

Review of Policy and Regulation on Green Banking and Environmental Risk Management in Bangladesh

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Abstract

Keeping pace with the global initiatives for green banking and environmental risk management Bangladesh is also marching towards sustainable development by adopting dynamic banking. Relation between economic development and environmental issues are sometimes termed as paradoxical however both are complementary. This paper attempts to review the present regulatory framework for the promotion and implementation of green banking and ERM in Bangladesh. In this study the current implementation status of green banking and ERM in banks and FIs are examined with a view to recognize the level of the financial sector in adopting these policies. The findings of this paper are that remarkable progress has been evident in bank and FIs' in-house green practices and online banking performance compared to their initiative for effective green finance by following ERM guidelines. Developing bank's own ERM guidelines, green products and green business models are yet to take a considerable shape. Finally, Policy recommendations are indicated in this paper on the need for further study to develop a revised framework of green banking and ERM suitable for the financial sector of Bangladesh.

Key words: Green banking; ERM; Policy and regulation.

JEL Classification: L79, Q20, G28

1. Introduction

1.1 Background

Green banking is a part of global initiative by a group of stake holders to save the environment of this planet and environmental risk management is a core component of this. Economic development and environmental issues are closely related and it is really challenging to keep synchronization between the two. However, Green or sustainable banking has been identified as one of the major drivers of environment friendly sustainable economic growth in developing countries. Moreover, in a globalised economy, the

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industries and firms are vulnerable to stringent environmental policies, severe law suits or consumer boycotts while there are incentives to promote good corporate citizenship (Habib et. al, 2011). As a result, banks in developing economies cannot back out from adopting green banking and environmental risk management initiatives. Bangladesh Bank, the central bank of Bangladesh, has spearheaded adoption and promotion of green banking policy and guidelines throughout the financial sector, towards safeguarding environmental sustainability for the sake of potential development. In this regard, Bangladesh Bank has come forward with a dynamic and timely idea alongside some activities with the slogan of green banking.

Green banking involves a two pronged approach. Firstly, green banking focuses on the green transformation of internal operations of all banks. It means all the banks should adopt appropriate ways of utilizing renewable energy, automation and other measures to minimize carbon footprints from banking activities. Secondly, all banks should adopt environmentally responsible financing; weighing up environmental risks of projects or applicable business deal before making financing decision; and in particular supporting and fostering growth of upcoming 'green' initiatives and projects.

The financial and economic development of Bangladesh is inextricably linked to vulnerability to environmental degradation. Banks and financial institutions need to recognize the credit risks associated with environment and adopt Environmental Risk Management (ERM) practices in a formal and structured manner in line with global norms so as to protect their financing from the risks of a deteriorating environment and ensure sustainable banking practices. ERM Guidelines from the Bangladesh Bank are a mechanism to ensure that Banks and financial Institutions incorporate Environmental Risk into their credit risk management structure. The structure of the guidelines provide the minimum that needs to be in place and are intended to make available a common platform from which individual banks and financial institutions can launch their own environmental risk assessment framework which will capture a more accurate and developed image of the associated risks. Banks hold a unique position in an economic system that can affect production, business and other economic activities through their financing activities and thus may contribute to induce socially responsible behavior in other entities. By far the biggest impact banks have on the environment, and on the world, is through the lending decisions they make (Malk, 2011). In a nutshell, green bank means an ethical, a socially responsible and a sustainable bank (Millat et. al, 2012). Environmental Risk Management is for assessing environmental risks and not intended to squeeze investment; rather it is for sustainable finance.

Environment management in the banking business is like risk management. It increases the enterprise value and lowers loss ratio as higher quality loan portfolio results in higher earnings. Not only "Green Banking" will ensure the greening of the industries but it will also facilitate in improving the asset quality and rate of return of the banks in the long run. Further in this process, industries, which have already become green and are making

serious attempts to grow green, should be accorded priority to lending by the banks. Thus, through the process of green banking natural environment will be restored as well as sustainable banking for sustainable development will be ensured.

Bangladesh Bank published first Policy Guidelines for Green Banking and Environment Risk Management in 2011. The financial sector as a whole could not comply with the implementation deadline for initial difficulties but has assembled under the umbrella of BB to promote and support green banking in Bangladesh. Now it is the time to review this initiative for correction and adjustments. With this broad objective this study tried to review the BB steps towards the implementation of green banking and environmental risk management for the banks and financial institutions in Bangladesh. The specific objectives of the paper are One, to illustrate the theoretical framework of green banking and ERM for the financial sector of Bangladesh; Two, to review the regulatory framework for the promotion and implementation of green banking and ERM in Bangladesh; Three, to evaluate the current implementation status of green banking in the banks and financial institutions (FIs) of Bangladesh; and Four, to offer some customized recommendations for the future probable challenges and prospects of green banking in Bangladesh.

The research paper is based on both primary and secondary data. Published studies and information from BIBM and Bangladesh Bank are used as the main secondary sources. Relevant government publications are also consulted. Primary data have been collected through interviews conducted among the officials of the relevant desks of eighteen selected commercial banks (3 SCBs³, 11 PCBs⁴, 2 FCBS⁵ and 2 SDBs⁶). Unstructured questionnaires/ schedules have been used to gather primary information. Review of government policy and regulation of ministry and departments relating to environment and checking current status of effectiveness of those policies are not extensively covered in this study.

This paper is organized into five sections. The background, objectives and methodology is covered in section 1. Section 2 attempts to discuss a theoretical framework of green banking around the globe which is used for discussing green banking practices in the financial sector of Bangladesh. Review of policy and regulatory initiatives and support to the promotion and implementation of green banking in Bangladesh are discussed in section 3. Section 4 focuses on the examination of current implementation status of green banking in the banks and FIs of Bangladesh and finally section 5 comes up with some customized recommendations based on the future challenges and prospects of green banking in Bangladesh.

3 Sonali Bank Ltd., Agrani Bank Ltd. and Rupali Bank Ltd.

4 Bank Asia Ltd., Eastern Bank Ltd., Uttara Bank Ltd., United Commercial Bank Ltd., Mutual Trust Bank Ltd., Dutch- Bangla Bank Ltd., One Bank Ltd., IFIC Bank Ltd., Islami Bank Bangladesh Ltd, Exim Bank Ltd, Shahjalal Islami Bank Ltd., Social Islami Bank Ltd, and Jamuna Bank Ltd.

