

Green Banking Prospects in Bangladesh: Policy Initiative by Bangladesh Bank and Adoption by the Scheduled Banks

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Abstract:

In this paper, researchers try to highlight the Green Banking (GB) policy or guidelines formulated by Bangladesh Bank (BB, present practices and adoption by the scheduled State-Owned Commercial Banks (SOCBs), Specialized Banks (SDBs), Private Commercial Banks (PCBs), and Foreign Commercial Banks (FCBs) of Bangladesh. Besides comparative analysis among time to time reported practices, strategies and steps taken by the said banks relating to Green Banking (GB) are made. For conducting this study, researchers has considered only secondary data published by Bangladesh Bank (BB) and the authors have found that most of the banks have already started to follow the guidelines laid down by the central bank and still trying to conform with the policy and regulations by central bank.

Keyword: *Green banking; Bangladesh Bank; Environment; Green banking Policy, Guidelines and Initiatives; Sustainable Banking; Green Financing; SOCBs; SDBs; PCBs; FCBs; Comparative Analysis.*

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I. Introduction

Our planet is the only planet among the whole Universe that has a well formed ecological environment and mustered with a balanced biodiversity. Thus this characteristic of this planet make it rich with all the affinities to support the existence of life both for human being and for flora and fauna.

We human beings have been living in our earth for more than thousands of years. We are planting and cultivating here, extracting and mining from here and building here, above all we are solely depending on this world. From the evolution of the human being, the world is getting populous every day. So as a result the extracting from earth and side by side disturbance of earth's biodiversity and ecological balance by the attempts of greedy and unconscious people is increasing as well. We have experienced a time when there is no considerations for this green environment while extracting environment for the purpose of making profit. As for example we can name the term "Carbone Footprint".

As we travelled our time, world is getting more conscious about environment especially while we collect from our environment for financial purpose. The public concern of the state of environment has been growing rapidly in the last few years, mostly due to unusual weather patterns, rising greenhouse gases, declining air quality, etc. (Zeitlberger, 2007). The present world's most uttered word is "Green". Most of the country of world are now emphasizing on this green concept that means environment friendly. Peoples all over the world who are responding with this concept require eco friendly actions from different business entities including banks. It is known that the centre entity of all financial activities all over the world is Bank. Banks are already started being eco friendly by adopting "Green Banking" practices. So what the term green banking actually refers to?

Green Banking:

Bai, Y. (2011) noticed in some studies that the term "green" and "sustainable" normally refer to define a broad range of social, ethical and environmental dimensions and he himself in his study, expresses the term "Green" to describe banks' impacts on the environment, environmental responsibility as well as environmental performances in their lending activities.

Zhelyazkova, V. & Kitanov, Y. (2015) mentioned that, "There is no commonly accepted definition of the term 'Green Banking' outlining its precise meaning and scope."

Islam, A. (2018) said that, "A bank can grow itself as a green bank through the application of environment friendly policies in every sector of its activities and through the elimination of Carbon Footprints from its

premises without changing the main banking functions. Such a bank can act as an ethical bank, moral bank, responsible bank and sustainable bank in a society.”

Bhardwaj, B.R. & Malhotra, A. (2013) posited that, “Green Banking is an effort to make the industries grow green and in the process restore the natural environment with a view to ensuring green safety and sustainable ecological balances.”

“*Green* Banking is providing innovative green products and support activities that are not hazardous to the environment and help conserve the environment. Green Banking has a role to safeguard the planet from unusual weather patterns, rising greenhouse gas, and declining air quality, with the aim of ensuring economic growth which is sustainable.” - Green Banking Report, March 2012: Bangladesh Bank’s Initiatives and Bank’s Activities.

The definition proposed by the authors is that green banking is a system of banking that doesn’t cause any harm to environment in performing its operations like deposit gathering, credit disbursement, trade finance, leasing operations, and other regular services, etc., in using up of internal resources to support regular stewardship and provides no financial support to financial units or entity that will lead to environmental degradation like increased carbon emission, pollution or excess consumption of natural resources etc. obviously without changing the main banking functions.

II. Literature Review

“Bank usually acts as an intermediary in the whole economy system of a country as well as we can say all over the world. Due to their intermediary role in the economy, banks hold a unique position with regard to sustainable development” (Jeucken, M. & Bouma, JJ. 1999). They describes that in terms of emissions and pollution, bankers generally consider themselves to be in a relatively environmentally friendly industry. However, given their potential exposure to risk, they have been surprisingly slow to examine the environmental performance of their clients.

Schmidhcin, S. & Zorraquin, F.J.L. (1996) states that commercial banking has been emphasized on investment banking rather environmental risks but it would play a larger role in their investment decision in the near future.

Today, an increasing number of banks are going green by providing innovative products to support the activities that are not hazardous to environment and help conserve environment. Such activities are known as 'Green Banking', 'Environmental Banking' or 'Sustainable Banking' and the banks doing these activities are popularly called 'Environmental Bank', 'Green Bank', 'Sustainable Bank' or 'Ethical Bank' (Ullah, S., 2014).

As it had already been evident before twenty-first century that Bangladesh is in deep environmental risk and would going to be more dangerous within half of a century and financial profit making will be one of the responsible factors, GB started to emerge.

Masukujjaman, M. & Aktar, S. (2013), opined in this context that only bearing green placard is not sufficient for banks.

For this, banks will require a well-structured and transparent policy framework as well as long-term strategy. The practice of GB or environment friendly banking in banks and non-banking financial institutions (NBFIs) in Bangladesh is now very common. And it can surely be said that the initiator is BB.

Ullah, S. (2014) noted, “Bangladesh Bank (BB) has been supporting the government in achieving environmental objectives through banks and financial institutions and from time to time it has been undertaking many initiatives including environmental regulations, refinancing facilities, etc”. He mentioned some praiseworthy initiative taken by BB as well as CSR based guidelines to commercial bank for ensuring sustainable banking.

