

The Evaluation of Green Banking Practices in Bangladesh

REZWAN UL HAQUE AUBHI*

Master of Business Administration, American International University – Bangladesh

Abstract

While the traditional banking mostly focused only on the economic motive, the Green Banking (GB) highlighted on economic, social and environmental motives simultaneously. This study consists the key concept of Green Banking activities. Continuing along, the report covers almost all the important information regarding Bangladesh Bank's initiatives, banks' policy formulation and governance, bank's annual budget allocation and utilization for their green finance, climate risk fund, Composition of the Green Banking Unit (GBU), Pin Points of Green Office Guide, Data on Environmental Risk Rating (EnvRR), and Data on Green Finance (amount disbursed for ETP, amount disbursed for the projects having ETP, bio-gas plant, solar/renewable energy plant, Hybrid Hoffman Kiln, and others.).

Keywords: Green Banking, Environmental Risk Rating, Green Finance.

1.1 Introduction

A bank is a financial institution where people secure their money and use this institution as a source of possible finance. Banking, the form in which it exists, nowadays is comparatively of recent origin. Before the advent of modern banking, direct finance, where the owner of capital deals directly with the user of capital, was the customary mode of transferring of funds from savers to investors. Nowadays, banks are organizations engaged in any or various functions i.e. receiving, collecting, transferring, paying, lending, investing, dealing, exchanging, and servicing money and claims to money both locally and internationally.

Bangladesh is a country suffering from immense social, political, economic and environmental issues and these issues need to be addressed for the overall development of this country. However, we all know that the people of the whole world are concerned about the environmental degradation, specially the rising of global temperature and thereby melting of glaciers and ice-berg in the polar region and consequently rising of sea level which will directly affect the low lying countries of the world like Bangladesh. The conscious people of the world are also concerned about the increase of Green House Gases and Chlorofluorocarbons (CFCs) and thereby depletion of Ozone layer. As such every person and specially the professionals must have greater role to check the environmental degradation. The contribution of the banking sector is playing significant role to save the environment through their CSR, investment or other activities.

Most prominent of all, to save the environment, Green Banking is the greatest initiative taken by the banks all over the world. The term **Green Banking** is popular worldwide now-a-days. It is for stopping the environmental degradation and making this planet habitable. The concept of Green Banking developed in the western countries has been replicated by many developing countries. It means the eco-friendly or **environment-friendly banking** and it also refers to **ethical banking** or **sustainable banking**.

The banking sector is major economic agent which influences the economic growth and development in terms of both quality and quantity by changing the nature of economic growth. It is one of the major sources of financing and investment for commercial projects which is one of the most important economic activities for economic growth. Therefore, banking sector can play a pivotal role in promoting environmentally sustainable and socially responsible investment. Banking sector is generally considered as environmental friendly in terms of emissions and pollutions. Internal environmental impact of the banking sector such as use of energy, paper and water are relatively low and clean. Environmental impact of banks is not physically related to their banking activities but with the customers' activities.

Therefore, environmental impact of banks' external activity is huge though difficult to estimate. Moreover, 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. Thus, encouraging environmentally responsible investments and prudent lending should be one of the responsibilities of the banking sector. Those industries which have already become green and those, which are making serious attempts to grow green, should be accorded priority to lending by the banks. This method of finance can be called as "Green Banking", an effort by the banks to make the industries grow green and in the process of restoring the natural environment. This concept of "Green Banking" will be mutually beneficial to the banks, industries and the economy. Not only "Green Banking" will ensure the greening of the industries but it will also facilitate in improving the asset quality of the banks in future. Banking and other financial institutions are more effective towards achieving this goal for the kind of intermediary role they play in any economy and for their potential reach to the number of investors. Environment is no longer the exclusive concern of the government and the direct polluters, but also the other partners and stakeholders in the business. It would certainly give the much needed

drive for the banking industry to expand the use of environmental information in their credit extension and investment decisions. In this background, the paper aims at discussing the issues of Green Banking and the evaluation of this Green Banking practices in Bangladesh.

1.2 Rationale of the Study

Banking system occupies an important place in a nation's economy. A banking institution is indispensable in a modern society. It plays a fundamental role in the economic development of a country and forms the core of the money market in an advanced country. In recent times the banking sector over the world has been undergoing a lot of changes due to deregulation, technological innovation, globalization, environment etc. Banking sector in Bangladesh is lagging far behind in adopting these changes. But they are trying to adjust their activities with the required necessities and adopting themselves as world class bank. As of late another challenge attach with banks to concentrate their finance in the environment frankly industry and avoiding waste and giving priority to society. It is not an easy task because banks are also concerned about profit. That is why they have to earn profit in such a way where they can be able to give the priority of society also. And the only solution is - **GREEN BANKIN**. Many developed countries have already triggered their activities on green banking. Recently Bangladesh is also trying to commence it for the sake of environment and social benefit. At the preliminary stage of commencing this banking system in Bangladesh, I have found this opportunity to make my thesis paper on this subject. The title of my study is **The Evaluation of Green Banking practices in Bangladesh**. Due to apparently unusual weather patterns, rising greenhouse gases, declining air quality and society demands that businesses also take responsibility in safeguarding the planet, public concern of the state of environment has been growing significantly in the last few years. Banks hold a unique position in an economic system that can affect productions, businesses, and other economic activities through their financing activities. Green bank do not only improve their own standards but also affect socially responsible behavior of other businesses. However, if green banking simply incurring additional costs by a bank, it might never be accepted as common business practices by the global banking industry. The positive relationship between green banking strategy and profitability has not always been the case. Socially and environmentally responsible banks can also be financially successful and have growth rate similar to, or even better than that of their conventional competitors. In many cases, it is also proven that with a well-managed green banking consumers could be willing to pay extra in the knowledge that the products are environment friendly. Moreover, banks that mainly do businesses with the depositors' money cannot avoid responsibility to the society. It is well known that governments in different countries intervened to save banks using taxpayers' money in response to 2008-09 bank failure during crisis. When the common people have to take care of banks in their bad days, banks must be made responsible to take care of the society as well.

Green Banking is the conducting of banking business in such a manner that helps the overall reduction of external carbon emission. It promotes environment-friendly practices by reducing carbon footprint from banking activities. This comes in many forms such as using online banking instead of branch banking, paying bills online instead of mailing them, opening up CDs and so on. Green Banking helps to create effective and far-reaching market-based solutions to address a range of environmental problems including climate change, deforestation, air quality issues and biodiversity loss while at the same time identifying and securing opportunities that benefit customers.

As a requirement of the completion of my Master of Business Administration degree under the Faculty of Business Administration, the preparation and submission of this report is mandatory. In this era of global warming and climate change, to deliver the right services are not sufficient for customers but also to practice Green Banking concept for friendly environmental issue as the corporate social responsibility is unavoidable.

Green Banking is an emerging concept from Bangladesh perspective. A little study has been done on the evaluation of Green Banking Practices in Bangladesh. Moreover, all the banks are presently moving towards this concept to express their devotion to the protection and preservation of environment. As a student of MBA program, it is crucial for me to go for an in-depth analysis on the industry to extract the detailed findings regarding the study. The findings will represent the present scenario of Green Banking practices, how it has been evolved overtime, who are the followers, possible drawbacks in the policy and discrepancies found in banks' policy from the standard set by Regulatory Body (Bangladesh bank). The faculty of Business Administration and the business sector will come to know the detailed situation of Green Banking Practices in Bangladesh. They will also be made aware of the measures required to be implemented to make this concept/policy more effective.

1.3 Statement of the Problems

- a) The emergence and evaluation of Green Banking practices in Bangladesh
- b) The performance of the banks following Green Banking concept
- c) The deviation in the policy from the standard set by Bangladesh Bank

1.4 Scope of the Study

Banking industry may address many issues to save environmental degradation and conserve the ecological balance. That's why green banking is introduced through the world. It will be obligatory for each person to show respect to the environmental issues. Otherwise, the environments where the concerned person lives will not be inhabitable and as a whole the country and the globe will no longer be safe place. We have to use resources carefully and keep in the mind that the reserve of the resources is not unlimited and its excessive use may endanger the future generation. We have to think that each of our activity has a specific impact on the environment. As a best creation of Almighty, we have greater role to conserve the environment, maintain biodiversity, not to endanger other fauna and flora and above all a green, healthy planet for safe and sound living of our future generations. Since banking industry is a vital institution in the economic and business activity round the world, bankers cannot remain indifferent to this burning issue.

The scope of this report covers the commencement of Green Banking, its gradual emergence in Bangladesh, roles of Green Banking, banks following this concept and deviation from the standards set by Supreme Authority. The whole banking industry will be covered for this study.

1.5 Limitation of the Study

Numerous problems have been encountered during the accomplishment of the study. These problems may be termed as limitations of the study, specified as follows:

- Time frame for the research was very limited.
- Green banking Initiatives is a new topic in Bangladesh. Phase-II is just going on to the banking industry.
- Implementation time of following Green Banking by all scheduled banks is not over yet. That's why information is not available of the banks.
- Green banking initiatives of other banks are little that's why good comparison of bank to bank is not possible
- Unavailability of written documents as required for making a comprehensive study.
- Some supportive materials were not available during the completion of my report i.e. concrete data/statistics on Green Banking in Bangladesh, Green Banking policies of some banks etc.
- In many cases, up to date information is not published.

During completion of this report, essential and up to date information was not possible to be gathered. To me, if it were possible, a fully fledged and comprehensive report could have possibly been prepared.

1.6 Objectives of the Study

1.6.1 Broad/General Objective

The main objective of this study is to know and have a clear view of **The Evaluation of Green Banking Practices in Bangladesh.**

1.6.2 Specific Objectives

Along with the broad objective, some other specific objectives are also defined below:

- To know the basic concept about Green Banking.
- To know the present condition of Green Banking practices in Bangladesh.
- To evaluate the Green Banking performance of banks in Bangladesh.
- To find the historical evolution of Green Banking
- To know the objectives of Green Banking.
- To have knowledge about policy standard set by the Bangladesh Bank for the application of Green Banking.
- To identify the major areas of efficiency or inefficiency of the banks regarding Green Banking initiative.

2.1 Review of Related Journals, books and articles

The banking and financial institutions should prepare an environmental risk and liability guidelines on development of protective policies and reporting for each project they finance or invest (**Jeuken, 2001**). 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 (**Gupta 2003**). Further, 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 (**Goldar 2007**). The banking sector influences the economic growth and development in terms of both quality and quantity, there by changing the nature of economic growth. Banking sector is one of the major sources of financing investment for commercial projects which is one of the most important economic activities for economic growth. Therefore, banking sector can play a crucial role in promoting environmentally sustainable and socially responsible investment. (**Mr. Nigamananda Biswas, 2011**).

In the book “**Sustainable Finance and Banking**” (2001), the author Marcel Jeucken has identified four phases action that banks should take for sustainability. They are sequentially defensive banking, preventative banking, offensive banking and sustainable banking. In this model, the bank that has several business divisions is classified as a whole entity. And the first three terms are defined as the stages or attitudes of banking with respect to environmental issues. His study actually pioneers the path of green or socially responsible banking system.

Vinod Kumar (2011) in his book Green banking stated that Banks can do much more to help the environment than just to promote online banking. A truly green bank can reduce their carbon footprint by building more efficient branches, implementing more energy-efficient operational procedures, offering transportation services for their employees and carefully screening their lending in environment-sensitive industries.

Md. Touhidul Alam Khan wrote an article on Green Banking: Go green, Think green. In his article he said that “In a word, we can say that green banking refers to the attempt of the banking sector to consider social, ecological and environmental factors with an aim to protect the environment and conserve natural resources”.

Atiur Rahman (2010) in his paper focused on the present monetary and credit policy of Bangladesh Bank towards attaining broader financial enclosure. Bangladesh Bank is carry forwarding with technology driven, innovative, environment and low cost banking approach; conveying a qualitative change in banking, preparation of monetary policy, application of advanced banking technology, and use of Information and Communication Technology (ICT) to extend financial services to the door step of common people. To ensure access to financial services for all, various initiatives have been taken like trade finance, digitalization of the financial sector, channeling liquidity into productive and supply augmenting investments including agriculture, SMEs, Green Banking and CSR activities. They are expected to lead to more broad-based inclusive growth and therefore lessen poverty required for pushing the country on course to the targeted vision of digital Bangladesh by 2021, the year of Golden Jubilee of their independence.

Alice Mani (2011) indicated that as Socially Responsible Corporate Citizens (SRCC), banks have a major role and responsibility in enhancement of governmental efforts towards substantial reduction in carbon emission. Banks can have practices and initiatives of Green Banking for sustainable development. The author examined and compared the green lending policies by banks in India in the light of their compliance and commitment to environment protection and environment friendly projects.

Mohmed Aminul Islam (2010) showed in his report that green Banking is significant issue in recent times. While the banking industry is undergoing computerization, networking and offering of on-line banking is naturally gaining momentum development in this sector.

Suresh Chandra Bihari (2011) explicated that Green Banking includes promoting corporate social responsibility (CSR). It starts with the aim of protecting the environment where banks consider before financing a project whether it is environment friendly and has any implications for the future. A company will be given a loan only when all the environmental safety standards are followed. Green Banking can be efficiently implemented through the use of technology and policy, he emphasized.

Md. Maruf Ullah (2012) in his study on ‘Green Banking in Bangladesh - a Comparative Analysis’ denoted “As per entity concept banks are responsible corporate citizens. Banks believe that every small ‘GREEN’ step taken today would go a long way in building a greener future and that each one of them can work towards to better global environment. Overall Green banking is really a good way for people to get more awareness about global warming; each businessman will contribute a lot to the environment and make this earth a better place to live.”

All over the globe various studies have been conducted which have found that there is a positive relationship existing between the firms profitability and its environmental initiatives (**Hart and Ahuja, 1994; Hart and Ahuja, 1996, Klassen and McLaughlin, 1996; Russo and Fouts, 1997**).

Chang and Fong (2010) examine through a survey the purchase of green products. There are some relevant studies on corporate economical, social, environmental responsibility and sustainability issues.

The notion of corporate sustainability performance measurement has been discussed, among others, by **Atkinson (2000) Beloff et al (2004), Schwarz et al. (2002), Szekely and Knirsch (2005), Tanzil and Beloff (2006)**. The social and environmental aspects can have an influence on economic performance and therefore should be a dialogue with stakeholders to be in constant interaction with the way they develop their activity.

