

# Role of Banking Sector in Sustainable Development Through Green Banking in India

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## Abstract

In India, the financial services industry plays an active part in boosting both societal progress and economic prosperity. With its goal of achieving carbon neutrality before 2100, India is placing significant emphasis on leveraging the influence of finance through banks to steer economic systems toward environmental responsibility. Concentrating efforts towards environmental responsibility may significantly enhance India's financial industry as it becomes an influential player in promoting green finance initiatives and supporting local social programs. Environmental problems in the nation stem from the difficulties posed by contemporary international commerce trends. Current society acknowledges the necessity of fostering an environmentally friendly world to safeguard lives in coming years. As an outcome, companies now focus on eco-friendliness in their operations by implementing cleaner manufacturing techniques. The financial industry plays an indispensable role in India's economic landscape as it caters to various stakeholders including consumers and businesses alike. Concurrently, this sector is actively transitioning towards sustainable business models through environmentally conscious initiatives. It encompasses implementing eco-friendly financial practices and encouraging sustainable investments. Green banking aims at reducing greenhouse gas emissions through promotion of electronic payments and adoption of sustainable finance methods. As concerns about sustainability grow, financial institutions are incorporating eco-friendly practices into their operations as part of efforts to foster an environmentally conscious economic system.

**Key Words:** Green Banking, Sustainable Development, Eco- Friendly, Green Finance

## Introduction

Banking sector is the backbone of any Country's economy. The bank saves the capital of people and by investing it in right place, provide good return on it. The banking sectors plays an important role in environmental protection and promotion of social investment. These days the bank is fulfilling its responsibility towards the society through education, health services, water conservation, sanitation and plantation. The bank running many programs for encouraging social welfare and environmental protection. Banks can become a cause of pollution indirectly rather than being cause of pollution directly. A major source of finance for industries is the banking sector, which emits a lot of carbon from their activities. The Indian banking sector has collaborated with international level circle to achieve the Sustainable Development Goals.

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The United Nation Organization has issued a detailed guideline to reduce environmental pollution caused by industries and to protect the environment. As a responsible sector, the banks in India have adopted Green Banking and they present themselves as an example in front of country which is protecting from the polluted environment. "Going green" is the current mantra in the banking sector. The term "Green" encompasses many different aspects of environmental, social, and ethical responsibility. The term "Green Banking" refers to a subset of banking activity that prioritizes ecological issues alongside socioeconomic ones. This is done with the goal of protecting the environment and preserving natural resources. Banks, governments, NGOs, international financial institutions (IFIs), the Central Bank, consumers, and business communities all have a hand in making green banking a reality.

### **Objectives**

The main goals of the study are outlined as follows:

1. To examine the most recent advancements in sustainability within Indian banks through the implementation of suitable green banking practices.
2. To evaluate how Indian banks are adopting green banking strategies.
3. To explore how green banking practices are influencing the changing behaviours of society.

### **Methodology**

To achieve the mentioned objective, the following methodology was followed. The current study is based entirely on secondary data, which was collected from reports by different banks, research papers published in national and international journals, articles in magazines and periodicals, books, and various websites.

### **Review of Literature**

Dipika (2018) green banking a concept that is good for environment and promoting economic growth. Banks wants to expand its presence in the global market, for this they need to know the social and environmental facts of global market. For sustainable banking, Green banking create a platform that would create many opportunities for investment and contribute towards pollution free city.

Grimakar and Sudharshan (2018) finds that younger customers are showing interest in it, but there is a need to spread awareness about green banking among middle and older age customer. Banks should try to inculcate ethics and consistency in their functioning and promote customer friendly business model.

Sahi and Anurag Pahuja (2017) explained that most of the customers using green banking products have recognize that green banking is an activity that is environment friendly and saves their time, efforts and cost. Study finds that green banking is more used by male than female. Punjab still lacks the knowledge to adopt green banking system and this gap can be filled by the bank's awareness programs.

Rakesh, Srinath B V and Naveen R Karki (2016) through the green banking, awareness can be created among the people about global warming. With Green Banking, each member of staff, customers, and business man can contribute to protect environment. Green banking is playing

vital role in bringing about massive change in keeping the environment pollution free not only in India but globally.

