Green Banking in Bangladesh: Conceptual Aspects and Implementation Status

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Abstract

Green Banking (GB)is banking honoring environment.Compared to the developed economies, the status of GB is not satisfactory in developing countries. The broad objective of the study is to discuss the conceptual aspects and existing literature in the context of both the developed and developing countries, and examine the implementation status of GB in Bangladesh. The study finds that all the banks of the country have formulated GB policies and have departments/cells for GB; over 41 percent bank branches have online banking facilities; about 80 percent banks have some initiatives related to financing environment friendly projects; all the banks have some sort of training arrangement for their employees. In general, banks do not publish separate reports of their green activities, however, all the banks report to Bangladesh Bank and in their annual reports. The study recommends that the challenges faced in implementing GB can be overcome by the active participation of all stakeholders.

Key Words: Green Banking, Environment, Bank, Bangladesh

Background

Environmental concern is at the centre of Green Banking (GB) policies and strategies. 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 2008). Banks interact with the environment in a number of ways: as lenders- financing sustainable developmental activities; as innovators - devising environment - friendly - energy - saving financial products; as valuers – pricing environmental risks and estimating returns; as shareholders; as polluters- consuming considerable chunk of resources; and as victims of environmental/climate change (EC, 1997). Banks hold a unique position in an economic system. They play a crucial role affecting production, business, economic and developmental activities through their financing; exercising considerable influence over investment and management decisions of businesses that could have positive effects on the environment (Habib 2010).

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Today, society demands that economic units and businesses take responsibility for safeguarding the environment. And some production units, business entities, and financial institutions have responded significantly to the demand and expectation of the society. An increasing number of banks around the world are going green by offering innovative green products, saving resources and supporting the activities that help conserve environment. 'Conserving Environment' through operation and financing is at the centre of GB activities of a bank. A green bank is expected to use its resources with responsibility avoiding waste and giving priority to environment and society.

In response to the legislative and regulatory bindings and incentives to promote GB, a good number of banks in developed countries have been demonstrating their commitment to the earth through incorporating environmental risk in financing; using recycling programs; focusing on energy efficiency, purchasing carbon offsets; and sponsoring environmental events. In contrast, the status of environmental management has not been satisfactory in many developing countries, largely due to poor enforcement of existing laws and policies, lack of incentives and inadequate pressure from civil society and interest groups (Habib, 2010). However, Bangladesh Bank (BB) has been helping government in implementing environmental laws in the financial sector and from time to time it has been issuing a few environmental circulars and introducing refinance facilities to encourage banks for sustainable financing. The circular on 'Policy Guidelines for Green Banking' is a noteworthy step on the way to promoting GB practices in Bangladesh.

On this backdrop, the objectives of the study are: One, to discuss the conceptual aspects of GB and role of different stakeholders, Two, to identify the implementation status of green banking in global. economies, Three, to review the policy and regulatory environment for GB in Bangladesh; Four, to examine the implementation status of green banking in Bangladesh; and Five, to identify challenges and recommend the measures for effective implementation of GB in Bangladesh.

The paper is based on secondary information. Earlier studies of BIBM on green banking were extensively used in preparing this report. In addition, published research papers, and sustainability reports of different banks and environmental organizations have also been reviewed. Websites, published documents of Bangladesh Bank and other commercial banks have been used to attain the basic objectives of the paper. The paper has been presented in a seminar on 'Green Banking: Opportunities and Initiatives for Bangladesh' organized by the Bangladesh Bank Training Academy on January 27, 2014 and finalized after incorporating comments of the designated discussants and the audience.

The paper is organized into seven sections. After stating the background, objectives and methodological aspects in section 1, section 2 attempts to discuss some conceptual issues of GB and stakeholders' role. Policy and Regulatory Environment for Green Banking in Global Economies are discussed in section 3. Section 4 is about the policy and regulatory environment for green banking in Bangladesh. Section 5 examines the implementation status of green banking in Bangladesh. Section 6 identifies some challenges and critical

issues on the way to effective implementation of green banking in Bangladesh, and finally Section 7 concludes the paper.

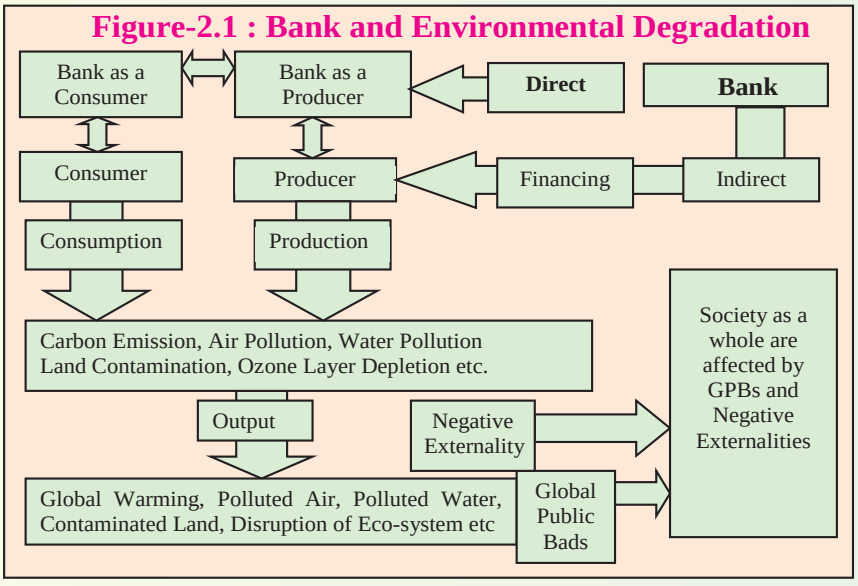
2. Conceptual Aspects of Green Banking and Stakeholders' Role

The term 'Green Banking' simply refers to environment friendly banking and a 'Green Bank' is an environment-friendly bank. A growing number of banks around the world are providing innovative financial services to support the activities that are not harmful to environment and help conserve environment (Habib 2010). Such bank is known as a green bank. A green bank is also called an ethical bank, a socially responsible bank, or a sustainable bank. The approach to green banking (GB) varies from bank to bank, however, broad objectives of green banks are to use their resources with responsibility avoiding waste and giving priority to environment and society.

Banks are Responsible for Damaging Environment

In economic theory, the environmental issues have been linked with the concepts of market failure-public goods and externalities (Binger 2003). The Global Public Goods (GPGs)[1] having negative impacts are known as Global Public Bads (GPBs). The results of the global pollutions and emissions like global warming, contamination, disruption of eco-systems etc are GPBs. In economic theory, the green initiatives to handle these negative externalities and GPBs are GPGs (Habib 2010). Banks contribute both directly and indirectly in this process. A bank is a consumer and a producer by itself and also support producers and consumers through its financing services (Figure-2.1).