An organization whose activity is considering aspects of sustainable development will act in this sense on long term. Sustainability was first mentioned by the World Commission on Environment and Development (1987). Taking responsibility for its impact on society means, first, that an organization accounts for its actions.

Social accountability (**Brennan and Solomon 2008**), a concept that describes the communication of the social and the environmental effects of the actions of an organization by its stakeholders, is an important element of social responsibility. Many companies publish externally audited Annual Reports covering sustainable development issues, reports which vary widely in format, style and methodology of evaluation, even within the same industry.

Some authors propose distinctions between corporate social responsibility and corporate sustainability (**Lo and Sheu, 2007, Lopez et al, 2007**). Efforts to implement sustainability at the corporate level are further

complicated by the fact that sustainability initiatives must be tailored to suit local circumstances (Searcy 2009, Steurer et al. 2005, vanMarrewijk 2003). The notion of corporate sustainability performance measurement has been discussed, among others, by Atkinson (2000) Beloff et al. (2004), Schwarz et al. (2002), Szekely and Knirsch (2005), Tanzil and Beloff (2006), Artiach, Lee, Nelson and Walker (2010). The social or environmental issues can have an influence on economic performance and therefore should be a dialogue with stakeholders to be in constant interaction with the way they develop their activity. A number of studies have focused specifically on the balanced scorecard approach to performance measurement (Hubbard 2009, Schaltegger and Wagner 2006, Dias-Sardinha and Reijnders, 2005; Figge et al. 2002). Corporate social responsibility and sustainability issues are more and more present in day by day activity of the organizations.

So, we can see the companies give importance to this issue and elaborate reports in this regard, like guidelines, because of their voluntary nature. Organizations take into account the most representative ones, the Global Reporting Initiative (GRI, 2006). It contains indicators grouped in economical, environmental, performance, social (labour practices, human rights, society, and product responsibility) indicators (GRI, 2006).

3.1 Research Design

It's a qualitative study and based on examinations of published information, research papers, sustainability reports of different banks and environmental organization. Internet has also been used as a theoretical source of information. The study is based on secondary data source. This data has been collected from various newspapers, magazines, internet, commercial banks' websites and Bangladesh Bank website and have been analyzed systematically. Furthermore, different working papers, journals and articles have been studied to enrich the literature of the study. An intensive desk research has been undertaken to collect published data. The collected data are analyzed in the viewpoint of development and competency of Green Banking activities in Bangladesh. Microsoft office package has been used for summarizing and illustrating the collected data systematically.

3.2 Data Collection

Secondary Sources:

- Different publications of Bangladesh Bank
- Green Banking Policy of Bangladesh Bank
- Research papers, Newspapers and Journals.
- Internet and various study selected reports.
- Journals and relevant books.
- Various documents on Green Banking
- Annual Reports of Banks
- Green Banking Reports of Banks
- Websites
- Organizational Brochures
- Other relevant written materials.

4.1 Green Bank and Green Banking

A Green Bank is an ethical bank, a socially responsible bank and a sustainable bank. Green Banking is providing innovative green products and support activities that are not hazardous to the environment and help conserve the environment. Green Banking has a role to safeguard the planet from unusual weather patterns, rising greenhouse gas, and declining air quality, with the aim of ensuring economic growth which is sustainable.

The Four E's of Green Banking: Educate, Enable, Make it Easy and Be Earnest

Green Banking is not limited only to in-house green activities, but extends to facilitating Green financing. Green financing through due diligence checklists under Environmental Risk Management (ERM) Guidelines is not intended to squeeze investment; rather it is for sustainable finance. Green financing under Green Banking activities can make a great contribution to the transition to resource-efficient and low carbon industries, i.e. green industry and green economy in general. A Green Economy can be thought of as an alternative vision for growth and development; one that can generate growth and improvements in people's lives in ways consistent with sustainable development. A Green Economy promotes a triple bottom line: sustaining and advancing economic, environmental and social well-being.

4.2 Evolution of Green Banking

The financial sectors growing adherence to environmental management system is attributed to the direct and indirect pressures from international and local Non Governmental Organizations (NGOs), multilateral agencies and in some cases the market through consumers. In the early 1990s, the United Nations Environment Program (UNEP) launched what is now known as the UNEP Finance Initiative (UNEPFI). Some 200 financial institutions around the globe are signatories of this initiative statement to promote sustainable development within the

framework of market mechanisms toward common environmental goals. The objective is to integrate the environmental and social dimension to the financial performance and risk associated with it in the financial sector. As the commitment of this

UNEPFI statement goes, sustainable development is regarded basic to the sound business management. It advocates for a precautionary approach towards environmental management and suggests integrating environmental considerations into the regular business operations, asset management, and other business decisions of the banks. IFC's environmental unit was established in 1991 for reviewing each project for environmental assessment. Similarly, the US Export-Import Bank regularly reviews while financing exports on the ground whether they are environmentally sound. It will be noteworthy to mention that Netherland-based ABN-Amro bank has developed certain Reputational Risk Management (RRM) policies to identify, asses and mänge nonfinancial present within its business engagements. Similarly, some of the big international banks like ABN Amro, Deutsche, Standard Chartered, HSBC Bank etc. look at environment issues discussed under Kyoto Protocol. Going further, the Dutch Government has made a formal request to banks in achieving sustainable development. The dialogue between banks and government was established in 1999 to initiate policies for environmental improvements through the development of new financial products and services.

Similarly, the Rainforest Action Network (RAN) challenged the industry with high-profile campaign that highlighted cases in which commercial banks were '**bankrolling disasters**' in 2000 in the US. In 2002, a global coalition of NGOs formed a network named '**Bank Tract**' to promote sustainable finance in the commercial sector. This coalition came up with a resolution constituting six principles promoting environmental protection and social justice by banks and this is popularly known as '**Collevechio Declaration**'. The six principles that this declaration advocated included commitments to sustainability, no-harm, responsibility, accountability, transparency and sustainable market, and governance. More than 200 organizations have endorsed this declaration and urged the banks to incorporate these commitments into their business operation. The declaration states that "Finance and Commerce has been at the center of a historic detachment between the world's natural resource base, production and consumption. As we reach the boundaries of ecological boundaries of the ecological limit upon which all commerce relies, the financial sector should take its share of responsibility for reversing the effects this detachment has produced".

All these concerns for sustainable finance or green finance have compelled the banking institutions to devise a common and coherent set of environmental and social policies and guidelines that can be used to evaluate the projects. A small group of banks along with IFC came together to initiate the process of designing the common guidelines in October 2002 and came up with a guidelines in June 2003 that is known as **Equator Principles** with 10 leading commercial banks adopting these voluntary set of principles. This equator principle was subsequently updated and the new revised sets of principles are launched in July 2006.

The coverage of projects being financed is expanded in this revised set of principles by lowering the finance threshold from \$50 million to \$10 million. Presently 46 financial institutions from 16 countries with business operation in more than 100 countries have embraced this equator principle. So this principle has become a common standard of project finance that incorporated environmental and social issues in project finance.

The activities of the equator banks (banks adopting equator principles) are being reviewed by NGOs worldwide and are being published whenever it is realized that they are not committed to Equator Principle. IFC along with the Financial Times has initiated 'Sustainable Banking Awar' since 2006. More than 104 financial institutions out of 151 entries from 51 countries have made it to the final lists of award in 2007. The number of banks applying was up by more than 100 per cent compared to the previous year's 48 banks from 28 countries.

All the international initiatives towards integrating environmental concerns into business operation of banks are voluntary in nature and are meant to promote a common good of a better ecosystem. Voluntary commitment has its own shortcoming in a competitive market.

Unless the market for green money will increase, the lenders will always have an incentive to postpone their social commitment and prioritize the commercial interest in the short run. So demand for green money is a precondition of green banking if it will be voluntary. A Government legislation that makes banks accountable for the misdeeds of their clients will help promotes green banking.

In March 2009, Congressman Chris Van Hollen in USA introduced a Green Bank Act with the aim of establishing a green bank under the ownership of the US government. Its objective was to offer financial support to increase efficient energy usage, and reduce carbon emissions and environmental pollution resulting from energy creation. Bank Technology News has recently given Citigroup the US banking giant, top honors in its first ranking of '**America's Greenest Banks**'. The award highlighted the accomplishments of Citi's Sustainable Operations and Technology program, which includes dozens of initiatives aimed at shrinking environmental footprints and controlling costs. In just one example, Citi updated computer hardware across the 1,000+ Citibank branches in North America, reducing energy costs by 15 percent a year, while improving the speed with which it services customers. The Financial Times of London announced the Sustainable Banking Awards last year. UK's Cooperative Bank won the 'Sustainable Bank of the Year' award and only HSBC, among large global banks, was

a runner-up in any category. The good news is, BRAC Bank Ltd from Bangladesh became the regional winner for 'Asian Emerging Markets Sustainable Bank of the Year', which they are also portraying in all their bill boards and promotion campaigns. Good news for all of us.

4.3 Reasons for Green Banking and Importance

Due to unusual weather pattern, rising greenhouse gas, declining air quality etc, Businesses should come forward to take responsibility in safeguarding the planet. Green Banking makes great contribution to the transition to resource-efficient and low carbon industries i.e. green industry and green economy in general.

Banks that were once seen only as profit motive institutions have been adjusting to a more demanding market and a more socially conscious society over the last two decades. Environmental concern is at the centre of the green banking strategy. An increasing number of global banks around the world are going green by launching environmental friendly initiatives and providing innovative green products. In the long run, the trend towards green banking will be largely driven by consumer behavior. Common people and consumers are becoming increasingly aware of the responsible behavior of businesses.

The environment and climate change must be taken into consideration in extending that sentiment to some of the more unlikely facets of our daily lives. Banking and finance is one of the areas that can do anything about, but there's a surprising amount that you can do to ensure that your money and finances are being managed in a green, ethical way. It is possible to know whether the chosen bank operates as a carbon neutral business. Banks are turning themselves into carbon neutral operations, meaning that the amount of CO₂ emitted during the day to day activities of that bank is neutralized by another activity that utilizes CO₂. The smaller banks and building society have been commended for pioneering the carbon neutral campaign.

Green banking is committed to invest their money in an ethical way by investing in good sectors. Public were not aware before what for the money deposited is utilized by the bank. Nowadays using green banking, banker assures the depositor where his money will be invested. This includes projects funded for renewable energy technology, regeneration in the developing world and investments to organizations for aid, environmentalism and human rights. The bankers explain which investments they will be supporting with your money, and give you a progress report on how it is going. Such transparency helps for the bank to mobilize more funds.

Green banking is very important in mitigating the following risks involving the banking sector:

- i) **Credit Risk:** Due to climate change and global warming, there have been direct as well as indirect costs to banks. It has been observed that due to global warming, there have been extreme weather conditions which affect the economic assets financed by the banks, thus leading to high incidence of credit default. Credit risk can also arise indirectly when banks lend to companies whose businesses are adversely affected due to changes in environmental regulation.
- ii) **Legal risk:** Banks, like other business entities, face legal risk if they do not comply with relevant environmental regulation. They may also face risk of direct lender liability for cleanup costs or claims for damages in case they actually take possession of pollution causing assets.
- iii) **Reputation Risk:** Due to increasing environmental awareness, banks are more prone to reputation risk, if their direct or indirect actions are viewed as socially and environmentally damaging. Reputation risks emerge from the financing of environmentally objectionable projects.

4.4 Some Green Banking Slogans of Banks

- a) Save paper, save trees
- b) Conserve energy, conserve natural resources
- c) Pay your bills online
- d) Turn off the tap when not needed
- e) Always use a cloth bag
- f) Reduce, reuse and recycle
- g) Digitize yourself
- h) Think before you press the button
- i) Everything has two sides
- j) Be paperless- kick the habit
- k) Unplug electronic devices while not in use

4.5 Experts' Opinion about Green Banking

"We have to change our mindset about environmental issues for making a better future through greening our mind,"

Bangladesh Bank Governor Atiur Rahman

"It is time to focus on protecting our planet through initiating green banking, because the main objective of green banking is to protect environment through pursuing environment-friendly financing policies."

Mamun Rashid, Ex. managing director of Citi bank NA

"We need to focus on sustainable development approach because it has a close link with the development of other sectors, banking sector can play a vital role to encourage other industries to go green through promoting eco-friendly financing schemes"

Bandana Saha, Former Director General of BIBM

"We are facing a negative impact of climate change though we contribute little to global warming, so, we have to focus on adaptation and mitigation process to cope up the adverse impacts of global warming, and green banking initiative can facilitate this process."

Qazi Kholiquzzaman Ahmad, Chairman of Palli Karma-Sahayak Foundation.

4.6 Five Major Challenges

- a) Coordination among all the concerned authorities for a green economy.
- b) Speeding up proper awareness and effective capacity building. Awareness and Capacity building is a must for the Board of Directors/Competent authority/Management in all levels/dealing officials of the banks/financial institutions and clients as well.
- c) Immediate concentration on sectoral lending policies and procedures.
- d) Need for applying a quantitative approach for a more justified rating. Environmental Risk Rating is now on the basis of the Environmental Due Diligence (EDD)
- e) Shifting of different categories of industry (such as, Garments, Textiles, and Tannery) to a proper location.

4.7 Roles of Green banking

A banker or a banking industry may address many issues to save environmental degradation and conserve the ecological balance. Green banking is a good way of making people aware of global warming. Each businessman will contribute to the environment and make this earth a better place to live and enjoy. In addition, it is envisaged that this institution is going to work towards reducing the country's dependence on foreign energy sources, fighting climate change and creating additional jobs through the provision of healthier energy generation facilities. Green finance may cover all the financial services related to the promotion and development of green industry and green economy where the environmental benefits interims of reduced carbon dependency or reduced ecological scarcity are the most significant. Green banking practices of banks are connected with both internal operation and product ecology. Some banks are engaged in carbon offsetting, which refers to the effort of canceling out the climate-changing effects of its own greenhouse gas emissions. Banks, by using their commercial lending and securities underwriting, may catalyze the necessary transition to an economy that minimizes greenhouse gas pollution and relies on Energy efficiency. There is no doubt that the combined threats associated with climate change and biodiversity loss call for a deeper commitment of resources and investment from all stakeholders. In the endeavor of emission reduction and conservation, stakeholders have been contributing in different ways in different countries and regions. Green banking is just one of the initiatives by stakeholder - banks and financial institutions. The environmentally responsible banks do not only improve their own standards but also affect socially responsible behavior of other businesses. The banks will have to gofer online banking by eliminating paper waste, saving gas and carbon emission, reducing printing costs and postage expenses.