Md. Touhidul Alam Khan wrote an article on Green Banking and the title is “Green Banking: go green, think green”. He said in his article that, “being a responsible corporate body and with a view to developing green banking practices in the country Bangladesh Bank issued a circular on 27th February, 2011 (BRPD Circular No.2) on Policy Guideline for Green Banking towards banks.

The prime authority of BB framed various policy guidelines to bring the scheduled bank and NBFIs under the scope of GB practice. Among those, the policy guidelines issued to the scheduled banks in February 2011 and to NBFIs in August 2013 and to the new banks in September 2013 are considered as the roadmap toward the initiative to ensure GB practices. BB also gives recognition to the banks for the better GB practice.

Farook Hossan, in his article published in The Daily Star, named ‘Green Banking’ has mentioned that, “Top ten names of banks will be declared by the Bangladesh Bank for their overall performance in green banking activities in the BB websites and the Bangladesh Bank will enthusiastically consider green banking activities of a bank while granting permission for opening new branch of bank.”

Bangladesh Bank (BB) also offered some benefits like additional point in CAMELS rating (under management component)...(Masukujjaman, M. and Aktar, S., 2013).

Rahman, S.M.M., & Barua, S. (2016), conducted their study on the phase-wise implementation data and found that the implementation of the 19 policies in three phases remained fragmented and policies related to paper-work or desk-based work have been implemented quickly while field level implementation related policies are less prioritized by the scheduled banks. They opined that state-owned banks are the worst performers with the lowest implementation level of the GBG while foreign banks are the top performers and the domestic private banks are in the second place. They demanded their findings on state-owned and private banks confirms the findings of Ullah (2012) while they used around 10 times larger sample size and a more rigorous and differentiated method than Ullah (2012).

Ullah (2013) also said, "The study bring to a closed that in-spite of a lot of prospect in green banking, SCBs and SDBs are far behind in the implementation of green banking only some of PCBs , FCBs have initiated towards green banking. But total scenario is very insignificant according to BB policy."

Hoque, N., Mowla, M.M., Uddin, M.S., Mamun, A. & Uddin, M.R. (2019) posited that banks and NBFIs are still at their infancy in practicing green banking. They practice green banking/financing more or less following the guidelines prescribed by Bangladesh Bank, the central bank of Bangladesh.

III. Objective of the Study

The researchers consider the policy formulation and guidelines prescribed to scheduled SOCBs, SDBs, PCBs and FCBs to ensure the practice of Green Banking and attempt to compare the aggregate GB performances by each category of scheduled banks with the guidelines prescribed by BB as the main objective of this paper. The other objectives are:

- a) Firstly, to review the relevance of GB to the context of this country.
- b) To highlight the GB initiatives taken by BB.
- c) To explore the policy adoption and implementation strategy of BB.
- d) To explore the nature of GB and financing performance of scheduled banks.
- e) To portray an overall and comparative picture of GB performances by Banks.
- f) To examine whether the policies and strategies adopted by BB are timely approach and enough.
- g) To provide suggestions about green banking to the banking industries of Bangladesh.

IV. Rationale of the Study

Banking sector acts as the main center for all financial facilities. It is easy to find bankers involvement in everywhere of financial sectors from giving business suggestions to providing capital or finance different types of commercial projects. Among them there are some projects which are responsible for higher carbon footprint and resource wastage such as power plants, brick fields, refining natural resources, steel, paper, cement, chemicals, fertilizer, and textiles etc. Therefore, the banking sector can act as a channel through which a harmonization between economic development and environment protection can be brought up. GB also encourages socially responsible investment practices. In Bangladesh, BB as the central bank and the mother institution of banking industry has the main authority to make policies, taking strategies and to assure the proper adoption of GB policies. BB formulated policy guidelines on GB in February 27, 2011 from Banking Regulation & Policy Department named BPRD Circular No. 02 as an organized step on ensuring GB practice where there was a three phase policy guidelines. The timeline for adopting those policies was 31 December, 2013. BB also has been publishing GB review reports from 2012 on a continuous basis. The last quarterly review reports available to authors is up to June, 2019. So it is the need of time to conform to GB policy and guidelines formulated previously and also to monitor the present GB practice. It is necessary to examine the current time relevance of the policy. So through this study authors make an attempt to draw a present picture on green banking policy formulation and adoption practice by the banks of Bangladesh scheduled under BB.

V. Research Methodology

It's a qualitative study and based mainly on examinations and review of secondary data source like BB's reports and circulars, sustainability reports and annual report published by banks, research papers, different published information from environmental organization, seminar etc. No statistical tool has been used to conduct this research and it's totally a theoretical and review based work. Especially each Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities published by BB from 2015 to 2019 (up to June) were reviewed thoroughly and findings are used to flourish this paper. Eight GB policies such as Policy Formulation & Governance, Environmental Risk in Core Risk Management, In House Environment Management, Online Banking, Supporting Employee Training, Consumer Awareness and Green Event, Introducing Green Marketing, Creation of Climate Risk Fund and Introduction of Green Financing are taken as criteria to examine and compare the performances of banks. Green Banking practices and performances by banks from 2015 to 2019 (up to June) based on the above mentioned criteria are analyzed. Authors attempt to do both year to year analyses among the categories of banks and year to year progressive

analyses for individual category of banks to portray the comparative picture. The concluding remarks and recommendations are made basing on the comparative analysis.

VI. Initiative Taken by Bangladesh Bank

As an emerging economy, Bangladesh is looking for a change in banking strategy to conform to the global green banking strategy (Chowdhury, A.A. & Dey, M., 2016).

BB as the central bank of Bangladesh and as one of the main regulators of Bangladesh's economy showed much concern in the regards of climate change and to the role of financial plods toward making this adverse change.