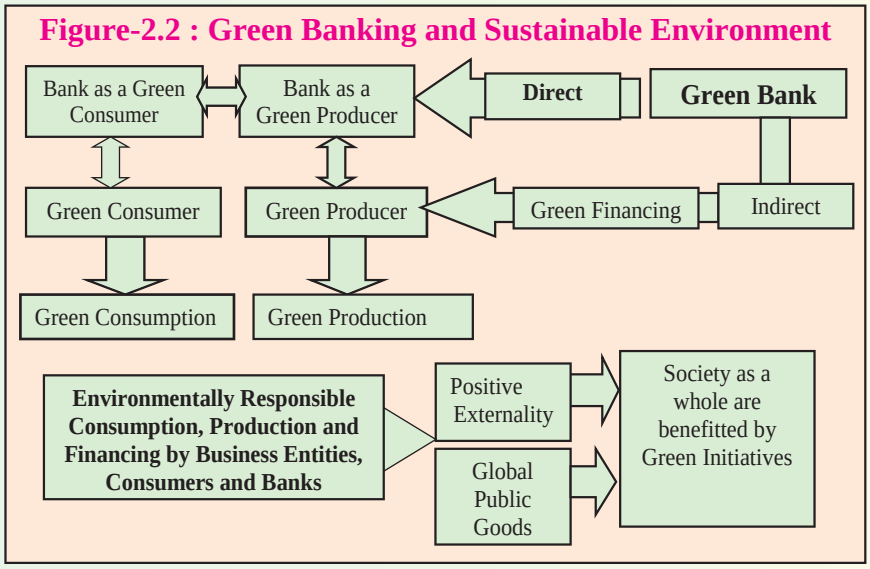
Figure-2.1 : Bank and Environmental Degradation



Source: Habib 2010

[1] GPGs are public goods with benefits or costs that extend across countries and regions and across rich and poor population groups, and even across generations (Inge et. al 2003).

Figure-2.2 : Green Banking and Sustainable Environment



Source: Habib 2010

Green Banks Contribute in Saving Environment

The motivation for providing GPGs arises from a desire to produce or enhance positive externalities and correct negative ones. In the area of environment, reduction of emission and conservation are GPGs (Morissey et al.2002). It is well recognized that green banking is one of the global initiatives by the stakeholders to save environment. The efforts are expected to bring positive changes in the environment, which are mostly non-excludable and non-rival in nature. The ongoing GB initiatives by different stakeholders are a GPG where the society as a whole is the target beneficiary (Figure-2.2). In regard to the external benefits, green banking clearly has a direct, positive effect on the environment, but the benefits go much further, reaching into security and cost (Javelin Research 2009).

Green Banking requires Multi-stakeholders' Engagement

Stakeholders are expected to perform certain roles for developing GB. The major stakeholders include International Financial Institutions (IFIs)/Inter Governmental Organizations (IGOs); government; central bank; media; environmental NGOs; business or production units; and consumers. In the international arena, IGOs and IFIs have been contributing in framing international policy architecture that enables countries and stakeholders to better anticipate and respond to environmental initiatives[2]. Governments are expected to formulate policies, and enact and enforce relevant rules and regulations. As a critical stakeholder of GB, central banks are supposed to formulate rules, policies and guidelines for creating a supportive and congenial environment for undertaking GB

2. For example, Kyoto Protocol is a remarkable initiative that has been ratified by several industrialized and developing countries under which the members committed themselves to a reduction of four greenhouse gases.

practices. These three stakeholders i.e. IFI/IGO, government, and central bank are expected to play the roles of torch bearers. Government and central banks are also to offer effective positive and negative incentives to the banks. Generally, policy and regulatory supports exist in most industrialized economies in favor of developing a congenial atmosphere for providing green products by banks[3].

A number of environmental NGOs and Media (and other civil society and academic/research institutions) have been engaged as the watchdogs against financing dirty companies. Practically, these NGOs and media are the pressure group. For example, Green America[4] and a group of media protested the plans of financing to build 11 new coal-fired plants[5] in Texus by some USA mega-banks in 2007, which helped stopping 8 of the 11 plants (Habib 2011). As independent agencies, these stakeholders could play remarkable roles by offering both positive and negative incentives to the banks. Some environmental NGOs are also engaged in formulating guidelines and principles for the banking and financial sector. There are important international standards and principles[6] relevant for different environmentally sensitive sectors prepared by international organizations and NGOs.

The voluntary initiatives of business firms (the main clients of banks) have been working as a complement to strictly regulatory approaches and are crucial incentives to the green banks. In USA, recent developments in technology have made it easier to undertake environment protection measures by a good number of corporate businesses (Bhat 2008). Large Japanese companies such as OKI, Asahi, Fuji, Fujitsu and Sumitomo have led the way to establishing zero-emissions plants. Voluntary cleaner production initiatives have also existed for some time in developing countries like Taiwan, Thailand and China (Welford 2004). In recent years, a good number of global businesses have adopted ISO 14000[7] as a part of their commitment to environment and the society.

Consumers can also offer market incentives to the banks by supporting the green activities of banks and by paying premium. Consumer awareness and responses improved over the years, though a lot more is expected for the betterment of environment and society. However, a study by Javelin Research (2009) observes that consumers have more interest in 'thinking' green than actually 'acting' green.

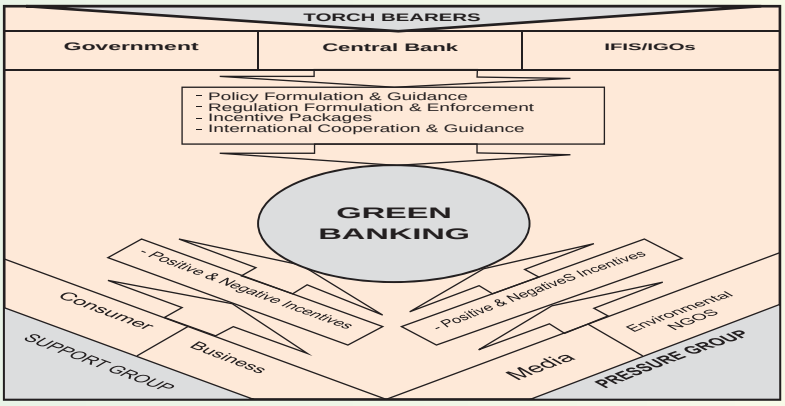
3. For example, banks' engagements in environmental and community development activities are entitled to receive incentives from US Department of the Treasury. The Treasury offers certification to banks as a Community Development Financial Institution (CDFI) and access to CDFI Fund to provide commercial loans to the renewable energy, green building, fishing, foods and agriculture industries. Banks are also receiving funding from the USA Small Business Administration (SBA) for ER financing (Fed Atlanta 2009).

4. Green America is a not-for-profit membership organization founded in 1982 with a mission to create a socially just and environmentally sustainable society.

5. There's no doubt that climate change presents a serious threat—so it makes no sense to continue building carbon-spewing coal-fired power plants.

6. For example, the 'Guidelines for Investment in Operations that Impact Forests' published by WWF; Equator Principles by Ceres; Sector Specific Guidelines by Bank Track etc.

