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# Green Banking Practices in Bangladesh: An Ingenious Action for Sustainable Development

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***Abstract***

*The main objective of this paper is to examine the green banking practice in Bangladesh and suggest ways to increase sustainable development through green banking activities. Since the banking sector is the dominant supplier of credit to various sectors of the economy, especially industrial and the agricultural sectors, sound innovative green banking practices may promote environmentally sustainable and socially responsible investment. The study finds that although most banks have adopted green banking policy and continued to show improvements, private commercial banks and foreign commercial banks performed better than state-owned commercial banks. The study also noticed that projects on effluent treatment plants, solar energy plant, bio-fertilizer plant, Hybrid Hofiman Kiln are neglected despite their crucial role in environmental protection.*

**Keywords:** Green banking, developing countries, sustainable development.

JEL Calssification : G28, O13, Q01, Q53, Q54

## Introduction

An increasing number of global banks around the world are going green by launching environmental friendly initiatives and providing innovative green products. US congressman Chris Van introduced a "Green Bank Act" in 2009 with the aim of establishing a green bank under the ownership of the US government in order to offer financial support to effort to increase efficient energy usage, reduce carbon emissions and environmental pollution resulting from energy creation. Bank Technology News has recently awarded Citigroup, the US banking giant, top honors in its first ranking of America's Greenest banks. Citigroup updated computer hardware across the 1000+ Citibank branches in North America, reducing energy costs by 15% a year, while improving the speed with which it services customers. The Financial Times of London announced the Sustainable Banking Awards last year and the winner was the UK's Cooperative Bank.

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Public concern about the state's natural environment has been growing significantly in the last few years, mostly due to apparently unusual weather patterns, rising greenhouse gases, declining air quality etc. Among all other concerns, banks hold a unique position in an economic system, can affect production and businesses through their financing activities.

In developing countries, the green banking practices are at an early stage. As an emerging economy, Bangladesh is looking for a change in banking strategy to conform to the global green banking strategy. With this aim, the central bank of Bangladesh introduced a guideline of green banking in 2011. Millat et al; (2012) reported that banks in Bangladesh have enthusiastically responded to Bangladesh Bank's Guidelines towards green banking. Similarly, Ullah, M. M. (2010) pointed out that state owned commercial banks and social development banks' initiatives compare poorly to private commercial banks and foreign commercial banks. On the other hand, very recently BRAC Bank Ltd of Bangladesh became the regional winner for 'Asian Emerging Markets Sustainable Bank of the Year'. It represents the popularity of green banking practices in Bangladesh.

**Objectives**

The main objective of this paper is to examine the present situation of green banking performances of Bangladeshi banks. The following sub-objectives are set to expand the primary objective.

a. To examine the specific areas of green banking initiatives taken by Bangladesh Bank;
b. To examine the policy and implementation strategy of BB compared to the issued guidelines;
c. To examine the nature of green financing performance of different types of commercial banks;
d. To examine the performance of online and mobile banking and growth of green banking;
e. To examine the major in-house green activities of banks;

**Literature Review**

British Institute of Management (BIM) (1992) urged in favor of greening and launched a major report which produced basic tips on greening the workplace.

Rutherford (1994) stated that Banks need to monitor post transaction for the ideal environmental risk management program during the project implementation and operation.

Schmidhciny, Federico and Zorraquin (1996) described that commercial banking has been emphasized on investment banking rather environmental risks but it would play a larger role in their investment decision in the near future.

Jeucken and Bouma (1999) mentioned that investment which take into account of environmental side-effects usually have lower rate of return.

Sahoo and Nayak (2008) explored the importance of green banking and highlighted important lessons for sustainable banking and development in India.

Ginvosky (2009) focused on the efforts of community banks in the U.S. to leverage sustainability, or green banking.

Rahman (2010) focused on green banking. Environmentally responsible financing are beginning to make profound impact on environmental practices in the real economic factor.

