Green Banking transformation: Public Sector Banks leading India's sustainable financial revolution

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***Abstract*—Green banking, grounded in environmental sustainability, had flowed in relevance amid global concerns about climate change. India, a major economic player, acknowledges the authoritative of approval sustainable banking. This paper examined the key role of public sector banks in India as pioneers of the nation's sustainable financial evolution. It investigated their approaches, initiatives, challenges, and impacts, emphasizing their crucial influence to nurturing a greener and more robust financial sector. Public sector banks, by adopting eco-friendly practices and aligning investments with environmental goals, became instrumental in steering India towards a resilient and environmentally conscious financial future. As these banks directed challenges and pioneer initiatives, their influence became paramount in shaping a sustainable paradigm for the broader banking industry in India.**

***Index Terms*—Environmental Sustainability, Green banking, Green Bonds, Social Responsibility, Sustainable Finance**

I. Introduction

In the wake of pressing global environmental worries and the urgent need to address climate change, the financial sector has found itself at the head of a transformative movement. In this paradigm shift, the role of public sector banks in India is becoming increasingly significant. This introductory section delves into the growing importance of green banking, highlighting the imperative for public sector banks in India to champion sustainability and spearhead a financial revolution that aligns with the nation's commitment to a greener future.

Public sector banks, which hold a substantial market share and play a pivotal role in India's economic landscape, are uniquely positioned to drive sustainability initiatives through their vast networks and financial influence. This transformation towards green banking is not merely a choice but a necessity for these institutions, as it not only mitigates environmental risks but also opens new avenues for growth and innovation in the banking sector.

This exploration of "Green Banking Transformation" will delve into the strategies, challenges, and achievements of public sector banks in India as they navigate the transition towards a more environmentally responsible and sustainable banking ecosystem. It aims to shed light on the pivotal role these banks play in fostering a sustainable financial landscape that can contribute significantly to India's overall sustainability goals while ensuring long-term profitability and resilience in an ever-changing world.

Background of green banking

Green banking, also known as sustainable banking or ethical banking, is a banking approach that considers environmental and social considerations in addition to financial ones. It is built upon the recognition that the banking sector can play a pivotal role in promoting sustainability and addressing environmental and social challenges. The concept of green banking encompasses a range of practices and principles that aim to align banking activities with the broader goals of environmental protection, social responsibility, and long-term economic stability. Some key aspects of green banking include:

Environmental Sustainability: Green banking focuses on reducing the environmental footprint of banking operations, including minimizing energy consumption, reducing waste, and adopting eco-friendly technologies. Banks also prioritize investments in environmentally sustainable projects and industries.

Social Responsibility: In addition to environmental concerns, green banking considers the social impact of financial activities. This includes providing access to financial services for marginalized communities, supporting community development initiatives, and ensuring ethical lending practices.

Risk Management: Green banking recognizes that environmental and social risks can impact the financial performance of banks. It emphasizes risk assessment and management related to environmental and social factors, including climate change, regulatory changes, and reputational risks.

Sustainable Finance: Green banking promotes the allocation of capital to sustainable and responsible investments, such as renewable energy, green infrastructure, and projects that contribute positively to society and the environment.

Global Significance of Green Banking:

The global significance of green banking has grown exponentially in recent years for several reasons:

Environmental Challenges: The world is facing a climate crisis and other pressing environmental issues, such as deforestation, biodiversity loss, and pollution. Green banking is seen as a critical tool to channel funds into solutions that address these challenges.

Sustainable Development Goals (SDGs): The United Nations' Sustainable Development Goals include objectives related to poverty reduction, environmental sustainability, and economic growth. Green banking aligns with many of these goals, making it a key driver for achieving global sustainability targets.

Regulatory Frameworks: Governments and regulatory bodies in many countries have recognized the importance of green banking and have introduced policies and regulations to encourage sustainable finance practices. These include requirements for environmental and social risk assessment, disclosure of sustainability metrics, and incentives for green investments.