7. The ISO 14000 family addresses various aspects of environmental management. The very first two standards, ISO 14001:2004 and ISO 14004:2004 deal with environmental management systems (EMS). ISO 14001:2004 provides the requirements for an EMS and ISO 14004:2004 gives general EMS guidelines.



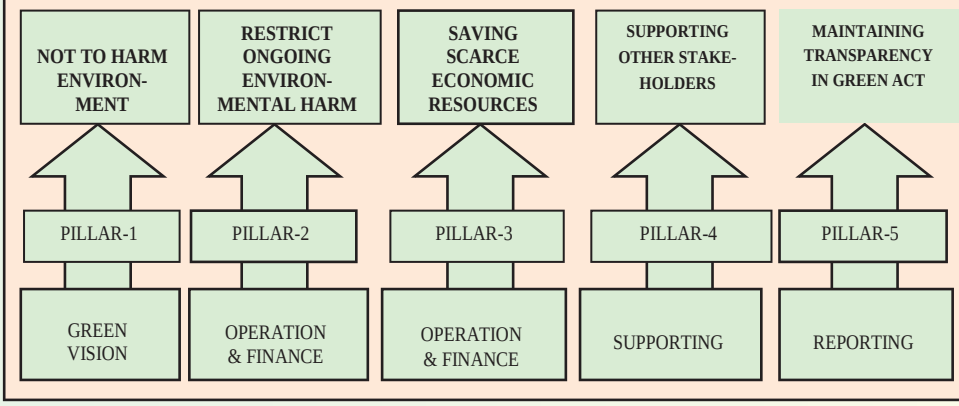
Source: Habib et al. 2013

Figure-2.3: Expected Roles of Stakeholders in promoting Green Banking

Five Pillars of Green Banking

Broadly, GB constitutes of five pillars (Figure-2.4). First one is related to the 'green vision' of a bank. It is the basic principle. Practically, activities and operations of banks cannot completely discard environmental harm. In most cases, it is about minimizing harm. Second and third pillars are connected with banks' in-house activities, and operation and financing. These are connected with a bank's green efforts to minimize environmental risks and saving scarce resources. Fourth pillar is concerned with supporting other stakeholders and cooperation. it also involves activities such as green research and green marketing. Banks may also engage NGOs for educating consumers and businesses[8]. Pillar 5 is about green reporting. Transparency of a green bank is a crucial component in its sustainable operation. All these pillars are integrated and crucial to ensure sustainable green banking.

Figure-2. 4 : Five Pillars of Green Bankin



[8] For example, in USA PayItGreen and NACHA have been engaged in educating consumers and businesses about the positive environmental impact of choosing electronic bills, statements and payments over paper.

Some of the Dos and Don'ts of a Green Bank

GB means doing and avoiding a set of activities. Box-2.1 shows the activities that a green bank should and should not do to promote GB.

Box -2.1 : Dos and Don'ts of a Green Bank

Dos
• *Policy and Strategy Formulation* • *Environmental Risk Management in Financing* • *Creation of Green and Risk Fund* • *Saving Energy and Natural Resources* • *Supporting and Sponsoring Green Initiatives and Events* • *Designing and Offering Innovative Green Products* • *Green Marketing, Awareness and Promotional Activities* • *Monitoring of Green Financing* • *Waste Management* • *Offering Incentives for Green Activities*
Don'ts
• *Financing Technology/Activities without handling Environmental Risk* • *Supporting/ Financing Energy/Resource Inefficient Activities* • *Disclosing Misleading and Untrue Information*

Monitoring and Evaluation of Green Performance by Banks

Monitoring and evaluation arrangement should be in place for supporting ongoing green banking practices. There should be framework under which central bank should monitor the performance of banks using selected indicators on continuous basis. Reporting arrangement and disclosure is part of the framework. However, there should be a mechanism for the validation of data provided or disclosed by a bank. Evaluation of the performance of banks is expected to offer both positive and negative incentives to a bank and must be transparent. In evaluating the performance, all environmental impacts (negative, negligible, or positive) of financing activities of banks should receive due attention.

Regulatory and Market Incentives for Green Banking

Refusing to lend to 'dirty' industries is one thing but making a commitment to clean up one's own act is even harder (Goth 2008). Sometimes it is difficult for the banks to balance environmental concerns and business demands. Banks need market incentives for that. Policy and regulatory supports exist in most industrialized economies in favor of developing a congenial atmosphere for providing green products by banks (Fed Atlanta 2009). There is no doubt that mandatory or legal imposition may not work for long and will not bring optimum result. Thus, it is important to convert regulation-driven approach of corporate to market based approach for long run effective environmental protection.

Affordability and Economic Impacts of Green Financing

Green financing may not always be attractive to the policy makers in a developing economy when the economy is burdened with severe problems like poverty and unemployment. Developing countries having huge resource constraints cannot ignore the opportunity costs of job loss, price rise, and other economic impacts and may not afford to discard all economic activities and technologies immediately that are environmentally hazardous. In such a scenario a country may opt for relatively a lenient approach for selected sectors that would allow banks to finance environmentally harmful industries/technology on certain conditions (to minimize environmental risk) for the time being. However, there should be long-term planning to handle these projects/activities.

3. Implementation Status of Green Banking in Global Economies

US banks are the early starters that drastically began changing their policies after enforcement of the Comprehensive Environmental Responses, Compensation, and Liability Act (CERCLA) by the US government in 1980. CERCLA holds US banks directly responsible for the environmental pollution of their clients (Weber et. al. 2008). The responsible banks had to incur huge loss as they had to pay the remedial cost. This is the reason the banks in the US are ahead of other countries in integrating environmental concerns into their business operations (Bhat 2008). In USA, The Department of Natural Resources subsidizes one-half of the financing for the energy-efficient improvements, making the loan more affordable. Banks engaged in environmental and community development activities are entitled to CDFI Fund that allows them to provide more commercial loans to the renewable energy, green building, fishing, foods and agriculture industries (Fed Atlanta 2009).

Policy makers of developed countries are also responding positively to the suggestions of stakeholders. In 2009, Green Alliance proposed to set up a Green Investment Bank in order to deliver a low carbon economy in the UK, and the government responded positively (Reuters 2010). Australia is the worst contributors in terms of per capita green-house gas production. Recently the Australian government proposed to impose carbon tax on 500 companies at the rate of USD 25 per ton from the coming year which would rise by 2.5 % every year. This scheme aims to cut Australian carbon emissions by 5 % of 2000 levels by 2020[9].

In regard to supportive policy environment, the approaches of governments and central banks have changed dramatically over time even in developing countries. In 2007, a Green Credit Policy was jointly developed by the State Environmental Protection Agency, the People's Bank of China, and the China Banking Regulatory Commission with the objective to guide loan financing away from highly polluting and/or energy consuming enterprises and projects. According to the policy, firms that fail to pass an environmental assessment

9. The Daily Star, July 11, 2011.

or implement state environmental protection regulations will be disqualified from receiving loans from any financial institution. The policy sends a strong message to banks concerning new responsibilities towards environmental protection (Business Issues Bulletin 2009).