5 Standard Chartered Bank and HSBC.

6 Bangladesh Krishi Bank and BASIC Bank Ltd.

2. Literature Review:

Traditionally, banking sector's concern for environmentally degrading activities of clients is like interfering or meddling in their business affairs. However, now it is being perceived that environmental hazard brings risks to their business. Although the banking and financial institutions are not directly affected by the environmental degradation, there are indirect costs to banks. Due to strict environmental disciplines imposed by the competent authorities across the countries, the industries would have to maintain certain standards to run their business. Islam and Das (2013) have found that though green banking is a new term in Bangladesh, it is a mature issue in developed countries. So banks should consider the environmental issues of the country as a social responsible person not only to face the impact of globalization but also to face competition. In the case of failure, it would lead to closure of the industry leading to a likelihood of default to the banks. For example the enactment of Comprehensive Environmental Response, Compensation and Liability Act in 1980 (CERCLA) in the US in late 1980s has resulted in huge loss to the banks in the US as banks held directly responsible for the environmental pollution of their clients and made to pay the remediation cost. Since then banks in the US are ahead of other countries in integrating environmental concerns into their business operations. In the recent years, several other countries (mostly in Europe) are seen adopting policies that have made banks responsible for the misdeeds to their clients. Therefore, the financial institutions need to engage proactively with the stakeholders on environmental and social policy issues and evaluate the impacts of their client's investment (Sahoo & Nayak, 2008).

Credit risk can arise indirectly where banks are lending to customers whose businesses are adversely affected by the cost of cleaning up pollution or due to changes in environmental regulations. The cost of meeting new requirements on emission levels may be sufficient to put some companies out of business⁷. Credit risks are also associated with lending on the security of real estate whose value has diminished owing to environmental problems (additional loss in the event of default). In few cases, banks have been held responsible⁸ for actions occurring in which they held a secured interest (see Schmidheiny and Zorraquin, 1996 and Ellis, Millians and Bodeau, 1992). There are studies showing positive correlation between environmental performance and financial performance (Hamilton, 1995; Hart, 1995; Blacconiere and Pattern, 1993).

7 Example, in United Kingdom, the breach of terms of the license given by integrated pollution prevention control would lead to prohibition, financial penalties and enforcement notice. All such notices can have significant financial implications for the business and as well as the financial institutions those who have put money into it. Thus banks/financial institutions need to take actions before financing the project.

8 Some US courts (H. Thomson) have sought to hold banks and other financial institutions liable for the hazardous wastes. For example Fleet Factors case in 1990 where the bank (Fleet factor corporation) was held liable for environmental damages incurred in the foreclosure process by a firm they hired to auction off assets. environmental damage caused by their customer's actions, such as clean up costs and other damages associated with hazardous wastes. For example Fleet Factors case in 1990 where the bank (Fleet factor corporation) was held liable for environmental damages incurred in the foreclosure process by a firm they hired to auction off assets.

Globally, we find many instances of considering environmental risk management as a serious issue. International financial institutions like International Financial Corporation (IFC), Japan Bank for International Cooperation (JBIC) and World Bank (WB) have incorporated environmental management into their business operation. A study confirms that only air pollution causes the loss of 200 million working days and the resulting losses in productivity and medical expenses costs around 14 billion pound to the European Union (Stavros Dimas, 2005). Adopting environmentally sustainable technologies or modes of production is no more considered as a financial burden rather it brings new business opportunities and higher profit. Green banking saves costs, minimizes the risk, enhance banks reputations and contributes to the common good of environmental sustainability. Bahl (2012) urged banks to promote different types of environment friendly products to ensure the protection of environment and the profitability of banks in India. Mani (2011) indicated that as Socially Responsible Corporate Citizens (SRCC), banks have a major role to play and responsibility in enhancement of governmental efforts towards substantial reduction in carbon emission and building a green economy. Thus banks should go green and play a pro-active role to take environmental and ecological aspects as part of their lending principle, which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems (Sahoo & Nayak, 2008). Indian banking is gradually coming to realize that there is need for a shift from the motive of 'profit, profit and profit' to 'planet, people and profit' (Verma, 2012).

The present green consumerism is more concerned with the quality of the products more than the quantity. In future, market will reward those industries or the companies, which emerge as the efficient users of the energy and raw materials and will penalize the less efficient one. Further, the investors in the stock market are equally aware of environmental pollution and would take a stand against those industries/institutions that do not comply with pollution norms (Gupta, 2003; Goldar, 2007). A unit can be said to be environmentally clean only when its pollution level is within the permissible level fixed by the pollution control board or any certified agency. For this measure to succeed the pollution control agencies are required to play an important role by supplementing the banks efforts to control pollution.

China's Banking Regulatory Commission (CBRC) issued the Green Credit Guidelines to encourage implementation of its green credit policy in 2012. The guidelines encourage banks operating in China to deny loans to energy inefficient, polluting, or socially risky enterprises, and instead to support green industries and projects with a goal to "increase the support to a green, low-carbon and recycling economy, fend off environmental and social risks, and improve their own environmental and social performance." To implement the CBRC guidelines, many banks have compiled their own green credit policies, standards, and indicators. For example, in 2012, ICBC refused to lend to projects and customers that fell short of the bank's standards (CBRC, 2012). Ye Yanfei, the Deputy Director General

of the CBRC statistics department, identified three main challenges to implementation green credit guideline. Chinese banks lack: 1. Expertise needed to build sophisticated, effective, and holistic systems to evaluate environmental risk and to ensure compliance on the ground; 2. Legal rights to enforce their credit policies among customers, which limit the ability of banks to drive environmental benefits and 3. Adequate incentives to develop green finance if faced with a conflict between environmental sustainability and profitability, as some environmental projects have a poor or unclear financial return on investment. The same lacking exist for the banks in Bangladesh. Based on Ye's remarks, BSR believes that three things may advance green finance in China: 1. Specific and Universal Requirements, Indicators, and Standards for Chinese Banks; 2. Transparency on the Implementation of the Green Credit Policy and Guidelines and 3. Formal Processes for Consultation and Collaboration with Stakeholders.