Bangladesh Bank, the central bank, has a greater role in shaping up a concrete guideline for green banking practices in Bangladesh. According to central bank, each bank and financial institution can formulate a strategy and guideline for Green Banking and Green Financing.

The commercial banks are to develop green banking policies and show general commitment on environment through in-house performances. A high-powered committee will be responsible for reviewing the banks' environmental policies, strategies and programs.

The committee will be comprised of directors from the board in case of scheduled Bangladeshi banks and regional chief of global office and members from the top management including chief executive in case of foreign banks. The banks will allocate a considerable fund in their annual budget for green banking and set up a separate green banking unit. A senior executive should head the unit, which will report to the high-powered committee time to time. They will have to comply with the instructions stipulated in the detailed guidelines on Environmental Risk Management. The banks will also incorporate environmental and climate change risks as part of the existing credit risk methodology prescribed to assess a prospective borrower. The banks should take measures to save electricity, water and paper consumption, according to the BB guidelines. A 'Green Office Guide' or at least a set of general instructions should be circulated among the employees. Instead of relying on printed documents, online communication should be extensively used (where possible) for office management.

Energy saving bulbs should replace the regular ones in branches/offices of the banks. They should make plans to use solar energy on their premises, and encourage employees to purchase energy efficient cars.

4.8 Green Banking practices

4.8.1 Practices of in house Green Banking:

a. Waste Management:

A green banker must be cautious about wastage and waste management. We should try to control the wastage of resources like water, gas, electricity, paper, foods etc. For example, if we draft our letters on a computer rather than in paper, it will save millions of paper as well as thousands of trees that provide raw materials for paper production. Similarly, if we select a location of the branch of a bank with sufficient access to light and air, it will save huge electricity and create a healthy environment. Wastages must be grouped like organic and inorganic wastage. Organic materials like food, vegetables, animals etc. can be recycled for manure, gas and electricity etc. The inorganic material like paper, bottles, pots etc. can be recycled. Wet and degradable materials can be processed directly keeping under the soil. The recycling materials should be disposed off at the respective disposal site and the rotten items should be buried under the soil and as such, pollution can be protected.

b. Clean and hygienic environment:

A green banker will not throw any waste, bottles or packing materials here and there. Each group of waste should be kept in a separate place, which does not pollute the environment and all the wastes must be disposed off separately. A green banker will not spit or cough on the floor, walls or on the road.

c. On line statements, emailing documents:

We must send account statements and balance confirmation etc. to the clients through online and through email, which will save paper, time, cost and above all the environment. We may use these technologies for our clients as well as interbank correspondence.

d. Sound Pollution:

We should keep our voice low when we converse and also convince our clients maintain this for the sake of healthy working environment in the branches.

e. Installation of solar panel in the rural branches and using high mileage vehicles or using shared vehicles instead of personal vehicle:

Since Bangladesh is an energy deficit country we can install solar panels in all Branches as an alternative energy source. We can also use the vehicles which consume less fuel which will save huge fuel import of the country. We can also use big vehicles to carry the employees of the Banks instead of personal vehicle to reduce fuel as well traffic jam in the roads.

4.8.2 Practices by the Bankers in their business area

A. Financing only the green projects:

Bankers must be aware of the environmental issues and they must go for financing the projects that do not pollute the environment. The industries that are financed by the banks must have effluent treatment plant (ETP), recycling facilities and smoke and gas arresting unit. The industries must not release any kind of effluents, chemicals or smoke to the environment. Banks must not finance any dirty project that pollutes the environment.

B. Voluntary activities of Banks:

Banks should take initiative to make their clients aware by organizing seminar and symposium. They can organize awareness campaign in schools and colleges. They can participate in the tree plantation and cleanliness programs in city areas.

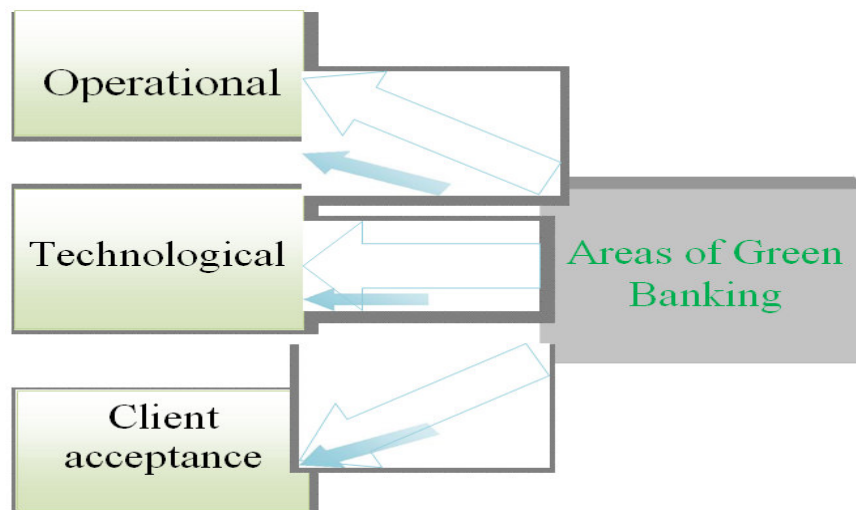
C. Working on specific green project:

Our country has lot of problems of proper waste management, drainage and sanitation, and affected by river pollution, water pollution by pesticides etc. Every bank can undertake a specific green project for removal of existing polluting substances from the ecosystem.

4.9 Areas of Green Banking

Green Bank comes in many forms; using online banking instead of branch banking, paying bills online instead of mailing them, opening up CDs and money market accounts at online banks instead of large multi-branch banks.

Green Bank looks at green banking in three areas - operational, technological and client acceptance. Banks have made improvements in the operational area such as replacing our daily courier service with scans and electronic delivery. All employees receive paychecks and reimbursement checks electronically.



4.10 Green Banking products and services

Financial institutions are rushing to market with new or re-packaged product and service offerings from green auto insurance to innovative pro-eco mortgages and new sustainability-backing investment funds.

- i. **Green Deposits:** Banks can offer higher rates on CDs, money market accounts, checking Accounts and savings account if customers opt to conduct their banking activities online.
- ii. **Green Mortgages and Loans:** A green mortgage offers better rates or terms for energy efficient houses. Green mortgages can allow home buyers to add as much as an additional 15 percent of the price of their house into loans for upgrades including energy-efficient windows, solar panels, geo-thermal heating or water heaters. The savings in monthly energy bills can offset the higher monthly mortgage payments and save money in the long run. The Energy Efficient Mortgage (EEM) is a type of Housing and Urban Development-approved green mortgage that will credit you for your home's energy efficiency in the mortgage itself. Many home improvements also qualify for the energy tax credit. Anyone undertaking an energy-saving house project should shop around for a bank that offers a special rate for a green mortgage or loan.
- iii. **Green Credit Cards:** A green credit card allows cardholders to earn rewards or points which can be redeemed for contributions to eco-friendly charitable organizations. These cards offer an excellent incentive for consumers to use their green card for their expensive purchases. Imagine the millions of dollars that could be raised for worthwhile environmental groups if green credit cards really took off.
- iv. **Green Reward Checking Accounts:** A product called reward checking accounts pays a bonus rate to customers who go green. Customers can earn higher checking account rates if they meet monthly requirements like receiving electronic statements, paying bills online or using a debit or check card. With this banking product higher rates and eco-friendly livings go hand-in-hand.

4.11 Prospects of Green Banking

The banking sector may also have significant impacts on biodiversity while providing financial support to high impact sectors such as forestry, mining, oil and gas, fisheries and infrastructure. In project finance, banks may exercise their powers through assuming roles as environmental policeman to ensure that their borrowers comply with the environmental standards, and could enter into a partnership with different industries and encourage companies to be more sustainable.

Regulatory enforcement by governments, pressure from the civil society and consumers, voluntary support, and responses by the business entities are preconditions for creating a congenial atmosphere for offering and accepting productive green banking services. A common platform or unique approach by the policy makers and civil society groups in all countries or regions would give the best result. However, creating a common platform and launching a uniform approach would require major political effort by all global economies a tough job. Bangladesh Bank has already provided Tk 200 crore for renewable energy in which the share of green energy would be 2 per cent in total energy.

5.1 SWOT Analysis of Green Banking

Table 5.1: SWOT Analysis of Green Banking

<u>Strengths</u>	<u>Weaknesses</u>
<ul style="list-style-type: none"> • Environment Friendly • Reducing carbon emission • Cost Saving • Space Saving • Credit Risk Reduction • Fastest Service • Enhancement of Performance • Green Reputation • Wealth Maximization • Data Loss Reduction 	<ul style="list-style-type: none"> • Huge Initial Cost • Initial Training Cost • System may catch error • Inflexibility • Server Crash
<u>Opportunities</u>	<u>Threats</u>
<ul style="list-style-type: none"> • To be recognized as a green contributor • Contribution to the economy • Awards • International Recognition • Role model • Assistance from the Central Bank 	<ul style="list-style-type: none"> • Data Loss • System Crash

Strengths

- **Environment Friendly:** Green Banking is environment friendly. It's a paperless banking system which keeps the environment clean and safe by erasing paper use.
- **Reducing carbon emission:** As discussed earlier, the saving of paper entails saving of trees. Thus this concept is eco-friendly in one side and on the other side it is reducing carbon emission.
- **Cost Saving:** Being a paperless banking system, it is capable of saving cost that could be incurred otherwise.
- **Space Saving:** As there is no much paper used in green banking, the self use can be reduced and it helps the surrounding look decent.
- **Credit Risk Reduction:** Financing Green Projects helps reducing the risk of defaulting of repayment.
- **Fastest Service:** As everything is computerized, the service demanded by the customers can be delivered as fast as possible.
- **Enhancement of Performance:** It not only enhances performance of the service rather it also enhances the performance from human side that provides the service to the customers.
- **Green Reputation:** Adoption of Green Banking increases the Green Reputation of a company which proves the contribution to the environment.
- **Value Maximization:** There is a positive relation between adoption of Green Banking and wealth maximization or value maximization of the company. Adoption of Green Banking reduces cost and reducing cost increases the value on the other side.
- **Data Loss Reduction:** As there is no use of hardcopy, loss of that hard copy containing valuable information can be reduced.

Weaknesses

- **Huge Initial Cost:** Adoption of Green Banking involves huge investment at the beginning side. Going automated incurs a huge spending in technology and machines. Besides, there are other set up related costs too.
- **Initial Training Cost:** Not only technology and machineries need to be updated but also the major component, skill of the Human, needs to be updated as well to keep pace with the newly adopted system. That can be done by training them which needs huge costs too.
- **System may catch error:** As everything is automated, chances are there that the system might undergo some errors at some point of time due to the technical difficulties.
- **Inflexibility:** The adopted system may be inflexible to use properly even after the proper training of the employees.
- **Server Crash:** The worst thing ever in automated system is that, the server can be crashed which can wipe all data away if anything goes wrong in the system.

Opportunities

- **To be recognized as a green contributor:** Adoption and effective utilization of Green Banking system will help an institution to be recognized as a contributor to the environment and be rewarded for that as well.
- **Contribution to the economy:** Potentiality is there that Green Banking followers can contribute to the economy by introducing innovative Green products that have substantial effect on the economy of the country.
- **Awards:** Government usually gives different awards to the contributors to the environment by their Green activities. So there are possibilities to win the awards.
- **International Recognition:** Apart from domestic awards, there are chances to get the international awards and international recognition as well.
- **Role model:** By the international recognition, one can be branded as role model and top contributor to the global environment.
- **Assistance from the Regulatory Body:** Green companies get assistance from all regulatory bodies during any distress.

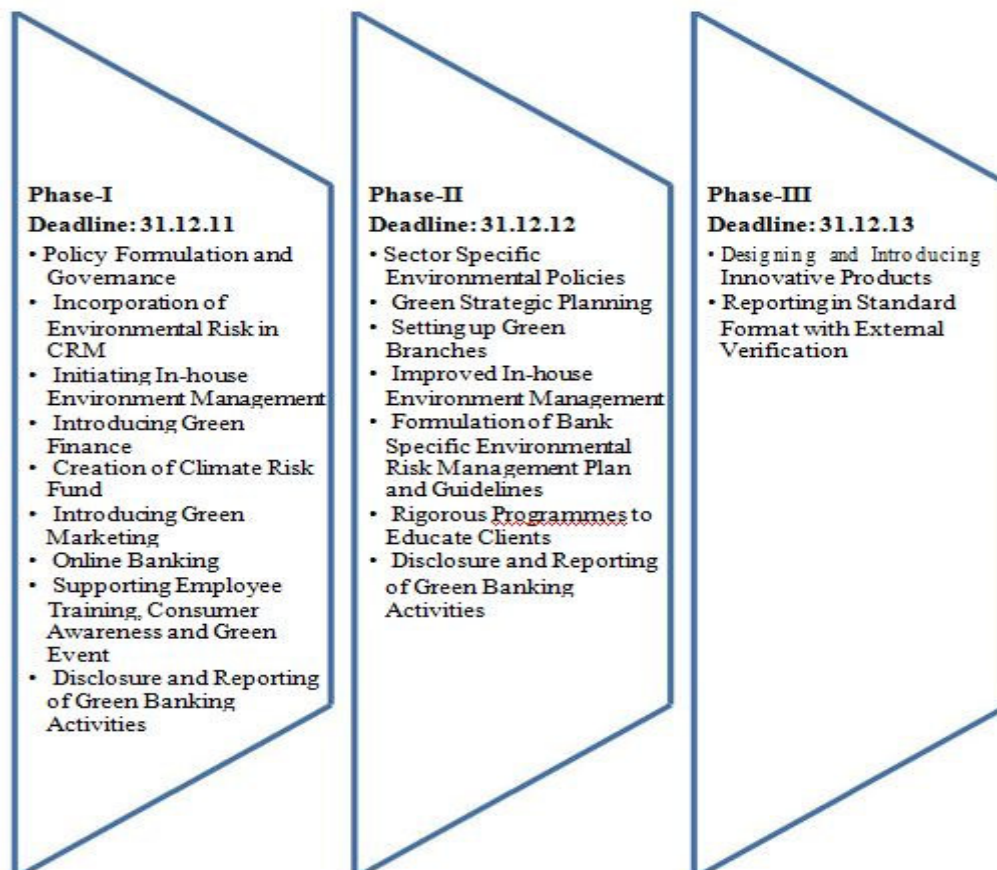
Threats

- **Data Loss:** The major threat of automated banking system is data loss if there is anything wrong goes with the system.
- **System Crash:** If the whole system crashes, the whole data will be wiped which is one of the major threats to this automated banking.