Thereby Bangladesh Bank itself appears to be an example for the financial sector by performing some green banking activities for its head office and branch office management. These activities certainly convey a strong message to the financial institutions about the seriousness of Bangladesh Bank in its green movement (Masukujjaman M. and Aktar, S., 2013).

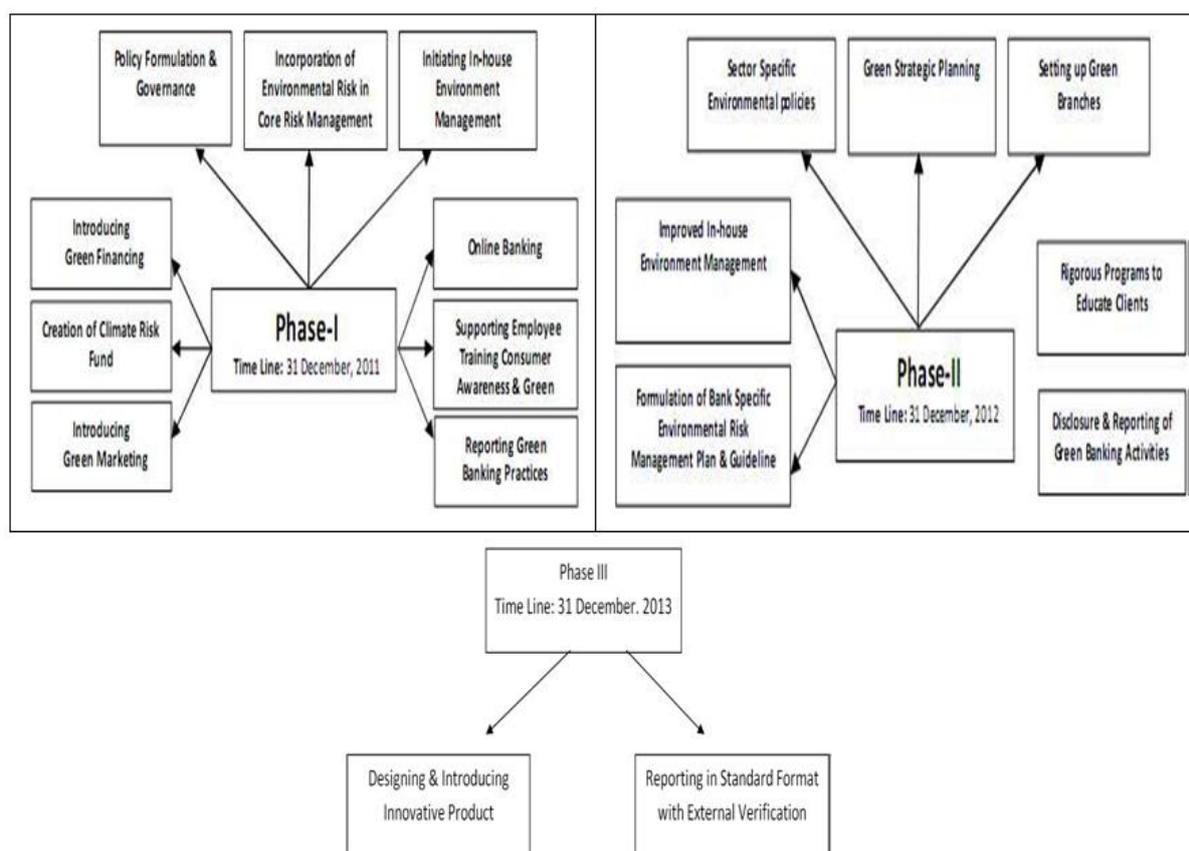
Green Banking Policy Initiatives taken by Bangladesh Bank:

1. In 1997, in a circular from Bangladesh bank, BB BRPD Circular No. 12 dated August 10, 1997, commercial banks of the country were asked to ensure measures controlling environmental pollution before financing a new project or providing working capital financing to the existing enterprises (Ullah, S., 2014).
2. BB established a revolving refinance scheme amounting to Taka 2 billion (200 crore) from its own fund for solar energy, bio-gas and effluent treatment plant (ETP) in 2009 to ensure the extended financing in green products.
3. It was said in BRPD Circular No. 06/2010 (mentioned in GBCSRD Circular No. 08 dated December 24, 2013), that two committees comprising the Board members- Audit Committee and Executive Committee, either of these two committees was supposed to be responsible to review the banks' green or environmental policies, strategies and program.
4. BB formulates policy instructions for the first time regarding GB for guiding the banks and NBFIs on Environmental Risk Management (ERM) in January 2011. Later in February 27, 2011, policy guideline named BRPD Circular No.02 Policy Guidelines for Green Banking was issued by Banking Regulation & Policy Department of BB to the scheduled banks.
5. In 2012, banks were provided with a uniform reporting format for reporting GB activities in a structured manner.
6. In 2013, two circulars (GBCSRD Circular No. 04/2013 and GBCSRD Circular Letter No. 05/2013) from BB were circulated to brought FIs and new scheduled banks under the purview of GB activities and uniform reporting system. In both the circulars, Policy Guidelines for GB was issued to FIs and new scheduled banks.
7. According to GBCSRD Circular No. 04/2014 a refinance scheme funded by liquidity of Shariah based banks and FIs in excess of their requirement which was instructed to be explicitly utilized for the direct green financing purposes by the said banks and BB also identified 50 products those could be financed under that scheme. Moreover, at least 5% of the total funded loan disbursement/investment of all banks and FIs was instructed to be used for direct green financing.
8. To ensure the movement towards sustainability against the climate change, In 2015, GBCSRD Circular No. 04/2015 were issued and instructed Banks and FIs to form a 'Climate Risk Fund' to allocate at least 10% of their CSR budget for Climate Risk Fund. This funding can be done in both ways- by providing grants or financing at reduced rate of interest (GBCSRD Circular No. 04/2015).
9. Banks & FIs have been instructed by BB to set up Solid Waste Management System, Rainwater Harvesting and Solar Power Panel in their newly constructed or arranged building infrastructure (SFD Circular No. 01/2016) and all banks and FIs were instructed to establish Sustainable Finance Unit and Sustainable Finance Committee by abolishing both GB and CSR units by BB through SFD Circular No. 02/2016. Guidelines on Credit Risk Management (CRM) for Banks was issued vide BRPD Circular No. 04/2016 which has incorporated the evaluation of Environmental and Social Risks in the process of Credit Risk Management. Besides, by the direction of Honourable Prime Minister, and BB's instruction in conformity with that, all the banks & FIs must ensure the establishment and activeness of Effluent Treatment Plant (ETP) during financing to all possible clients (SFD Circular No 03/2016). In January 2016, a longer-term refinancing window named Green Transformation Fund (GTF) of 200 million USD was launched to ensure sustainable growth in export oriented textile and leather sectors conducive to transformation of green economy in the country (FE Circular No. 02/2016).
10. Guidelines on Environmental and Social Risk Management (ESRM) for Banks and Financial Institutions in Bangladesh along with an Excel-based Risk Rating Model have been issued by the SFD Circular No. 02/2017 which has become enforceable from January 01, 2018 replacing the Guidelines on ERM to all extent. A comprehensive list of eligible product/initiatives for Green Financing purposes for all banks and