Shakkeela (2016) explained in her paper Indian economy has a great opportunity of growth by adoption of this green approach in their system. This approach is beneficial for three model like people, planet and profit. Green bonds, Green investment, and Green products are some of the things that would be valued in near future. Banks should create a platform for economic transformation.

Ruchi Trehan (2015) explained that the Green banking contributes to financial development and to meet the Sustainable Development Goals. India's bank still lag behind in Green banking. Indian banks should gradually take new steps in green banking, following the guidelines of the environment, so that the financial sector develops.

Jaggi (2014) tried to look into the well-known public sector bank, SBI, and the efficient private sector bank, ICICI, to understand their banking practices related to improving the environment. The study found that ICICI took steps like offering green financing for eco-friendly vehicles and using online communication to reach customers through emails. SBI, on the other hand, focused on using green building standards for new buildings, recycling water, using natural lighting, and setting up Green Channel Counters in more than 5000 branches across India, where customers didn't need to be physically present. Both banks also worked on measures to achieve carbon neutrality.

Chaurasia (2014) in his paper "Green Banking Practices in Indian Banks" talked about the benefits, challenges, and strategies related to green banking, and the current status of Indian banks in adopting these practices. He found that banks in India haven't taken much initiative in this area. He suggested that banks should take the lead in going green and include ecological considerations in their lending policies, which would push industries to make necessary investments in environmental management, adopt suitable technologies, and

Bahl (2012) says that green banking helps in reaching environmental goals. The Garrett ranking method is used to check the strategies used in green banking. It is important to take care of using magazines, newspapers, and messages from the bank to raise awareness about green banking inside the workplace. Also, using media, events, and websites to spread the message outside the bank is important.

Goyal Ka and Vijay Joshi (2011) mention that banking staff want to get more business by satisfying customers, but at the same time, technology makes customers not need to come to the bank. Banks create processes that provide all banking services without the customer having to visit the branch office.

Ela Sen (2010) explain their study in recent business green working is most useful term. It include paper less work, waste management, eco-friendly pattern, pollution control etc. With computerization like speed, ambience, efficient working of business there is a need of social responsibility towards people and environment.

### **Green banking concept**

Green banking, an idea that's growing quickly around the world, is especially important in the context of India's economic and environmental issues. As India moves closer to becoming a

major global economy, the need for sustainable development has never been more urgent. Green banking, which includes environmental considerations in banking activities, is not just an ethical choice but also a strategic need for India. The idea behind a "Green Bank" is to protect the environment and promote sustainable development. Green banking encourages online transactions, which reduces the need for paper and makes it easier for customers to get green credit cards and green loans. By using less paper, fewer trees will be cut down, which is better for the environment. The main goal of this kind of banking is to protect and preserve natural resources and the environment, tackling global warming and climate change by replacing unsustainable policies with new ones that focus on keeping the environment healthy and reducing pressure on natural resources.

A move towards a green economy, which doesn't cause global warming or harm the planet, is becoming more important now. This shift is needed because of the current situation. Green Banking offers various services such as electronic money transfers, opening accounts online, mobile banking, SMS banking, internet banking, ATMs, deposit machines for cash and checks, credit and debit cards, electronic statements, email and image-based statements, and many other options.

Green Banking has gained a lot of attention and has developed as a socially responsible approach in the banking sector. Its main goals are to lower the negative impact on the environment, improve the reputation of banks, and ensure long-term sustainability and environmental protection. Green banking initiatives take many forms, such as using solar power and digitizing bank branches, offering green banking products, green loans, and charitable activities. These sustainable banking practices can greatly help the banking industry, which is a major economic force, in reducing environmental issues. Overall, green banking is considered a positive trend that not only improves the quality of assets in banks but also contributes to making industries and the economy more eco-friendly

### **Methods of Green Banking**

Green banking is a good approach to act in an eco-friendly way. Banks use various green products to support green banking initiatives. They make sure to consider the needs of both society and the environment while carrying out their operations. Here are some methods that can be used to explain green banking:

**Online Banking:** Online banking service provides banking facilities to its customers at home through a digital platform. All the transactional facilities of the bank through the internet and web source are delivered at the right time. It included online bill payment, online financial transaction. This feature promotes reduced paper use, energy conservation, and the optimal use of natural resources.