In-house Implementation Status by Banks

The banking sector is generally perceived to be a relatively environment friendly industry; however, energy and water efficiency and waste reduction are of high concern for many big banks. Strategies for in-house GB performances of banks generally center on certain aspects. For example, HSBC centers its sustainability strategy on carbon offsetting. It therefore endeavored to go carbon neutral in 2006, which means that its worldwide operations contribute net zero carbon dioxide emissions in the atmosphere (Harvey 2007). Paper consumption is a major key point of sustainable banking for Bank Sarasin which achieved to reduce paper consumption by 3.3 % from 2005 to 2006 (Bank Sarasin 2006).

The IBT Market Pulse survey (2008) on USA financial intuitions identified some of the green initiatives of their financial institutions including 81% using energy-efficient lighting; 62 % encouraging car-sharing or public transportation for employees; and 46% using environment friendly cleaning products; about 74% of banks and financial institutions are having recycling programs in place and with such programs office papers, toner cartridges, electronic office equipments, newspapers, aluminum, tin, plastic and glass are recycled.

Banks are working in Groups for Implementing Green Banking

In response to growing expectations for banks to address the climate change impact of their lending activities, a number of major financial firms have made headway in developing industry standards for climate risk management. For example, in February 2008, Citigroup, JPMorgan Chase and Morgan Stanley launched the Carbon Principles, a voluntary framework aimed at addressing climate risks associated with financing carbon-intensive projects in the US power sector. In December 2008, a second group of global financial institutions including Credit Agricole, HSBC, Munich Re, Standard Chartered and Swiss Re announced their adoption of the Climate Principles, a set of commitments on climate business strategies developed by the Climate Group, a UK-based climate advocacy group.

Reporting and Transparency of Green Banking

In some developed countries environmental reporting has been made mandatory. For example, Denmark regulated the matter in 1996; the Netherlands and Norway in 1999; and Sweden made the environmental disclosure mandatory in 2002 (Bandyopadhyay undated). In USA, companies having more than 10 employees are required to report on specified toxic emission to the US Environmental Protection Agency (Pramanik et. al. 2008). However, generally, environmental disclosures are encouraged through the voluntary local and international guidelines such as CERES Principles, the EU Eco-Management and

Audit Scheme, Greenhouse Gas Protocol Initiative and GRI that are relevant for banks. To address the financial services sector, the GRI and the UNEP FI published various financial services sector supplements on issues such as product responsibility, human rights and environment (Bank Track 2010). Some very big and reputed global banks have adopted voluntary principles however use of these frameworks remains very limited. Bank Track (2010) observes that the use of external verification has been very limited in reporting practices. In general, there is significant scope for improving the status of the environmental reporting and disclosure in developing economies.

4. Policy and Regulatory Environment for Effective Implementation of Green Banking in Bangladesh

Government Initiatives Supporting Green Banking

The awareness build up and environment conservation efforts started in Bangladesh mainly in 1980s when several developments took place, a separate Ministry, called Ministry of Environment and Forest (MoEF) and The Department of Environment (DoE) were established. To protect environment, government formulated Environmental Policy in 1992 and made commitments as a signatory of a number of Multilateral Environmental Agreements[10]. The Bangladesh Environment Conservation Act (ECA), 1995[11] is the umbrella act. Other notable laws include the Environmental Conservation Rules (ECR), 1997[12]; the Environment Court Act, 2000; the Environment Court (Amendment) Act, 2010[13]; the Bangladesh Environment Preservation (Amendment) Act, 2010 etc.

Moreover, in order to manage different waste in an environmentally and hygienically acceptable manner the Solid Waste Management Rules, 2011 and the Hazardous Waste and Ship Breaking Waste Management Rules, 2011 were enacted. In the adopted National ICT Policy, 2009, environment, climate and disaster management is identified as one of the ten objectives, which aims to ensure safe disposal of toxic wastes. Government has already prepared a draft National 3R (Reduce, Reuse & Recycle) Strategy where e-waste issues have been addressed.

To promote sustainable energy in the country, a Renewable Energy Policy has been prepared and various action plans have been undertaken with the target to generate 5% and 10% of total power production by 2015 and 2020 respectively. The government has also initiated to set up a Sustainable Energy Development Authority (SEDA) and has finalized Sustainable Energy Development Act, 2011. There is no doubt that the country has adequate regulatory measures in place, however, efforts needed for better enforcement and implementation.

10. Bangladesh is a signatory of the Rio Conventions (RCs), i.e. United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD) and United Nations Convention to Combat Desertification (UNCCD).
11. To exercise the powers conferred by section 20 of the Bangladesh ECA, 1995, the Government of Bangladesh passed this rule.
12. The following are the prescribed standards: Water (Schedule 3), Sound (Schedule 4), Sewage discharge (Schedule 9), Waste from industries (Schedule 10), gaseous emissions from industries (Schedule 11) and sector-wise industrial effluent or emissions (Schedule 12).
13. BB BRPD Circular No-12 dated August 10, 1997.

ECA 1995 and ECR 1997 together provide a framework of environmental regulations related to the financing to the industry sector. According to the framework, 'no industrial unit or project shall be established or undertaken without obtaining environmental clearance from the Director General, DoE in the manner prescribed by the rules'. It is to be noted that the clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units grouped under different categories of EIA. For the purpose of issuing the Environmental Clearance Certificate (ECC), the industrial unit and projects shall in consideration of their location and impact on the environment be classified into the following 4 categories: Green; Orange-A; Orange-B; and Red. ECR 1997 prescribes various performance standards[14] requirements that are both general and industry specific. Practically, the certification arrangement and prescribed standards are hardly effective in protecting environment from pollution by industrial units.

Role of Bangladesh Bank in Implementing Green Banking

Bangladesh Bank (BB) has undertaken certain initiatives to help implement the relevant provisions of environment related acts enacted by the government of the country. In 1997, commercial banks of the country were asked[15] by the central bank to undertake necessary steps for implementation of certain decisions in regard to environmental conservation and protection by the National Environment Committee. Banks of the country were asked to ensure that steps have been undertaken to control environmental pollution before financing a new project or providing working capital financing to the existing enterprises[16]. According to the BB requirements, the industrial units that may cause environmental pollution to be established under bank credit would get permission for opening LC to import machineries only after ensuring that the list of machines includes equipments to set up waste treatment plant[17].

A comprehensive guideline on Corporate Social Responsibility (CSR) has been issued by BB where banks have been asked to concentrate hard on linking CSR at their highest corporate level for ingraining environmentally and socially responsible practices and engaging with borrowers in scrutiny of the environmental and social impacts[18]. Considering the adverse effects of climate change, banks have been advised by BB to be cautious about the adverse impact of natural calamities and encourage the farmers to cultivate salinity resistant crops in the salty areas, water resistant crops in the water logged and flood prone areas, drought resistant crops in the drought prone areas, using surface water instead of underground water for irrigation and also using organic fertilizer, insecticides by natural means instead of using chemical fertilizer and pesticides[19].