FIs has been circulated in September 2017 by SFD Circular No. 04/2017.

11. To monitor GB policy & other regulations and to ensure the quality & uniformity of data provided by Banks & FIs, a new uniform reporting format of Quarterly Review Report on Green Banking Activities has been circulated for Banks & FIs in January 2018 through SFD Circular No. 01/2018
12. To widen the scope of GTF fund launched at 2016 has been opened for all manufacturer-exporters irrespective of sectors against import of capital machinery and accessories for implementing specified green/environment-friendly initiatives since June, 2019 (FE Circular Letter No. 14/2019).

Green Banking Framework by BB for Banks: “Now it is the high time for the banks to adopt a comprehensive Green Banking Policy in a formal and structured manner in line with global norms so as to protect environmental degradation and ensure sustainable banking practices.”- BRPD Circular No.02, 2011. Bangladesh Bank is the first central bank in the world which has taken real initiatives, according to a definite agenda in its vision and mission to play a specific role in green banking (Bangladesh Bank, 2012). BB has developed a policy and strategy framework with a view to enhancing green banking practices by the banks of Bangladesh. ‘Policy Guidelines for Green Banking’ was a time bounded set of policy guidelines where the road map was segregated into 3 phases and was expected to be completed by December 31, 2013. (Masukujjaman M. and Aktar, S., 2013) denoted first phases as ‘Foundation’, second phases as ‘Intensification’ and third phases as diversification.



Source: Bangladesh Bank, BRPD circular NO 02, 2011.

First Phase of implementing green banking activities: As per the guidelines, Phase-I should not exceed December 31, 2011 and the banks were instructed to do the followings-

- a) **Policy Formulation and Governance:** BB instructed all banks for the Green Banking policy formulation and for the proper governance. The notable instructions to banks are-
 - To formulate and adopt broad environmental or Green Banking policy and strategy approved by their Board of Directors.
 - To form a high powered committee responsible for reviewing the bank’s environmental policies, strategies and program.
 - To approve a considerable fund in their annual budget to be allocated for green banking.

- To establish separate Green Banking Unit or Cell, headed by a senior executive, having the responsibility of designing, evaluating and administering related green banking issues of the bank. The unit will report to the high powered committee time to time.

b) Incorporation of Environmental Risk in Credit Risk management (CRM):

As part of the GB policy initiatives BB has instructed banks to comply with the instructions stipulated in the detailed guidelines on Environmental Risk Management (ERM). BB's suggestions in this context to consider Environmental and Climate Change Risk as part of the existing credit risk methodology prescribed to assess a prospective borrower, before investing in a particular project and/or before providing working capital and short or long term fund. The aim of BB is to inspire banks not to invest or lend in anywhere that will create environmental risk. As part of this initiative, projects are reviewed under Environmental Due Diligence (EDD) checklists and then rated for to be financed.

c) Initiating In-house Environment Management:

BB suggested banks to initiate environment friendly activities in their premises to start the Green Banking practices.

Green Office Guide: The offices and branches of banks are suggested to prepare an inventory of the consumption of water, paper, electricity, energy etc. measures to save internal resources. Almost all banks prepare 'Green Office Guide' for efficient use of electricity, water, paper and recycle of equipment.

Measures to save electricity: The offices and branches of banks are saving electricity by using more daylight or energy saving bulbs instead of electric lights, proper ventilation instead of using air conditioning etc.. Installation of panels at their premises, ATM booths and in agent outlet and energy efficient electronic equipment and automatic shutdown of computers, fans, lights, air coolers etc. will also reduce electricity consumption.

Measures to reduce Paper Dependency and Stationary Consumption: Banks are trying to reduce reliance on printed documents by depending on online communication where possible, producing e-statement, sending e-mail and introducing SMS service via mobile phone for customers instead of paper statement and hardcopies for communication and important circulation. In offices and branches, where printed documents are needed, they are doing double-side printing to save papers, applying Eco - font in printing to reduce the use of ink, using scrap paper as notepads and making proper use of printer cartridges and photocopy toner. It is also suggested to ensure common use of table stationeries instead of individual use. Many banks have introduced the soft archival of customer documents to reduce paper consumption and time too.