Investor and Consumer Demand: Investors and consumers are increasingly seeking environmentally and socially responsible financial products and services. Banks that embrace green banking can attract a more conscientious customer base and gain a competitive edge.

Financial Resilience: Recognizing that environmental risks, such as climate change, can have systemic financial implications, central banks and financial institutions are emphasizing the need for resilience in the face of these risks. Green banking can contribute to financial stability by addressing such risks.

Global Collaboration: Green banking is not limited by borders. Banks, governments, and international organizations are collaborating to develop global standards and best practices for sustainable finance, promoting a unified approach to addressing global challenges.

Green banking is of paramount importance in India due to its role in addressing pressing environmental issues and fostering sustainable development. India faces challenges like air pollution, water scarcity, and climate change. Green banking promotes responsible lending, funding eco-friendly projects, and mitigating environmental risks. It aligns with the Indian government's commitment to renewable energy, environmental conservation, and inclusive growth. Additionally, it attracts global investments and supports India's economic resilience. In a nation with diverse ecosystems and a growing economy, green banking is instrumental in securing a cleaner, more sustainable, and prosperous future for all its citizens.

II. LITERATURE REVIEW

RAJA & MUTHAIYAN (2019) focused their study on the Green Banking in the Banking Industry, with a focus on the Public Sector Banks. The study also stressed on awareness, cost reduction, attracting customers and usage of technology. The study also analyzed the complications faced by the customers and bank officials.

Ghosh (2021) highlighted their study on the Green Banking practices adopted in India and their implication towards environmental protection and sustainable ecological balance. The methodology used for the paper is mainly the theoretical framework build based on the various secondary sources like published articles, websites, government reports, etc. This study could benefit policymakers and researchers in understanding the various green creativities taken by the banking sector in India as well as the hurdles and way forward.

Choubey & Sharma (2022) undertaken qualitative study analyses the degree of green banking efforts within Delhi NCR and comparisons them with other organizations. Semi-structured thorough interviews of 40 different bankers (including managing directors to branch managers) from 10 different public and private Indian banks were undertaken. Both primary and secondary data were accumulated. Qualitative exploratory research resulted in the following facts, (a) Bank's eco-friendly practices are curbed to being paperless, (b) Banks rarely enquire about the carbon footprint of the projects, (c) Banks identify the requirements of government guidelines, (d) Systematic certification of actions under corporate social responsibility (CSR) is lacking, (e) Insufficient awareness of green initiatives has been initiated amongst bank employees, (f) Green banking components such as bank size, reputation, age, profitability, and investors' reaction, are motivating elements for banks' green performance.

Gupta, Abrol & Bhattacharya (2022) made an attempt to assess the current condition of green banking in India and the manner in which Indian banks are prioritising sustainable development investment. In order to attain this objective, a comparison of two public and two private sector banks has been performed. In addition, this research also explores the potential for green banking in India in the future. The study finds that Indian banks have extended beyond just offering online services to include carbon neutralisation, support for environmentally conscious projects, waste management, and other relevant fields. It is recommended that there is still room for the upgrade of additional green banking initiatives in India so that a variety of small banks can also make significant contributions to green banking. The findings of the study may assist bank controllers and other regulatory bodies in defining the growth potential of green banking in India.

SV & Rajitha (2023) directed a study on Green Banking and different green banking products, profits and problems that green banking faces. The paper also pointed out the green rating standards given by RBI and the wide-ranging initiatives taken by several banks in India as well as international banks in the implementation of Greening of the banks with the help of different green banking practices.