Rahman and Zareen (2014) mentioned that for successful green banking an isolated effort by banking community may not bring much. All stakeholders need to be proactive and change mindset for sustainable development.

Ullah (2010) marked green banking as a component of global initiatives to save the environment and climate. He concluded the study pointing out that state owned commercial banks and social development banks are less concerned with this issue.

Khan (2012) stated that green banking initiatives by all banks are a moral obligation to save the people. He also urged that lenders should consider 'Go green' and 'Think green' themes.

Millat (2012) reported that Banks in Bangladesh have enthusiastically responded to Bangladesh Bank's guidance about green banking, with steps in environmentally responsible financing that are beginning to make profound impact on environmental practices in the real economy.

**Methodology**

This article is mainly based on secondary data collected from several reliable sources. The sources of secondary data are annual reports of Bangladesh Bank and various Commercial Banks, and related articles. In addition, the data is also collected from companies' corporate profiles, daily newspapers, different journals & articles, banks' websites and the Bangladesh Bank's websites. The data are analyzed in aspect of practices and problems of green banking. The findings of the study are as reliable as the authentic sources of data. The major limitation of the study is that no primary data is involved in the study.

**1. Green banking activities of Bangladesh bank and practice thereof**

Though be late, Bangladesh is now aware that global warming is an issue that calls for a global response. The rapid change in climate will be too great to allow many eco-systems to suitably adapt, since the change have direct impact on biodiversity, agriculture, forestry, dry land, water resources and human health. Due to unusual weather pattern, rising greenhouse gas, declining air quality etc. society demands that business also take responsibility in safeguarding the planet. Green finance as a part of Green Banking makes great contribution to the transition to resource-efficient and low carbon industries i.e. green industry and green economy in general. Green banking is a component of the global initiative by a group of stakeholders to save environment. The state of environment in Bangladesh is rapidly deteriorating. The key areas of environmental degradation cover

air pollution, water pollution and scarcity, encroachment of rivers, improper disposal of industrial medical and house-hold waste, deforestation, and loss of open space and loss of biodiversity. In addition, Bangladesh is one of the most climate change vulnerable countries. In line with global development and response to the environmental degradation, financial sector in Bangladesh should play important roles as one of the key stake holders.

In response to the above, urgent measures are required by stakeholders for sustainable development and thereby save the planet. Banks hold a unique position in an economic system that can affect production, business and other economic activities through their financing activities and thus may contribute to pollute environment. Moreover, energy and water efficiency and waste reduction are of high concern for many big banks. Green banks or environmentally responsible banks do not only improve their own standards but also affect socially responsible behavior of other business.

***Table-1: Summary of BB's green banking activities***

| Particulars | Practice |
|---|---|
| Policy formulation & implementation | 41 out of 47 banks have formulated Green banking policy. |
| Green Banking Unit formation | 45 out of 47 banks have established Green Banking Unit |
| Budget allocation and utilization<br>-Budget for green finance<br>-Budget for climate change risk fund<br>-Budget for marketing and capacity building for green banking | Annual Budget allocation for 2012 was Tk. 14444.90 million<br>-Tk.11349.24 million<br>-Tk. 1704.40 million<br>-Tk.231. 25 million |
| Bangladesh Bank's Green banking initiatives | BB's refinance line renewable energy.<br>Table-2 |
| Online Banking | Table-4 & Table-5 |
| In-house Environment Management | Table-6 |

## 2. Guidelines for Green Banking in Bangladesh

The Bangladesh Bank outlines a three-stage roadmap for green banking. In the first phase, the guideline suggests that all banks to develop green banking policies and establish separate green banking cells and incorporate environmental risk management strategies by June 30, 2011. The banks are also advised to introduce green initiatives and create climate risk funds to finance flood, cyclone and drought prone areas at regular interest rates without charging an additional risk premium. Promoting eco-friendly products, supporting training and events for raising awareness for environmental risk management were also suggested to include in the regular activities of the bank by December 31, 2011.