14. BB BRPD Circular No-12 dated October 08, 1997; BRPD Circular No-21, November 10, 1999; and BRPD Circular No-17, December 29, 2010.
15. BB BRPD Circular No-12 dated October 08, 1997
16. BB DOS Circular No-1, June 1, 2008.
17. BB ACSPD Circular No-04, dated July 14, 2009.
18. BB ACSPD Circular No-05, July 14, 2009.
19. BB DOS Circular No-2, June 2, 2009.

BB has also been taking initiatives for the rehabilitation of cyclone and other natural disaster affected people of the country time to time. For example, Bangladesh Bank issued a circular on Agri-loan facilities for rehabilitation of agriculture sector in cyclone Aila affected areas in July, 2009[20]. Moreover, banks were asked to undertake CSR activities in the areas of the affected people for their rehabilitation[21]. Online banking which is considered by many as the starting point of GB, received due attention of the BB. Banks have been brought under the purview of E-commerce with a view to providing the customers with online-banking facilities covering payments of utility bills, money transfer and transactions in local currency through internet as well[22].

To promote environmental financing, banks have been advised to finance in renewable energies such as solar energy, bio-gas plant, ETP and modern technologies in brick field under refinance program of BB[23]. BB introduced Taka 2.0 billion refinance facilities in FY 2010-11 against bank loans for investments in solar energy, biogas plants and ETPs in line with the government's plan to meet 5% of the total demand for electricity from green energy by 2015 and 10% by 2020. In its recent circular[24], BB has included more sectors[25] under its green banking refinance scheme and increased credit limits for different sectors.

The first circular on 'Policy Guidelines for Green Banking'[26] was a remarkable step on the way to develop GB practices in Bangladesh. The circular required commercial banks to introduce environment friendly financial products besides introducing internal environment management. The policy is segregated into three phases. The three phases were supposed to be implemented by December 2011, 2012 and 2013 respectively. Many banks of the country could not comply with the implementation timeline. Consequently, BB issued a few circulars[27] extending the timeline. According to the new circulars the Phase- I for all new banks scheduled in 2013 and all Financial Institutions (FIs) should not exceed June 2014; the Phase –II and III for all banks and FIs should not exceed December 2014 and June 2015 respectively.

Phase-I requires banks/FIs to develop green banking policies and show general commitment on environment through in-house performances; to formulate environmental policy, and a green office guide for practicing internal environment management and create a GB cell; allocate sufficient fund in their annual budget for GB; create a climate risk fund. They should take measures to save electricity, water and paper consumption as per the requirement. Instead of relying on printed documents, online communication should be extensively used for office management. Energy saving bulbs should replace the

20. Circular No-2, dated February 27, 2011.
21. ACSPD Circular No-9, July 08, 2010.
22. GBCSRD Circular No- 02, July 01, 2013.
23. Solar mini grid, solar irrigation pump system, vermicompost production, hydropower, PET, bottle reprocessing, solar battery reprocessing and LED bulb.
24. BRPD Circular No-2, February 27, 2011.
25. GBCSR Circular No. 04, August 11, 2013; GBCSR Circular Letter No. 05, September 11, 2013; GBCSR Circular No. 08, December 24, 2013
26. GBCSR Circular No. 08, December 24, 2013
27. Habib, Shah Md. Ahsan (2010), Green Banking Initiatives: Opportunities for Bangladesh, BIBM.

regular ones in branches/offices of the banks and employees should be encouraged to purchase energy saving cars. As per the recent circular[28] the Risk Management Committee will review the banks' environmental policies, strategies and programs instead of earlier high-powered committee.

Phase-II requires banks to formulate specific policies for environmentally sensitive sectors, determine a set of achievable targets and strategies, and disclose these in their annual reports and websites. They are expected to set up green branches and should increasingly rely on virtual meeting through video conferencing. The Phase-III requires banks to publish independent Sustainable Annual Report following internationally accepted format like GRI with the arrangement of external verification.

The revised circular on policy guidelines for GB requires reporting to BB on quarterly basis within next thirty days instead of fifteen days of the respective quarter. BB offers some incentives in the form of preferential treatments for the compliant banks including BB ggiving points to compliant banks on management component while deciding on its CAMELS rating; declaring top ten banks for their overall performances in sustainable banking; and taking into account GB in giving license for new branches.

Furthermore, BB prepared and circulated a Guideline on Environmental Risk Management (ERM) on January 30, 2011 to streamline solutions for managing the environmental risks in the financial sector. The ERM guideline prescribes a set of sector specific 'Environmental Due-diligence Checklist' for financing environmentally sensitive sectors by banks. As per the guideline, banks should establish and maintain a database of NPLs that are due to environmental reasons to ensure that the banks/FIs streamline their own institutional knowledge for better decision-making in their future financing.

Moreover, Bangladesh Bank has taken the lead position in encouraging and implementing IT based technologies in the overall banking sector. BB took a number of initiatives for environment friendly in-house practices as well.

Role of BIBM in Green Policies Formulation and Capacity Development

BIBM has been playing pivotal role in formulating green banking policies and capacity building of the bankers. A green banking policy framework was first placed in mid 2010 in a seminar[29] at BIBM at the presence of the honorable Governor of Bangladesh Bank and senior level bank executives. The proposal on green policy framework received attention of the honorable governor and the audience. Then as per instruction of the governor, BIBM prepared a draft policy framework with the consultation of BRPD, BB and placed it in a Research Workshop (titled Environmental Responsibilities of Banks: A Proposed Framework for the Banking Sector of Bangladesh) for discussion in October 2010. Incorporating the comments and recommendations of the workshop, BIBM then placed the

28. SCB initiated tree-plantation for using e-statements by its clients (one tree for one account holder); SCB discourages printing of e-mail by the receiver to save papers.

29. For example NBL financed over BDT 100 crore in drought prone areas for irrigation purposes; Mutual Trust, Agrani and NCCBL have also some programs in the vulnerable areas.

proposed 'green banking policy framework' to the concerned authority of BB. Besides, BIBM is regularly organizing training courses, training workshops, research workshops and seminars to acquaint the target group with green banking, disseminate the green initiatives of BB, and finally to develop awareness among the stakeholders.

5. Implementation Status of Green Banking in Bangladesh

5.1 In-house Green Practices by Bangladesh Bank

Bangladesh Bank has implemented a number of green initiatives within their in-house besides ensuring sustainable practices by the commercial banks. Some of them are stated below in Box 5.1.

