and economic tools, sustainable development can be achieved. Financial institutions, such as the banking sector, have a significant impact on overall industrial activity and economic growth. It is the financial sector that has a direct impact on the quality and quantity of growth and development in the economy. As a result, this sector is a major source of commercial project financing. The banking sector has a critical role to play in supporting ecologically and socially sustainable investing. "Our Common Future" was first presented by the Brundtland Commission in

the 1987 publication of their report "Our Common Future" (NSDS, 2021). Combined with technology, green banking is a new approach to banking that has the potential to revolutionise the industry. The Economic World Forum defines "Green Finance" as "any structured financial activity that has been designed to promote a better environmental outcome.". The promotional efforts in this banking provide environmental-friendly practises, as it has transformed the way customers use banking services and has influenced the extent of support for the local green initiatives. Today, the term "Green Banking" has become a catchphrase in the banking industry and is adopted by all banks that consider social and environmental/ecological considerations with the goal of protecting the environment and preserving natural resources. Ethical and sustainable financial practises are frequently referred to as green banking. Climate change poses a serious threat to India. Water pollution, air pollution, disaster risk, deforestation, and loss of biodiversity are just few of the environmental worsening challenges it is dealing with. The Indian banking industry may play a significant role in all of these.

### OBJECTIVES

- To understand the strategies developed and steps taken by Indian banks in context of Green Finance.
- To locate the effect of COVID this forced the banks to go paperless.
- To detect the challenges faced in the implementation process by banks.
- Future prospects and initiatives taken by the commercial banks.

### METHODOLOGY

This present study is based on secondary data with an enormous literature survey along with scanning the reports of central banks and other institutions engaged in environmental issues. The secondary data have been

collected from commercial banks websites, RBI websites, literature reviews and so on.

### Initiatives for the Promotion

1. SBI launched Green Car Loan on the occasion of World Earth Day on 22 April, 2019. This scheme is launched for the purpose to attract the people to go for electric vehicles. SBI offered a lower interest rate of 20 bps with waiver of processing fees in the first six months of its launch.
2. HSBC India launched 'Green Deposit Programme' with the purpose to finance eco-friendly projects. Under this initiative, banks will finance the projects which are directly or indirectly linked with environment protection, for example, clean transportation, renewable energy, pollution prevention and control, green building and others.
3. DBS Bank issues maiden green loans in India. It is the first two green loans issued in India by a Singapore bank.
4. National Scheduled Castes and Development Corporation (NSFDC) started a green business scheme which makes available finance upto INR 30 lakh on lower interest for compressed air vehicle, Battery electric vehicle (E-rickshaw), poly house and solar energy gadgets.
5. SIDBI has introduced a new scheme named as Sustainable Finance Scheme for funding sustainable development projects that contribute energy efficiency and cleaner production which are not covered under the international or bilateral lines of credit. The objective of financing schemes is to offer financial products that enable climate and environment friendly investments.
6. IREDA extends loans to the renewable energy project developers which can be used for further business expansion in energy efficiency sectors and it sanctions a loan amount against securitization of future cash flows of existing renewable energy projects. Proposed loan scheme will be extended to both IREDA's existing borrowers as well as for applicants

other than IREDA's existing borrowers, for expansion of their business in renewable energy and energy efficiency sectors.

7. Green bonds are innovative market-based financing instruments (GIZ 2015). They are fixed-income financial instruments used for raising funds for projects that are environmentally beneficial. India has become the second-largest market globally for green bonds.

#### Issuance of Green Bonds by Top Countries

Countries	Amount (\$ Million)
China	34338.2
India	3195.6
Chile	2924.9
Poland	2478.2
Philippines	1498
UAE	1270
Brazil	1258.8
Czech Republic	832.7
Indonesia	750.0

Source- Emerging Market Green Bond Report 2019

8. Crowd funding has emerged as a new source of green financing in countries like North America and Western Europe and has experienced marvellous popularity. To reach the desired scale, this kind of funding mobilizes funds from a large number of small private investors. Hence, it is more of a decentralized funding mechanism to mobilize funds for renewable energy projects. It becomes possible due to extensive

use of information and communication technology. Sun funders is one of the recent examples. It has also been commissioned in the rural electrification space in India.

9. Green Credit Card users are rewarded with points that are converted into cash or can be donated to environmental funds when they buy eco-friendly products, use public transport, make paperless transactions and consume less electricity, water, and gas.