In the second phase, the report suggested banks implement specific policies by December 31, 2012 for different environmental sensitive sectors such as agriculture, poultry, dairy, tannery, fisheries, textiles, renewable energy, pulp and paper, chemicals, plastic industry, hospital, brick manufacturing and ship breaking etc. During this period, all banks will also set up green branches to use maximum natural light, renewable energy, energy saving light bulbs and other equipment. In addition, they will have to determine a set of achievable targets and strategies and disclose these in their annual reports and websites.

In the final stage, banks will focus on fine tuning of their green activities and look for more innovative products and services to expand eco-friendly business and strategies. Commercial banks had to adopt a comprehensive green banking policy by December 31, 2013 as part of the central bank's efforts to make banking practices more responsible to social and environmental causes. The central bank will name the top ten banks for their overall performances in green banking and take into account to give it permission to open new branches. The banks will have to inform the BB of their initiatives on a quarterly basis within 15 days after the end of a quarter.

### 3. Green Banking Approaches and Objectives

The term green banking generally refers to banking practice that foster environmentally responsible financing practice and environmentally sustainable internal process minimizing GHG emissions.

Green Banking has two approach, these are:

- ✓ Green Banking focuses on green transformation of internal operations of all banks.
- ✓ All Banks should adopt environmental risk of project before making financing decision and in particular supporting and fostering growth of up-coming green initiatives and projects.

## 4. Bangladesh Bank's refinance line for renewable energy

a. The current bank rate is 5% and commercial banks add maximum 4% to charge from investors or NGO. It means the interest rate will be not more than 10%. But the actual practice is not as directed by the central bank. In some cases, it is more than 13%.

b. A comparative figures of two quarters are presented below:

***Table-2: BB's refinance line for renewable energy***

| Name of projects | December, 2011 (million) | April 2012 (million) | % change in investment |
|---|---|---|---|
| Solar irrigation pumping station | 18.87 | 18.87 | Nil |
| Solar home system | 59.37 | 59.86 | 0.83% |
| Biogas | 132.21 | 132.41 | 0.15% |
| ETP | 20.78 | 26.96 | 29.74% |
| HHK | 20.00 | 20.00 | nil |
| Solar PV module assembling plant | nil | 248.8 | - |

Table-2 shows that in the second quarter ETP and Solar PV module assembling plant refinancing schemes have increased significantly. Other projects didn't grow significantly. It may be because of the lack of publicity, lack of motivation or the weakness of managerial decision making.

## 5. Green finance of different types of commercial banks

There are four types of commercial banks in Bangladesh and these are: state owned commercial banks (SCB), private commercial banks (PCB), foreign commercial banks (FCB), and social development banks (SCB). A comparative study of two quarters Up to March, 2012 and up to June, 2012 are presented below:

***Table-3: Comparative figures of different commercial banks' green finance***

| Green projects | SCB (m) | PCB (m) | FCB (m) | SDB (m) |
|---|---|---|---|---|
| ETP | 77.68 | 3134.80 | 705.97 | 1.00 |
| Projects having ETP | 5758.74 | 122694.64 | 19726.55 | 0.00 |
| Bio-gas plant | 28.31 | 219.76 | 0.00 | 0.00 |
| Solar renewable energy plant | 229.77 | 756.02 | 0.00 | 0.00 |
| Bio-fertilizer plant | 0.00 | 4.50 | 0.00 | 0.00 |
| Hybrid Hoffman Kiln (HHK) | 112.40 | 795.17 | 0.00 | 0.00 |
| Others | 5249.70 | 5.20 | 220.00 | 42.80 |
| Up to June 2012 | | | | |
| ETP | 77.68 | 3164.31 | 705.97 | 17.05 |
| Projects having ETP | 5758.74 | 162941.69 | 39130.45 | 564.26 |

