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ROLE OF GREEN BANKING IN PROMOTING SUSTAINABLE DEVELOPMENT GOALS (SDGS)

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ABSTRACT:

The emergence of environmental challenges, climate change, and sustainable development imperatives has significantly reshaped the priorities of the global financial sector. In this context, green banking has gained prominence as an innovative approach that integrates ecological responsibility into financial services. Green banking refers to the adoption of environmentally sustainable practices in banking operations, including paperless transactions, green lending, renewable energy financing, and promotion of digital banking. Its relevance has further expanded with the adoption of the United Nations Sustainable Development Goals (SDGs), which serve as a global blueprint for poverty reduction, environmental protection, and inclusive economic growth by 2030. This paper examines the role of green banking in promoting SDGs, with a particular focus on goals related to affordable and clean energy (SDG 7), industry and infrastructure (SDG 9), responsible consumption and production (SDG 12), and climate action (SDG 13). The study draws insights from existing literature, secondary reports, and global case studies of banking institutions that have pioneered sustainability-driven initiatives. Findings suggest that green banking contributes not only to environmental protection but also to long-term profitability and stakeholder trust, thereby creating a balance between financial performance and social responsibility. However, challenges such as high implementation costs, lack of awareness, regulatory gaps, and uneven adoption across countries continue to limit its impact. The paper concludes that mainstreaming green banking requires stronger regulatory frameworks, innovative financial instruments such as green bonds, and collaborative efforts among banks, governments, and international organizations. In doing

so, green banking can serve as a powerful catalyst for achieving the SDGs and fostering sustainable development worldwide.

KEYWORDS: Green banking, Sustainable Development Goals, climate action, financial sustainability, green finance.

INTRODUCTION

The global financial sector plays a crucial role in shaping the direction of economic growth, resource allocation, and sustainable development. Traditionally, banking activities were evaluated on the basis of profitability, market share, and customer base. However, the rising concerns about climate change, environmental degradation, and social inequality have compelled banks to move beyond profit maximization toward sustainability-oriented operations. This shift has given rise to the concept of Green Banking a strategy that integrates environmental and social considerations into banking policies, operations, and investments.

At the same time, the United Nations Sustainable Development Goals (SDGs), adopted in 2015, have set a global agenda for eradicating poverty, reducing inequality, ensuring environmental sustainability, and promoting inclusive economic growth by 2030. These 17 goals represent a holistic framework that requires collaboration among governments, corporations, civil society, and financial institutions. Among these stakeholders, banks are uniquely positioned to act as financial intermediaries for channeling resources into sustainable projects, promoting green finance, and supporting environmentally responsible investments. Therefore, understanding the role of Green Banking in achieving the SDGs has become an essential academic and policy-oriented research area.

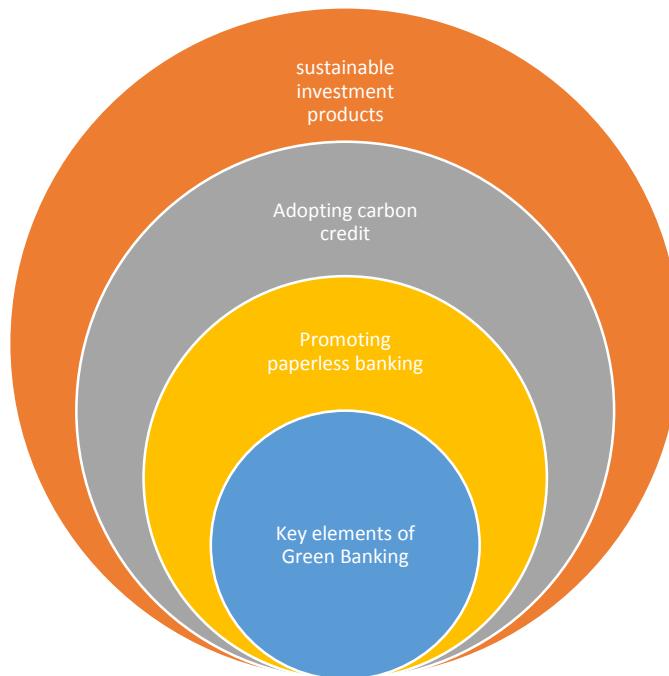
Concept of Green Banking: Green Banking can be defined as environmentally responsible banking practices that reduce the ecological footprint of banking operations and promote sustainable economic growth. This includes internal measures, such as reducing paper use, digitalizing banking services, and adopting energy-efficient practices, as well as external measures like financing renewable energy projects, supporting green businesses, and issuing green bonds.