Singh & Zaheer (2023) studied and analysed the role of Artificial Intelligence (AI) in green banking practices adopted by the Indian banking structure as well as its significance in the present scenario. Not only has this but it also includes the banks' involvement and support to attain UN SDGs and environmental sustainability. This research paper is categorized as conceptual in nature, bases on regress review of literature, reviewing websites of financial institutions and published sources. Ample number of published research papers and journals has supplemented this work. This study tried to make a comparative analysis between one of the prominent Indian commercial bank SBI (State Bank of India) and one of the top private Indian banking institute HDFC bank and evaluate to know about the application of AI in adopting green banking practices and their contribution towards sustainability. The paper concluded about the devastating and heart pulling moments Indians and all-round the globe has experienced in the form of landslide, drought and flooding, extreme temperatures have provoked us to think again about global warming and its consequences and that we are facing and what our future generations are going to face in upcoming decade. The study is considered to be pioneer in the academic literature as it links three crucial elements of present era with future impact i.e. AI, green banking practices and sustainability.

III. SCOPE OF THE PAPER

The scope of this paper encompasses an in-depth exploration of green banking practices within the context of India's public sector banks. It includes:

Green Banking Initiatives: Examination of the various green banking initiatives undertaken by Indian public sector banks and their alignment with regulatory guidelines.

Strategies Employed: Analysis of the strategies employed by these banks to promote sustainability, including financing options, risk assessment, and integration of green principles.

Challenges Faced: Identification and discussion of the challenges public sector banks encounter in implementing green banking practices, including regulatory hurdles and operational barriers.

Impact Assessment: Evaluation of the quantitative and qualitative impacts of green banking on public sector banks, the environment, and society.

Future Directions: Exploration of potential growth, technological advancements, and collaborative opportunities in the field of green banking.

IV. OBJECTIVES OF THE PAPER

- To highlight the significant role played by public sector banks in India in driving the adoption of green banking practices.
- To provide a comprehensive overview of the green banking initiatives and strategies employed by these banks, with a focus on sustainable finance.
- To analyze the challenges faced by public sector banks in implementing green banking and suggest ways to overcome them.
- To provide policy recommendations for fostering the further development of green banking in India and promoting sustainability in the financial sector.

V. RESEARCH METHODODOLGY

The paper is a descriptive paper in nature. The secondary data required for research are collected from rbi.org.in, sbi.co.in, pnbindia.in, canara.com, bankofbaroda.in, BNP Paribas climate report.

OVERVIEW OF GREEN BANKING INITIATIVES UNDERTAKEN BY INDIAN BANKS.

Financing Renewable Energy Projects: Many Indian banks had increased their investments in renewable energy projects such as solar and wind power. They provided loans and financial support to renewable energy developers, making it easier for them to set up clean energy infrastructure.

Green Bonds: Some banks in India had issued green bonds to raise funds specifically for environmentally friendly projects. These bonds were used to finance projects related to renewable energy, energy efficiency, and sustainable transportation.

Energy Efficiency Loans: Banks had introduced special loan products and incentives for customers who wanted to make energy-efficient upgrades to their homes or businesses. These loans were aimed at promoting the adoption of energy-efficient technologies.

Sustainable Agriculture Financing: Several banks were working on financing models for sustainable and eco-friendly agriculture practices. These initiatives aimed to support farmers in adopting sustainable farming methods, which would reduce the environmental impact of agriculture.

Reducing Carbon Footprint: Some banks were actively working to reduce their own carbon footprint by adopting energy-efficient practices within their operations. They also made efforts to reduce paper usage and promote digital banking services to reduce environmental impact.

Environmental Risk Assessment: Banks were increasingly considering environmental risks in their lending decisions. They conducted environmental impact assessments for large projects to ensure compliance with environmental regulations and sustainability standards.

Promoting Financial Inclusion: Green banking initiatives also included efforts to promote financial inclusion among underprivileged communities. By providing financial services to these communities, banks aimed to support sustainable economic development.

Customer Awareness: Banks were engaged in raising awareness among their customers about sustainable banking practices. This included educating customers about responsible banking and offering eco-friendly banking products.