**Use Green Power Saving:** Equipment Renewable energy can be used optimally and efficiently to reduce energy consumption. Use of wind energy, solar energy, thermal energy and biogas in operation of equipment by the bank will promote energy conservation. Banks has shown the works of water harvesting in its online profile.

**Green Saving Accounts:** Banks create donations on the groundwork of savings done by customers. The more they save, the more the environment benefits in the form of contributions

or donations done by banks.

**Green Credit Cards:** A step for environment friendly rewards banks introduces green credit cards. Users are rewarded with some points that convert into cash and can be used for environment protection task. Green credit cards provide facility using ecological material or promoting paperless banking. It is a better way to avoid plastic waste to use alternative eco-friendly products. It is a great green product of Green Banking.

**Mobile Banking:** Mobile banking includes balance checking, bill payment, online transactions, online shopping etc. which is done through a mobile or a device. It initiate less mail, less paperwork, less travels to branch office by bank customers. Mobile to digital banking replaces debit and credit cards and cash laden wallet. Bank provide Security on mobile banking which is make it a safe payment alternative.

**Green Mortgages:** Banks provides Green mortgages to those customers who buy or use an energy-efficient home. Mainly it can be said that when mortgaging is done rewarded with lower rate of interest or cashback or both. There is big move by the bank to convert brown mortgages to green mortgages.

### **Green Banking Strategies towards Sustainable Development**

Indian banks have the opportunity to use green banking as a practical business approach (Verma, 2012). The following strategies are being adopted to help support the green economy.

1. To promote green banking, the bank needs to put its strategies into action and also involve its employees and customers. Stakeholders and suppliers should also be informed about this initiative.
2. The bank should make stakeholders aware of the negative effects on the environment, society, and economy, as well as the benefits of green banking for the environment and business.
3. There are several ways the bank can reduce its carbon footprint, such as by using less biodegradable materials and cutting down on paper usage.
4. The bank can organize training sessions for customers to help them understand the advantages of online banking.
5. The bank should work to reduce cybercrime and ensure customer safety during online banking and card payment transactions.
6. Customers should be made aware of green banking activities and the benefits they offer.
7. The green policy should be reviewed and updated regularly, and the efforts of industries in promoting and developing green banking should also be tracked.

### **Green Banking Contribution in Environmental Sustainability**

The idea of environmental sustainability began in 1969 with the creation of the National Environmental Policy Act (NEPA, 1970) in the United States. The main goal of this act is to improve the overall well-being of people, keep a balance between humans and nature, and ensure the economic and social well-being of both current and future generations. Green banking practices help in building energy-efficient structures, supporting sustainable projects, and using electronic banking services to support sustainable development (Murshudli, 2023). Its main focus is on using green loans, green investments, and green bonds to encourage growth

in industries and technologies (Sharma D. K., 2023). When talking about sustainable banking, it includes environmental, social, and governance factors in how banking services are provided, with the goal of focusing on environmental sustainability and social responsibility (Sharma R, 2023).

Green finance is a method that supports projects that use eco-friendly technologies and reduce pollution to lessen the negative effects of human activities on the environment. Examples of green banking include online bill paying, mobile banking, power-saving devices, paperless processes, green accounts, green financing, electronic statements, and green debit and credit cards. Therefore, as environmental issues become more important, banks are adopting green banking strategies to support the green economy.

### **Indian Banks Perspective towards Green Banking**

This study looks at how the banking sector contributes to sustainable development by focusing on green banking activities. Therefore, the green initiatives implemented by Indian banks include:

**RBI:** As part of Green Practices, the RBI has issued guidelines asking banks to take active steps to increase the use of electronic payment systems, stop using post-dated cheques, and slowly reduce the use of cheques in their daily business transactions. Other financial institutions like NABARD, SIDBI, and EXIM Bank are also expected to take proactive measures in implementing e-governance initiatives. These efforts are expected to improve the quality and efficiency of services while helping banks move towards fewer paper-based transactions over time.