The latest addition to this "green banking" trend came in April 2014, when the Central Bank of Brazil introduced a new resolution requiring the banks it regulates to implement environmental and social risk policies. South Africa has also been in the vanguard of updating its pension policy to make it clear to institutional investors that prudence now means incorporating critical environmental, social and governance factors. These and many other examples could mark the beginning of a new era of green financial reform.

Malk (2011) in an in depth research on green banking has shown that an important first step is examining the reasons why banks consider environmental issues to be a matter of strategy, the actions being taken, and the benefits realized. This leads to a deeper understanding of the opportunities inherent in financing a greener future, new approaches to risk management, and cost-saving benefits of cutting environmental footprints both inside and outside a bank's walls. So what makes a comprehensive environmental strategy for a bank? Malk suggested several key components: 1. Green Lending, 2. Environmental Underwriting Criteria and 3. Green Operational Programs.

Bank of America, for example, has pledged to invest \$20 billion by 2020 into environmentally preferred investments such as cleaner energy and green real estate. These investments neither are corporate philanthropy nor are simply corporate social responsibility. As Bank of America CEO Brian Moynihan recently remarked on his bank's green capital commitment, "This initiative is far more than doing good for its own sake – it has proven to be a long-term, compelling business opportunity for our clients, our company and our shareholders."

CPD (2003) analysis shows that only 49 percent of the corporations in Bangladesh recognize their responsibility in protecting the environment, and very insignificant proportion of companies has policies or strategies related to environment. Considering the insignificant roles of government in environmental protection in the country, some

environmental NGOs⁹ are trying to put pressure on the government to undertake protective measures to save critical sectors like wetland conservation, pollution control and biodiversity protection. They are also trying to motivate the people and in some cases the government is accepting their ideas (Ahsan et.al. 2009). Governor of Bangladesh Bank, Dr. Atiur Rahman, urges bankers to change their mindset for sustainable development.

3. Review of the regulatory framework for the promotion and implementation of green banking and ERM in Bangladesh

Government policy and regulation

Bangladesh Government officially started the awareness build up and environment conservation effort mainly in 1980s by establishing a separate Ministry called Ministry of Environment and Forest (MoEF) and The Department of Environment (DoE). In 1992, Government formulated Environmental Policy and made commitments as a signatory of a number of Multilateral Environmental Agreements¹⁰ to protect environment. In 1995 The Bangladesh Environment Conservation Act (ECA), 1995¹¹ is enacted. Other notable regulations/rules/guidelines include The Environmental Conservation Rules (ECR), 1997¹²; The Environment Court Act, 2000; Environment Court (Amendment) Act, 2010¹³; Bangladesh Environment Preservation (Amendment) Act, 2010 etc. In recent years the issue of climate change got the active consideration of the policy makers of Bangladesh. In order to utilize the resources of Climate Change Trust Fund in an effective and suitable manner, the Climate Change Trust Act, 2010 has been enacted.

Besides, to handle 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 have been enacted recently. E-waste is another growing environmental concern of developing world including Bangladesh. 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.

9 Bangladesh Poribesh Andolan (BAPA), Bangladesh Environmental Lawyers Association (BELA), Ongikar Bangladesh are examples of such types of NGOs.

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 An act to provide for conservation of the environment, improvement of environmental standards and control and mitigation of environmental pollution.

12 To exercise the powers conferred by section 20 of the Bangladesh Environment Conservation Act, 1995, the Government of Bangladesh passed this rule.

13 An act to provide for the establishment of environment courts and special magistrate courts in all districts.

To promote sustainable energy in the country, a Renewable Energy Policy has been prepared and various action plans have been undertaken with the target of generating 5 percent and 10 percent 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 rules/guidelines/policies in place, however, efforts needed for better enforcement and implementation.

For financing to the industry sector, ECA 1995 and ECR 1997 together provide a framework of environmental regulations. According to Section 12 of ECA'95 "No industrial unit or project shall be established or undertaken without obtaining, in the manner prescribed by rules, an Environmental Clearance Certificate (ECC) from the Director General, DOE". 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, 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 standards¹⁴ 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.

Bangladesh Bank's initiative as a policy maker

To support the government's motive in protecting environment, BB has encouraged the path to green banking from 1997. At that time commercial banks of the country were asked¹⁵ 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. At the time of financing, Banks and FIs of the country were advised to take steps to control environmental pollution¹⁶. 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 plant¹⁷.

14 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). When operating the industries, these performance standards have to be met in order to ensure that there is no legal non-compliance.

15 BB BRPD Circular No-12 dated August 10, 1997.

16 BB BRPD Circular No-12 dated October 08, 1997; BRPD Circular No-21, November 10, 1999; and BRPD Circular No-17, December 29, 2010.

17 BB BRPD Circular No-12 dated October 08, 1997

Initially to encourage environmentally responsible practice, Bangladesh Bank introduced a comprehensive guideline on Corporate Social Responsibility (CSR) 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 impacts¹⁸. BB introduced Taka 2.0 billion refinance facilities in FY 10 against bank loans for investments in solar energy, biogas plants and ETPs in line with the government's plan to meet 5 percent of the total demand for electricity from green energy by 2015 and 10 percent by 2020.

The most remarkable step of BB on the way to promoting & implementing green banking is the comprehensive circular¹⁹ of BB on 'Policy Guidelines for Green Banking', issued in February 2011. This is based on the draft policy framework proposed by BIBM in 2010. Bangladesh Bank's Policy Guidelines for Green Banking (2011) has stated that every bank and financial institution must follow the green banking activities as they are segregated into 3 phases. Many banks of the country could not comply with the implementation deadline of this guideline. Consequently, BB extended the timeline impending a thorough policy review. Now, Phase-I for all new banks scheduled in 2013 and all FIs should not exceed 30 June 2014; Phase-II and III for all banks and FIs should not exceed 31 December 2014 and 30 June 2015 respectively instead of a final timeline of 31 December 2013.