Key elements of Green Banking include:

- 1.1. Promoting paperless banking (e-statements, e-payments, mobile banking).

- 2.1. Financing environmentally friendly projects (renewable energy, waste management, electric mobility).
- 3.1. Adopting carbon credit and environmental risk assessment in lending practices.
- 4.1. Offering green loans and sustainable investment products.
- 5.1. Supporting Corporate Social Responsibility (CSR) and environmental awareness campaign.

Table 1: Key Elements of Green Banking.



Principles of Green Banking:

Green banking is guided by several core principles, including:

- Environmental Responsibility: Minimizing the environmental impact of banking activities and supporting projects that address climate change and resource depletion.
- Social Equity: Promoting financial inclusion and supporting projects that enhance social well-being.
- Economic Viability: Ensuring that green initiatives are financially sustainable and profitable.
- Transparency and Accountability: Disclosing environmental and social impacts of banking activities to stakeholders.

These principles align closely with the SDGs, positioning green banking as a vital tool for sustainable development.

These initiatives directly or indirectly contribute to several SDGs such as SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action).

Sustainable Development Goals (SDGs) and Banking Sector:

The SDGs emphasize the balance between economic growth, environmental sustainability, and social inclusion. Banks can accelerate progress toward these goals in three ways:

1. Financing Sustainable Projects – supporting renewable energy, green infrastructure, and climate-smart agriculture.
2. Internal Green Practices – reducing carbon footprint through energy conservation, paperless transactions, and digital banking.
3. Promoting Financial Inclusion – ensuring access to affordable and sustainable financial services for marginalized communities (contributing to SDG 1: No Poverty and SDG 10: Reduced Inequalities).

Thus, green banking provides a strong linkage between financial performance and sustainability outcomes.

Literature of Review

1. Green banking represents a paradigm shift in the financial sector, where banks integrate sustainability considerations into their operations and lending activities. According to Bahl (2012), green banking refers to environmentally responsible banking practices that encourage sustainable development while minimizing the carbon footprint of banking operations. The idea is to create a “triple bottom line” impact—economic, social, and environmental—rather than focusing solely on profitability.
2. Green banking practices can be categorized into two dimensions: internal and external. Internally, banks adopt eco-friendly measures such as reducing paper usage, energy-efficient infrastructure, and digital transactions. Externally, banks support projects in renewable energy, clean technology, and sustainable businesses through green loans and investments (Sahoo & Nayak, 2008). By doing so, banks align their operations with the broader sustainability agenda, thus contributing directly to multiple SDGs.
3. The United Nations' 2030 Agenda for Sustainable Development highlights 17 SDGs that call for joint efforts across nations, institutions, and industries. Green banking is directly related to several of these goals. For instance, by financing renewable energy, banks support SDG 7 (Affordable and Clean Energy). By investing in sustainable infrastructure,

banks contribute to SDG 9 (Industry, Innovation, and Infrastructure). Digitalization and resource-efficient practices address SDG 12 (Responsible Consumption and Production), while climate-related financing fosters SDG 13 (Climate Action). (United Nations, 2015).