| | | | | |
|---|---|---|---|---|
| Bio-gas plant | 32.54 | 285.26 | 0.00 | 7.00 |
| Solar renewable energy plant | 231.25 | 998.34 | 38.00 | 141.15 |
| Bio-fertilizer plant | 0.00 | 4.90 | 0.00 | 0.00 |
| Hybrid Hoffman Kiln (HHK) | 114.27 | 1279.46 | 0.00 | 30.23 |
| Others | 5251.68 | 722.23 | 220.00 | 54.83 |
| change in quarter June 2012 | | | | |
| ETP | 0.00 | 29.51 | 0.00 | 16.05 |
| Projects having ETP | 0.00 | 40247.05 | 19903.90 | 564.26 |
| Bio-gas plant | 4.23 | 65.50 | 0.00 | 7.00 |
| Solar renewable energy plant | 1.48 | 242.32 | 38.00 | 141.15 |
| Bio-fertilizer plant | 0.00 | 0.40 | 0.00 | 0.00 |
| Hybrid Hoffman Kiln (HHK) | 1.87 | 484.29 | 0.00 | 30.23 |
| Others | 1.98 | 717.03 | 0.00 | 0.00 |

Table-3 shows a significant change in June 2012 in projects having ETP in all types of banks except SCBs. Similarly, it happened for solar renewable energy projects. The overall performances of SCBs are very poor while it is satisfactory for PCBs. On the other hand, Bio-fertilizer plant projects completely failed to attract investors.

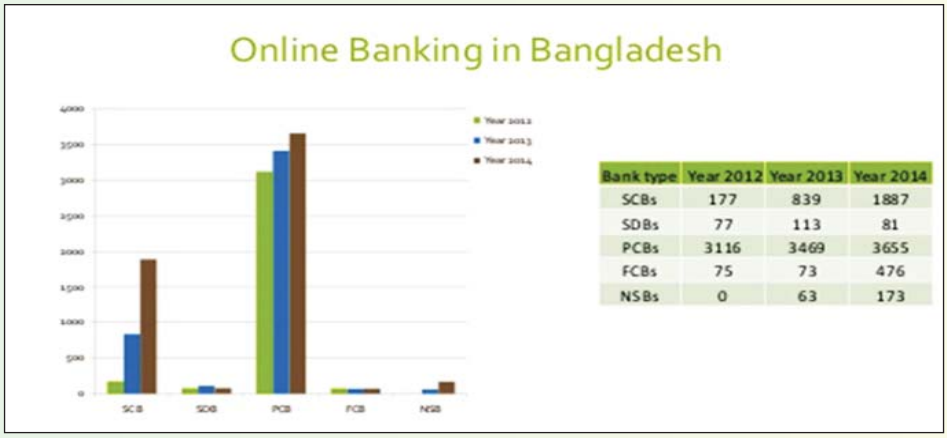
### 6. Online Banking/Mobile or SMS banking

This kind of banking system reduces the paper works which ultimately environment friendly. It reduces wastes and increases productivity and satisfaction of customers. Table-4 shows that FCBs provide 100% online banking facilities followed by PCBs (91.5%). But the figure is disappointing for SCBs (5.49%) and SDBs (3.46%).

**Table-4: Online Banking**

| Types of Banks | Total number of Branches | Number of branches with online banking facilities | % of branches with online banking facility |
|---|---|---|---|
| SCBs | 3442 | 189 | 5.49% |
| PCBs | 3188 | 2917 | 91.5% |
| FCBs | 74 | 74 | 100% |
| SDBs | 1415 | 49 | 3.46% |
| Total | 7998 | 3042 | 38.03% |