Collaborations and Partnerships: Many banks collaborated with environmental organizations, government agencies, and international bodies to further their green banking initiatives. These partnerships often involved knowledge-sharing and funding for sustainable projects.

Compliance with Regulatory Guidelines: The Reserve Bank of India (RBI) and other regulatory authorities in India had introduced guidelines and recommendations related to green banking. Banks were required to comply with these guidelines and report on their environmental initiatives.

ANALYSIS OF THE POLICIES AND GUIDELINES ISSUED BY THE RESERVE BANK OF INDIA (RBI) TO PROMOTE GREEN BANKING

The Reserve Bank of India (RBI) has played a pivotal role in promoting green banking through a series of policies and guidelines. These initiatives are aimed at aligning the banking sector with environmental sustainability objectives. RBI has emphasized the need for banks to integrate environmental and social considerations into their lending and investment decisions. It has encouraged the adoption of environmentally responsible practices, such as financing renewable energy projects, promoting energy efficiency, and supporting sustainable agriculture. RBI has also called for regular reporting on environmental and social risks associated with lending portfolios. Furthermore, it has advocated for the issuance of green bonds to raise funds for green projects. Overall, RBI's policies and guidelines have contributed to the mainstreaming of green banking in India, fostering a more sustainable and environmentally conscious financial sector.

Green banking initiatives taken by some leading public sector banks of India

State Bank of India (SBI):

Renewable Energy Financing: SBI was a frontrunner in providing financial support to renewable energy projects, such as solar and wind power. The bank offered customized loan products for renewable energy developers and encouraged the adoption of green technologies. According to annual reports of 2023 the Rs 36,243 crore value of renewable energy (re) projects sanctioned.

Internet banking: SBI launched its internet banking service, called "SBI Online," in the year 2000. Before launching of SBI Online, internet banking services were not widely available in India, and SBI was the first Indian bank to offer this service to its customers. The number of customers using internet banking. At present internet banking users stands at 117 million.

Green fund: SBI started “SBI Green Fund” to allow customers to participate in the sustainability mission by contributing their reward points. This initiative demonstrates SBI’s core value system and is a reminder of its commitment towards society and preserving nature for future generations.

Mobile banking: SBI had introduced mobile banking in the year 2008 and it was started in 101 branches in India. At present mobile banking stands 64 million respectively.

The bank has got B grade carbon disclosure project rating in 2022 which was C grade in the year 2021. 46 electric vehicle chargers installed and 32 Green building certifications has been given by the bank.

Green Bonds Issuance: SBI issued green bonds to raise funds specifically for financing sustainable and eco-friendly projects. This strategy allowed the bank to attract socially responsible investors and support green initiatives. SBI is scheduling to raise around $500 million through green bonds to provide sustainable project finance.

SBI YONO: SBI had started this mobile apps facility for online banking to reduce the banking paper works and provide soft copy of bank passbook, provide paper less loan facility to their customers. In FY 2023 78.6 lakhs saving accounts have been opened with SBI YONO facility.

Punjab National Bank (PNB):

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PNB titleholders sustainable husbandry backing, offering loans to growers embracingeco-friendly practices. Prioritizing fiscal addition, PNB extends its services to underserved areas, fostering sustainable profitable development. The bank raises environmental mindfulness through juggernauts, promoting responsible banking and eco-friendly products. PNB laboriously reduces its carbon footmark with energy-effective practices. In India, public sector banks apply green banking via acclimatized fiscal products, integrating environmental threat assessments, issuing green bonds, and conducting mindfulness juggernauts. Collaboration with government agencies and transnational bodies enhances moxie and promotes green enterprise. Leading public sector banks encyclopedically invest in renewables, prioritize fiscal addition, cleave to strict ESG criteria, and engage stakeholders for sustainability. Aligning operations with sustainable principles, these banks alleviate pitfalls, enhance character, and contribute to a further indifferent and sustainable frugality. PNB started the following measures for espousing green banking PNB ONE is a unified Mobile Banking operation amended with several features furnishing all banking installations at a single platform. It allows stoner to perform major banking conditions through the operation on 24 * 7 base anywhere and anytime without visiting the branch. It's secure operation, having biometric & face authentication (iOS) along with MPIN. PNB Corporate Internet Banking Corporate Net Banking from Punjab National Bank(PNB) is a channel that gives business guests non-individual guests including pots, trusts, hookups, and occupancies —avail to net banking services from anywhere and anytime the customer want.