5.2 Bangladesh Bank - Policy Guidance of Green Banking

Now it is the high time for the FIs to adopt a comprehensive Green Banking Policy in a formal and structured manner in line with global norms so as to protect environmental degradation and ensure sustainable banking practices. With a view to developing green banking practices in the country, an indicative Green Banking Policy and Strategy framework has been developed for the FIs in the following manner.

Green Banking Policy needs to be covered through time frame work which will be segregated into 3 phases.



5.2.1 Phase-I

FIs are to develop green banking policies and show general commitment on environment through in-house performance. The time lining for the actions to be taken under Phase-I should not exceed June 30, 2014.

a. Policy Formulation and Governance

FIs shall formulate and adopt broad environmental or Green Banking policy and strategy approved by their Board of Directors. A high powered Committee comprises of directors from the Board in should be responsible to review the FIs' environmental policies, strategies and program. FIs shall approve a considerable fund in their annual budget allocation for green banking. FIs are required to establish a separate Green Banking Unit or Cell having the responsibility of designing, evaluating and administering related green banking issues of the FIs. A senior executive should be assigned with the responsibility of heading the unit. The unit will report to the high powered committee time to time.

b. Incorporation of Environmental Risk in CRM

FIs shall comply with the instructions stipulated in the detailed guidelines on Environmental Risk Management (ERM) in consideration of a part of the Green Banking Policy. FIs shall incorporate Environmental and Climate Change Risk as part of the existing overall credit risk methodology prescribed to assess a prospective borrower from both credit and environmental risk point of view. This will include integrating environmental risks in the checklists, audit guidelines and reporting formats. All of this will help to mainstream Environmental Risk that cover possible sources of Environmental Risk such as Land use, Climate change related events (cyclone, drought), animal diseases/pathogens such as avian influenza, solid waste including waste feed, animal waste, carcasses, sediments, wastewater discharges, hazardous materials, will be reviewed under Environmental Due Diligence (EDD) checklists.

c. Initiating In-house Environment Management

FIs shall prepare an inventory of the consumption of water, paper, electricity, energy etc. by its offices and branches in different places. Then it should take measures to save electricity, water and paper consumption. A 'Green Office Guide' or at least a set of general instructions should be circulated to the employees for efficient use of electricity, water, paper and reuse of equipment's. In place of relying on printed documents, online communication should be extensively used (where possible) for office management and make sure that the printers are defaulted to duplex for double side printing to save papers. FIs may apply Eco-font in printing to reduce use of ink, use scrap paper as notepads and avoid disposable cups/glasses to become more eco- friendly. Installation of energy efficient electronic equipment's and automatic shutdown of computers, fans, lights, air coolers etc. will help reducing electricity consumption. Energy saving bulbs should replace normal bulbs in branches/offices of the FIs. FIs should make plan to use solar energy at their premises to save electricity. FIs should take steps to save energy from corporate business travel and encourage employees to purchase energy efficient cars (that consume less fuel) can reduce gas and petroleum consumption. FIs should give more emphasis to make the easiest way to help environment by eliminating paper waste, saving gas and carbon emission, reducing printing costs and postage expenses.

d. Introducing Green finance

Eco friendly business activities and energy efficient industries will be given preference in financing by FIs. Environmental infrastructure such as renewable energy project, clean water supply project, wastewater treatment plant, solid and hazardous waste disposal plant, bio-gas plant, bio-fertilizer plant should be encouraged and financed by FIs. Consumer credit programs may be applied for promoting environmental practices among clients.

e. Creation of Climate Risk Fund

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.

f. Introducing Green Marketing

Green marketing is the marketing of products that are presumed to be environmentally safe. Green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. It refers to the process of selling products and/or services based on their environmental benefits. Such a product or service may be environmentally friendly in itself or produced and/or packaged in an environmentally friendly way. FIs should use environmental causes for marketing their services to consumer. Green marketing is expected to help awareness development among common people.

g. Supporting Employee Training, Consumer Awareness and Green Event

Employee awareness development and training on environmental and social risk and the relevant issues should be a continuous process as part of the FIs' Human Recourse Development. Awareness development among consumers and clients would be a continuous job of a FI under its public relation department.

h. Disclosure and Reporting of Green Banking Activities

FIs shall report on the initiatives/practices to Green Banking and CSR Department of Bangladesh Bank in specified format (Annexure-A) on quarterly basis and disclose in their respective websites and has to submit the report within the next 15 days of each quarter.

5.2.2 Phase-II

The time lining for the actions to be taken under Phase-II should not exceed December 31, 2014.

a) Sector Specific Environmental Policies

FIs need to formulate strategies to design specific policies for different environmental sensitive sectors such as Agriculture, Agri-business (Poultry and Dairy), Agro farming, Leather(Tannery), Fisheries, Textile and Apparels, Renewable Energy, Pulp and Paper, Sugar and distilleries, Construction and Housing, Engineering and Basic Metal, Chemicals (Fertilizers, Pesticides and Pharmaceuticals), Rubber and Plastic Industry, Hospital/Clinic, Chemical Trading, Brick Manufacturing, Ship breaking etc.

b) Green Strategic Planning

A FI should determine green targets to be attained through strategic planning. FIs should determine set of achievable targets and strategies, and disclose these in their annual reports and websites for green financing and in-house environment management as well. For in-house environment management, the target areas should cover attaining energy efficiency in the form of the use of renewable energy, reduction of electricity, gas, and petrol consumption, reduction of Green House Gas (GHG) emissions, issuance of e-statements, electronic bill pay, saving papers, environment friendly office buildings etc. For Green Financing, the target areas should cover reducing loans for certain environmentally harmful activities, attaining a particular percentage of environmental loans as percentage of total, introducing eco-friendly financial products etc.

c) Setting up Green Branches

A Green Branch should be featured by the provision of the maximum use of natural light, use of renewable energy, use of energy saving bulbs and other equipment's, reduced water and electricity use, use of recycled water etc. Such a branch of a FI would be specifically designated as a 'Green Branch'. A Green Branch will be entitled to display a special logo approved by Bangladesh Bank. The criteria for certification of a 'Green Branch' will be circulated by Bangladesh Bank in due course of time.

d) Improved In-house Environment Management

Strategy of reuse, recycling of materials and equipment, and source reduction and waste minimization strategy should be part of in-house environmental management in Phase-II. FIs should increasingly rely on virtual meeting through the use of video conferencing in lieu of physical travel which would help saving cost and energy.

e) Formulation of FI Specific Environmental Risk Management Plan and Guidelines

A FI should develop and follow an environmental risk management manual or guidelines in their assessment and monitoring of project and working capital loans. In addition to the compliance of national regulation the FIs may set internationally accepted higher environmental standards. In this connection, Green initiatives by a group of FIs will not only be effective but will also offer competitive advantage. FIs' alliances may prepare standard and guidelines for themselves for improving Green Banking practices.

f) Rigorous Programs to Educate Clients

Clients and business houses should be encouraged and influenced to comply with the environmental regulations and undertake resource efficient and environmental activities. FIs should introduce rigorous programs to educate clients.

g) Disclosure and Reporting of Green Banking Activities

FIs should start publishing independent Green Banking and Sustainability reports showing past performances, current activities, and future initiatives. Updated and detailed information about FIs' environmental activities and performances of major clients should be disclosed.

5.2.3 Phase-III:

A system of Environmental Management should be in place in a FI before the initiation of the activities of Phase-III. FIs are expected to address the whole eco-system through environment friendly initiatives and introducing innovative products. Standard environmental reporting with external verification should be part of the phase. The time lining for the actions to be taken under Phase-III should not exceed June 30, 2015.

a. Designing and Introducing Innovative Products

Alongside avoiding negative impacts on environment through banking activities, FIs are expected to introduce environment friendly innovative green products to address the core environmental challenges of the country.

b. Reporting in Standard Format with External Verification

FIs should publish independent Green Annual Report following internationally accepted format like Global Reporting Initiatives (GRI) targeting their stakeholders. There should be arrangement for verification of these publications by an independent agency or acceptable third party.

c. Reporting Green Banking Practices on Quarterly Basis

FIs shall report their initiatives/activities under the said program to Green Banking and CSR Department of

Bangladesh Bank in specified format (Annexure-A) on quarterly basis. FIs shall submit their first quarterly report on September 30, 2013 basis within October 15, 2013 and similarly they will be required to continue to submit reports on the subsequent quarters within the next 15 days of the respective quarter end. Is shall keep their annual report and websites updated with the disclosures on green banking initiatives/activities.

d. The compliant FIs practicing Green Banking will have the following preferential treatments:

- (i) BB will award points to FIs on Management component while computing CAMELS rating where there will ultimately be a positive impact on overall rating of a FI.
- (ii) BB will declare the names of the Top Ten FIs for their overall performance in green banking activities in the BB websites.
- (iii) BB will actively consider green banking activities/practices of a FI while according permission for opening new FI branch.

e. Environment Friendly CSR:

Globally, the notion of Corporate Social Responsibility (CSR) is fast gaining acceptance as the contribution that businesses can and should make voluntarily towards environmentally sustainable and socially equitable development. Besides the usual financial reporting, ‘nonfinancial’ or ‘sustainability’ reporting is accordingly also fast gaining usage. Stated briefly, CSR is about (i) taking stock of the economic, social, and environmental impacts of a business, (ii) mitigating the negative impacts and bolstering the benign impacts, (iii) taking up action programs and community investments to reduce social exclusion and inequality and to address the key sustainable development challenges (BB CSR Annual Report 2008)

5.3 Green Activities

To insure green banking, Bangladesh bank has been taken too many initiatives. The activities and initiates are shown here in different segments

Green activities in financing include

- Carry out environmental risk assessment of projects, financing only those that meet environmental safeguards/sustainability guidelines.
- Provide green loan to promote solar energy, biogas plants, effluent treatment plants and other energy saving output practices like Hybrid Hoffman Kilns in brick fields.
- Develop green banking products for clients.
- Promote growth of mobile banking and online banking.
- Include environmental sustainability support initiatives in corporate social responsibility (CSR) programs, inter alia including financial support to climate risk fund.

5.4 Refinancing Scheme for Renewable Energy and Green Financing

To facilitate Green Financing, banks and non-banks are required fund then they will be able to finance. To provide fund and accelerate the green banking activities, Bangladesh Bank has introduces a re-financing scheme for renewable energy and environmental-friendly financeable sectors in order to facilitate banks and non-bank financial institutions to provide credit. They have been identified ten sectors for re-financing scheme to provide at a lower rate and easy terms. Ten sector of re-financing are:

Table 5.2: Refinancing Scheme

Sl. No.	Sectors
1	Solar mini grid
2	Preparation of organic manure from slurry
3	Medium sized bio-gas plant
4	Replacement of conventional lime kiln into energy efficient kiln
5	Production of vermicomposting fertilizer with purchase of 2 cows
6	Production of vermicomposting fertilizer without purchase of 2 cows
7	Hydro power plant (Pico, micro and mini) based on the production capacity
8	PET bottle reprocessing plant
9	Solar battery reprocessing plant
10	LED bulb production plant

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

5.5 List of Banks having Green Banking Report

Table 5.3: List of Banks having Green Banking Report

1. Bank Asia	2. PUBALI
3. BASIC Bank	4. RAKUB
5. City Bank	6. Rupali
7. DBBL	8. Janata
9. EBL	10. SBAC
11. EXIM Bank	12. Shahajalal Islami Bank
13. SCB	14. Prime Bank Ltd
15. HSBC	16. UCBL
17. IBBL	18. NCC
19. IFIC	20. ONE
21. AB Bank	22. Brac
23. Trust Bank	24. MTB
25. MBL	

5.6 Overview of the Green Banking Performance of the Banks

1. Bank Asia

- a) Financing to the tune of Tk. 39.3 million to SSL Ceramic Bricks Ltd. towards setting up of Brick manufacturing project using HHK technology with a capacity of manufacturing 0.84 million bricks per month.
- b) Financing to the tune of Tk. 346.81 million to EETA & Tiles to produce brick using HHK Technology which has the capacity to manufacture 66,000,000 pieces of brick per year which will reduce approximately 22,000 tons of CO₂ yearly.
- c) Financing of Tk. 180.12 million to H. Auto Bricks Limited which envisages of setting of a modern, environment friendly & energy efficient Brick Manufacturing project utilizing Hybrid Hoffmann Kiln Technology with a capacity of 120,000 pieces auto bricks per day.

2. BASIC BANK

- a. Formed a Green Banking Policy Implementation & CSR Unit (GPICSRU) of 12 (Twelve) Officials headed by one Deputy Managing Director and the unit is acting to implement Green Banking activities in the Bank.
- b. Formulated a Green Banking Policy of BASIC Bank limited duly approved by its Board of Directors which has been circulated to all Branches & Divisions of Head Office.
- c. Issued necessary circulars to implement In-house Environmental Management by all of its offices.
- d. Allocated considerable amount of Fund for green Banking, Green Marketing & capacity Building.
- e. Approved sizable Budgetary Provision for Climate Risk Fund for the Year 2013
- f. Approximately 500 (Five Hundred) Officers were trained till date on this subject in their foundation training Course.
- g. Regularly reporting the progress of implementation of Green Banking Activities to Bangladesh Bank on quarterly basis
- h. Bank has opened a separate Web Page for disclosing latest progress of its implementation on regular basis.
- i. All of its Branches including Head Office are operating fully under online banking systems.
- j. Steps are being taken to introduce green marketing which incorporate a broad range of activities, including a product modification, change of the production process, packaging change as well as modifying advertising etc.

3. DBBL

- a. An independent Green Banking Policy & Strategy of DBBL has been established for every individual of the Bank working in front and back office to make socially responsible behavior for the greater interest of the country and planet as whole. Bank views that a Green Bank is an ethical bank or a sustainable Bank. The broad objective of green bank is to use resources with responsibility avoiding spoilage and giving priority to environment and society.
- b. A separate dedicated team of Green Banking Cell has been formed consisting of 06 (six) officials

from related divisions led by Head of Credit Division who may contribute with the vested responsibilities in line with the principles towards implementation and reporting of Green Banking initiatives of the Bank. All the Divisions, Branches and senior level management have been informed on the principles and responsibilities on their part. The team is actively working covering the respective areas for compliance.