In phases-I, bank must formulate green banking policy showing general commitment on environment through in-house performance within June 30, 2014 which will be completed in nine stages. In Policy Formulation and Governance stage, Bank shall formulate and adopt broad environmental or Green Banking policy and strategies approved by their Board of Directors and keep a considerable amount for green banking in its annual budget. Banks must establish a separate Green Banking Unit or Cell to design, evaluate and administer green banking related issues of the bank. While incorporating Environmental Risk in Core Risk Management banks must incorporate Environmental and Climate Change Risk as a facilitating element of credit risk according to guidelines on Environmental Risk Management (ERM). Guidelines on Environmental Risk Management (ERM) are to be considered as green banking policy. In the third stage, Initiating In-house Environment Management, bank will prepare an inventory of the consumption of water, paper, electricity, energy etc. by its offices and branches in different places and circulate a "green office guide" to its employees for efficient use of electricity, water, paper and reuse of equipments. In Introducing Green finance, bank must give preference to finance in eco-friendly business activities and energy efficient industries. In Creation of Climate Risk Fund stage, bank should finance the economic activities of the flood, cyclone and drought prone areas from its corporate social responsibility fund. The

18 BB DOS Circular No-1, June 1, 2008.

19 BB BRPD Circular No-2, February 27, 2011.

sixth stage, Introducing Green Marketing, bank should use environmental causes for marketing their services to develop awareness among common people. In the seventh stage, bank must emphasize on online banking to help environment. In Supporting Employee Training, Consumer Awareness and Green Event stage, bank must organize training on environmental and social risk and the relevant issues continuously to develop awareness of both employees and clients. In the last stage, Banks shall report on the initiatives/practices to Bangladesh Bank and disclose in their respective websites.

Phase-II starts with Sector Specific Environmental Policy stage where banks need to formulate strategies to design specific policies for different environment sensitive sectors. In the second stage, Green Strategic Planning, bank should determine a set of green achievable targets and strategies, and disclose these in their annual reports and websites. In Setting up Green Branches, bank should entitle a branch as green branch with a special logo if it uses natural light, uses renewable energy, uses energy saving bulbs and other equipments, requires reduced water and electricity use, uses recycled water etc. The fourth stage of phase-II, Improved In-house Environment Management, tells bank to adopt strategy of reuse, recycling of materials and equipments. In Formulation of Bank Specific Environmental Risk Management Plan and Guidelines stage, bank should formulate and follow an environmental risk management manual or guidelines to assess and monitor project and working capital loans. In Rigorous Programs to Educate Clients stage, Banks should encourage and influence clients and business houses to comply with the environmental regulations and undertake resource efficient and environmental activities. In the last stage, Disclosure and Reporting of Green Banking Activities, Banks should publish independent Green Banking and Sustainability reports showing past performances, current activities, and future initiatives.

Addressing the whole eco-system through environment friendly initiatives and introducing innovative products and standard environmental reporting with external verification must be done in phase-III within June 30, 2015. In Designing and Introducing Innovative Products stage, bank must introduce environment friendly innovative green products to address the core environmental challenges of the country. In Reporting in Standard Format with External Verification stage, bank must publish independent Green Annual Report.

The circular points out some incentives in the form of preferential treatments for the compliant banks: BB will give points to compliant banks on management component while deciding on its CAMELS rating; BB will name top ten banks for their overall performances in green banking; and BB will take into account green banking in giving permission to open new branches. The circular notes, all financial institutions should report their initiatives/activities to Green Banking and CSR Department of Bangladesh Bank in specified format on quarterly basis. FIs have to submit the report within the next 30 days of each quarter (25th of the month as CIB report). FIs shall keep their annual report and websites updated with the disclosures on green banking initiatives/activities.

Guidelines on Environmental Risk Management²⁰ was prepared and circulated by BB on January 30, 2011 to support Policy Guidelines for Green Banking (2011) featuring qualitative assessment of environmental risks for the financial sector. This guideline, developed with the assistance of IFC, covers different conceptual aspects, applicability and benefits of ERM along with organizational requirements, technical manual and technical annexes for the financial sector in a consultative manner. The ERM guideline prescribes a set of sector specific 'Environmental Due-diligence Checklist'²¹ for financing environmentally sensitive sectors²² by banks. Banks/FIs should conduct a preliminary environmental risk review on each credit proposal using Environmental Due Diligence (EDD) checklists. There is one General EDD checklist, ten Sector EDD checklists and a Guidance Matrix. Potential borrowers will have to submit various documents to the DOE for obtaining the Environmental Clearance Certificate. Banks/FIs need to obtain copies of these documents as the background for completing the EDD checklists. The outcomes of both the General and Sector specific EDD checklists are combined in the Overall Environmental Risk Rating (EnvRRR). Finally, it is a 'yes' or 'no' decision for financing the proposed credit based on subjective judgment of 'High' 'Low' or 'Moderate' EnvRR. For 'High' EnvRR the credit risk management should ensure that additional conditions/covenants are included. The EnvRR should be considered along with the overall credit risk rating of a proposed credit for financing decision. Environmental Risk Rating are required for all individual customers (corporate, institutional, personal, small and medium enterprise) whose aggregate facilities are above BDT 2.5 million for SME, financing; BDT 10 million for Corporate, financing and BDT 10 million for Real estate financing.

4. Status of green banking initiatives in Bangladesh

Policy formulation and governance by banks

Environment friendly green initiatives are now very common in the banking sector of Bangladesh. But the focal point of these initiatives is mainly Corporate Social Responsibility of the banking unit. As per the green banking policy phase-I, 47 banks (scheduled before 2013) have their own Green Banking Policy Guidelines and have Green Banking Unit

20 BB BRPD Circular No-1, January 30, 2011

21 In this guideline Bangladesh bank designed 14 environmental due diligent checklists. One for general and other thirteen are sector specific. Among the thirteen sectors, six are included in red category and six in orange category in the environmental conservation act 1995. In this due diligent checklist BB focused on applicable environmental compliance certificate, location of land, protection against climate change impact, top management commitment to environmental management, potential borrower's planning to address environmental issues, manpower's skill in addressing environmental issue, solid waste management, air emissions prevention and control measures systems, ETP and waste water management, labor and social issues etc are considered.