Others: Hoque, N, Mowla, MM, Uddin MS, Mamun, A, & Uddin MR, (2019) stated in his studies, "Still most of the banks didn't involve in waste management. A few banks and NBFIs report that they collect and dispose centrally both solid waste and e-wastes generated by their different units of operations through e-tendering with a view to ensuring an environment which would be free from pollution." As a part of waste management, banks are encouraged to avoid using disposable and plastic cups/glasses to become more eco- friendly. Bank are required to take steps to reduce corporate business travel to save energy rather making video or audio conferencing, encouraging authorities to use energy efficient vehicles.

d) Introducing Green finance:

Dr. Atiur Rahman, Governor, Bangladesh Bank and Inquiry Advisory Council Member said, "In the face of fundamental threats such as climate change, central banks can play a key role in delivering inclusive, sustainable development. For the Bangladesh Bank, green finance is a strategic tool to reduce risks, support productive investment in clean energy and build a more resilient financial system."

Green financing means financing or giving preference to eco friendly business activities, projects and energy efficient industries for financing. As per the BB's policy guidelines, environmental infrastructure such as renewable energy project, clean water supply project, water treatment plant, solid & hazardous waste disposal plant, bio-gas plant, bio-fertilizer plant should be encouraged and financed by bank as well as consumer loan programs may be applied for promoting environmental practices among clients. BB has pointed categories of sector for direct green financing. These are renewable energy, energy efficiency, solid waste management, liquid waste management, alternative energy, fire burnt brick, non fire block brick, recycling & recyclable product, green industry, safety and security of factory etc.

e) Creation of Climate Risk Fund:

BB suggested banks in policy guidelines to finance the economic activities of the flood, cyclone and drought prone areas at the regular interest rate without charging additional risk premium so that the vulnerable areas and sectors can be revived. For this purpose, banks are guided to create Climate Change Risk Fund as part of banks' CSR expenses.

f) Introducing Green Marketing:

Banks are guided by BB to spread their service line to the environmentally safe sectors where 'Environment friendly products or service' means the products manufactured, modified and processed in an 'Environmentally safe manner'. Banks are also guided to use environmental causes for marketing their services to consumers.

Moreover it will help in serving the purpose of bank for awareness building about environment in the society and in financial activities. Bank may take several steps of green marketing like-

- Arranging and/or sponsoring different programs and events on environmental issues.
- Participating in programs and events on environmental issues arranged by the Govt. and regulatory authority or nationally observed events.
- Inviting research papers or granting fund for conducting research on environmental issues and including them into their publication.
- Advertising of green products and services offered by banks.
- Advertising bank's green initiatives and achievements for excellent performance in green banking.
- Making public disclosure about green banking activities etc.

g) Online Banking:

BB took this initiative to introduce paperless banking, to help environment by eliminating paper waste, saving gas and carbon emission, reducing printing costs and postage expenses. Paperless banking includes online banking, internet banking, mobile banking, ATM banking, Fast Track, SMS banking, Credit Card, Debit Card etc. Banks increase their branches time to time and add internet advantages to the branches.

h) Supporting Employee Training, Consumer Awareness and Green Event:

BB formulates policy and guidelines to the whole banking industry to ensure the proper practice of Green Banking. But the reality is policies and guidelines can be implemented only by the effort of bank's employees whom we called bankers. Besides, the stakeholders of banks are also important in this context. So the BB also give instructions to build awareness about the concept 'Green' and 'Green Banking' among employees and other stakeholders. Banks, in response to this instruction regularly provide training to employees; arrange different seminars, symposiums, discussion meetings, and workshops on green banking and environmental and social risk not only with the employees but also with customers. Hoque, N, Mowla, MM, Uddin MS, Mamun, A, & Uddin MR, (2019) pointed out in their study, "However, the banks did not categorically mention the number of training programs organized for ensuring green banking practices. It is also not mentioned that whether those training programs were effective in terms of objective achievement." BB also suggests that those programs should be arranged in a continuous basis as part of the bank's Human Resource Development and awareness development among consumers and clients would be a continuous job of a bank under its public relation department.

i) Disclosure and Reporting of Green Banking Activities:

Banks are now reporting GB initiatives and practices to BB and making disclosure in websites.

Second Phase of implementing GB activities: As per the guidelines, Phase-I should not exceed December 31, 2011 and the banks were instructed to do the followings-

a) Sector Specific Environmental Policies:

Formulate strategies for designing specific environmental policies for different sensitive sectors which are closely impacts environment or impacted by environment. These are Agriculture, Agri-business (Poultry & Dairy), Agro farming, Leather(Tannery), Fisheries, Textile and Apparels, Renewable Energy, Pulp and Paper, Sugar and distilleries, Construction and Housing, Engineering and Basic Metal, Chemicals (Fertilizers, Pesticides and Pharmaceuticals), Rubber and Plastic Industry, Hospital/Clinic, Chemical Trading, Brick Manufacturing, Ship breaking etc.

b) Green Strategic Planning:

- To determine achievable green targets and set of strategies to achieve targets.
- To disclose green targets and strategies in their annual reports and websites for green financing and in-house environment management as well.
- To establish energy efficiency in the form of the use of renewable energy, reduction of electricity, gas, and petrol consumption, reduction of Green House Gas (GHG) emissions, issuance of e-statements, electronic bill pay, saving papers, environment friendly office buildings etc.
- To introducing eco-friendly financial products etc.
- Not to fund certain environmentally harmful activities and projects.

c) Setting up Green Branches:

Banks are suggested to establish or transforming branches into green branch. A Green Branch will use the maximum natural light and air instead of using electricity, use renewable energy instead of using non renewable energy, facilitated with proper solid and liquid waste management etc.

d) Improved In-house Environment Management:

Strategy of reuse, recycling of materials and equipment, and source reduction and waste minimization strategy should be part of in-house environmental management in Phase-II (BB).

e) Formulation of Bank's Specific Environmental Risk Management Plan and Guidelines:

BB instructed to banks-

- To develop and follow an environmental risk management manual or guidelines to monitoring the projects and working capital loans.
- To ensure exact compliance of national regulation for the conservation of environment and for green banking practice.
- To set internationally accepted higher environmental standards in banking activities.

f) Rigorous Programs to Educate Clients:

BB emphasized much on making clients aware of environment. Clients and business houses should be educate and encouraged to comply with the environmental regulations. In response to the BB’s guidelines, banks are arranging different types of seminars, symposiums, training, conferences etc. with the view to building consciousness among employees and clients.

g) Disclosure and Reporting of Green Banking Activities:

Banks are suggested to publish independent Green Banking and Sustainability reports showing their present, past and proposed performances.