- c. The Management has allocated fund for an amount of Tk.5.00 million in support of marketing and capacity building of the Bank for green banking activity.
- d. A Green Office Guide covering set of general instructions have been circulated among the Divisions and Branches for meticulous compliance of the instructions contained and directed towards efficient use of resources, technologies and energy as well as reduction of wastages.
- e. A separate fund for an amount of Tk.5.00 million has been approved for creation of a Climate Change Risk Fund which to be disbursed in the environmentally vulnerable areas in case of emergency as a part of Bank's CSR expenses.
- f. DBBL has the largest on-line banking network and extensively using its on-line facilities which has meantime received an extreme recognition in the country. It has brought user-friendly state-of-the-art technologies for the masses, offering variety of product supports at a minimum costs and fostering fastest customer services through its professional expertise.
- g. Meantime, 5 branches of DBBL have been partially powered with SHS as an alternative source of energy. At corporate level, DBBL has a network with valuable exporters of the country and adequate finances have been extended specially in the garments and textile industries supported with ETP.

4. EBL



5. IFIC

- a. Bank will be increased Green Investment for projects installing solar energy plant, bio-gas, and/or other renewable energy plants, bio-fertilizer plants, Effluent Treatment Plant (ETP), Hybrid Hoffman Kiln projects for the production of brick etc. at lower interest and utmost care.
- b. Bank will finance the economic activities of the flood, cyclone and drought prone areas at the regular interest rate without charging additional risk premium.
- c. Now days Alternative Delivery Channel (ATM, Debit / Credit Card, Online Banking, BACPS, BEFTN, Mobile Banking) are ensuring modern banking facilities. Bank will enhance more services through Alternative Delivery Channel. Bank is playing vital roles in CSR concern. This is the responsibility of an institution upon society where it is established. We will provide more monetary support, relief and loans at lower interest rate etc. in the natural disaster areas by which the victims will survive in the newer environment.
- d. More Green Products will be introduced in the near future.
- e. Our future meetings will be carried on through Video/Audio Conference rather than physical visit, we are working for that.

- f. As per directives of Bangladesh Bank, the policy will be implemented in 3rd phases by 30th June 2015.
- g. Already solar panel has been installed in our 05 (five) branches and we are expecting that more branches will start their journey with solar panel in the coming days.
- h. We will be continuously monitoring the inventory details such as consumption of water, paper, electricity, gas, fuel etc. of the Bank to reduce the consumption of the same and thus we can protect the environment.
- i. We are arranging Training/Workshop related to Green Banking Activities for our employees and that will continue for the coming days.
- j. We have planned to arrange more seminars and symposiums to make our clients conscious regarding Green Banking as well as to introduce our Green Products.

6. MBL

Mercantile Bank Limited as a third generation Bank in Bangladesh is always committed to ensure proactive and prudent management for the environmental degradation from our banking operations. Bank is also committed to comply with environmental regulation for maintaining ecological as well as social balance and safeguarding the globe for all living beings and their future generation. From this point of view, Bank has made a Green Strategic Planning with a set of achievable targets to do the following activities related to Green Banking:

- a. Bank has already circulated a detailed "Green Office Guide" to strengthen the green practices through the Bank. We will continuously monitor the meticulous compliance of green practices in internal operations & environment of the bank and thus we can protect the environment.
- b. Encouraging "Going Green" through financing in eco-friendly projects, such as: adoption of renewable energy and/or energy efficient technology, supply of clean water, establishment of effluent and/or waste water treatment plant, solid and hazardous waste disposal plant, bio-gas plant, bio-fertilizer plant, improved brick kiln projects etc. at lower interest and utmost care.
- c. Designing and introducing more innovative Green Products in the near future highlighting eco-benefit from green products and adding value to the existing products by inserting environmental features.
- d. Checking necessary environmental due diligence factors before lending a loan/investment and reducing of extending loans to certain environmentally harmful projects.
- e. 17 (seventeen) branches of the bank have already been powered by solar energy and we are expecting that more branches will start their journey with solar panel in the coming days.
- f. Bank will enhance more services through Alternative Delivery Channel (ATM, Debit / Credit Card, Online Banking, BACPS, BEFTN, issuance of e-statement, Mobile Banking, Internet Banking etc.).
- g. Introducing new technology in banking operations that would not only benefit the customers but also increase the productivity of the employees.
- h. Introducing Video/Audio Conference in lieu of physical travel/visit.
- i. Bank will provide more monetary support, relief and loans at lower interest rate etc. in the natural disaster areas by which the victims will survive in the newer environment.
- j. Organizing rigorous Training/Workshop on Green Banking issues to educate the employees and that will continue for the coming days.
- k. Arranging more seminars and symposiums to make our clients conscious regarding environmental issues as well as to introduce our Green Products.

7. ONE Bank

- a. Initiating In-house Environment Management
- b. Training & Environment friendly activities for employees to make them environmentally concerned.
- c. Adherence to Environmental Risk Management guidelines.
- d. Introduction of green banking products & services.
- e. Financing green projects.
- f. Building awareness & providing support to customers to be more environmentally responsible.
- g. Supporting the environment friendly initiatives as a part of CSR activities.
- h. Forming alliance with NGOs or other environment focused organizations for our green banking activities.

8. SBAC

- a. The Board of Directors of SBAC Bank Limited in its Meeting no. 13 held on January 30, 2013 approved comprehensive "Green Banking Policy".
- b. The Management of the Bank formulated "Green Banking Policy Implementation Unit (GBPIU)" on May 15, 2014.
- c. With a view to developing In-house Environment Management, the Management of the Bank developed "In-House Environment Management Guidelines" of SBAC Bank Limited along with other issues under Phase-I of the Green Banking Policy" which was approved by the Risk

- Management Committee of the Board.
- d. As per Environmental Risk Management (ERM) Guidelines of Bangladesh Bank, the Bank Management made mandatory for Environmental Risk Rating (EnvRR) while appraising the credit proposal vide Credit Division Circular No. 02/2014 dated March 02, 2014. The "Environment Conservation Rules, 1997" was also circulated for better understanding.
 - e. Steps are being taken to allocate sizable Budgetary Provision for Climate Risk Fund.
 - f. Bank issued necessary circulars regarding Green Banking Activities/Initiatives to implement In-house Environmental Management by all of its offices.
 - g. The Training Institute of the Bank is continuously arranging training program/workshop for the employees of the Bank on the Green Banking.
 - h. Rigorous programs to educate client is under process.
 - i. Regularly reporting the progress of implementation of Green Banking Activities to Bangladesh Bank on quarterly basis.
 - j. Bank has a distinct link at our Corporate Website (www.sbacbank.com) for disclosing latest progress of its implementation on regular basis.
 - k. All of its Branches including Head Office are operating fully under online banking systems.
 - l. The Bank has taken initiatives for direct green finance.
 - m. Steps are being taken to introduce green marketing.

9. UCBL

- a. Variable Refrigerant Flow (VRF) system Air Cooler, lessening around 25% electricity consumption, has been installed at Bank's Corporate Head Office.
- b. Since the inception of 2011, the Bank has started installing energy efficient bulbs in the newly established Branches.
- c. As an initial initiative of establishing environment friendly Branches, the Bank has introduced solar energy system at Noapara Branch, Chittagong and other Branches will be equipped with the same system phase by phase.
- d. Different divisions of the Bank are disseminating operational guidelines, circulars and Management decisions as well as collecting statements through email reducing use of paper.
- e. The Data Center built inside the Corporate Head Office at Gulshan uses In-Row Precision Air-Cooling System which ensures minimum power consumption to maintain necessary temperature for the Data Centre Equipments.
- f. Number of Application and Database Servers has been consolidated in high capacity Servers which has reduced power consumption.
- g. Managed Rack based Structured Network has been implemented at Data Center. As such required space and dissipated heat is much less compared to traditional Data Centre.
- h. Central UPS (Uninterrupted Power Supply) installed at each floor which reduces total backup power requirement.
- i. Separate Network Switch room at each floor reduces unnecessary cable laying in the Data Center.
- j. CRT (Cathode Ray Tube) Monitor has been replaced by LCD (Liquid Cristal Display) Monitor in all work stations in Head Office which reduces dissipated heat and power requirement for the computer system.
- k. UCB is the pioneer in introduction of Bangladesh Electronic Fund Transfer Network (BEFTN) transaction system which reduces dependency on paper-based transaction.
- l. Sixty numbers of ATM Booths have been installed which reduce operation time and consumption of cheque book.
- m. Bank's all printers are with double sided printing facility and enabled with 'Eco-font'.

10. SIBL

- i. Finance for Farmers named as "Krishan": This facility will be allowed to farmer for purchasing highly productive seeds, fertilizer (green and environmentally friendly) and arranging irrigation.
- ii. Finance for farmer for tree plantation named as "Shobujayon": This facility will be allowed for plantation in vacant lands that are not used for crops.
- iii. Finance for handicraft and jute products names as "Kutir": This facility will be allowed for entrepreneurs for handicraft and jute products made out of natural material that will replace plastic and polythin products which are not disposable to the environment.
- iv. Finance for re-cycle industry named as "Rupantor": This facility will be allowed for entrepreneurs of re-cycle industry made out of waste goods such as used paper, wood, glass, tin-pots, plastic bottles to make the environment clean and waste-management.
- v. Finance for solar-panel named as "Shobuj-Shokti": This facility will be allowed for house-holds, industries and business places for use of solar panel within the city and the rural off-grid areas to reduce

- of electricity.
- vi. Finance for industries names as “Shobuj Shilpo”: This facility will be allowed to the industries that are having waste management plant/arrangement and those that are not involved with any activities against environment.
 - vii. Finance for ETP plants names as “Shobuj poribesh”: This facility will be allowed for installing ETP plants that makes the environment clean and green.
 - viii. Finance for smokeless brick making technology: This facility will be allowed to the Brick fields that are using smokeless brick making technology (ZIG-ZAG) to replace the old traditional method to reduce carbon emission.
 - ix. Finance for new technologies for manufacturing alternative burner/cooker and fuel: Micro finance will be allowed to the Bio-gas plants, manufacturer of alternative cooker and fuel out of used coal and husk to be used in lieu of fire-wood that will save the trees.

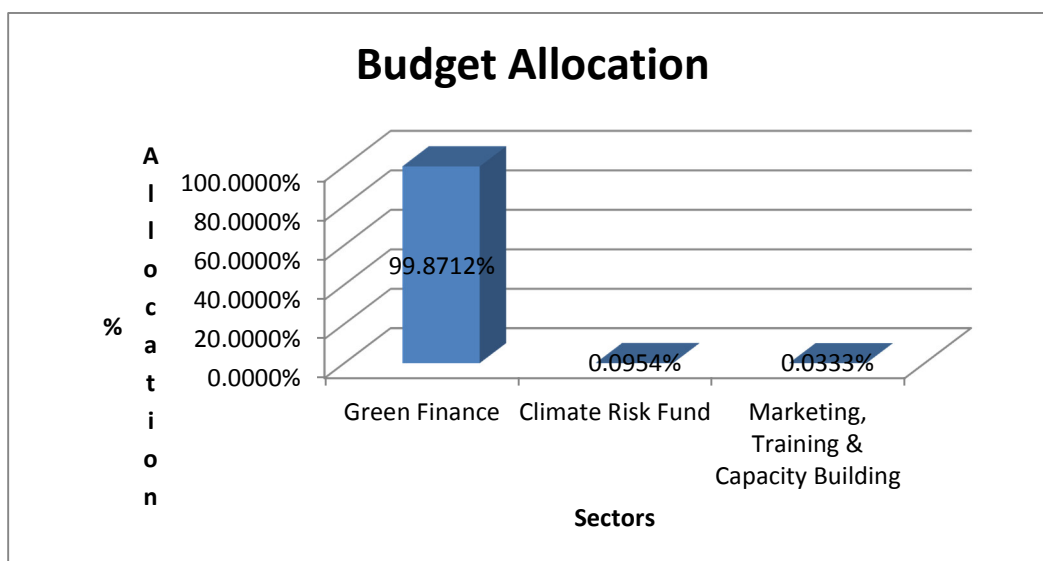
5.7 Discrepancies in the policy of Banks with Bangladesh Bank

Table 5.4: Discrepancies in the policy of Banks

Phases	List of Banks
Phase-I	Janata Bank Rupali Bank Pubali Bank ONE Bank
Phase-II	Bank Asia City Bank DBBL EBL EXIM IBBL IFIC MBL NCC RAKUB SBAC UCBL AB Bank BRAC Trust Bank MTBL
Phase-III	BASIC Bank SCB HSBC Shahajalal Islami Bank Ltd Prime Bank Ltd

5.8 Budget Allocation and Utilization

Bangladesh Bank have made provision to allocate a considerable amount of money for green banking in banks annual budgets, which should include Budget for green finance, Climate Risk Fund and Marketing, Training & Capacity Building.



Graph 5.1: Budget Allocation

39 Banks have utilized 271270.84 million taka in 2014 for green finance, Part of CSR activities for Green Project and Event and Marketing, Training and Capacity Building.

Area	Utilization Amount
	(in million taka)
Green Finance	270921.53
Climate Risk Fund	258.89
Marketing, Training & Capacity Building	90.42
Total	271270.84

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

Table 5.5: Budget Utilization

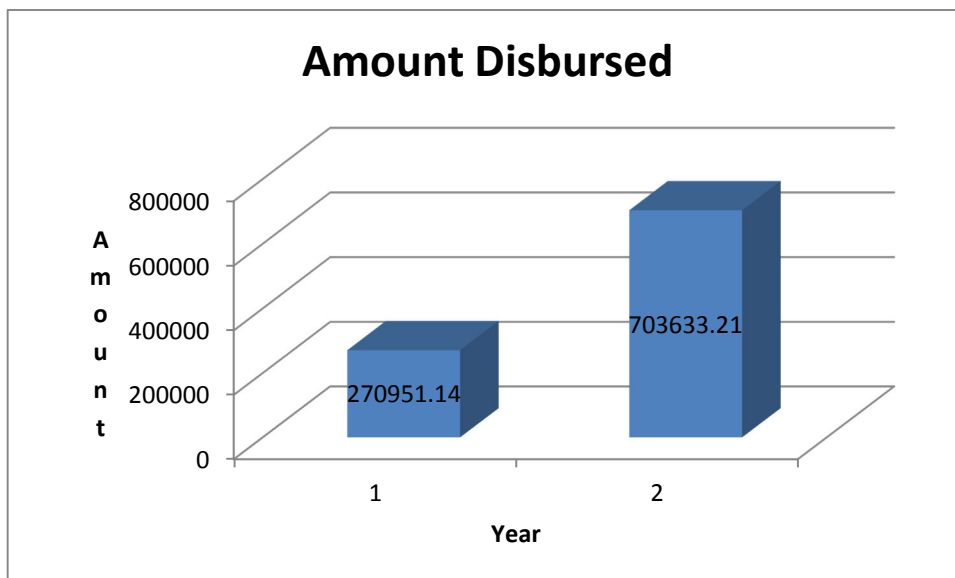
5.9 Environment Risk Rating information during 2014

Table 5.6: Amount Disbursed

Year	2013	2014
Number of Projects Rated	4394	12088
No. of Projects Financed after	4315	11165
Rating		
Amount Disbursed to the Rated	270951.14	703633.2
Projects		
(in million taka)		

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

Since July 2011 Banks have started Environmental Risk Rating (EnvRR). Banks have done environmental risk rating in 4394 and 12088 projects in 2013 and 2014 respectively. Similarly 4315 and 11165 projects (disbursed amount is Tk. 270951.14 & 703633.21) have been financed after rating in 2013 and 2014 respectively.