22 Agri-business, cement, chemicals, housing, engineering and basic metals, pulp and paper, tannery, Sugar and distilleries, textile and apparels, and ship-breaking.

(GBU) for pursuing Green Banking activities. Moreover all the banks scheduled before 2013 have their own Green Office Guide for conducting their in-house green activities. In 2013, after the amendment in green banking policy guideline, among 9 new banks, 2 have formulated their own Green Banking Policy Guidelines and own Green Office Guide and none has formed Green Banking Unit (GBU) till the first quarter of 2014. Moreover, 13 FIs have formulated their own Green Banking Policy, 18 FIs have formed Green Banking Unit (GBU) and 15 FIs have prepared own Green Office Guide for conducting their in-house green activities till the first quarter of 2014. Now banks are interested to move forward with online banking facility for the customers. Remarkable progress has been observed in the expansion of online branches. 46 banks (out of 47 banks scheduled before 2013) have at least one online branch and 30 banks have introduced internet banking facility up to December 2013. Moreover, Internet banking and SMS/mobile banking facility have been increased notably. Till 2013, there are 311 branches powered by solar energy, 189 ATM/SME unit offices powered by solar energy and 4496 online branches.

Allocation and utilization of fund for green banking activities

In the green banking policy the banks as well as FIs are obligated to allocate and utilize fund for green finance, climate risk fund and green marketing and training. After introducing green banking policy, the total allocation for green banking activities is 237% higher in 2013 but in 2014 the annual allocation is decreased by 53% from the previous year. Though the budget allocation is lower in 2012 but utilization of the fund is higher in that year. In first quarter of 2014, 46% of the annual allocation is utilized, which is 16% higher than the utilization of the last quarter in the previous year.

Table - 1: Total Allocation and Utilization to Green Banking (BDT in million)

Bank Group	2012		2013		2014 (First Quarter)	
	Allocation	Utilization	Allocation	Utilization	Allocation	Utilization
SCBs	7,185	8,970	4,096	3,344	4,204.57	2,518.30
SDBs	1,800	8,206	5,473	3,385	6,272.30	86.53
PCBs	57,730	179,113	275,838	177,059	116,145.00	59,186.78
FCBs	41,766	77,420	80,245	78,758	44,985.00	17,068.35
Total	108,482	271,271	365,653	262,546	171607.00	78,859.96

Source: GBCSRD, Bangladesh Bank

Green finance

Green finance is the major part in green banking budget for the banking sector. Around 85% banks (scheduled before 2013) of the country have some exposure to the environment friendly financing. In terms of allocating and utilizing green financing budget, it is higher in 2013 though in 2012, the green finance budget utilization was greater than the allocation. The contribution of PCBs and FCBs have enhanced over the years. On the contrary, the picture is quite different for SCBs and SDBs. Among the nine new schedule

banks, only one (NRB Bank Limited) has allocated and utilized fund for green banking in the first quarter of 2014 which is Tk. 90 million in green finance. Six financial institutions have utilized their funds for green financing, which is Tk. 2,752.24 million in the first quarter of 2014.

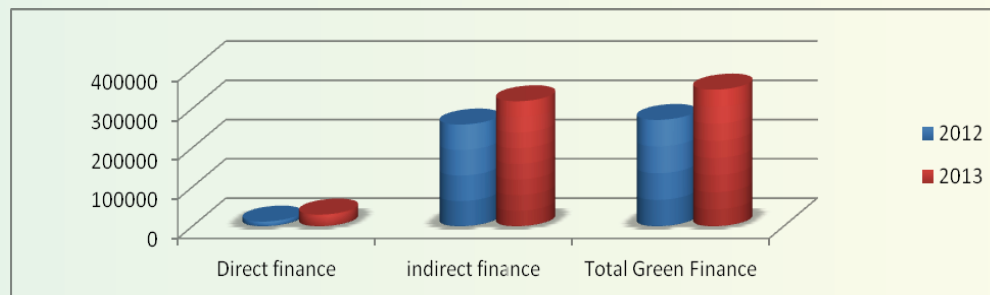
Table - 2: Green Finance (BDT in million)

Bank Group	2012		2013		2014	
	Allocation	Utilization	Allocation	Utilization	Allocation	Utilization
SCBs	5,000	6,507	3,915	3,248	4,049	2,514
SDBs	1,350	8,205	5,000	3,385	5,800	86
PCBs	56,268	178,812	275,024	262,810	115,687	59,044
FCBs	41,713	77,398	79,9901	78,684	44,751	17,049
Total	104,330	270,922	363,930	348,127	170,287	78,694

Source: GBCSRD, Bangladesh Bank

As per the definition of BB, the green financing mainly includes offering financing services to solar, bio-gas, HHK, bio-fertilizer, ETP, and projects having ETP. Financing to project having ETP, holds the major part in total green financing. This financing to project having ETP is known as the indirect green finance. In 2012 this indirect finance was about 96% of total green finance and in 2013 it is reduced to 91% (graph-1). There are some banks that don't have any exposure to direct green finance. It is to be mentioned that financing to 'project having ETP' by the top 10 green banks (2012) constitutes 95 percent of their total green financing. Some banks have huge financing to the projects that have negative impact on environment. In this aspect netting is needed to know the genuine picture of green finance.

Graph-1: Total Green Finance



In direct green financing, modern brick-kiln, solar home system, solar irrigation system etc are more popular. Over the year the financing trend of SCBs and SDBs has gone down for direct financing sectors. But modern brick kiln like Zigzag and HHK, are getting privileged trend. This is because of domestic regulation on traditional brick kiln that creates the demand for modern brick kiln financing. The detail picture of green financing is shown following table.