PNB SMS Banking PNB SMS Banking, offered by Punjab National Bank(PNB), is a secure and stoner-friendly mobile banking service that allows guests to pierce colorful banking functions via SMS. Through this service, PNB regard holders can check their PNB account balance, view their mini Statement, and request a stop payment or fund transfer from the comfort of their home.
Punjab National Bank(PNB), nation's leading Public Sector Bank, initiates an environmental action " PNB Palaash ", an eight- month period crusade to embrace sustainability, which shall prime to cost savings and functional edge through measures similar as energy and resource conservation, paper reduction, waste operation and streamlined digital processes.
PNB Retail Internet Banking Through this banking installation guests of our country and abroad can mileage banking installation anywhere and at any time.

Canara Bank

The bank had espoused environmental friendly system like mobile bank, net bank, tele bank, solar systematic. It uses high- tech banking installations like ATM, Cheque acceptor, Online trading etc. It bettered E-governance for HRM function and reduces the paper work. In terms of advancing policy, it gives preference to systems which avoids the carbon work through solar energy design. It doesn't give finance to the unhealthy exertion which impact on the Ozone subcaste. It had also started mobile banking, internet banking, tele banking, app banking and UPI for providing green or digital service to their customers.

Bank of Baroda

On Bank of Baroda’s 116th Foundation Day, the bank had proudly launched 'Baroda Earth,' reaffirming our commitment to nature. TAB banking, digitization, and automation drive energy-efficient operations. Green Consultants in 10 zones mark progress. 171 branches run on solar power, cutting carbon emissions. Waste segregation, with wet waste for biogas, showcases responsible practices. IGBC-Gold for BCC Building and Silver for BST Building reflect our eco-friendly infrastructure. The 2nd edition of the Green Ride with Milind Soman promotes sustainable transportation and a green lifestyle. 'Swachhta Pakhwada' from 16th to 31st January 2023 includes activities for clean and green living. A Mangroves clean-up program on 23rd June collects 600kgs of marine debris. Corporate offices are paperless since 2020, with plans for paperless banking in branches. Our ongoing efforts promise a sustainable and happier future for humanity.

On the momentous occasion of Bank of Baroda’s 116th Foundation Day, we reaffirm our commitment and responsibility towards protecting & preserving the gifts of nature for our future generations. Hence, the bank has decided to launch a number of ‘Green Initiatives’ under the name of Baroda Earth.

As part of this initiative, we have ensured energy efficient infrastructure by ensuring TAB banking, digitization and automation of customer processes like Audit Automation, Video KYC and compliance reporting. Green Consultants have also been appointed in 10 zones converting each step into an achievement.

The bank has made significant strides in digitization, focusing on providing a seamless customer experience through various digital and alternate delivery channels. Here's a concise overview of key digital banking products and their performance:

1. Bob World:

Activation increased to 102.72 Lakh in FY 2023, with a 1.2% growth. Financial transactions grew by 25.66%, reaching 1,864.7 lakh. Non-financial transactions increased by 26.51% to 27,745 lakh.

2. Debit Cards:

Active card base increased to 8.25 crore, marking an 11% YoY increase. Launched specialized debit cards, including premium and super premium cards. Conducted 26 campaigns with popular merchants to boost e-commerce/POS transactions. Platinum debit card base increased by 83%, reaching 1.24 crore.