Graph 5.2: Amount Disbursed

In the above figure we can clearly see that the numbers of projects rating in 2014 have increased more than three times higher than the previous year. In 2013 and 2014 the disbursed amount is **270951.14** and **703633.21** million taka respectively.

5.10 Climate Risk Fund

Banks have allocated taka 2145.35 million in 2014 as climate risk fund. Bank's climate risk fund covers their CSR activities as green events or green projects. In 2014, 258.89 million taka have utilized by banks from their Climate Risk Fund. Banks in general have not yet responded well in terms of utilizing Climate Risk Fund. Banks have utilized only 12.07% against total allocation. Out of taka 2145.35 million, Private Commercial Banks (PCBs) have utilized taka 219.70 million (84.86%) maximum contribution whereas State Owned Commercial Banks (SCBs) and Specialized Development Banks have only 9.5% and 0% respectively.

Table 5.7: Climate Risk Fund

Bank Category	Budget Allocation	Budget Utilization
SCB's	415	24.61
PCB's	1283.15	219.7
FCB's	17	14.58
SDB's	430.2	0
Total	2145.35	258.89

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

5.11 Top Ten Banks in Green Banking Initiatives

Top 10 banks are evaluated on the basis of their overall Green Banking activities. An effort has been made to evaluate top ten banks on each criterion such as Environmental Risk Rating (EnvRR), green finance, part of CSR activities for green event or green project, green marketing, training & development, in house green activities, online banking and other green banking activities. Bank's green banking activities as of 2012 and also data on last quarter of 2012 have been taken into due consideration while grading top ten banks.



5.12 Comparative Analysis

To analyze the present status of green banking practices in different types of banks the following components of Green Banking have been brought into light

5.12.1 Environmental Adoption:

The negative impact of climate change already started though banks contribute little to global warming. Banks have to focus on adaptation and mitigation process to cope up the adverse impacts of global warming. And green banking initiative can facilitate this process.

Number of banks ingraining CSR and GB practices within own establishment and in their client businesses

Table 5.8: Environmental Adoption

Objective	SCBs	SDBs	PCBs	FCBs
Adopted socially and environmentally responsible practices(GB) in own internal operations	1	4	30	9
Providing a modern, healthy and safe workplace and creating a learning and development environment for GB	1	2	24	5
Reduce the bank's environmental impact as a result of its operation and business activity	1	2	24	5
Bank assessing the social and environmental impacts of the projects seeking finance.	1	2	20	5
Ensuring compliance of regulatory environmental and social Requirements	1	2	21	5
Engaging with clients in assessing project's social and environmental impacts beyond the regulatory requirements	0	0	4	3

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

From the above data it is observed that most of the PCBs and FCBs maintain environmental related issue within the bank as well as outside the banks so that the environmental hazard can be reduced. Though SCBs and SDBs cover most of the people of Bangladesh urban and rural area, they are yet to adopt green banking practice

5.12.2 Online, Internet & SMS Banking

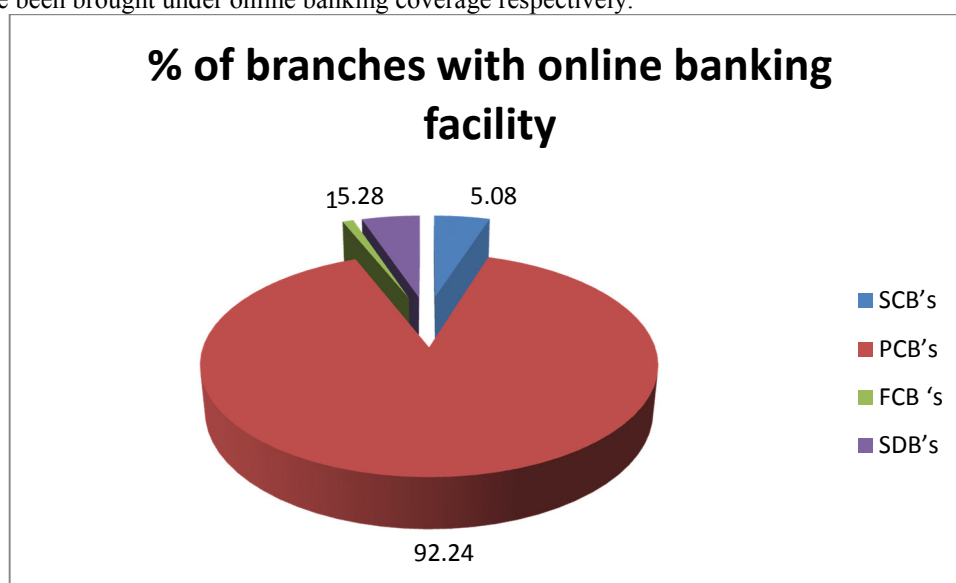
Online banking service is expanding day by day along-with the increase in number of branches with online coverage and accounts facilitated with internet and SMS banking. Scenario of Online banking looks very promising.

Table 5.9: Online Banking

Type of Banks	Total number of Branches	Number of branches with online banking facility	% of branches with online banking facility
SCB's	3482	177	5.08
PCB's	3378	3116	92.24
FCB 's	75	75	1
SDB's	1457	77	5.28
Total	8392	3445	41.05

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

A total of 3445 out of 8392 number of branches i.e. 41.05% are equipped with online banking services. 37 banks mainly private and foreign commercial banks are fully automated ensuring online banking services in each of their branches. 92.24% of the total branches of PCBs have been brought under online banking coverage. 5.08% of the total branches of State Owned Commercial Banks (SCBs) and 5.28% of Specialized Development Banks have been brought under online banking coverage respectively.



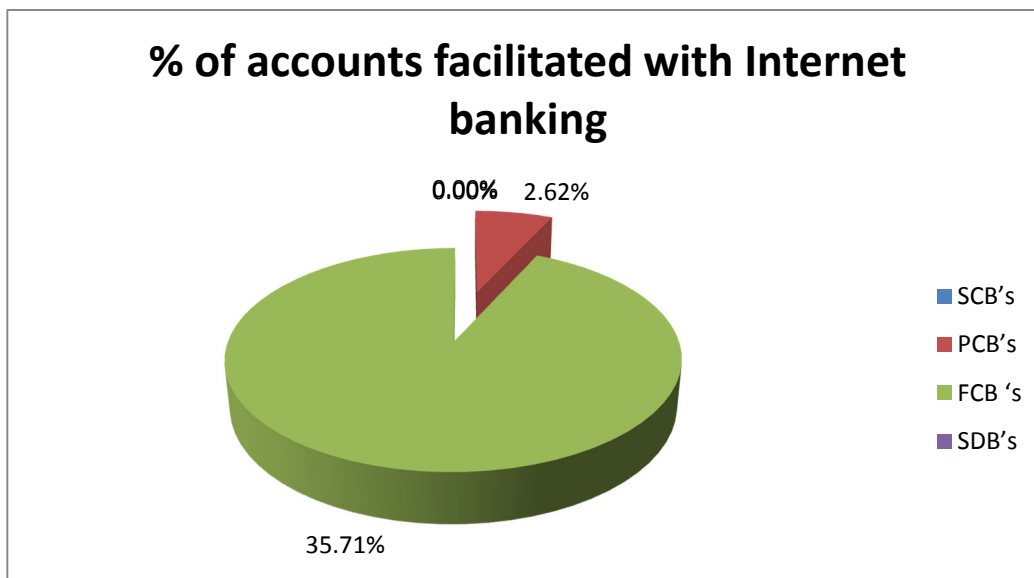
Graph 5.3: Online Banking

Table 5.10: Internet & SMS Banking

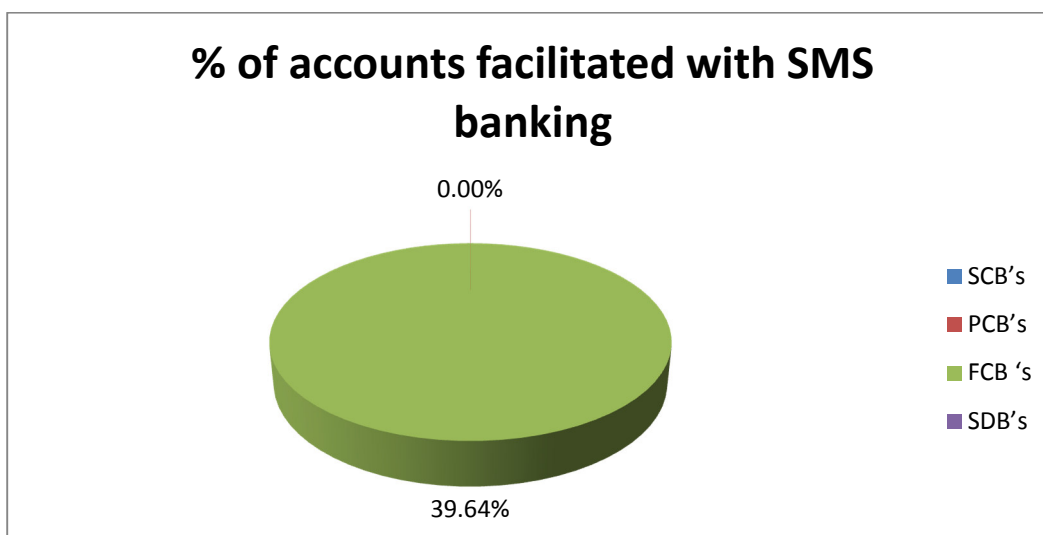
Types of Banks	% of accounts facilitated	
	with Internet banking	SMS banking
SCB's	0.00%	0.00%
PCB's	2.62%	0.01%
FCB 's	35.71%	39.64%
SDB's	0.00%	0.00%
Total	1.22%	3.20%

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

Banks have started to concentrate on mobile banking, SMS banking and internet banking. It shows from the returns that 1.22% of the total number of accounts has been facilitated with internet banking. The State-owned Commercial Banks (SCBs) and Specialized Development Banks need to go a long way in Online, Internet & SMS Banking.



Graph 5.4: Internet Banking



Graph 5.5: SMS Banking

It shows from the returns that 3.20% of the total number of accounts has been facilitated with SMS banking. The State-owned Commercial Banks (SCBs) and Specialized Development Banks need to go a long way in Online, Internet & SMS Banking.

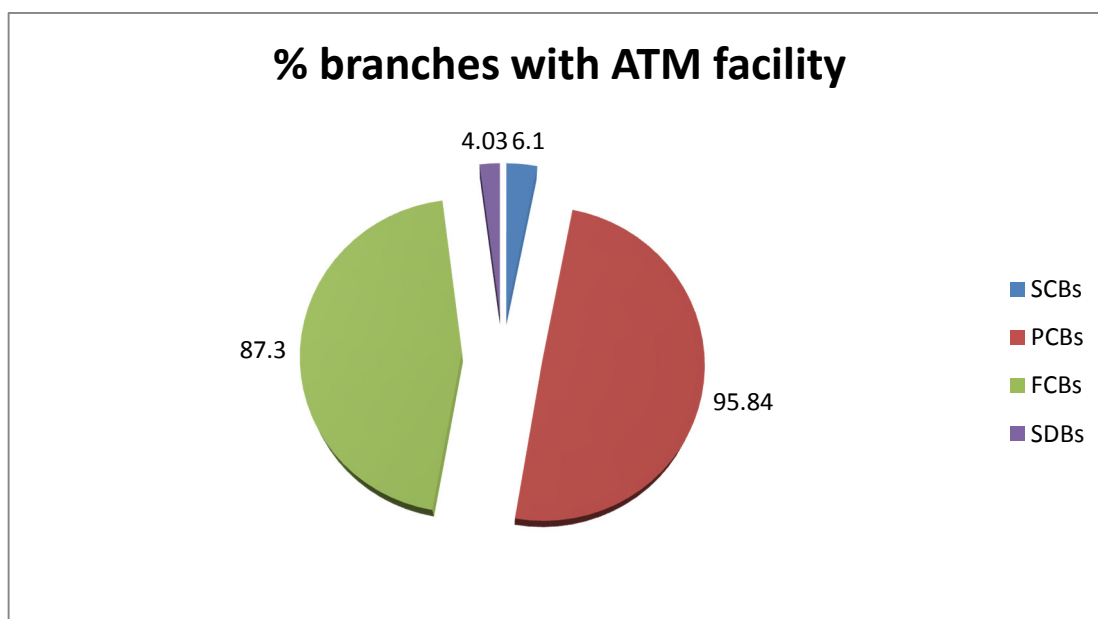
5.12.3 ATM Facilities:

An electronic banking outlet which allows customers to complete banking transactions without the aid of a branch representative or teller is ATM. The machines will accept deposits, facilitate credit card payments and report account information.

Table 5.11: ATM Facilities

Type	No of Banks	No. of branches	No. of branches under ATM facility	% branches with ATM facility
SCBs	4	3442	210	6.1
PCBs	30	3078	2950	95.84
FCBs	9	63	55	87.3
SDBs	4	1415	57	4.03
Total	47	7998	3272	41

*Source: Annual Report on Green Banking 2014, Bangladesh Bank



Graph 5.6: ATM Facilities

Plastic money is the common practice to the people which govern GB. But it is to note that only 41% banks came under ATM facilities and major contributions are the PCBs and FCBs. On the other hand a big portion of clients are out of services of ATMs who bank with SCBs and SDBs.