Box 5.1 : BB In-house Green Practices

Installation of 8 kilowatt solar panel on its roof top in 2010 as a move towards use of clean energy; use of energy saving LED bulbs; In-house online connectivity - all departments are using intranet connecting more than 4000 computers; Online salary and other necessary advice, personnel file updated information, office orders, notification about online balance statements for employees, an electronic pass for visitors; E-recruitment; E-tendering- a web based tendering system encompassing announcement of tender, distribution of schedules, bidding etc., to ensure simplicity and transparency of the tendering process; ; the Enterprise Data Warehouse - an electronic data bank of all information and statistics of monetary, trade and fiscal areas of the national economy having access of all concerned BB people for further policy analysis; EXP Online Monitoring System; Online CIB - credit information on borrowers are being collected online replacing the earlier paper based processes within seconds as opposed to days; Bangladesh Automated Clearing House - reducing the cheque clearing time to one day and in some cases to a couple of hours only ; Enterprise Resources Planning; Bangladesh Electronic Fund Transfer Network; National Establishment of a National Payment Switch; Environmentally harmful incineration of non re-issuable damaged bank notes is being phased out, restoring instead of shredding.

Source: Based on BB 2012

5.2 Implementation Status of Green Banking by Commercial Banks in Bangladesh

5.2.1 Green Governance

Bangladesh Bank's initiatives have made significant change in regard to the creation of green governance frameworks in commercial banks till date. In response to the circular of 'Policy Guideline for GB' as of December 2012, 47 banks of the country have formulated environmental policies, high level committee to oversee the green activities of banks and have posts or cells related to GB (Habib et al.2013) whereas Habib et al.(2011) found that as of June 2011, only 16 percent, 12 percent and 4 percent banks had environmental policy, GB cell and/or posts, and separate committee respectively. However, most of the policy documents are replications of BB's policy guidelines. A few banks have well designed and customized policy documents. According to the BIBM survey, 75 percent banks have formulated one or more sector specific environmental policy guideline; 95 percent have green office guide as claimed from the GB cells; 65 percent banks have claimed that they have formulated some kind of green strategic planning (Habib et al.2013)

5.2.2 In-house Environment Management Performance

The survey also found that only a few banks have notable initiatives in regard to resource inventory preparation and savings of paper, water and power etc. Practically, a very limited number of banks are found to have provision of maintaining inventory of the resource use or consumption of energy and power. These are mainly maintained in terms of expenditure amount (Habib et al. 2013) which is not meaningful. Banks generally do not declare or strategize any target of the reduction of the resource use.

Box-5.2: Some Examples of In-house Green Activities

Use of paper on both sides for internal consumption; Introduction of e-statement for customers; Use of online communication; Arrangement for using daylight; Using energy saving bulbs; Use of Eco Font for printing light impression on both sides of the paper; Using sensor lighting equipment for saving electricity; Common use of table stationeries; Video/Audio conferencing; Efficient use of printer cartridges, Sharing electronic files, voice mail and e-mail instead of paper memos; Use of solar energy/ renewable energy.

Source: Based on BB 2012

5.2.3 Paperless Banking

Paperless banking plays crucial role in promoting green banking. Paperless banking means digitized banking such as online banking, internet banking, mobile/SMS banking, use of ATMs, etc. It allows customers doing transactions at any branch/ ATM of the bank, any point of sales (POS), paying utility bills, transferring funds from one account to another, requesting check books, getting online bank statement, etc. Online banking facilitated by intranet connectivity and internet banking is virtual banking -anytime banking anywhere of the globe using the bank website.

Banks are generally aware of the necessity of adopting online banking to serve their customers. According to BB (2012) data, over 41 percent bank branches of the country have online banking facilities. Internet banking and SMS banking are mainly offered by FCBs and a few PCBs (Table-5.1). Over 95 percent ATMs (out of around 5000 ATMs) in the country are owned by the PCBs. If the shared ATMs are considered, the number of ATMs of the banks would be over 50000 (Habib et al. 2013). Other than some scattered initiatives[30], banks generally do not have specific strategies to popularize online statement to save papers.

Table-5.1 : Online Banking Activities of Banks

	Branches facilitated with Online banking	Accounts facilitated With Internet Banking	Accounts facilitated with SMS Banking
SOB	5%	0.00%	0.01%
SB	5.28%	0.00%	0.00%
PCB	92.24%	2.62%	7.73%
FCB	100%	35.71%	39.64%
Total	41.05%	1.22%	3.20%

Source: Habib et al. 2013

30. Green financing is divided into direct and indirect. Financing for installation of ETP, biogas plant, bio-fertilizer plant, solar energy, HHK, etc. are termed as direct financing and financing to projects having ETP is termed as indirect green financing.

5.2.4 Branches / SME Centers/ ATMs powered by Solar Energy

As a move towards GB banks have been adopting clean energy. As of December 2012, a total of 375 branches/SME centers/ATMs of different banks were powered by solar energy. More specifically, 26 banks have been using solar power in their 214 branches; The IBBL has the largest no. of 23 solar-powered branches followed by AAIBL and Sonali Bank Ltd. (BB 2012)

Table 5.2: Branches / SME Centers/ ATMs powered by Solar Energy

Banks	No. of Branches Powered by Solar Energy		No. of Solar-powered ATMs	
	No. of Banks	No. of branches	No. of Banks	No. of branches
SCBs	2	21	1	8
DFIs	2	22	0	0
PCBs	21	169	5	150
FCBs	1	2	3	3
Total	26	214	9	161

Source: Based on BB 2012

5.2.5 Environmental Risk Mitigation

Clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units. Banks have been complying with the requirements. However, it is obvious that the arrangement is hardly playing any role in environmental protection. The ERM guideline requires banks to establish and maintain a database of NPLs that are due to environmental reasons and to have a reporting system on an annual basis. The study did not find any preparation of banks in this regard.

Table-5.3 Environmental Risk Rating (ERR) and Financing by Banks

Year	No. of Projects rated	No. of rated projects financed	Amount disbursed to rated projects (BDT in millions)
2011	4394	4315	270951.14
2012	12088	11165	703633.21
Increase (%)	175.10	158.75	159.69

As per the ERM guideline banks have been doing environmental risk rating since 2011. Table-5.3 shows that banks rated 4394 and 12088 projects in 2011 and 2012 showing an increase of 175%. Likewise, from the year 2011 to 2012 the number of rated projects financed and amount of financing to them increased by 158.75% and 159.69% respectively.

5.2.6 Green Products or Financing

Though on a limited scale, 80 percent banks of the country have some initiatives related to financing environment friendly projects (Habib et al. 2013). Some banks have financed reasonably good amount in solar, bio-gas, bio-fertilizer, ETP and HHK projects in recent years. A few banks[31] have specially designed project for the vulnerable areas affected by climate change.