BB's refinancing scheme

Table-3: Status of Green Financing by Banks [2012] (BDT in million)

Bank Category	ETP	Projects having ETP	Bio Gas/Fertilizer	Solar/renewable energy plant	HHK	Others	Total
SCBs	119	2,994	10	985	539	1,861	6,507
SDBs	387	6,402	606	250	450	111	8,205
PCBs	688	173,188	284	1,686	842	2,090	178,811
FCBs	163	76,517	0	719	0	0	77,398
Total	1,357	259,100	900	3,638	1,830	4,062	270,922

Status of Green Financing by Banks [2013]

Bank Category	ETP	Projects having ETP	Bio Gas/Fertilizer	Solar/renewable energy plant	HHK	Others	Total
SCBs	0	1,112	3	265	1,395	476	3,248
SDBs	60	3,119	1	133	49	23	3,385
PCBs	3559	236,244	479	933	1,449	17,716	262,810
FCBs	44	77,969	0	672	0	0	78,684
Total	3663	318,443	483	2,003	2,893	18,215	348,127

Status of Green Financing by Banks [first quarter 2014]

Bank Category	ETP	Projects having ETP	Bio Gas/Fertilizer	Solar/renewable energy plant	HHK	Others	Total
SCBs	5.87	2,157.30	16	0.12	315.35	18.10	2,518.30
SDBs	0	72.28	2	00	9.00	3.15	86.53
PCBs	57.80	55,770.05	53	898.89	1,438.06	821.49	59,186.78
FCBs	20.00	13,819.35	0	573.00	0.00	0.00	17,068.35
Total	83.67	71,818.98	71	1,472.01	1,762.41	842.74	78,859.96

Source: GBCSRD, Bangladesh Bank

In promoting green financing, the central bank launched Tk. 2billion green banking refinance scheme in August 2009 to set up solar panels, bio-gas plants and industrial ETPs (effluent treatment plants) to help reduce industrial pollution and increase power supply. The fund has been named the "solar energy, biogas and effluent treatment plant sector refinance scheme." Bangladesh Bank has included 26 new products under its revolving refinance scheme for solar energy, biogas and effluent treatment plants to give loans at low interest. It also increased the credit limit for the sectors under the scheme. The new sectors that will come under the scheme includes setting up plants for solar mini grids, a solar irrigation pump system, vermin-compost production, hydropower, PET bottle reprocessing, solar battery reprocessing, LED bulb and Hybrid Hoffman Kilns in brick kilns for reducing carbon emergence. Under the scheme, Bangladesh Bank is providing loans to commercial banks at interest rates from 5% to 12% for direct refinancing and credit wholesale to the entrepreneurs, who will then have access to commercial bank loans in those sectors at a maximum interest rate of a further 5%. Overall interest rates will not

exceed 12%, according to the fund's conditions. The BB has so far disbursed to the tune of USD 9.6 million from this fund until December 2013. The status of green financing under the refinancing scheme is shown in the following table.

Environmental risk rating

Table-4: Refinancing Status of Green Banking (BDT in million)

Green Product Category	Jun-10	Jun-11	Jun-12	Jun-13	Dec-13
Bio Gas	1.95	50.24	133.22	113.62	94.84
Solar Home System	00	59.37	10.49	40.18	13.15
Solar Irrigation Pump	3.08	12.39	8.40	00	17.90
ETP	00	10.78	22.19	57.40	10.00
HHK	00	00	55.00	172.19	50.00
Solar assemble plant	00	00	248.80	122.72	49.64
Total	5.03	132.78	478.10	506.11	235.54

Source: GBCSRD, Bangladesh Bank

In the green banking policy, Phase-I, the environment risk management gets a privileged in credit risk management. In 2011, Guideline for environment risk management is introduced and in green banking policy the ERM is incorporated to minimize the environment risk. According to this guideline, banks/FIs are required to measure the environmental risk considering the environment due diligence checklist (provided by this guideline). The number of rated the projects is increasing over the years. In total 88.76% rated project were financed in 2013. The status of ERR is shown in table-4. According to the ERM guideline, banks are supposed to place the high rated projects to the executive board for approval. In most cases, banks do not have policies or guidelines for the approval of these high rated projects. The ERM guideline requires banks to establish and maintain a database of NPLs due to environmental reasons and to have a reporting system on an annual basis. In survey banks are not found to be maintained the database.

Climate risk funds

Table-5: Green Banking and ERM Status by ERR

Year	2011	2012	2013
No of Project rated	4,394	12,088	31,183
No of project financed after rating	4,315	11,165	27,677
Amount disbursed to the rated projects (BDT in Million)	270,951	703,633	1,567,590

Source: GBCSRD, Bangladesh Bank

Climate risk Fund is the new opportunity for the banking unit to support climate change adaptation program. Banking sector allocating a portion of its green banking budget to climate risk fund, which is 2%, 0.32% and 0.56% of the green banking budget in the year 2012, 2013 and 2014 respectively. Besides this from the aspect of utilizing the fund, banking sector's performance is poor. In 2013 it has utilized 27% fund and it is higher than 2012. Among the bank groups, status of SDBs is very poor over the year. In 2013, SCBs have a good position in utilizing the allocated climate risk fund. But PCBs have an increasing trend in utilization of climate risk fund over the year. 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. Of the banks, 6 percent have no allocation for climate risk fund; however, have reported certain volumes as utilization. Moreover there are confusions among bank executives over the use of climate risk fund. According to the BB policy document²³, the fund should mainly be used to cover additional risk premium and to meet emergency expenditure in the climate risk prone areas. The basic target, as appears in the policy documents, 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. As the survey team observed, the funds were mainly used for philanthropic activities like distribution of blankets, tube-wells, solar panels, food and other relief activities. A few banks have also utilized the funds for green financing at reduced rate.