**Punjab National Bank:** The bank has started several green initiatives, such as using solar energy in their work areas, managing water efficiently, providing digital payment machines, and reducing paper usage. In their credit policies, the bank gives priority to projects that have approval from the pollution control board and are environmentally friendly, like wind mills and solar plants. The bank regularly participates in environmental protection activities through its Corporate Social Responsibility (CSR) efforts, including the Van Mahotsav program and organizing numerous tree plantation events. The bank has also created Green Parks in many of its branches and introduced Cash Calculator Machines and Passbook Update Machines for digital banking. The bank has taken steps to conserve natural resources like water, paper, and energy. It encourages the use of solar and wind energy in rural areas and has set up green buildings along with CSR camps in various locations. The bank also creates guidelines for projects it finances to ensure environmental protection.

**ICICI:** ICICI Bank has implemented several green projects across the country to make a mark in the field of green banking. From tree plantation to health, education and village electrification work has been done by bank. Bank has also set up Electronic Branches in many cities. Bank launched “Go Green Programme” on a big level to reduce carbon foot print. ICICI Bank is continuously running many new programs in the field of energy conservation, social security, health and environment. Solar Branches is another good step taken by Bank. Along with the use of solar energy in its branch, the bank is also providing solar energy facility to many villages. The bank has been providing finance for the scheme being run to protect the environment to maintain ecological balance. Following these same principles, bank

continuously providing facilities of plantation, education and health services. The Bank has play a significant role in bringing about a change in the medium of digital banking. The bank is confident that digital banking is not only empowering the customers but fulfilling their ambitions. Bank provide them high level security during transactions. Online banking reduce the use of paper and this is an initiative to save trees.

**SBI** : The State Bank of India, which is the largest commercial bank in India, has become the first bank in the country to start generating green power by setting up windmills for their own use. The bank has introduced a scheme named Green Homes. Under this scheme, SBI offers benefits like lower margins, easier interest rates, and no processing fees on home loans for residential projects that are environmentally friendly and have been rated by the Indian Green Building Council (IGBC). Additionally, the bank has launched a loan product called 'Carbon Credit Plus's to support future Clean Development Mechanism (CDM) projects. The bank has also introduced its Green Banking Policy and decided to run its ATMs using solar energy to decrease power usage. Recent green banking efforts include promoting paperless banking for customers, supporting clean energy projects, and building windmills in rural areas of India.

**HDFC Bank**: This bank was introduced a new green initiative by sending the personal identification number (PIN) for debit card holders via SMS instead of through the post. This PIN, known as the Green PIN, is a One Time Password (OTP) sent to the customer's mobile number, allowing them to set their debit card PIN at the bank's ATM. HDFC Bank has around 1.75 crore debit card holders, with approximately 1.65 million cards issued each year. Transactions done through ATMs and mobile banking help reduce paper use, which is part of sustainable economic growth

### **Effect of green banking practices**

There is a great need to create awareness and actively practice green banking as much as possible in today's business world, especially with the use of innovative technologies. This helps make the environment friendlier for humans and improves economic productivity. In addition to reducing risks, green banking also opens up new markets and opportunities for differentiating products. If green banking is truly implemented, it can serve as an effective way to prevent polluting industries from avoiding regulations. However, there hasn't been much effort from banks and financial institutions in India, even though they play a key role in the country's growing economy.

The banking and financial sector should work towards sustainable development. In terms of green banking, India's banks and financial institutions are lagging behind. They are not as environmentally responsible as foreign banks. None of the Indian banks or financial institutions have adopted the Equator Principles, even for record-keeping. Also, none of them have signed the UNEP Financial Initiative statement. It's time for India to take major steps to gradually follow the Equator Principles, which consider environmental factors along with financial ones when funding projects.

There is a big issue among bankers because many are not well-trained or equipped with modern automated systems, which is why results are not meeting expectations. Therefore, it's important to train and develop relevant skills among bank employees to speed up reforms. Banks need to act faster in addressing climate change issues and show more responsibility. Promoting

sustainable finance is essential now, as it not only focuses on financial growth but also considers environmental, social, and governance (ESG) issues in the investment process.

### **Suggestions**

Banks can take several steps to support sustainable development in India through green banking practices.

- i. They should encourage more digital transactions to reduce paperwork and save energy.
- ii. They should continue to promote various electronic banking services.
- iii. They should focus on green financing to support sustainable development by supporting projects that help reduce greenhouse gas emissions.
- iv. They need to increase the digitalization of banking transactions to lower their carbon footprint.
- v. Approving projects that protect the environment can help create long-term sustainability. Banks should strengthen their socio-ethical awareness to adopt more environmentally friendly approaches.
- vi. They need to develop clear policies to incorporate sustainability issues into their management systems.