***Chart -1***



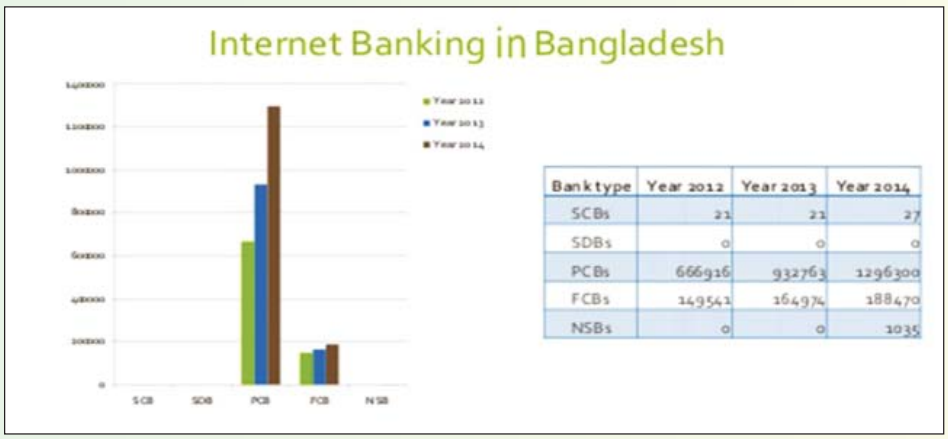

| Bank type | Year 2012 | Year 2013 | Year 2014 |
|---|---|---|---|
| SCBs | 177 | 839 | 1887 |
| SDBs | 77 | 113 | 81 |
| PCBs | 3116 | 3469 | 3655 |
| FCBs | 75 | 73 | 476 |
| NSBs | 0 | 63 | 173 |

***Table-5: Internet & Mobile/SMS banking***

| Types of Banks | % of accounts facilitated with Internet banking | % of accounts facilitated with Mobile/ SMS banking |
|---|---|---|
| SCBs | 0.00% | 0.06% |
| PCBs | 1.39% | 1.37% |
| FCBs | 52.61% | 43.23% |
| SDBs | 0.00% | 0.00% |

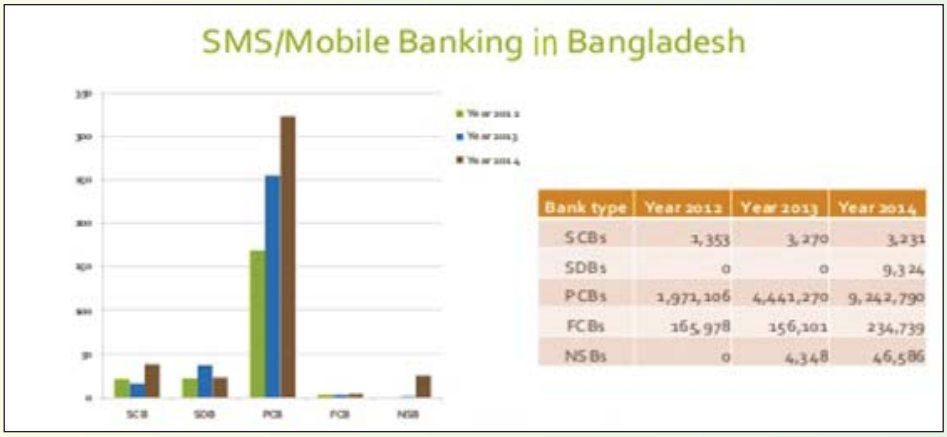
***Table-5 states that only FCBs are concerned with internet and mobile or SMS banking. The other group of banks' internet and mobile banking facilities are very poor.***

***Chart -2***




| Bank type | Year 2012 | Year 2013 | Year 2014 |
|---|---|---|---|
| SCBs | 21 | 21 | 27 |
| SDBs | 0 | 0 | 0 |
| PCBs | 666916 | 932763 | 1296300 |
| FCBs | 149541 | 164974 | 188470 |
| NSBs | 0 | 0 | 1035 |