Green marketing, training and awareness build up is one of the important factors in the

Table-6: Climate Risk Fund

(BDT in million)

Bank Group	2012			2013			2014 (First Quarter)		
	Allocation	Utilization	% of utilization	Allocation	Utilization	% of utilization	Allocation	Utilization	% of utilization
SCBs	415	25	6%	95	81	85%	71	2	3%
SDBs	430	00	0%	433	1	0.23%	432	0	0%
PCBs	1,283	219	17%	540	212	39%	285	126	44%
FCBs	17	15	88%	128	23	18%	168	19	11%
Total	2,145	259	12%	1,196	317	27%	956	147	15%

Source: GBCSRD, Bangladesh Bank

green banking policy. Awareness development is mainly urban centric and Dhaka based though Bangladesh bank is trying hard to increase the awareness on green banking for all over the country. In this objective, Banks are asked to allocate annual fund to enhance this segment. The annual trend of allocation to this part is going down over the years. But the utilization is growing in 2013 (Table-6). For awareness build up the schedule banks are

23 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. This will be used in case of emergency. FIs would ensure regular financing flows in these vulnerable areas and sectors. The fund could be created as part of FIs' CSR expenditures.

advised to arrange training program for both employees and customers. Moreover they are supposed to report in every quarter on this issue. According to the BB quarterly publication, around 77% banks (scheduled before 2013) arrange the training programs. This 77% banks have arranged 157 training programs concerning green banking where total number of participants was 9,525 in the first quarter of 2014. It is encouraging that banks are now comfortable to arrange training programs for the customers. In this quarter 30 banks have initiated Green Marketing and 6 banks have arranged Green Events. Financial institutions have also arranged 20 training programs and trained up 170 participants in that quarter.

Green marketing and training

Disclosure of green banking activities has got the major emphasis in the Bangladesh Bank's green banking policy. Until the March 2014, 39 banks have pursued disclosure on green banking in their annual report, 36 have put green banking disclosure in their website. 19 banks have disclosed their green banking activities in the media and 4 banks have prepared Independent Report on green banking activities. And only one banks prepared its sustainability report by the GRI management. Some financial institutions and banks are following the format of GRI to prepare their sustainability report.

Bangladesh Bank's in-house initiatives to support sustainable green banking

Table-7: Green Marketing and Training (BDT in million)

Bank Group	2012		2013		2014	
	Allocation	Utilization	Allocation	Utilization	Allocation	Utilization
SCBs	610	1.00	86	15	85	2.00
SDBs	20	0.04	40	00	40	0.10
PCBs	57,730	82.00	274	93	173	17.00
FCBs	37	7.00	126	51	65	0.00
Total	846	90.00	526	159	363	19.10

Source: GBCSRD, Bangladesh Bank

Bangladesh Bank has already taken a lead in promoting paperless green banking by giving a circular, which promotes wide scale automation. Bangladesh Bank does not accept any paper-based communications from banks and financial institutions. They have to send their statements electronically to Bangladesh Bank. Bangladesh Bank does not accept any paper-based applications from jobseekers. They have to apply electronically. No Paper based tenders are accepted in Bangladesh Bank. E-tendering is the accepted mode. No cheques travel to Bangladesh Bank from different banks. Bangladesh Automated Clearing House (BACH) only clears the images of the checks. Electronic fund transfer networks now facilitate corporate to pay the salary of their employees electronically without issuing checks. The automated Credit Information Bureau (CIB) in BB now clears electronic applications of bank's client's credit history in seconds, which used to take weeks. No paper transaction is involved here. Beside these paperless green initiatives, 20 kilowatt solar power system is installed in the head office of Bangladesh Bank. Now BB take initiatives to

convert its 20 storied building into green building with rain water harvesting, waste water recycling and motion sensor energy efficient bulbs supported by window based solar panel.

5. Recommendations and Conclusion

In Bangladesh environmental banking is growing especially for the initiatives taken by Bangladesh Bank. In the beginning, it was very difficult to convince the banking community to accept with the concept. But now it is waving with some glorious prospects. Walking on this path is faced with some problems. Considering these issues, in this section, some recommendations have been identified that are relevant for the improvement and prospects of green banking practices in the country.

One: green finance is the major part of green banking activities in Bangladesh. Bangladesh Bank has taken some tremendous steps in this ground by introducing new investment opportunities. But over the year it is observed that financing to effective green investment has got a little importance for some banks. In this case, the banks, who are the genuine contributor to the environment, are not coming in the front. Moreover we need some mechanism to identify the authentic green banking activities by netting our investments. Development of green information database is needed for netting bona fide green financing.

Two: Environment risk rating is one of the major innovations in the environmental risk management in Bangladesh. To maintain the green commitment and to reduce the environmental risk, environment risk rating is the priority. Banks and few financial institutions are adapting this. The published data shows that around 90% of the rated projects are financed. Now a question may arise on implication aspect of this ERR as most of the rated projects are ultimately financed. Now a question may arise on implication aspect of this environment risk rating. As a beginner, introducing environment risk rating is the tremendous job of the central bank. But now it is the time to find out the applicability of this environment risk rating aspect.

Three: Bangladesh is highly climate vulnerable country. And climate change mitigation is not our obligation. Adaption to climate change is the major issue for Bangladesh. And the environmental banking in Bangladesh is less concerned on this ground. But Bangladesh bank already opened up the opportunity for adaptive investment by introducing the climate risk fund. Banks are allocating fund for climate risk, as it is a supervisory obligation. But they have no constructive plan to utilize this budget. This climate risk fund can be well utilized in the nation's climate change adaptation management if properly guided.

Four: In the ERM guideline, BB advised banks to place projects rated as 'High' to their respective executive boards or credit specialist teams. Most of these high rated projects have been financed, as observed in the survey. Only a few banks have their own guidelines to handle such high rated projects. The approval process of these projects by the executive

boards of different banks is not very clear. Quantitative scoring of ERM (like CRG) will be helpful for better implementation of green banking in banks and FIs. Carbon accounting in banks ie, measuring carbon footprints will be another milestone for green banking.

Five: Recently the time frame for implementing the 'Policy Guideline for GB' has been extended because banks failed to comply with the initial timeline. Now all the banks and financial institutions are not ready in the same way to comply with the new timeline. So it is necessary to build up capacity in banks to help them comply with new time frame. Some banks especially new and big ones may require extended time line. The existing green banking policy seems ambitious to heterogeneous banks in Bangladesh. Thus, a thorough review of the policy and guideline is required based on a survey all over the country.

Six: The initiatives of Bangladesh Bank in terms of awareness have brought remarkable changes in the banking sector. However, it is mainly urban or more specifically Dhaka centric. Moreover not all the banks are within the fold of the awareness programs of banks. Now bankers need to move to rural semi-urban areas for awareness development.