### **Conclusion**

Green banking helps improve the environment and supports economic growth. Most traditional banks didn't really focus on investing in green projects or practice green banking until just a few years ago. The growth of Indian banks is much slower compared to banks in developed countries. Global markets are now seeking banking systems that are socially and ethically responsible, with a focus on the environment. Indian banks need to adopt green banking if they want to stay competitive in the world market. This approach has only recently become more common among small alternative and cooperative banks, as well as financial service providers, venture capital firms, and insurance companies.

Banks should give priority to lending to sectors that have already made major progress in becoming environmentally friendly, and those that are actively working towards that goal. The idea of green banking benefits banks, businesses, and the overall economy. It also helps improve the quality of a bank's assets in the future. For Indian banks, green banking presents both opportunities and challenges. If done correctly, green banking can act as a strong warning to polluting industries that ignore other regulatory rules. Therefore, Indian banks must use green technologies to ensure a sustainable banking industry.

### **References:**

1. Kataria Kalpana & Kumar Anil (2024). Driving Environmental Sustainability: A Comprehensive Review of Green Banking in the Indian Financial Landscape, *European Economic Letters*, ISSN 2323-5233 Vol 14, Issue 1s, pp. 120-122, <http://eelet.org.uk>
2. Bhalla, T. (2023). Green Banking: An Analysis of the Retail Banking Customer Perceptions. *Sachetas*, 2(2), pp. 42-48
3. . Bhatnagar, A. (2022). Green banking. *Indian Scientific Journal of Research in Engineering and Management*, Vol. 06, Issue: 05

4. . Bihari, S. C. (2011). Green banking -towards socially responsible banking in India. IJBIT, pp. 82-87. [7].
5. Leslie D Monte, 'It's Times for Green Banking', Business Standard, May 21, 2010
6. G. Nandini Prabhu (2021). Green Banking Practices – A Case Study on Indian Green Banking System, International Journal of Research Publication and Reviews Vol. 2 Issue 3, ISSN 2582 7421, pp. 487-493
7. Dipika. (2015). Green Banking in India: A Study of Various Strategies Adopt by Banks for Sustainable Development. [www.ijert.org](http://www.ijert.org)
8. Kapoor, N., Jaitly, M., & Gupta, R. (2016). Green Banking: A step towards Sustainable Development. In International Journal of Research in Management. [www.indusedu.org](http://www.indusedu.org)
9. Murshudli, F. F. (2023). Green Banking for Sustainable Development. Journal of the National Research University Higher School of Economics, Vol. 17. No. 2. pp. 82–94
10. J. Rakshitha & R. Chaya (2023). Sustainable Banking Practices and SDGs: A Comprehensive Analysis of Banking Sector Initiatives, 11th International Conference on Emerging Trends in Corporate Finance and Financial Markets, ISBN: 978-93-83302-63-5, pp. 1-12
11. T.K. Venkatesha, G Yashodha G & Roopa (2024). Role of Banks in Sustainable Economic Development through Green Banking, IJCRT | Volume 12, Issue 12 December 2024 | ISSN: 2320-2882, pp. 467-471
12. Kavitha N.V. & Rani Usha (2016). Green Banking – towards Sustainable Development, International Journal of Innovative Research & Development, Vol 5 Issue 2, ISSN 2278 – 0211, pp. 339-345
13. K.L. Rajarama (2021). Scope of Green Banking In India at Present Scenario – A Study, IJRAR, Volume 8, Issue 1, E-ISSN 2348-1269, P- ISSN 2349-5138, pp. 370-379
14. Kaswan Pratibha & Poonam (2022). Green Banking: A Progressive Pattern in Indian Banking Sector, Inspira-Journal of Commerce, Economics & Computer Science (JCECS), ISSN: 2395-7069, Volume 08, No. 02, pp. 97-106
15. T.Rajesh and A.S. Dileep (2014). Role of banks in sustainable economic development through green banking, International Journal of Current Research and Academic Review, ISSN: 2347-3215, Volume 02, No. 12, pp. 136-141