Table – 5.4: Green Finance by Bank Group

Table – 5.4: Green Finance by Bank Group

Figures in million Taka			
Bank Group	Direct Green Finance	Indirect Green Finance	Total
SCBs	3513.10	2994.15	6507.25
PCBs	5623.74	173187.17	178810.91
FCBs	881.28	76517.03	77398.31
DFIs	1803.36	6401.70	8205.06
Total	11821.48	259100.05	

Source: Based on BB 2012

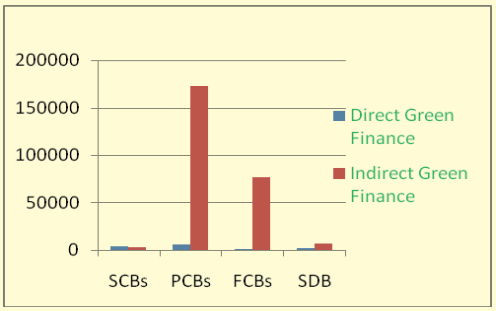


Figure 5.1 : Green Finance by Bank Group

Table-5.4 shows that the amount of total green financing[32] during 2012 was BDT 270921.53 million divided into BDT 11821.48 and BDT 259100.05 in the forms of direct and indirect green financing respectively. Figure-5.1 shows that the PCBs hold a dominant position (66%) both in the direct as well as indirect green financing. However, of total green financing about 96%t is in the form of indirect green finance which is a passive form (BB 2012).

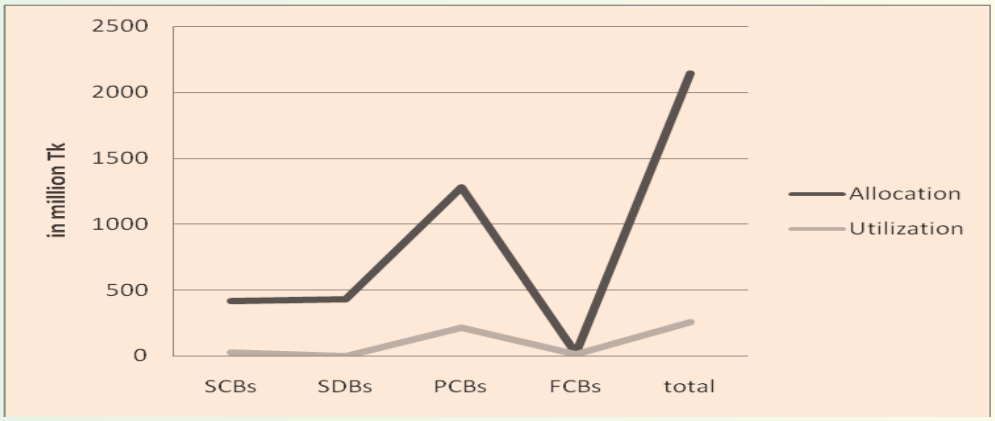
5.2.7 Creation of Climate Risk Funds

Banks allocated BDT 2145 million in 2012 as climate risk fund of which BDT 259 million was utilized which is only 12 percent. Though all banks are supposed to create climate risk fund, the published data of BB indicate that 19 percent banks have no allocation for the fund. Moreover, of all banks, 72 percent have not utilized the fund in 2012. Of the banks, 6 percent have no allocation for climate risk fund; however, have reported certain volumes as utilization. According to the BB policy document[33], the fund should mainly be used to cover additional risk premium and to meet emergency expenditure in the climate risk

31. FIs should finance the economic activities of the flood, cyclone and drought prone areas at the regular interest rate without charging additional risk premium. However, FIs should assess their environmental risks for financing the sectors in different areas for creating a Climate Change Risk Fund. The fund could be created as part of FIs' CSR expenditures.
32. HSBC has undertaken some environmental initiatives in 2012 that include HSBC-Daily Star Climate Award 2012; Rainwater Harvesting Program; Marking the World Environment Day 2012 ; HSBC Climate Championship; and Carbon Neutrality
33. SCB's 'Climate4Classrooms' and '3000 miles to go' campaigns to raise nationwide awareness on climate change issues with British Council; HSBC's week-long environmental awareness campaign - to familiarize students with the concept of water efficiency

prone areas. The basic target is to ensure regular financing. The fund could be created as part of CSR expenditure; however, it is obviously not simply about performing some philanthropic activities.

Figure-5.2: Allocation and Utilization of Climate Risk Fund by Bank Groups

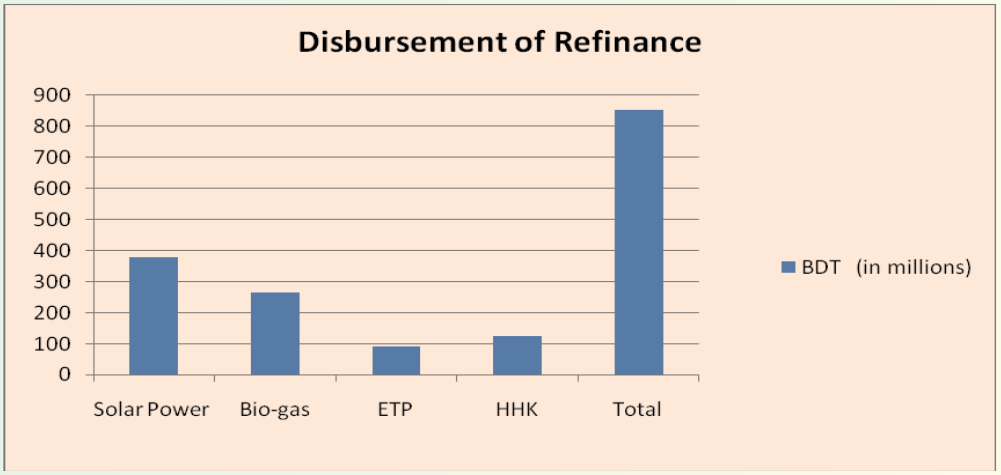


Source: Based on BB 2012

5.2.8 Utilization of Refinancing Facilities

By December 2012, 27 banks and 1 Financial Institution have signed the participation agreement with BB to avail the refinance facility for Solar Energy, Biogas and ETP and availed a total of BDT 854.46 million which is 43% (approx) of the total refinance fund whereas Habib et al.(2011) found that up to June 2011 the amount of refinance availed by five participatory banks was less than 7% of available funds. The figure shows that refinancing for financing solar power and solar equipments holds the major portion of the total refinance followed by Bio-gas and HHK.

Figure: 5.3: Disbursement of Refinance



Source: BB 2012

5.2.9 Training, Development and Promotional Activities

All the banks in the country have some sort of training arrangement for their employees. Most of the banks offer at least one session on green banking in every training course conducted by their training institutes. According to the BIBM study, on an average only 2 training programs were organized per bank in 2012(Habib et al.2013). Banks mostly rely on BIBM and BBTA for educating their employees about green banking. The awareness of GB is still limited in the head offices of the banks; more specifically, the awareness is Dhaka- centric; most of the bankers in the rural areas have not clear understanding of this. A BIBM survey team called to the PABX of the head offices of all banks to get connected with Green Cell and found that 37 percent were aware of having such cell in the bank; 28 percent were not aware but anyhow managed to connect; and 35 percent were found having no idea about such a cell in the bank and failed to connect (Habib et al.2013). In contrast, a few banks have initiatives for awareness development of consumers as well.