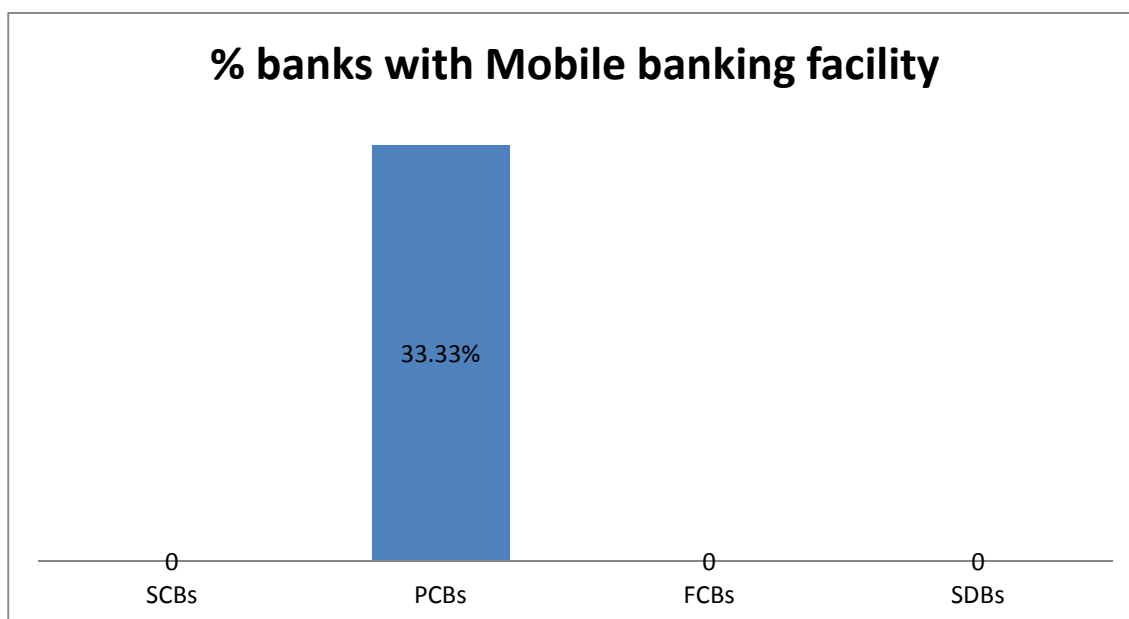
5.12.4 Mobile Banking:

Mobile Banking is a Banking process without bank branch which provides financial services to unbanked communities efficiently and at affordable cost. On the one hand, it is great to have the ability to check balances, transfer funds or pay bills from mobile. On the other hand, it saves time and energy of the customers. It also helps in reducing use of energy and paper of the bank. Most of the banks tried to introduce this paper-less facility.

Table 5.12: Mobile Banking

Type	No of Banks	Introduced of Mobile Banking	% banks with Mobile banking facility
SCBs	4	0	0
PCBs	30	10	33.33%
FCBs	9	0	0
SDBs	4	0	0
Total	47	10	21.28%

*Source: Annual Report on Green Banking 2014, Bangladesh Bank



Graph 5.7: Mobile Banking

In mobile banking sector only PCBs introduce the system basically Brac Bank (bKash) and Duch-Bangla Bank cover most of the population under this system. However, Q-Cash, OK Banking are also there. No SCBs, SDBs and FCBs have any contribution in mobile banking.

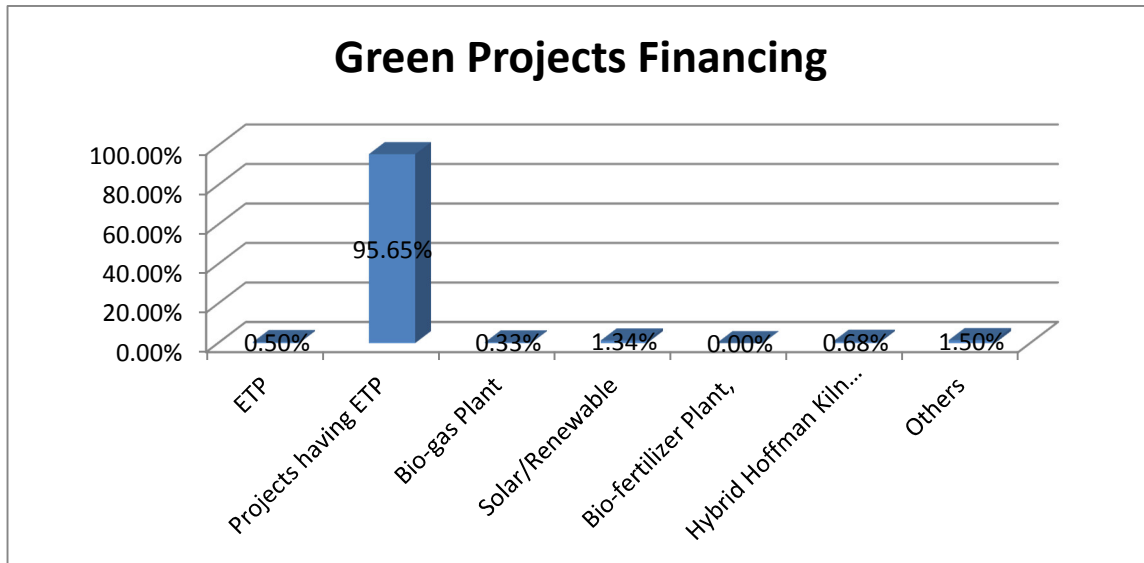
5.12.5 Green Financing

Green Finance includes both direct and indirect finance. Sources of bank's direct finance may be bank's own fund or Bangladesh Bank's fund for renewable energy and projects which are environment friendly. Projects having ETP or alike system are included in the indirect finance. Banks have disbursed in different green products/events as taka 1356.52 million in ETP, taka 259100.05 million in project having ETP, taka 899.87 million in Bio-gas plant, taka 3638.37 million in solar/ renewable energy and taka 1830.33 million in HHK etc. during 2014.

Table 5.13: Green Financing

Green Projects	SCB's	PCB's	FCB's	SDB's	Total
ETP	118.81	687.89	162.8	387.02	1356.52
Projects having ETP	2994.15	173187.7	76517.03	6401.7	259100.1
Bio-gas Plant	9.73	283.82	0	606.32	899.87
Solar/Renewable	984.94	1685.56	718.48	249.39	3638.37
Bio-fertilizer Plant,	0	0.4	0	0	0.4
Hybrid Hoffman Kiln (HHK)	538.71	841.96	0	449.66	1830.33
Others	1860.91	2089.58	0	110.97	4061.76

*Source: Annual Report on Green Banking 2014, Bangladesh Bank



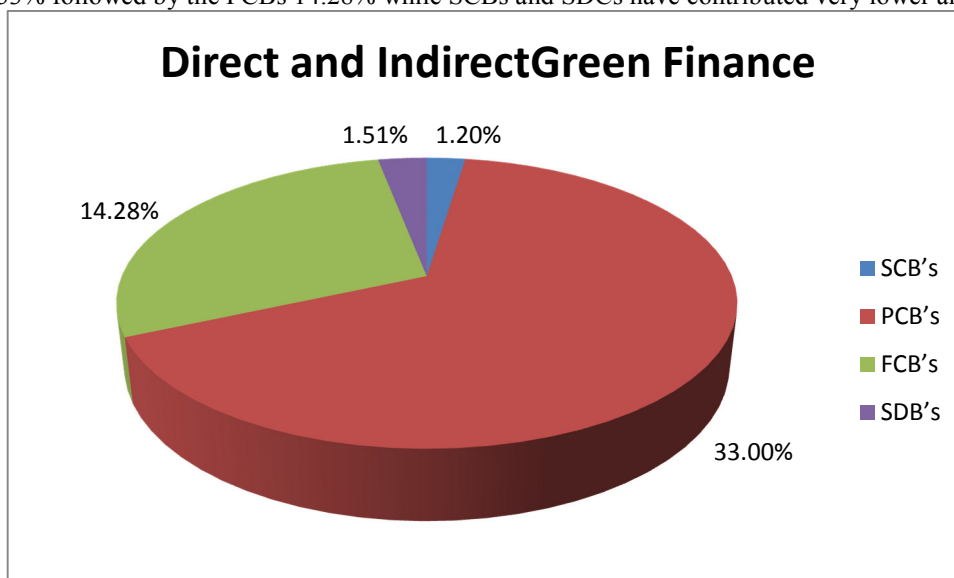
Graph 5.8: Green Project Financing

Table 5.14: Direct & Indirect Green Financing

Bank Category	Direct Green Finance	Indirect Green Finance	Total
SCB's	3513.1	2994.15	6507.25
PCB's	5623.74	173187.17	178810.91
FCB's	881.28	76517.03	77398.31
SDB's	1803.36	6401.7	8205.06
Total	11821.48	259100.05	270921.53

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

From the above table, it is clear that PCBs have contributed the largest in both direct and indirect Green Financing 33% followed by the FCBs 14.28% while SCBs and SDBs have contributed very lower amount.



Graph 5.9: Direct and Indirect Green Financing

5.12.6 Branches/SME/ATM units powered by Solar Energy

At present 214 branches of 26 banks are powered by solar energy. 23 branches of Islami, 16 branches of both Sonali & Al-Arafah and 14 branches of Mercantile Bank Ltd. are powered by solar energy.

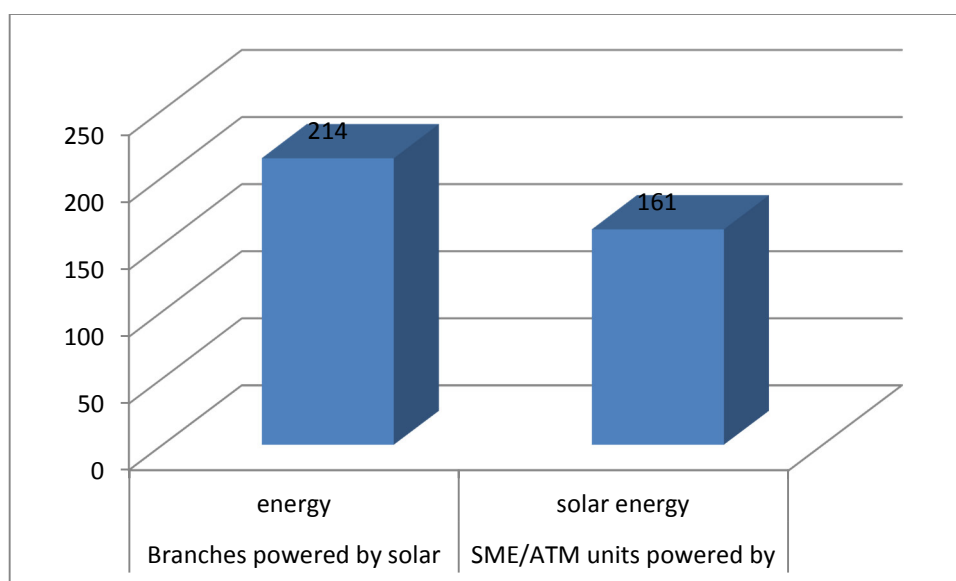
161 SME/ATM units of 9 banks are powered by solar energy. BRAC Bank has 131 SME/ATM units powered by solar energy. Other banks such as Sonali, AB, Prime, Mutual Trust, Islami, Standard Chartered, HSBC

and Bank Al-Falah have SME/ATM units powered by solar energy.

Table 5.15: Branches/SME/ATM units powered by Solar Energy

Types of Banks	Branches powered by solar energy	SME/ATM units powered by solar energy
SCB's	21	8
PCB's	169	150
FCB's	22	0
SDB's	2	3
Total	214	161

*Source: Annual Report on Green Banking 2014, Bangladesh Bank

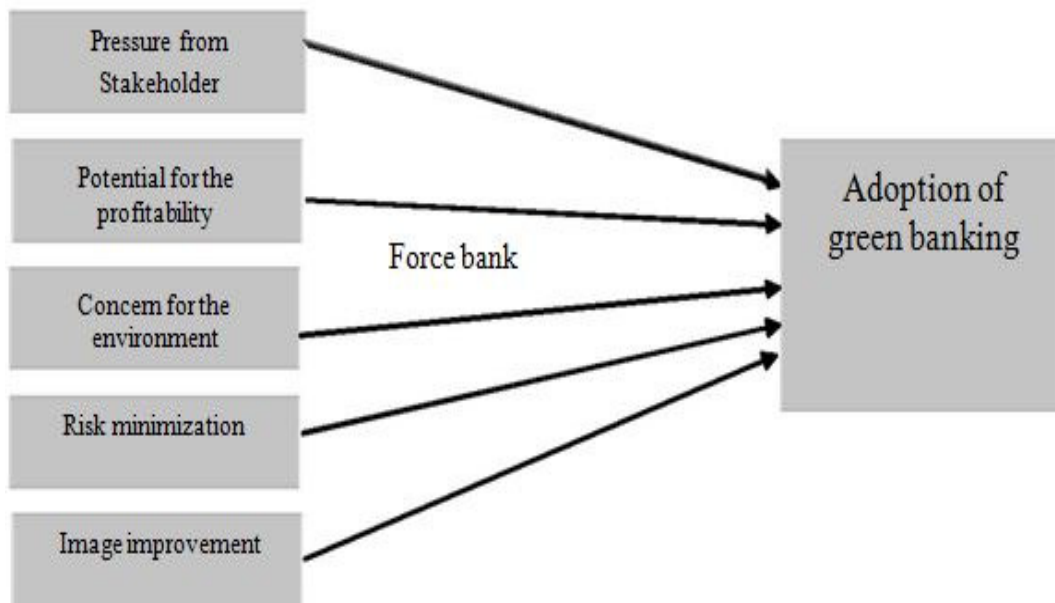


Graph 5.10: Branches/SME/ATM units powered by Solar Energy

5.13 Banks' in-house Green activities

- Common use of table stationeries instead of individual use.
- Use of paper on both sides for internal consumption.
- Introduction of e-statement for customers instead of paper statements.
- Use of online communication in the best possible manner.
- Using more daylight instead of electric lights and proper ventilation in lieu of using air conditioning.
- Using energy saving bulbs.
- Use of Eco Savvy font for printing light impression on both sides of paper.
- Setting defaults like “Thinking twice before printing.”, “Printing only it really needs”, “Please check your environmental responsibility” etc. in email correspondences.
- Video/Audio conference in lieu of physical travels.
- Conversion of bank's vehicles into CNG and use of energy efficient electronic equipment.
- Efficient use of printer cartridges, photocopy toner, office stationary, etc.
- Sharing electronic files, voice mail and e-mail instead of paper memos.