10. Online banking is the mounting concept in young and corporate India and also termed as internet banking or web banking. It is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions via the internet. Keeping in mind the concept of green banking a lot of initiatives have been taken to go with technology and try to reduce dependence on physical infrastructure. Coronavirus pandemic has also transformed the scenario of Online Banking between 2017-18 and 2019-20, digital payment volumes have grown at a compounded annual growth rate of 55.1 percent - from 14.5 billion transactions in the year to March 2018 to 34.35 billion transactions in the year to March 2020. To cap it, internet banking is an easy and effective way to manage one's money and there are umpteen advantages of online banking as there will be no need to keep currency notes. In addition to advantages it is more environment friendly, quick and easy way for transactions and offers a secure system of payment.

Payment System Indicators – Annual Turnover (April-March)						
Item	Volume (Lakh)			Value (₹ Crore)		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20

SIM	10,0	17,5	25,7	8,92,4	15,90,	23,37,
PS	98	29	92	98	257	541
NEF	19,4	23,1	27,4	1,72,2	2,27,9	2,29,4
T	64	89	45	2,852	3,608	5,580
UPI	9,15	53,9	1,25	1,09,8	8,76,9	21,31,
	2	15	,186	32	71	730
Card	47,4	61,7	73,0	9,19,0	11,96,	15,35,
Pay	86	69	12	35	888	765
ment						
s						
<b>Tota</b>	<b>1,45</b>	<b>2,34</b>	<b>3,43</b>	<b>13,69,</b>	<b>16,38,</b>	<b>16,23,</b>
<b>l</b>	<b>,902</b>	<b>,339</b>	<b>,455</b>	<b>86,734</b>	<b>52,285</b>	<b>05,934</b>
<b>Digit</b>						
<b>al</b>						
<b>Pay</b>						
<b>ment</b>						
<b>s</b>						

Source- Annual Report of RBI

### OPPORTUNITIES

As per the Economic Survey of 2019-20, India will make an investment of US\$ 1.4 trillion in the infrastructure space by 2024-25. In addition to governmental support, banks can play a crucial role in facilitating investment for green buildings. Financing is a giant hurdle in building green projects, as their initial cost of construction and design is high. Green projects require long-term investment and banks can provide such investment by issuing green bonds to finance the construction of green buildings. In India, banks issue green bonds, for instance, SBI, Yes Bank, Exim Bank, Axis Bank to name a few.

**Finance Required:** India is ranked the fifth most vulnerable nation to the effects of climate change with 2.5- 4.5% of its GDP at risk annually. As a result, India ensured to reduce the carbon intensity of its GDP by 33-35% by 2030 from its 2005 levels but to achieve

this target, India needs to mobilize a total of \$2.5 trillion over 2016-30. The financial sector can play a crucial role in mitigating overarching climate change risks by diverting capital from the carbon-emitting sectors to the carbon-mitigating sectors.

**Electronic Vehicle:** NITI Aayog and Rocky Mountain Institute (RMI) India released a new report 'Mobilising Electric Vehicle Financing in India', which emphasizes the role of finance in the India's transition to electric vehicles (EVs) and analyses that the transition will require a cumulative capital investment of USD 266 billion (Rs 19.7 lakh crore) in EVs, charging infrastructure and batteries over the next decade. The report also pinpoints a market size of USD 50 billion (Rs 3.7 lakh crore) for the financing of EVs in 2030 about 80% of the current size of India's retail vehicle finance industry, worth USD 60 billion (Rs 4.5 lakh crore) today.

India's EV ecosystem has thus extensively focused on overcoming hurdles associated with technological cost, infrastructure availability and consumer behaviour. Financing is the next indispensable barrier that needs to be addressed to accelerate India's electric mobility transition. As of 2020, the flow of finance from the banks and non-banking financial companies is as follows:

- 50% to four-wheeler passenger vehicles
- 40% to commercial vehicles
- 10% to tractors and two-wheelers

**Digital Banking** Financial service technology start-ups sector is an untapped market area in India as 40 percent of the population are currently not connected to banks and 87 percent of payments are made in cash. With mobile usage it is expected to increase in coming years.

**Renewable energy** The Government of India has set targets of 175 GW renewable electricity (RE) capacity by 2022 and 450 GW RE capacity by 2030. These are ambitious targets. January 2020, against a total installed capacity of almost 370 GW of power,

renewable power consisting of solar, wind bio-power and hydro, accounts for only about 86 GW. Clearly the immediate target of achieving 175 GW by 2022 is challenging, leave aside the target for 2030. A target of 100GW over next 2 years will need almost Rs. 350,000 crores of debt and Rs. 120,000 crores of equity. It is unfortunate that commercial banks are reluctant to provide funding for the renewable sector. Most of the funding for the renewable sector comes from Rural Electrification Corporation (REC), Power Finance Corporation (PFC), Indian Renewable Energy Development Agency (IREDA) and a few private sector non-banking finance companies (NBFCs).