Green marketing or promotional activities are yet to get popularity in the banking community. According to the BB (2012) information, only 11 percent of the allocated funds for green marketing and training were utilized by banks in 2012. Sponsoring of green events[32] by a few banks could prove to be very effective for green awareness in the country. A few initiatives[33] of banks are really inspiring and replicable. It is encouraging that 4 percent banks have organized training programs for their customers for awareness development. However, some banks are using slogans[34] as part of their green marketing and awareness activities. In regard to bank-NGO linkages, there are very limited instances for green causes; about 52 percent banks have NGO-linkage and only 12 percent banks were found to have linkages with NGOs to promote green initiatives (Habib et al.2013).

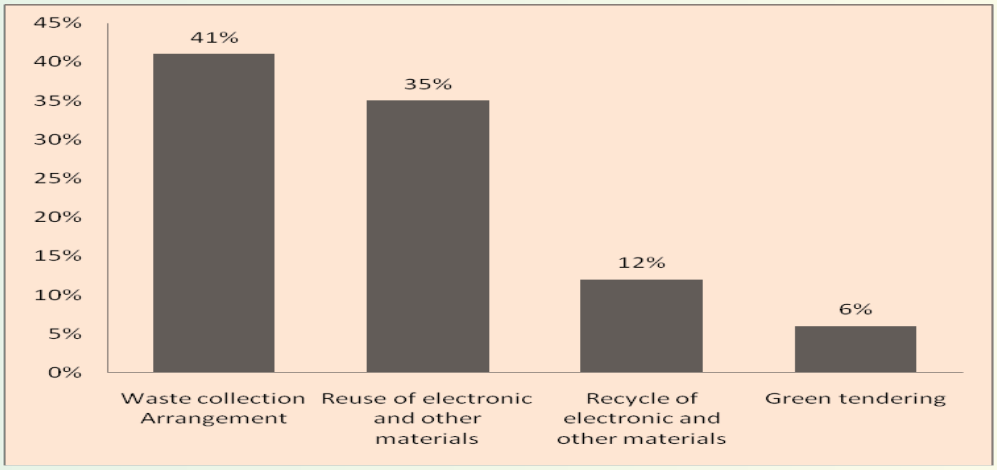
5.2.10 Waste Management by Banks

Though there are some scattered activities, generally banks do not have concrete waste management policies or strategies. Some banks have arrangements for waste collection, reuse and recycle of electronic goods and other materials and green tendering (Figure-5.4). However, a few banks have some inspiring initiatives for in-house waste management and financing[35]. Habib et al.(2013) found that among the banks surveyed, 15 percent banks have arrangements with NGOs to distribute their used PCs to schools.

34. Like, Save paper, save trees; Conserve energy, conserve natural resources; Turn off the tap when not needed; Always use a cloth bag; Reduce, reuse and recycle; Digitize yourself; Think before you press the button; Everything has two sides; Be paperless- kick the habit; Use car pools to go to work; Unplug electronic devices while not in use.

35. For example, HSBC recycles used papers to make envelope for re-use. DBBL has financed a project that produces quality organic fertilizer from fruits and vegetables wastes.

Figure-5.4: Bank with Waste Management Arrangements



(Source: Habib at al. 2013)

5.2.11 Disclosure and Reporting of Green Activities

Generally, banks do not publish separate reports of their green activities or CSR programs. Notable exceptions are two FCBs that have published Corporate Sustainability Report and Green Banking Report covering some environmental issues[36]. All the banks report following a prescribed format of the BB. Banks report their CSR and green initiatives in their annual financial reports in accordance with the directive of the BB. Some banks also disclose relevant information through their web sites. Banks generally do not use comprehensive standard reporting formats such as the GRI and third party evaluation is absent.

6. Challenges and Recommendations for Effective Implementation of Green Banking Practices in Bangladesh

The implementation of green banking in Bangladesh is still in an elementary stage. The banking sector of the country has been facing a number of challenges in implementing this. Some of the challenges are discussed hereunder.

Some of the challenges are due to the developing nature of the country and include the lack of enforcement of the environmental laws, inability to adopt modern technology from the traditional ones, shifting red industries to appropriate location, unawareness of the end-users, etc. The Department of Environment (DoE) is not duly shouldering its responsibility. Clearance from the DoE is one of the requirements for obtaining finance from commercial banks for the industrial units. Banks have been complying with the requirements. However, it

36. HSBC publishes Corporate Sustainability Report; and SCB published Green Banking Report.

is obvious that the arrangement is hardly playing any role in environmental protection because the certificate can be managed any way. Besides, as a developing country we do not afford to adopt modern technologies abandoning the technologies currently in use. Moreover, lack of political commitment of the government and the bureaucratic complexity is also responsible for the delay in shifting the red industries such as tanneries, pharmaceuticals, chemicals, etc. to an appropriate location. The consumer group in Bangladesh is very vulnerable. They are mostly unaware of green practices and are hesitant to pay extra for cleaning up industrial hazards.

Some challenges are banking sector specific and include the reluctance of bank board of directors and top management; lack of awareness and motivation to formulate policy documents, strategic plan, sector specific environmental guidelines; lack of technical hand, etc. Most of the directors and senior people of the bank do not have right attitude and understanding of the concept of green banking. They generally want to perform their responsibility simply by taking environmental clearance certificate which is not an effective measure in most of the cases. The ERM guideline requires banks to establish and maintain a database of NPLs that are due to environmental reasons and to have a reporting system on an annual basis. No preparation of banks in this regard is found (Habib et al.2013). A very limited number of banks are found to have provision of maintaining inventory of the resource use or consumption of energy and power. These are mainly maintained in terms of expenditure amount, not in terms of quantity (Habib et al.2013) which is not serving the desired objective. To make it meaningful, it is important that these data should be maintained in terms of the use of units and should be expressed in relation to the attributes like number of employees, number of branches etc.

The time frame as per the policy guideline for green banking of Bangladesh Bank is applicable for all banks irrespective of bank size. This suffers from the problem of 'one size fits all'. The large banks especially the State-Owned Commercial Banks (SCBs) dominated by rural branches cover about half of the bank branches of the country. Moreover, most of the branches of SCBs do not have online banking facilities. As a result, they are facing more difficulty in following the policy guideline, especially in preparing the inventory of utilities, doing paperless banking and the like. The new banks may lack of skilled manpower in formulating green policies, strategies, and other documents. It is to see whether the new banks of the country can comply with the timeline given by BB. Moreover, the absence of coordination amongst the commercial banks, Bangladesh Bank, DoE, law enforcing authorities, other government agencies, environmental NGOs, and the end-users is another challenge in pursuing GB in Bangladesh.

The challenges faced by the commercial banks can be overcome by the active participation of all stakeholders. The prevailing environmental laws are more than enough but their effective enforcement is urgent. Dedicated political commitment can mitigate the industrial pollution. The electronic as well as print media can play vital role in raising awareness among the end-users. Moreover, more training, workshop, seminars, etc. can be

arranged to educate people about GB. The deadline for implementation of different phases of GB should be commensurate with the size and capacity of different banks. Finally, it is strongly recommended that Bangladesh Bank , commercial banks, government agencies and other stakeholders should work together to achieve the vision of green banking and green economy in Bangladesh.

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