***Chart -3***

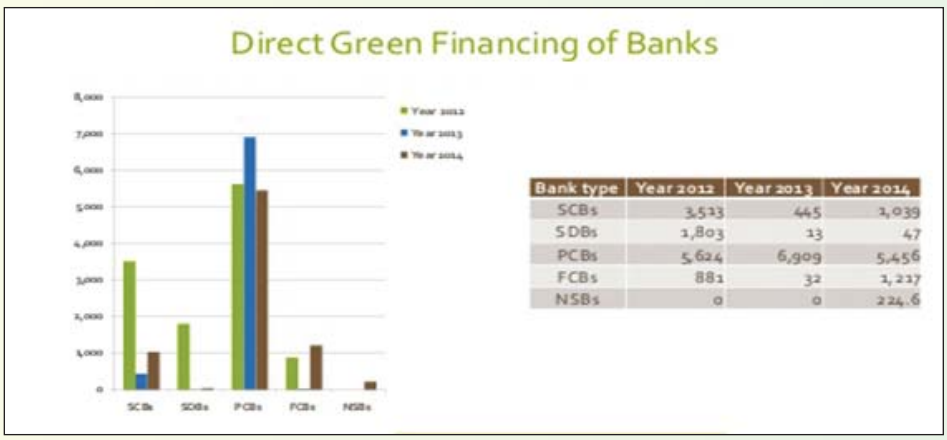



| Bank type | Year 2012 | Year 2013 | Year 2014 |
|---|---|---|---|
| SCBs | 1,353 | 3,270 | 3,231 |
| SDBs | 0 | 0 | 9,324 |
| PCBs | 1,971,106 | 4,441,270 | 9,242,790 |
| FCBs | 165,978 | 156,101 | 234,739 |
| NSBs | 0 | 4,348 | 46,586 |

## 7. Banks' In-house Green activities (Direct and Indirect)

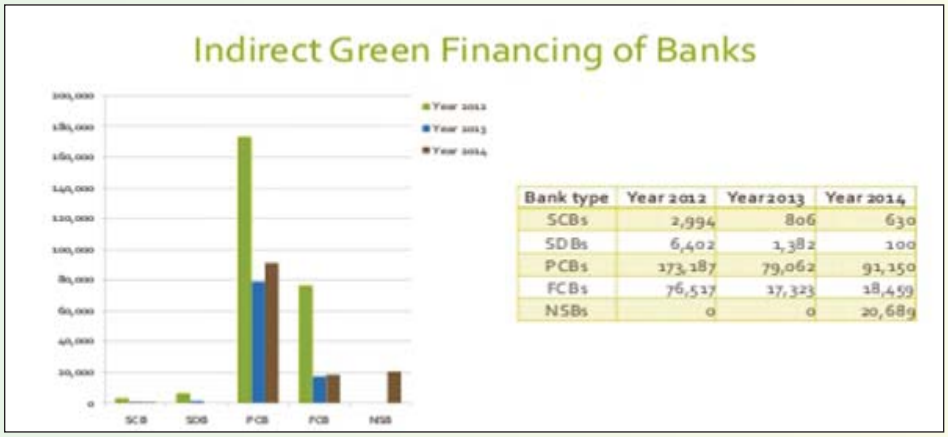
In order to save the environment, banks maintained in-house green activities. Major performances regarding this issue are presented in Table-6.

***Chart -4***




| Bank type | Year 2012 | Year 2013 | Year 2014 |
|---|---|---|---|
| SCBs | 3,513 | 445 | 1,039 |
| SDBs | 1,803 | 13 | 47 |
| PCBs | 5,624 | 6,909 | 5,456 |
| FCBs | 881 | 32 | 1,217 |
| NSBs | 0 | 0 | 224.6 |

***Chart -5***




| Bank type | Year 2012 | Year 2013 | Year 2014 |
|---|---|---|---|
| SCBs | 2,994 | 806 | 630 |
| SDBs | 6,402 | 1,382 | 100 |
| PCBs | 173,187 | 79,062 | 91,150 |
| FCBs | 76,537 | 17,323 | 18,459 |
| NSBs | 0 | 0 | 20,689 |