4. Scholtens (2009) emphasized that banks act as gatekeepers of financial resources and therefore influence the direction of economic activities. By adopting green finance, banks can encourage industries to transition toward sustainable practices. Similarly, Weber (2017) argued that integrating sustainability into banking not only contributes to SDGs but also strengthens banks' resilience to environmental and reputational risks.
5. An important stream of literature focuses on whether green banking improves or reduces banks' profitability. Bahl (2012) suggested that while initial investments in green technology may increase costs, long-term benefits include operational efficiency, better risk management, and improved customer trust. Similarly, Kumar and Prakash (2019) found that green banking practices are positively correlated with banks' financial performance, as environmentally conscious customers prefer to engage with sustainable financial institutions.
6. Consumer awareness plays a crucial role in the success of green banking initiatives. Jain and Jain (2014) observed that customers in India, while supportive of digital banking and e-statements, often lack awareness of banks' broader sustainability efforts. In contrast, consumers in developed countries are more conscious of sustainability and therefore exert greater pressure on banks to adopt green practices (Meena, 2013).
7. A study by Miah and Rahman (2016) in Bangladesh revealed that consumers' willingness to use green banking services is influenced by perceived convenience, environmental concern, and trust in banks. This indicates that banks need to increase customer education and engagement if they wish to expand the reach and impact of their green products.
8. Despite its potential, several challenges hinder the widespread adoption of green banking. High implementation costs, lack of technical expertise, and limited consumer awareness are key barriers (Biswas, 2011). Moreover, there is often a short-term profit vs. long-term sustainability trade-off, which discourages banks from investing in green projects (Weber & Scholz, 2010).

RESEARCH METHODOLOGY

Research Objectives: The objectives of this study are as follows:

1. To analyze the role of green banking in promoting selected Sustainable Development Goals (SDGs).

2. To evaluate the strategies adopted by banks for implementing environmentally sustainable practices.

Data Sources

The study relies primarily on secondary data sources to ensure comprehensive coverage of the subject. Sources include:

Academic Literature: Peer-reviewed journal articles, conference papers, and books on green banking, sustainable finance, and SDGs.

Policy and Regulatory Documents: Reports and guidelines published by global institutions such as the United Nations Environment Programme Finance Initiative (UNEP FI), World Bank, International Monetary Fund (IMF), and national regulators like the Reserve Bank of India (RBI) and Bangladesh Bank.

Industry Reports: Publications from commercial banks, consultancy firms, and international organizations, including sustainability reports and green banking disclosures.

Case Studies: Evidence from both developed and developing countries, highlighting successful practices, challenges, and policy interventions.

Green Banking and the Sustainable Development Goals

Green banking contributes to multiple SDGs by channeling financial resources toward sustainable projects and fostering inclusive economic growth. This section examines its impact on key SDGs.

SDG 7: Affordable and Clean Energy

SDG 7 aims to ensure access to affordable, reliable, sustainable, and modern energy for all. Green banking supports this goal by financing renewable energy projects such as solar, wind, and hydroelectric power. For instance, banks offer green loans and bonds to fund solar panel installations and wind farms, reducing reliance on fossil fuels. Additionally, green banking promotes energy-efficient technologies in industries and households, contributing to energy access and sustainability.

Example: The European Investment Bank (EIB) has financed numerous renewable energy projects across Europe, supporting SDG 7 by providing low-interest loans for solar and wind energy infrastructure.

SDG 8: Decent Work and Economic Growth

SDG 8 focuses on promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Green banking contributes by financing small and medium enterprises (SMEs) engaged in sustainable practices, creating jobs in sectors like

renewable energy and organic farming. By offering microfinance and green loans, banks empower entrepreneurs in underserved communities, fostering economic inclusion and reducing poverty.

Example: In India, banks like the State Bank of India (SBI) provide green loans to SMEs for adopting energy-efficient technologies, creating jobs and supporting sustainable economic growth.

SDG 13: Climate Action

SDG 13 calls for urgent action to combat climate change and its impacts. Green banking plays a critical role by financing climate-resilient infrastructure and renewable energy projects. Banks also adopt ESG criteria to avoid funding high-carbon industries, such as coal-based power plants. Green bonds, a key instrument in green banking, mobilize capital for climate mitigation and adaptation projects.

Example: In 2020, HSBC issued green bonds worth \$1 billion to finance projects aimed at reducing greenhouse gas emissions, directly supporting SDG 13.