**New Delhi:** Renewables in electricity will increase 55-fold for India to achieve net-zero emissions by 2050, according to a report by Council on Energy, Environment and Water (CEEW). India will need to generate at least 83 percent of its electricity from (non-hydro power) renewable energy sources by 2050 to achieve net-zero greenhouse gas emissions by mid-century. This would mean a substantial 55-fold increase in the use of non-hydro renewables in electricity generation within the coming three decades, from only 160 Terawatt-hour (TWh) (10 per cent) in 2019, CEEW said in a statement. Further, to achieve the net-zero target by 2050, the share of electricity in India's industrial energy use must rise three-fold, from 20.3 per cent in 2018 to 70 per cent in 2050, the study - Peaking and Net-Zero for India's Energy Sector CO2 Emissions: An Analytical Exposition - revealed.

**Digitisation** India is digitising rapidly showing the growth at the global level. Between 2014 and 2017, India has grown 90% in terms of digitisation, second only to Indonesia, which revealed the growth of 99%. India is still behind most developed nations like South Korea, Sweden and the UK but its digitisation growth rate creates a \$435 billion opportunity by 2025, said a McKinsey's Digital India report. In the month of complete lockdown, April 2020, there was a surge in digital payments and these were 98 percent of the total

transaction value of payments and the pandemic will further accelerate the development of technology in the banking sector. RBI waived off charges on NEFT and RTGS in order to promote and make digital payments affordable to consumers. Mobile or internet based banking now ensures 24x7 services. From a measly ₹76 crores in April 2011, internet banking payments increased to ₹7.04 lakh crores in September 2020. Mobile banking transactions picked up pace in the last few years and crossed ₹5 lakh crores in July 2019. In 2020, these transactions stayed above ₹5 lakh crores for the first three months of the year. However, COVID induced lockdown saw internet banking transactions dipping to ₹3.64 lakh crores in April 2020. In November 2020, data of UPI showed that transactions were at ₹3.91 lakh crores.

**Green financial institution** In UK, Green Investment Bank plc has been established in order to promote awareness in green finance and banking. It is owned by the UK government in 2021. Therefore, the Government of India in coordination with RBI should inaugurate green financial institutions for long run economic growth.

### GREEN FINANCE PROJECTS

1. Centre of Excellence in Solid Waste and Waste Water Management (*Sponsored by Ministry of Urban Development, Govt. of India*)
2. India Chiller Energy Efficiency Project (IFCC) by IDBI
3. Green Power Tariff (**Mumbai**): In a first, power users in the state have the option to go for 100% renewable energy supply by paying an extra 66 paise a unit for 'green power tariff' which was approved by MERC.
4. JSW Hyrdo Energy Limited is a 100 percent subsidiary and owns and operates the Karcham-Wangtoo (1000 MW) and Baspa II (300 MW) hydro-electric power plants in Himachal Pradesh.
5. ACME Solar raises \$334mn in offshore green bonds for 12 solar projects. The debt investment will be

funded by U.S. dollar denominated green bonds. The bonds will be listed on Singapore Exchange Securities Trading Ltd.

6. Rooftop solar solution provider MYSUN has joined hands with Tata Cleantech Capital Ltd (TCCL) to raise ₹150 million in debt funding. The solar asset vehicle MYSUN+ has been launched by MYSUN with an aim to extend solar projects under the distributed and open access models by infusing ₹6 billion (~\$80.12 million) in the initial phase.

7. SBI has provided ₹319.18 billion in Renewable Energy Project Finance as of FY 2021. The bank has financed 752 renewable energy projects with a total installed capacity of 13.8 GW as of March 31, 2021

### CONCLUSION

A new trend in green finance is quickly taking hold. Green finance in India is the subject of this article, which examines the country's current policies and actions in this area. In the existing research, it is suggested that improving information management systems and increasing coordination among financial institutions and banks could help to reduce the asymmetry of information about green initiatives. One can see the impact of COVID – 19 on the global economy at this point in time. However, the epidemic has also provided an opportunity for all stakeholders in the banking and finance industry to reassess policies, strategies, and initiatives made thus far in the sphere of banking and finance and adopt an approach that is more environmentally sustainable in the long run. In order to promote this move toward economic growth, green financing is an essential tool.

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