3. Baroda FASTag:

Issued 1.71 lakh FASTags in FY 2023. FASTag available through the bob World mobile app for BOB customers. Open for application by both customers and non-customers through the FASTag customer portal.

4. Bharat Bill Payment System (BBPS):

Processed 3.29 crore bill payment transactions, totaling approximately ₹4,800 crore. On-boarded Pimpri Chinchwad Municipal Corporation (PCMC) biller under Municipal Tax category.

5. ATM and Cash Recycler Machines:

Network includes 9,764 ATMs and 1,637 Cash Recyclers as of March 31, 2023. Features include green pin generation, National Electronic Fund transfer, and UPI ATM services. Ongoing revamping/replacement of existing ATMs under the OPEX model.

6. Internet Payment Gateway (IPG):

Achieved 16% growth in IPG merchant on-boarding in FY 2023. Offers a secure interface for online payment processing through various modes.

7. BHIM Baroda Pay (UPI):

46% increase in merchant on-boarding for UPI QR compared to FY 2022. Significant growth in UPI QR transactions from 2.34 Crores to 6.63 Crores.

8. Bob World (Internet Banking):

On -boarded new customers, increasing Internet Banking users to 99.71 lakh in FY 2023 from 88.09 Lakh in FY 2022.

9. Baroda TabIT:

Digitized customer onboarding through tablets for instant CASA opening. More than 63 lakh savings accounts and 2.3 lakh current accounts opened through the platform. Initiated credit card issuance and self-help group account opening via bob World Tab.

The bank continues to enhance its digital offerings, providing a comprehensive suite of products to cater to diverse customer needs.

VI. GUIDELINES OF RBI REGARDING GREEN BANKING

Banking guidelines of the (RBI) Reserve Bank of India have suggested the introduction of a standard for the ranking of environmental banking and other financial practices between India's green banks. According to RBI guidelines, green banking is to make internal bank processes, physical infrastructure, and Information Technology effective towards the environment by reducing its negative impact on the environment to the minimum level. RBI states that the core objectives of the banks must not be maximizing the profit, but it should take into account environmental protection. The Institute of Development and Research and in Banking Technology (IDRBT) set up by the Reserve Bank of India has proposed the introduction of standard rating for green efficient banks and banking practices among Indian Banks.

GREEN FINANCE STRATEGIES ADOPTED BY BNP PARIBAS WORLD'S BEST BANK AND WORLD'S BEST BANK FOR SUSTAINABLE FINANCE

Euromoney honored BNP Paribas as the World's Best Bank and best Bank for Sustainable Finance in its 2023 Awards for Excellence. The bank, committed to net-zero goals, has significantly transformed its energy financing approach. By September 2022, 54% of its energy production financing was dedicated to low-carbon initiatives. BNP Paribas aims to achieve €40 billion in low-carbon energy financing by 2030, constituting nearly 80% of its total energy production exposure. Expanding its sustainability focus, the bank extends alignment objectives to sectors like Steel, Aluminium, and Cement. In these challenging-to-transition industries, BNP Paribas supports clients at various stages of their low-carbon journeys. The bank not only deploys expertise and capital but also incubates key transition technologies, such as CO2 capture and low-carbon hydrogen. Notably, BNP Paribas plays a pivotal role in financing groundbreaking projects, like the €3.5 billion support for H2 Green Steel's large-scale integrated hydrogen-based green steel facilities in Northern Sweden, demonstrating its commitment to advancing sustainable practices in industries crucial for a low-carbon future.

CHALLENGES AND HURDLES FACED PUBLIC SECTOR BANKS WHEN IMPLEMENTING GREEN BANKING PRACTICES

Public sector banks face several challenges when implementing green banking practices, which aim to align their operations with environmental sustainability and promote responsible lending. Here are some of the key challenges:

Limited Expertise: Public sector banks often lack the necessary expertise and knowledge about green banking practices and sustainable finance. Training staff and building capacity in this area can be a significant challenge.