5.14 Factors behind the Adoption of Green Banking



6.1 Summary of Critical Findings

1. As of now, environmentally sustainable units in Bangladesh are not implemented to a fuller extent because of the present set up of the companies. According to the environmental regulation of green banking, Banks are supposed to have an eco-friendly set up but the present setup cannot be changed instantaneously as it would create a financial burden for the industry itself.
2. According to the legal frame work of green banking, the Polluting banks either have to close down or have to make necessary investment to comply with the standard. In this process these banks will lose their competitiveness in the international market, which would directly affect our economy and the banking sector.
3. Despite of all the odds banks are still trying to do their part in sustainable development by using solar powered Branches, Online and mobile banking initiatives etc, thus creating a path towards green planet.
4. Basically Green banking avoids as much paper work as possible and relies on electronic transactions for processing of activities. Less paperwork means less cutting of trees. Here, most of the PCBs and FCBS adopted the GB policy except SCBs and SDBs who have not taken such steps yet. Bangladesh Bank not only gives the policy but also provide technical supports for GB adoption. Bangladesh Banks developed a policy for sanction loans to environmentally harmful projects so that make sure the necessary environmental compliance factors before lending a loan/investment. GB motivates the banking system that reduces use of paper which create brand image and Create awareness amongst the stakeholders about the environment as well as environmental friendly business practices i.e. solar equipments, ETP, Bio-gas Plant, Hybrid Hoffman Kiln (HHK) etc.
5. Bangladesh GB practices get less priority as they are not considered as mandatory.
6. The credit assessment and management framework prescribed by Bangladesh Bank and currently followed by all the scheduled commercial banks i.e. Credit Risk Management (CRM) does not include any risk criteria for considering environmental and social issues of a particular loan project.
7. Most of the banks have launched their own environmental risks assessment framework and no clear direction is provided regarding quantification and addition of environmental risk in CRM.
8. Online Banking and ATM facilities are regarded as the first step in implementing green banking as it reduces lots of paper works and satisfies the principle of cleanliness at bank. But most of the SCBs and SDBs are still practicing online banking at poor level and ATM facilities are not also satisfactory.
9. Green Banking motivates the banking that reduces use of paper which create brand image. It also creates awareness amongst the stakeholders about the environment as well as environment friendly business practices. But very few of our banks have been able to build such green banking image.
10. Eco-friendly business activities and energy efficient industries will be given preference in financing by bank. Environmental infrastructure such as renewable energy project clean water supply project, wastewater treatment plant, solid & hazardous waste disposal plant, bio-gas plant, bio-fertilizer plant should be encouraged and financed by bank.
11. For its in-house day to day to business management and to ensure better and prompt customer Services

- through acquainting the customers with automation and paperless banking system.
12. A separate Green Banking Unit or Cell should be established and assigned with the responsibility of designing, evaluating, and administering related issues of the bank.
 13. Green banking avoids paper work, by granting green credit cards, go green mortgages and also all the transactions done through online.
 14. Paperless initiatives like e-statements and e-greetings help Banks to save trees from being felled.
 15. Stationery cost gets reduced due to paper less statements.

6.2 Conclusions

Government should take necessary steps to enforce existing environmental regulations and formulate appropriate rules to ensure pollution free in the country. The Central Bank of Bangladesh can play a pro-active role in this regard. Much more is expected from civil society organizations in the form of awareness development, research activities, and business monitoring. 'Consumer Awareness' is the area where Bangladesh needs remarkable change, because green banking is largely driven by consumer behavior and consumption patterns. For rapid change among consumers and businesses, a collective endeavor of government, media, NGOs, and Banks will be required. An isolated effort by banking communities may not bring much.

On the other side of the coin, we will have to take strong stance against our internal polluters. As banks indirectly contribute to environmental pollution through investing in different pollutant industries, we will have to take steps against all the wrong doing. Bangladesh Bank which has the legal power to shape the behavior of the banks, it will have to force all the banks to implement green banking policy to curb its own environmental pollution, giving loans to environmentally friendly projects and reducing investment in environmentally harmful projects. This green banking can play a significant role in implementing the broader concept like sustainable economic development.

As far as green banking is concerned Bangladeshi banks are far behind their counterparts from developed countries. The implementation status of the study highlights the fact that banks in Bangladesh are beginning to understand the importance of introducing green banking into their mainstream operations. Still, no bank in Bangladesh has been found in the UNEPs signatories of the Equator Principles (which is regarded as one of the most important standards for responsible financing). The general picture presents a transition from some notable individual actions in a consistent and measurable environmental performance for most banks. According to this study, though the banking industry in Bangladesh are in the intensification phase passing through the foundation phase within the time frame, some banks are yet to stand on its feet. A few commercial banks are engaged in in-house environment management and are contributing towards environment friendly finance through their Green Energy Loans. However banks have a lot more scope to contribute and should make adequate investment in generating renewable energy.

6.2 Recommendations

Banks in Bangladesh are continuously working on green banking policy to make themselves more responsible corporate citizen. The banks think that green banking is not going to erode its profitability rather it will help the bank to reduce its operating cost and also help to find some non-traditional sources of lending. As the consumers are becoming more concerned about the environment and they are realizing that banks can play a major role by stop investing in environmentally hazardous projects. This study reveals the following suggestions:

- A) **Environmental Governance within the Bank:** Though some banks have their green banking unit at the head office, no bank maintains green officer at the branch level to monitor their GB compliance internally and externally. BB should ensure environmental governance within the branch by recruiting such personnel at the branch level.
- B) **Environmental Awareness among Bank Employees:** Bank employees carry out the green banking concept from Bank to client. It can only be possible when employees will be environmentally aware.
- C) **Feedback from the Regulatory Agencies:** Though banks report to BB about GB practices periodically, few bank staffs think that BB does not give proper feedback to the GB reporting. Reward or punishment in favor of/against GB reporting should be realized very shortly among banks and customers.
- D) **Positive Attitude toward Green Banking:** Most of the banks convey the head office as well as BB order as routine work regarding green banking. Different Government as well as non-government agencies should motivate bankers and entrepreneurs to shift from profit seeking to environment-friendly business. In this regard, they can make mass awareness toward sustainable business practices.
- E) **Mass Awareness about Green Banking:** Still most of the clients are not well acquainted with green banking knowledge. Moreover, most of the banks do not take necessary steps to aware them. In some cases, clients still desire printed documents such as account statement. Banks should motivate clients to receive online banking service at every stage. Bank should arrange events for clients at the branch level. Sufficient events should organize for primary group i.e. clients for changing their attitude toward green banking.

- F) Capacity Building:** Staffs of each bank are not also well acquired of green banking knowledge. Very few banks arranged programs on green banking for employees at the branch level. Bank should arrange trainings and workshops on green banking for every staffs regularly.
- G) Credit/ Investment Management:** Few banks were found strict in following the environmental risk rating (EnvRR) in their core risk management (ERR). Some Banks follow the EnvRR strictly because of maintaining bank soundness. On the other hand, some other follows this rating in investment due to direct or indirect pressures from various agencies. Based on EnvRR, banks should show zero tolerance in investing fund on eco-friendly deals.
- H) Eco-friendly Production Technology:** Bank executives and clients opine that the high cost of installation and complex maintenance are the major obstacle to green production technology. Environment-friendly technology should, therefore, be low cost and better output providing technology that will be viable solution for green banking. Competent authority may offer tax waiver or more subsidies over costs that would encourage adopting environment-friendly technology.
- I) Miscellaneous:**
- Bangladesh bank should explain the economic benefits of green banking to the commercial banks in details.
 - It should also remind the responsibility of all the commercial banks to protect the environment and explain how various measures under green banking can help protect the environment.
 - It should also remind the legitimate power it has as a stakeholder of the banking sector and should apply as the last resort to enforce green banking completely.
 - Commercial banks should promote its green banking activities to attract environment conscious customers and also to aware stakeholders that it is fully committed to the environment of the country.
 - Commercial banks should make all the steps to make all the branches as Green branches by establishing solar panel, fully fledged internet and paperless banking etc.
 - Employees should be properly trained about green banking in terms of green banking loan, internal green environment etc.
 - It should develop green fund portfolio for the environmentally friendly projects with a lower interest rate.
 - High demand and high interest rates are the two important characteristics of green banking loan. So banks should develop proper plan to capture this market.
 - Commercial banks should have close monitoring on the projects operated under green funding to ensure commercial viability as these kinds of projects have a significant failure rate.
 - Different stakeholders like environmentalist group, civil society and Bangladesh bank are putting pressure on commercial banks for green banking and banks should properly address their concerns through multiple actions as explained earlier.
 - Finally the commercial banks may be held responsible in future for the pollution by its own clients as these banks provide the loan to these clients and banks should think twice before investing in environmentally harmful projects.

References

- Rahman M, Ahsan Ali, Hossian Motahar & Meem Rafiul Hoq (2013), "Green Banking Prospects In Bangladesh", *Asian Business Review*, Vol 2, Issue 4.
- Musukujjaman, MD, Akter, Serena (2013), "Green Banking in Bangladesh: A Commitment towards the Global Initiatives" *Journal of Business and Technology (Dhaka)*, Volume VIII, Issues 1 and 2, January-June, July-December, 2013
- Rahman, A. (2013). Green Banking and Sustainable Development: The Case of Bangladesh. *The Bangladesh Accountant*, January-March, 2013.
- Shahriar, Saquib (2014), "Acceptance of Internet Banking in Bangladesh: Evidence from Bangladesh", *International Conference on Business, Law and Corporate Social Responsibility (ICBLCSR'14)* Oct 1-2, 2014 Phuket (Thailand)
- Islam, Md. Shafiqul; Das, Prahallad Chandra. "Green Banking practices in Bangladesh." *IOSR Journal of Business and Management (IOSR-JBM)*; e-ISSN: 2278-487X. Volume 8, Issue 3 (Mar. - Apr. 2013), PP 39-44
- Choudhury, T. T., Salim, M., Bashir, M. M. A and Saha, P. (2013). Influence of Stakeholders in Developing Green Banking Products in Bangladesh. *Research Journal of Finance and Accounting*, Vol. 4, No. 3, pp. 67-77.
- Hayder, M.M. 2012. Green Banking and its Practices in Bangladesh, Term Paper, Department of Finance and Banking, University of Chittagong. 35pp.
- Ullah, M.M. 2010. Green Banking in Bangladesh- A Comparative Analysis. <http://www.wbiconpro.com/610-Maruf.pdf>. 20 February 2013
- Millat K. M. (2012), "Green Banking Activities" at <http://www.bangladesh-bank.org>

- Uddin S.M. (2011), "Green Banking activities in EXIM Bank".
- Tanjimul islam, mohammad, Ishak khan, Abdullah, Afroz, Farzana (2013), "Green banking in Bangladesh: Synchronous metamorphosis in banking action", www.theinternationaljournal.org > RJEBS: Volume: 03, Number: 1, November-2013
- Habib, Shah Md. Ahsan (2010) 'Green Banking Initiative: Opportunities for Bangladesh', the paper was presented at a seminar on Green Banking at BIBM on October 14, 2010.
- Habib, Shah Md. Ahsan (2010) 'Responsibilities of Banks in Environmental Protection in US Economy: Lessons for Bangladesh Banking Sector', Post Doctoral Research Report under Fulbright Fellowship, Syracuse University, USA.
- Habib, Shah Md. Ahsan, (2011), Environmentally Responsible Banking in USA- Green Lessons for Bangladesh, A Book published by Lap Lambert Publishing Company, Germany.
- Habib, S. M. A., Pandit, A. C. and Mizan, A. N. K. (2010), "Environmental Responsibilities of Banks: A proposed Framework for the Banking Sector of Bangladesh", *Banking Research Series, BIBM*, pp151-193.
- Atiur Rahman, "Financial Services at People's Doorstep", Governor, Bangladesh Bank, 2010
- Alice Mani, "Green Banking through Green Lending", www.ibmteedu.org/GVCG/Papers/IC-140.pdf201
- Rashid, M 2010, 'Green banking comes to focus' Sept. 17, <http://www.thedailystar.net/newDesign/newsdetails.php?nid=15469>
- DR. Bahl Sarita, (2012) "The role of green banking in sustainable growth", *international journal of marketing, financial services & management research*, Vol.1 No. 2, February 2012, ISSN 2277 3622, Online Available at indianresearchjournals.com
- Nigamananda Biswas (2011) "Sustainable Green Banking Approach: The need of the Hour", Volume – I, No-1, January-June.
- Bahl, Sarita (2012), "Green Banking – The New Strategic Imperative", *Asian Journal Of Research in Business Economics & Management*, Vol 2, Issue 2.
- Atkinson, G. (2000). "Measuring corporate sustainability", *Journal of Environmental Planning and Management*, 43(2), pp. 235–252.
- Goyal, K.A and Joshi.V. (2011), "A Study Of Social & Ethical Issues in Banking Industry", *International Journal Of Economics & Research*, Vol.2, Issue 5, pp-49-57.
- Singh, Hardeep & Singh Bikram Pal, "An effective & Resourceful Contribution of Green Banking towards Sustainability", *International Journal of Advances in Engineering Science & Technology*, Available online at www.ijaestonline.com
- Chang, N. and Fong, C. (2010). "Green product quality, green corporate image, green customer satisfaction, and green customer loyalty", *African Journal of Business Management*, Vol. 4, No. 13, pp. 36–44.
- Dias-Sardinha, I. and Reijnders, L. (2005). "Evaluating environmental and social performance of large Portuguese companies: A balanced scorecard approach", *Business Strategy and the Environment*, 14, pp. 73–91.
- Hart, S. and Ahuja G. (1996). "Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance", *Business Strategy and the Environment*. 5, pp. 30-37.
- Klassen, R. and Curtis P. (1996). "The Impact of Environmental Management on Firm Performance", *Management Science* 42(8), 1199–1213.
- Chaurasia, Ashis Kumar (2014), "Green Banking Practices in Indian Banks", *JOMASS*, Vol 1, Issue 1.
- Jha, Nishikant & Shradha Bhome (2013), "A Study of Green Banking Trends In India", *International Journal Of Research in Management & Technology*, Vol 11.
- <http://www.bangladesh-bank.org/governor/speech/feb022013gse.pdf>
- Green banking: An avenue to safe environment, <<http://www.thefinancialexpress-bd.com/>>