Third Phase of implementing green banking activities: Banks are guided to take environment friendly initiatives to develop a proper system of Environmental Management and introducing innovative products a systematic Environmental Management have been emphasized before the initiation of the activities of Phase-III. Standard environmental reporting with external verification should be part of the phase. The time lining for the actions to be taken under Phase-III should not exceed December 31, 2013.

a) Designing and Introducing Innovative Products:

Alongside avoiding negative impacts on environment through banking activities, banks are expected to introduce environment friendly innovative green products to address the core environmental challenges of the country. (BRPD Circular No.02, February 27, 2011).Quarterly Review Report on Green Banking Activities of the year 2014 (July- September), by BB mentioned that BB enhanced the product line has been enhanced from 6 to 47 under 11 categories (Renewable Energy, Energy Efficiency, Solid Waste Management, Liquid Waste Management, Alternative Energy, Fire Burnt Brick, Non Fire Block Brick, Recycling & Recyclable Product, Green Industry, Ensuring Safety and Work Environment of Factories and Miscellaneous) from 2009 to till date. Afterwards, in 2016, BB enhanced the product line to 50 under 11 categories. Quarterly Review Report on Green Banking Activities of the year 2019 (January -March) mentioned that, By SFD Circular No. 03/2017, the product line has been enhanced to 51 under 08 categories.

b) Reporting in Standard Format with External Verification:

BB guided banks-

- To publish independent Green Annual Report by following internationally accepted format like Global Reporting Initiatives (GRI) targeting their stakeholders.
- To make published report eligible and available for verification by an independent agency or acceptable third party.
- To report green initiatives/activities to the Department of Off-site Supervision of Bangladesh Bank on quarterly basis.
- To keep their annual report and websites updated with the disclosures on green banking initiatives/activities.

As a part of the establishment of uniform reporting system, two circulars (GBCSRD Circular No. 04/2013 and GBCSRD Circular Letter No. 05/2013) from BB were circulated to new scheduled banks and FIs in 2013.

VII. Analysis and Findings

1. Policy Formulation & Governance:

Table 1: Policy Formulation and Governance by Banks

Year	No. scheduled banks	Banks having Sustainable Finance unit	Banks having Green banking policy	Banks having Green office guide
2019	59	57	57	57
2018	58	57	57	57
2017	57	56	56	56
2016	56	56	56	56
2015	47	47	47	47

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: It is found out that there has been a better practice of forming Sustainable Finance Unit, Green Banking Policy Guidelines and maintaining Green Office Guide among the banks in response to the direction of BB. From 2015 to 2019, all of the banks have fulfilled the criteria. Only Shimanto Bank Ltd. (Scheduled from

July 21, 2016 through BRPD Circular Letter 10/2016) in 2017 and 2018 and Probashi Kallyan Bank & Community Bank Bangladesh Ltd. in 2019 up to June didn't form their own Sustainable Finance Unit, Green Banking Policy Guidelines and maintaining Green Office Guide. In 2019, three new banks have scheduled but haven't started their banking activities yet.

2. Environmental Risk in core risk Management:

Here number of rated project financed and disbursed amounts respectively by banks are shown from the year 2015 to 2019.

Table 2: Environmental & Social Risk Rating

Type of Banks	2019 (January- June)		2018		2017		2016		2015	
	No. of Rated project Financed	Amount (In Millions)	No. of Rated project Financed	Amount (In Millions)	No. of Rated project Financed	Amount (In Millions)	No. of Rated project Financed	Amount (In Millions)	No. of Rated project Financed	Amount (In Millions)
SOCBs	2,296	23,390	6,405	53,564	1196	41707	1965	44874	1895	40737.68
SDBs	0	0.00	0	0.00	14	1271	35	1259	89	2632.97
PCBs	25,034	860,215	52,045	28,44,279	64584	3251780	56714	1904705	39098	1508614
FCBs	318	54,373	1,586	1,22,879	2126	164350	1812	144426	1585	118801.2
New Bank									292	25696.34
Banks' Total	27,648	937,978	60,036	30,20,722	67920	3459107	60526	2095264	43034	1696482

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: It is found that from 2015 to 2019, PCBs rated maximum number of projects for financing and disbursed the highest amount. The SOCBs position found just after the PCBs in rating projects but FCBs disbursed much more amount than SOCBs though the number of rated project by FCBs is less than that of SOCBs (except 2017). SDBs rated projects and financed from the year 2015 to 2017. But in 2018 and 2019 no project is rated for finance and no amount is disbursed. In 2015, in quarterly review report by BB, it was shown that 9 new banks had rated 292 projects for financing and disbursed 25,696.34 million Taka.