Regulatory Framework: The regulatory framework for green banking may not be well-defined or consistent across jurisdictions. Banks may struggle to navigate the complex and evolving regulatory landscape.

Risk Assessment: Green projects can pose unique risks, such as technology and market-related risks. Public sector banks need to develop robust risk assessment models to evaluate the viability of green projects.

Financing Constraints: Green projects may require larger upfront investments and have longer payback periods, making them less attractive from a short-term financial perspective. Public sector banks may face difficulties in mobilizing funds for such projects.

Limited Green Investment Opportunities: In some regions, there may be a shortage of viable green projects to invest in. Banks may struggle to find suitable opportunities to deploy their green finance resources.

Consumer Awareness: Public sector banks may encounter challenges in raising awareness among consumers about green banking products and services. Many consumers may not be familiar with the benefits of sustainable finance.

Data Availability: Accurate and reliable data on the environmental performance of potential borrowers can be scarce. Banks need this data to assess the environmental impact of projects and make informed lending decisions.

Transition Risk: Public sector banks may have significant exposure to industries that are transitioning to more sustainable practices. Managing the risks associated with this transition can be complex and challenging.

Coordination with Stakeholders: Collaborating with various stakeholders, including government agencies, environmental organizations, and local communities, is essential for the success of green banking initiatives. Coordinating these efforts can be time-consuming and require effective communication.

Reporting and Disclosure: Banks need to report on their environmental and social performance, which can be resource-intensive and require transparent reporting mechanisms.

Despite these challenges, public sector banks play a crucial role in driving the adoption of green banking practices and sustainable finance. Overcoming these obstacles will require a concerted effort, including capacity building, regulatory support, and collaboration with stakeholders, to promote environmental sustainability while maintaining financial stability.

VII. CONCLUSION

It can be concluded from the above discussion that various banks of world had taken green banking initiatives to protect the world from the deadlier effect of climate change. Indian banks are not far behind in this regard. Some leading public and private sector banks took various steps to adopt green banking such as mobile banking, issuance of green bond and green funds, minimising use of paper work, app banking, internet banking, UPI etc. The Institute of Development and Research and in Banking Technology (IDRBT) set up by the Reserve Bank of India has proposed the introduction of standard rating for green efficient banks and banking practices among Indian Banks. Banking guidelines of the (RBI) Reserve Bank of India have suggested the introduction of a standard for the ranking of environmental banking and other financial practices between India's green banks. Despite challenges to green banking in India, public sector banks play a crucial role in driving the adoption of green banking practices and sustainable finance. Overcoming these obstacles will require a concerted effort, including capacity building, regulatory support, and collaboration with stakeholders, to promote environmental sustainability while maintaining financial stability.

References

[1] Choubey, A., & Sharma, M. (2022). Green banking: the case of the commercial banking sector in Delhi NCR. Journal of Environmental Planning and Management, 65(11), 1975-1998.

[2] Gupta, M., Abrol, S., & Bhattacharya, P. A Comparative Study of Green Banking Initiatives Implemented by the Indian Banks. Editorial Advisory Board, 51.

[3] Ghosh, K. (2021). Green initiatives by banking sector in India. Eurasian Journal of Management & Social Sciences, 1(4).

[4] Raja, P., & Muthaiyan, M. (2019). Green Banking-Awareness on Developing Plans in Public Sector Banks for Future Environment. International Journal of Environment, Ecology, Family and Urban Studies (IJEEFUS), 9, 67-74.

[5] Singh, M. A., & Zaheer, A. (2023). Review on impact of Ai on green banking towards sustainability with special reference to Indian public and private bank. Journal of Survey in Fisheries Sciences, 10(4S), 2475-2492.

[6] SV, P. K., & Rajitha, M. (2023). A Study of Green Banking Practices in Domestic and International Banking Sectors. Advance Research In Money And Banking, 32.