

# Sustainability in Indian Banking Industry

## A Case-Study Approach

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### Abstract

The present study is an attempt to understand and appreciate the importance of green initiatives for the attainment of goals of sustainable banking and determine the various attempts that have been made by the top public and private sector banks in India in the said direction. The methodology consists of a case study based approach of secondary sources like Bank websites, RBI reports, etc. The findings are that the banks have taken on the green initiatives in a big way. Banks have gone beyond just paperless banking to solar energy sources for ATM's.

*Key words: Sustainable Development, Green banking, Corporate Social Responsibility (CSR), online Banking, etc.*

## I. INTRODUCTION

Sustainable development, as interpreted generally, implies achieving economic development in such a way that it can continue and is not a onetime phenomenon. It, thus, suggests the use of current resources in such a way that such resources are replenished for future requirements and future is not compromised in the process of meeting the needs of the present.

The financial sector of the economy has a significant role in the economic development of a country and in India, the banking sector being a significant part of the financial system of the country, its role in sustainable development becomes very obvious. With increasing concerns regarding the environmental protection, it is the banking sector that can play a significant role in the direction.

Green Banking<sup>1</sup> is an umbrella term referring to practices and guidelines that make banks sustainable in economic, environment, and social dimensions. It aims to make banking processes and the use of IT and physical infrastructure as efficient and effective as possible, with zero or minimal impact on the environment. It is being observed that the banks all over the world are adopting such practices (apart from financial concerns) that would have positive implications for the environment. Hence, the banks are attempting to be environmentally as well as socially conscious and thus, giving emphasis to the ethical aspects of doing business.

The remaining study is divided into five sections. The II section consists of review of literature and the research objectives and hypotheses are contained in the III section. Research methodology is contained in the IV section and the V section presents the green initiatives by the various Public and Private sector banks. The VI section concludes the findings.

## II. REVIEW OF LITERATURE

Bhardwaj, BrotoRauth, and Aarushi Malhotra<sup>2</sup> define "Green Banking", as an effort by the banks to make the industries grow green and in the process restore the natural environment. This concept of "Green Banking" will be mutually beneficial to the banks, industries and the economy. Not only will "Green Banking" ensure the greening of the industries but it will also facilitate in improving the asset quality of the banks in future. The paper aims to

study the various models of green banking practices adopted by Indian companies to grow. The research methodology is based on case study method. The findings of the research study show that the banks which are adopting the green banking practices influence the performance of the organization.

According to Neetu Jain<sup>3</sup> development denotes development that does not reduce the possibilities and choices for the future generations, at the same time ensuring continuity of economic progress for the present generation. It also involves balancing economic interests with the communities' social aspirations and minimizing environmental impacts. Sustainable development transcends matters of ethics, corporate social responsibility and the environment although they are all related. For business as a whole, how these factors are linked differs according to sectors, regulatory regimes, and how the policies relating to these areas are implemented. According to her, Sustainable development can best be achieved by allowing markets to work within an appropriate framework of cost efficient regulations and economic instruments. One of the major economic agents influencing overall industrial activity and economic growth is the financial institutions such as banking sector. In a globalised economy, the industries and firms are vulnerable to stringent environmental policies. Since banking sector is one of the major stake holders in the Industrial sector, it can find itself faced with credit risk and liability risks. Further, environmental impact might affect the quality of assets and also rate of return of banks in the long-run. Thus the banks should go green and play a pro-active role to take environmental and ecological aspects as part of their lending principle, which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems. This paper explores the importance of Green Banking, sites international experiences and highlights important lessons for sustainable banking and development in India.

Constantine Lymperopoulos, Ioannis E. Chaniotakis, Magdalini Soureli,<sup>4</sup> in their article "A model of green bank marketing" the article has

provided a logical framework consisting of Green Corporate Social Responsibility, Green Processing, Green Product development and Green Marketing leading to a Green Brand Image (GBI). They have defined Green Banking as a tool for Sustainable Development.

The model was tested to confirm the dimensions of green bank marketing and investigate its impact on a GBI, thus providing statistical evidence of the relationship between the two variables.

The model is based on the following conceptual framework:

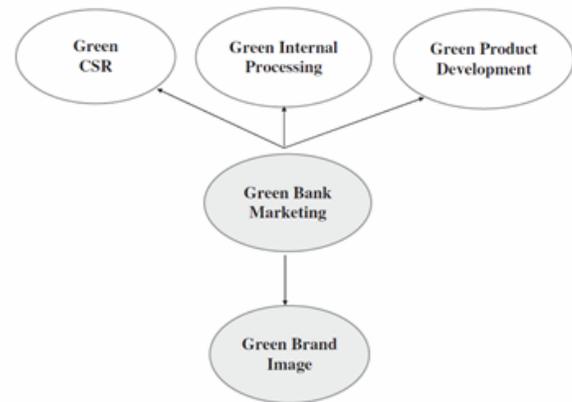


Fig 1. Conceptual Framework of the Model of Green Bank Marketing

They have suggested the use of several specific ideas like sponsoring, environmental projects, training customers and employees to become more conscious about the environment, participating in relevant events, publishing info-material, designing special eco-branches and offering loans that support green causes. On the basis of this study, bank marketers should also pay special attention to their internal processes, aiming at continuous improvement and eco-friendly system solutions. By engaging in these green actions, banks can acquire environmental reputation and establish their environmental concern, which is necessary today more than ever as a way out of the crisis dead-end.