3. In house environment management:

Table 3: Solar Powered Branches and ATM/SME Units (2015)

Type of Banks	No. of Branches		No. of branches powered by Solar Energy		No. of ATM Booths		No. of ATM/SME units powered by Solar Energy	
	2015	2019	2015	2019	2015	2019	2015	2019
SOCBs	3705	3762	42	67	155	216	1	2
SDBs	1408	1418	0	5	0	6	0	0
PCBs	4016	5097	342	492	7,293	6653	244	82
FCBs	75	65	4	5	165	140	6	11
New Bank (2015)	231	-	45	-	136	-	0	-
Banks' Total	9435	10342	433	569	7,749	7015	251	95

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: The analysis is showing that SOCBs has increases 57 branches and 61 ATM/SME units from 2015 to 2019. Among these only 67 branches and 2 ATM/SME units are brought under solar power coverage. SDBs have established 10 extra branches and 6 ATM booths within 2015 to 2019 but only have 5 branches and no ATM booths powered by solar energy. It is found that FCBs decreases 10 branches and 15 ATM/SME units. But in spite of having lower number of branches and ATM/SME units FCBs have 5 branches and 11 ATM/SME units powered by solar energy. The performance of PCBs in this area, are quite satisfactory. PCBs have brought 492 branches and 82 ATM/SME units under solar power coverage.

4. Online banking:

Table 4: Automation towards Green Banking (At December 31)

Type of Banks	2019 (January- June)		2018		2017		2016		2015	
	No. of Total Branches	Branches with online coverage	No. of Total Branches	Branches with online coverage	No. of Total Branches	Branches with online coverage	No. of Total Branches	Branches with online coverage	No. of Total Branches	Branches with online coverage
SOCBs	3762	3,688	3713	3,687	3732	3,004	3726	2279	3697	2673
SDBs	1418	402	1415	381	1410	70	1410	152	1408	94
PCBs	5097	5,096	5060	5,059	4826	4825	4552	4551	4015	3995
FCBs	65	65	66	66	66	66	72	72	75	75
New Bank									263	263
Total	10342	9,251	10,254	9,193	10034	7965	9760	7054	9458	7100

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: It is found from the study that from 2015 to 2019, PCBs established maximum number of branches and brought maximum number of branches under online coverage. Again, in this area, the SOCBs position is found just after the PCBs. Number of branches established by FCBs is comparatively less than PCBs and SOCBs but the percentage of branches with online coverage is the highest among all banks. SDBs increased only 10 branches from the year 2015 to 2019 but they are increasing branches with online coverage. In 2015, new banks established all the branches with online coverage.

5. Supporting employee training , consumer awareness and green event:

Table 5: Training Arrangement

Type of Banks	2019 (January- June)		2018		2017		2016		2015	
	No. of Programs Arranged	No. of Participants	No. of Programs Arranged	No. of Participants	No. of Programs Arranged	No. of Participants	No. of Programs Arranged	No. of Participants	No. of Programs Arranged	No. of Participants
SOCBs (06)	15	373	59	1,177	84	1395	56	1381	44	2003
SDBs (02)	8	216	63	887	36	927	6	300	34	1334
PCBs (40)19	127	4676	287	10,950	777	15278	970	22254	470	14085
FCBs (09)	9	357	16	808	8	486	13	1689	20	835
New Bank									9	139
Bank's Total	159	5622	425	13822	905	18086	1045	25624	577	18396

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: The aggregate information gathered from the quarterly GB practices review report from 2015 to 2019 shows that in PCBs are in much better position in arranging training programs and gathering high number of participators. But it is surprising that FCBs arranged lower number of programs but they gathered much more participator in comparison with PCBs. SOCBs and SDBs also performed well in arranging training programs and gathering participators.

6. Introducing Green marketing:

Table 6: Amount utilized for green marketing, training and capacity building (2015- 2017)

Type of Banks	2017	2016	2015
SOCBs	4.96	5.01	13.47
SDBs	0	0	0
PCBs	51.1	33.26	66.87
FCBs	0.5	0	0
New Bank			0

Banks' Total	56.56	38.27	80.34
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Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: This analysis is done on the basis of available information presented on the quarterly review report. It is found that PCBs utilized highest amount in green marketing, training and capacity building. The performance of SOCBs has been deteriorated gradually. But the performance of FCBs and SDBs are very poor.

7. Creation of climate risk fund:

Table 7: Utilization of Climate Risk Fund (in million taka)

Type of Banks	2019 (January- June)		2018		2017		2016		2015	
	Event	Project	Event	Project	Event	Project	Event	Project	Event	Project
SOCBs (06)	0.00	0.00	0.00	0.00	0.00	0.00	2.50	0.00	12.50	0.00
SDBs (03)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCBs (40)19	195.67	0.00	972.06	1.85	777.31	8.73	647.79	2.53	371.58	114.46
FCBs (09)	0.80	1.00	2.46	5.00	0.00	7.82	0.23	69.79	9.02	105.14
New Bank										2.39
Banks' Total	196.47	1.00	974.52	6.85	777.31	16.55	650.52	72.32	393.10	221.99

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: It is found that PCBs are pioneering from 2015 to 2019 2nd quarter in utilizing climate risk fund by arranging different events and programs. FCBs positioned second in this context. But the performance of SOCBs and SDBs are very poor.

8. Introduction of Green financing:

Table 8: Amount utilized as Green Finance

Type of Banks	2019 (January- June)	2018	2017	2016	2015
	Utilization	Utilization	Utilization	Utilization	Utilization
SOCBs	784.43	1007.55	8179.34	3531.21	3416.51
SDBs	1.41	9.05	50.95	19.42	18.7
PCBs	32568.85	92865.33	475908.7	419059.4	347303.8
FCBs	19076.07	280.31	111922.5	85499.21	68897.81
New Bank					2370.09
Banks' Total	52430.76	94162.24	596061.5	508109.3	422006.9

Source: Quarterly Review Report on Green Banking Activities of Banks & Financial Institutions and Green Refinance Activities of Bangladesh Bank

Findings: PCBs utilizes highest amount in green financing. As the trend shows, FCBs spend second largest amount in green financing. SOCBs positioned after FCBs in utilizing fund as green financing and SDBs performance in this context is not so satisfactory.