***Table-6: Banks' In-house green activities***

| | |
|---|---|
| 01. | Common use of table stationeries instead of individual use. |
| 02. | Use of paper on both sides for internal consumption. |
| 03. | Introduction of e-statement for customers instead of paper statements. |
| 04. | Using more daylight instead of electric lights and proper ventilation in lieu of using air conditioning. |
| 05. | Using energy saving lights. |
| 06. | Use of eco font for printing light impression on both sides of the paper. |
| 07. | Video/audio conferences in lieu of physical travel. |
| 08. | Conversion of Bank's vehicles into CNG and use of energy efficient electronic equipment. |
| 09. | Efficient use of printer cartridges, photocopy toner, office stationery etc. |
| 10. | Sharing electronic files, voice mail, and e-mail instead of paper memos. |

## 8. Average Growth in Green Banking

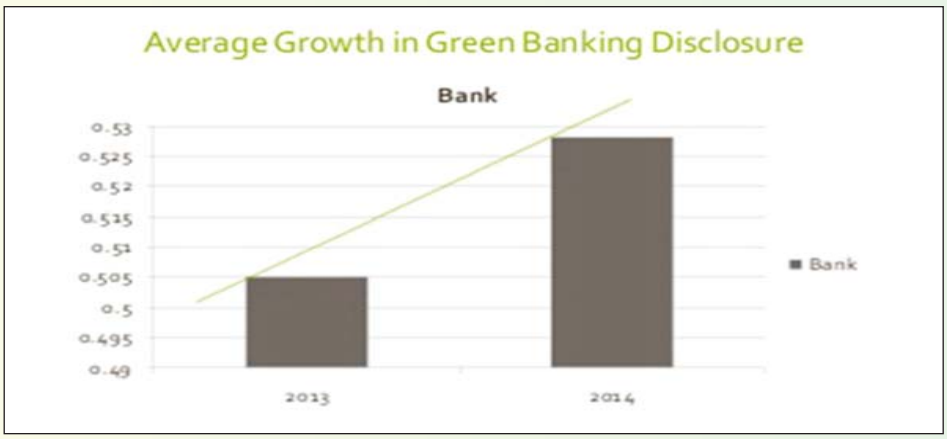
Bangladesh Bank's Green Banking Initiatives are in two aspects.

- √ Bangladesh Bank's in-house green activities and
- √ Bangladesh Bank's green activities other than in-house.

Bangladesh Bank's In-house Green Activities With a move towards encouraging Green Banking in Bangladesh, Bangladesh Bank installed an 8 kilowatt solar power system on its rooftop in March 2012-07-12. Environmentally harmful incineration of non re-issuable damaged bank notes is being phased out, resorting instead to shredding. Steps for measuring the carbon footprint of Bangladesh Bank's internal processes and operations are also underway; eventually to set time bound targets for carbon neutrality/ emission reduction. Under the networking program, all the departments of Bangladesh Bank Head

Office and its nine branch offices have already been brought under a computer network (LAN/WAN),connecting almost 3,100 PCs. Banks have been brought under the purview of E-Commerce with a view to providing the Customers with online-banking facilities covering payments of utility bills, money transfer, and transactions in local currency through internet. Bangladesh Bank has taken the lead position in encouraging and implementing IT based technologies in the overall banking sector. The implementation of the Bangladesh Automated Cheque Processing System (BACPS), Bangladesh Electronic Fund Transfer Network (BEFTN), Enterprise Resources Planning (ERP), Credit Information Bureau online facilities, and Mobile Banking Service are worth mentioning. Establishment of a National Payment Switch (NPS) is also a major driving force for the whole payment system.

***Chart -6***




The Bangladesh Automated Clearing House (BACH) has simplified the remittance channel and payment system and, therefore, brings dynamism in business activities. The cheque clearing time has been reduced to one day for countrywide payment. In other cases, it is a matter of a couple of hours only. The Enterprise Data Warehouse (EDW) creates an electronic data bank which will provide all information and statistics of monetary, trade and fiscal areas of the national economy, where all the concerned people of Bangladesh Bank will have access to use it for further policy analysis. Bangladesh Bank with its network package is now activated on a web based e-tendering system, which covers announcement of tender, distribution of schedules, bidding etc., to ensure simplicity and transparency of the tendering process. Online salary and other necessary advice, personnel file updated information, office orders, notification about on-line balance statements for all members employee of Bangladesh Bank, an electronic pass for visitors and many more such conveniences are instantly available.