SDG 11: Sustainable Cities and Communities

SDG 11 aims to make cities inclusive, safe, resilient, and sustainable. Green banking supports this goal by financing green infrastructure projects, such as energy-efficient buildings, public transportation systems, and waste management facilities. By providing loans for sustainable urban development, banks help cities reduce their environmental footprint and improve quality of life.

Example: The Asian Development Bank (ADB) has financed sustainable urban transport systems in Asian cities, promoting low-carbon mobility and supporting SDG 11.

SDG 1: No Poverty and SDG 10: Reduced Inequalities

Green banking addresses poverty (SDG 1) and inequality (SDG 10) by promoting financial inclusion. By offering microfinance and affordable loans to marginalized communities, banks enable access to clean energy, education, and entrepreneurship opportunities. These initiatives empower individuals to break the cycle of poverty and reduce income disparities.

Example: Grameen Bank in Bangladesh provides microfinance to rural women for solar home systems, improving energy access and reducing poverty.

Other Relevant SDGs

Green banking also supports other SDGs, including:

- SDG 6 (Clean Water and Sanitation): Financing water conservation and wastewater treatment projects.

- SDG 12 (Responsible Consumption and Production): Promoting sustainable business practices through green loans.
- SDG 15 (Life on Land): Supporting reforestation and biodiversity conservation projects.

Case Studies of Green Banking Initiatives

To illustrate the practical impact of green banking, this section presents case studies of successful initiatives.

Triodos Bank (Netherlands): Triodos Bank, a pioneer in sustainable banking, operates with a mission to finance projects that benefit people and the planet. The bank has financed over 500 renewable energy projects across Europe, contributing to SDG 7 and SDG 13. Its transparent reporting and ESG integration have set a benchmark for green banking globally.

Impact: Triodos Bank's investments have reduced CO2 emissions by over 1 million tons annually, supporting climate action and sustainable energy access.

State Bank of India (India): The State Bank of India (SBI) launched a green banking policy in 2011, focusing on financing renewable energy and energy-efficient projects. SBI's green loans have supported SMEs in adopting sustainable technologies, creating jobs and promoting SDG 8.

Impact: SBI's green financing initiatives have empowered over 10,000 SMEs, contributing to economic growth and environmental sustainability.

Banco Santander (Spain)

Banco Santander has integrated ESG criteria into its lending and investment decisions, issuing green bonds to finance renewable energy and sustainable infrastructure projects. The bank's efforts align with SDGs 7, 11, and 13.

Impact: Santander's green bonds have mobilized \$5 billion for sustainable projects, including wind farms and energy-efficient buildings.

Challenges in Implementing Green Banking

Despite its potential, green banking faces several challenges:

- **High Initial Costs:** Green projects often require significant upfront investment, deterring banks and clients.
- **Lack of Awareness:** Many customers and businesses are unaware of green banking products and their benefits.
- **Regulatory Barriers:** Inconsistent regulations across countries hinder the adoption of green banking practices.

- Risk Assessment: Assessing the financial viability of green projects requires specialized expertise, which many banks lack.
- Greenwashing: Some banks may falsely claim to be “green” to attract customers, undermining trust.

Recommendations

To maximize the impact of green banking on the SDGs, the following recommendations are proposed:

- Policy Support: Governments should introduce incentives, such as tax breaks and subsidies, to encourage green banking practices.
- Capacity Building: Banks should invest in training programs to enhance expertise in green project financing.
- Public Awareness: Awareness campaigns can educate customers about the benefits of green financial products.
- Standardized Frameworks: Global standards for green banking can ensure consistency and prevent greenwashing.
- Partnerships: Collaboration between banks, governments, and NGOs can amplify the impact of green banking initiatives.

CONCLUSION

Green banking represents a transformative approach to aligning financial systems with the global sustainability agenda. By financing renewable energy, promoting financial inclusion, and integrating ESG criteria, green banking contributes significantly to achieving the SDGs. While challenges such as high costs and regulatory barriers persist, strategic interventions can enhance its effectiveness. As the world strives to meet the 2030 Agenda, green banking will remain a cornerstone of sustainable development, fostering a future where economic growth, environmental protection, and social equity coexist harmoniously.

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