VIII. Recommendation

General Recommendations:

- Green Banking policy guidelines should be updated to bring conformity with the most current environmental situation.
- Not only banks and financial institutions but also every entity or institution that deals with financial activities also should be brought under the governance relating to the green banking practice.
- Special guidelines may be made to establish coordination between the local government and bank's local branches to spread the idea and regulations and bring the local financial activities under the scope of GB.
- In making financing decision like granting finance or working capital loan, Banks should be guided to consider vulnerability of the particular project, activity or industries to the environment. The Environment Conservation Rules, 1997 have provided criteria to identify Ecologically Critical Area. Banks must choose sectors for financing which are not hazardous to the said ecologically critical area. Moreover banks should emphasize on projects having pollution free system, the effluent treatment plant, recycling facilities and toxic smoke and gas exit system etc. for financing.
- Government and central banks should adopt strategic policy and develop regulatory framework for granting loans and subsidies to inspire investments in green sectors. Besides there should be rigorous implementation by banks to making the banking sector environment friendly.
- Sectors which are totally depending on natural resources should be identified. The proper utilization of natural resource may reduce the dependency on processed, semi processed or artificially manufactured

resources. It will help to satisfy needs without running energy consuming machines, no or lower carbon emission, producing non recyclable leftovers or by products, depending on products made by chemical formula and those make chemical effluents. Banks can be much greener by bringing those sectors under the scope of direct green financing.

7. Banks should upgrade their awareness building project and event to build up awareness among employees, staffs and client. Banks may also take strategic awareness building plan to build up consciousness among the investors to invest and creditors to lend in the green sectors.

8. Bank should be sure whether the purpose of loan is ethical or not. Still we can find running brick fields without the environmental clearance, running industry plants which incline toxic effluents to the river, emit chemical wastes to the nature and moving vehicles that releasing toxic smoke to the air. Besides it's a normal picture we see regularly that unethical people take SME loan or different term loan to run ethical business but doing business of adulterated food and product. Banks should be serious about these issues. So proper monitoring system should be implemented.

9. There should be a fine coordination among regular banking service or banking products offered, CSR and green banking activities. Banks may take several measures to initiate a huge social green initiatives like,

- Arranging different environment related volunteered program not only by its own name but also may give donation to the volunteered organization or finance any organization in direction to run these types of program, and/or

- By offering a easy condition loan at any form, whether lower or simple interest rate, or reduction in interest amount, incremental period to repay the loan in condition of a green financing, donation or activities in the remote or peripheral region of the country, and/or

- By offering guarantee facility to the investor or creditor who are investing or granting credit to the green sectors and/or

- By giving donations to the new entrepreneur or innovators of green products to inspire them, and/or

- Granting easy auto loan to the eco friendly brands of vehicles, easy home loan in condition of setting up solar panels and low consumption electric appliance, easy personal loan in condition of involvement in any green environment related campaigning or social welfare related activities.

- Rewarding system for using online medium of banking like credit card/ ATM card punching instead of submitting cheques, receiving soft copy of different bank statements without requiring hardcopies etc. and/or

- Individual rewarding system for reduced utility bills like electricity bill, water bill, gas bill etc. at the time of bill payment and so on.

Specific Recommendation:

1. Analysis shows that specialized banks are lagging behind in green banking practices. But SDB's should be much more ahead in practicing green banking. Because these banks are serving special purposes and can easily reach to the root level of the economy. So SDBs has the better possibility to ensure the implementation of green banking guidelines and initiatives from the root of the economy.

2. State-owned Commercial Banks should be much greener. In our country, society conceived a negative idea about govt. organizations and state owned banks as well as employees. Rigorous implementation of green banking guidelines and policy may lift up the SOCB's devotion and responsibility toward the society and environment.

3. PCBs are serving with 5,097 branches all over the country. This is an evidence of huge acceptance of PCBs and rapid growth of PCBs in our economy and banking systems. And analysis shows that PCBs hold the stewardship in performing green banking activities and implementing the green banking guidelines. Surely it's a praiseworthy matter. Besides we also should consider that the PCBs are staying in a pick position in holding the maximum portion of public deposit, financing and sharing banking market. So PCBs should take more sophisticated and sustainable green banking policy than other banks. PCBs may increase their green activities in branches, ATM points and agent branches and inspire clients to involve highly with online banking. Besides they can increase their percentage of direct green financing from 5% of funded loan to a higher percentage. In gist, in building a green economy, the responsibility of PCBs is higher than any other category of bank and PCBs should play the exact role.

4. It is identified that the share of banking industry captured by Foreign Commercial Banks is not so huge if compared to the PCBs, but they are also playing very important role in green banking practice and guidelines implementation. FCBs are also in an important position to influence the green banking practice and policy formulation. FCBs in this context may help in building coordination between national bank and foreign banks in necessary policy formulation.

IX. Conclusion

Green Banking has become an important issue in today's banking dimension not as an option or tool to build the bank's market prospects but as a burning issue for its emergence in saving our environment. People are now getting conscious about the nature but in grief we can say that this consciousness formed from environmental sufferings and we also have to say that we are already late.

Banks, one of the main regulators of world's economy, are taking green steps to stop the adverse effect of financial activities on environment by practicing green banking. Bangladesh Bank, as the central authority of banking system of Bangladesh, has taken so many notable steps to initiate green banking and maintain the continuity of green banking practice in the banking industry of our country, which makes BB an example in all over the world. BB not only brings banks but also financial institutions under the scope of green banking. BB should promote more policy and guidelines to ensure the inclusion of environment friendly steps in financial activities through banks. There are so many anomalous financial activities practiced in our society and making direct harm to the environment. Banks should say 'NO' banking in sectors serving unethical purposes and should initiate regulations to penalize the clients who took unethical and harmful financial steps. Thus, combined efforts in executing green banking guidelines and policy formulation may help bringing parity in the environment purpose and financial activities and it's surely to say that all credit will go to the banking sector.

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