## Conclusions

Bangladesh is an overpopulated developing nation. After the liberation war of 1971, it has tried to reform its economic condition by establishing industries and creating opportunities for investors. For the greater interest of the people of Bangladesh, government overlooked some major issues in setting a new industry especially environmental pollution. But now it is a common issue all over the world. In an open economy, every company has now become a competitor. In this connection, the Bangladesh government introduced environment conservation act in 1995 and commenced green banking strategy in January 2011. This paper investigates the present green banking practices in Bangladesh after issuance of guidelines for green banking. Results showed that the majority of banks (41 out of 47 banks) formulated green banking policy and forty five banks established a Green Banking Unit. Allocation of budgets by the central bank for 2012 for green finance and climate change risk fund are insignificant compared to the number of banks. In addition to that no significant investment was made in renewable energy line except ETP and Solar PV module assembling plant in the first quarter of 2012. The green banking practices of PCBs and FCBs are remarkable while the performances of SCBs and SDBs are unsatisfactory which is similar to Ullah, M. M. (2010). Moreover, it showed that projects having ETP are growing significantly for PCBs, FCBs and SDBs during the second quarter of 2012. Projects of only ETP, Solar energy plant, Bio-fertilizer plant, HHK etc. are neglected by almost all types of banks. The prime reason may be insufficient incentives for those projects. The interest rate is almost the same for these projects where there is no direct return for the investors. In order to get the maximum output from green banking policies, the central bank should reform the strategy. Interest free financing incentives should be declared for pollution controlling or pollution preventive projects of existing industries.

Further research can be carried out to establish the size of the company which absorbs the environmental fund allocated by different types of banks and also to establish the additional financing costs and operational costs of the projects.

## References

British Institute of Management (BIM) (1992). “Managers urged to go green”. Management Services, Apr, Vol. 36, Issue 4, pp.6-8.

Ginovsky, John. (2009). “Green banking”. Community Banker, Apr, Vol.18, Issue 4, pp.30-32.

Jeucken, M. and Bouma, J.J. (1999). “The Changing Environment of Banks”. GMI Theme Issue, GMI-27, Autumn.

Khan, M.T.A. (2012). “Green Banking: go green, think green”.

http://www.thedailystar.net/ suppliments/ 2012/environment/pg1.htm. 08 February 2013.

Millat, K.M. et. al; (2012). “Green Banking in Bangladesh Fostering Environmentally Sustainable Inclusive Growth Process”.

http://www.bangladesh-bank.org/pub/ special/greenbankingbd.pdf. 31 December 2012.

Sahoo,P. and Nayak, B.P. (2008). "Green banking in India". Indian Economic Journal (IE), paper series no.125.

Rahman, Atiur. (2010) "Financial Services at People"s Doorstep". Bangladesh Bank.

Rahman, Nahid and Zareen, Antara. (2014). "Review of Policy and Regulation on Green Banking and Environmental Risk Management in Bangladesh". Thoughts of Banking and Finance, Vol. 3, Issue 2, pp.42-65.

Rutherford, Michael. (1994). "At what Point can pollution be said to cause damage to the Environment?". The Banker, January.

Schmidheiny, S., Federico, J.L. and Zorraquin (1996). "Financing Change: The Financial Community, Eco-Efficiency and Sustainable development". Cambridge, MIT Press.

Ullah, M.M. (2010). "Green Banking in Bangladesh- A Comparative Analysis". http://www.wbiconpro.com/610-Maruf.pdf. 20 February 2013.

http://www.thefinancialexpress-bd.com

http://www.thedailystar.net/newdesign/news-details

http://www.theindependentbd.com/business/banking

http://www.bibm.org.bd

http://www.bssnews.net/newsdetails

http://www.banktech.com

http://www.bankersaver.com

http://www.ameinfo.com