Seven: There is no doubt that a country like Bangladesh cannot afford to discourage all projects or economic activities only for environmental cause. Significant negative impact of production/economic activities on employment, income, and poverty cannot be ignored. Thus, it is important to identify the sectors or industries where banks should continue financing in spite of their negative impact on environment. There should be long term planning for these industries to handle environmental issues and all relevant policies should be consistent in this regard. Most polluting industrial sectors can be shifted to proper locations.

Eight: Monitoring and periodic review of green banking activities to keep track with proper implementation of policy are crucial. Consistency of reported data and its validation mechanism may complement the reporting of banks and FIs to BB. In this regard Bangladesh Bank needs to devise some monitoring tool which may be a mix of off-site, on site or on-line techniques.

Nine: Green banking activities are now taking a shape only for the green banking unit for some banks. But green banking is not only for the green banking unit, though separate unit is needed to run these activities. There is a need for holistic approach among all the stakeholders for the sustainability of green banking. MOU may be arranged for better understanding and responsibility among the stakeholders.

Ten: Developing green banking models as well as green products specially tailored for the financial sector of Bangladesh will help banks and FIs to follow the path of sustainable development effectively.

In a rapidly changing market economy where globalization of markets has intensified the competition, the industries and firms are vulnerable to stringent public policies, severe

lawsuits or consumer boycotts. This would affect the banks and financial institutions to recover their return from investment. Thus, the banks should play a pro-active role to take environmental and ecological aspects as part of their lending principle, which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems. Green Banking if implemented sincerely will act as an effective ex ante deterrent for the polluting industries that has bypassed other institutional and regulatory mechanisms. But for better result in the development of environmentally responsible practices by banks green banking needs a collective effort of all stakeholders. Government and central bank have taken a very good policy steps. Now it is time for effective implementation of this policies, guidelines and rules. For the success in green banking an isolated effort by banking communities may not bring much. The success of the green framework would depend upon the pro-active role of all stakeholders and a sound incentive structure. This paper may cast some light on the need for further study to develop a revised framework of green banking for the financial sector of Bangladesh. It will be a step by step implementation of sustainable green banking and ERM with proper accounting of environmental risk management where the upcoming phase will be confirmed based on reviewed achievement of the previous phase.

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Annex 1: Some Environmental Initiatives By Banks

Box1: Major Green Banking Activities at a Glance in March 2014

- Green Banking unit has been established in 47 banks.
- 47 banks have introduced a Green Office Guide.
- EnvRR has been done for 9,191 projects.
- 7,115 rated projects have been financed.
- 361,665.73million taka has been disbursed against rated projects.
- 315 branches and 187 ATM/SME unit offices are powered by solar energy.
- 4,525 branches have been facilitated with online coverage.
- Taka 78,693.82 million has been disbursed as green finance.
- Taka 146.83 million has been utilized from climate risk fund.
- Taka 19.31 million has been utilized for green marketing, training and development.

Source: Bangladesh Bank, 2014

Box 2: Mutual Trust Bank is Well-ahead in Internal Green Management

Mutual Trust Bank Limited practices green banking activities with utmost care. It is one of the participants of BB's refinancing scheme for green products. The corporate Head office of the bank, located at 26, Gulshan is a modern building using technologies for efficient utilization of resources. The building has been built in such a manner so that day-light can be utilized. The bank uses energy saving bulbs. The bulbs and computers have sensor and they are automatically switched on/off with the presence and absence of people respectively. All water taps also have sensor. As a result water falls only when one's hand is placed below the tap. All sorts of correspondence of the bank are made through e-mail and i-mail (only between head office and branch) to save paper. The bank's Sirajgonj and Iswardi SME branches are running with own solar panel system. The online banking facilities of the bank allows customers do online transactions via internet such as withdrawals, transfer payment, checking account status etc lead to saving paper and reducing carbon emissions. The bank has already prepared green credit policy and an inventory of its utilities as per the policy guidelines for green banking. The bank conducts different training program for its employees' awareness development.

Source: Mutual Trust Bank 2011

Box-3: HSBC has Remarkable Initiatives in line with its Global Activities

HSBC is a globally 'Carbon Neutral bank'. Some initiatives of the bank are praiseworthy. It introduced fully Solar Powered ATM at Dhanmondi Branch. Tree plantation is a remarkable step of the bank. A total number of 300 trees have been planted at Lauachora in Sylhet with the help of green World, an environmental NGO funded by the USAID and will be transferred to the local community after 3 years. The bank ensures shut down of computer during lunch time. The bank has initiated 'Go green' campaign for business customers. It celebrates the 'World Environment Day' (5th June related to Earth Day) by wearing green costumes by all employees of the bank and on the same day they arranged plantation programs and a 'Quiz Contest' on environmental issues. The bank also introduces HSBC- The Daily Star Climate Awards to the eminent personalities of the country for their contribution towards protection and preservation of environment. The award is given for four categories of works: Climate change adaptation, Climate change mitigation, Climate change research and knowledge management and Green Business Entrepreneurship. As a part of its commitment, HSBC has set up rain water harvesting devices in two major schools of Dhaka city - Residential Model School and Rajuk Uttara Model College. Now, over 2200 students benefit from these projects. The program has been implemented at HSBC's Dhaka main office building too. As a part of this program, in 2010, one of the Bangladeshi climate champions implemented a project where HSBC volunteers planted over 300 varieties of saplings over a one-km stretch in Srimongal, Moulvibazar.

Source: HSBC 2011

Box-4: SCB using Greener Car using in Bangladesh

As part of the plan to reduce carbon emission resulted by direct operational impact; Standard Chartered bank has introduced green cars in its car pool for business use. 2 units of 'HONDA INSIGHT HYBRID 2012' will run at 11 KM/litre whereas conventional cars run at 6 KM/litre. With daily operational distance of 200 KM; these cars will save 15 litres of fuel per day which is equivalent of 36Kg of carbon di-oxide emission to the environment (burning 1 Lt Petrol emits 2.3Kg of carbon di-oxide and uses 1.7 Kg of oxygen which is the roughly equal to daily oxygen required by average human). Therefore in other way, each of these cars will save oxygen for 7 individuals every day.

Source: SCB 2013