Jarin, Asma, Mohammad Rahat, and Mohammad Abul Kashem<sup>5</sup>, believe that Environment issues compel the financial institution especially banking business to conduct in such areas in such a manner that helps the overall reduction of external carbon emission and internal carbon footprint. Based on these ideologies, their study initialized the greening strategies for eco-banking and formed a theoretical

model through extensive literature survey. These strategies incorporate three components, namely, green indoor, green process and green outdoor based on potentialities, where the factors within the green functions focused low cost and differentiation to ensure competitive advantage.

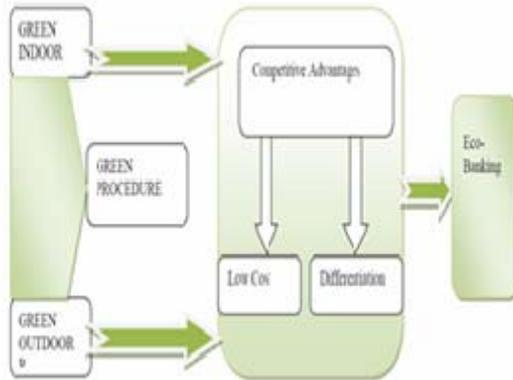


Fig. 2. Eco-Banking Model for Competitive Advantage

They concluded that the progress of banks under the crown of eco-banking will obviously create a future milestone in dynamic banking.

Islam, MdShafiqul, and Prahallad Chandra Das<sup>6</sup> present the green banking practices in Bangladesh. The study is mainly based on secondary data highlighting the mobile banking, online banking, green financing, and guidelines for green banking practices as well as green banking unit. Green Banking is a new way of conducting the banking business through considering the hygienic environmental issue as well as corporate social responsibility (CSR). Nowadays, it is inevitable to practice green banking by banks because of globalization and to face the competition. The concept of green Banking is relatively new in Bangladesh and yet to get momentum, but in the developing countries it is passing through a mature stage. The study concludes that green banking practices in Bangladesh are not satisfactory as yet.

### III. RESEARCH OBJECTIVES AND HYPOTHESES

The current study is based upon the following objectives:

- a. To understand the meaning and importance of green initiatives for the attainment of goals of sustainable banking
- b. To identify the Green Banking practices in India

As adoption of green banking practices seems more of a social nature than economic, the study begins with the hypothesis that it is the Public Sector Banks only which are adopting Green Banking practices at a significant level in India.

### IV. RESEARCH METHODOLOGY

The methodology consists of identifying the top most banks, both public and private, as per the market capitalization of the banks. The use of market capitalization gives an indication of the how the market values a particular bank and a comparison of the green practices by such a bank. After identification of the banks, the next step is the Study of reports of the individual banks, Reserve bank of India, various websites for the collection of the required secondary data.

### V. THE GREEN INITIATIVES

#### A. Initiatives of Private Sector Banks in India

##### i. HDFC Bank

HDFC Bank is the largest bank in India as per Market Capitalization<sup>7</sup>. It was incorporated in August 1994 and currently has a nationwide network of more than 3,251 Branches and 11,177 ATM's in 2,022 Indian towns and cities. It was among the first companies to receive an 'in principle' approval from the Reserve Bank of India (RBI) to set up a bank in the private sector. The Bank started operations as a scheduled commercial bank in January 1995 under the RBI's liberalization policies.<sup>8</sup>

HDFC Bank is one of the most active banks in India in the field of Green Disclosures. The bank has been measuring its carbon footprint since 2010 and has been disclosing the same to the Carbon Disclosure Project (CDP), which is an organization based in the United Kingdom that works with shareholders and corporations to disclose the greenhouse gas emissions of major corporations.<sup>9</sup>

CDP recognizes companies with high-quality disclosure as top scoring companies in the Carbon Disclosure Leadership Index (CDLI).<sup>9</sup> HDFC was one amongst 16 companies in India to make it to the Carbon Disclosure Leadership Index (CDLI) in 2012 with a score of 71. The Bank also won the FE-EVI Green Business Leadership Awards in 2009-10.<sup>10</sup>

Over the last few years, the bank has succeeded in reducing its Carbon emissions through a number of initiatives. The measures to reduce bank's operational carbon footprint are focused on areas of paper use, waste management and energy efficiency, with some forays into exploring renewable energy for ATMs.<sup>9</sup>

#### *Green Banking Initiatives by HDFC Bank*

Initiatives taken by the HDFC bank to reduce its operation foot print include<sup>9</sup>:-

- Reducing the Use of Paper by issuing electronic transaction advices for corporate customers and encouraging retail customers to convert to e-statements instead of physical print outs
- Conserving energy replacing conventional lighting options with Compact Fluorescent Lamps (CFLs), switching off signage lights past 11:00 pm at branches and setting up Green Data Centers with state-of-the-art technologies.
- Renewable Energy initiatives like Project of 20 Solar ATMs with the pilot ATM set up in Bihar.

#### *ii. ICICI Bank*

ICICI Bank is India's largest private sector bank in terms of total assets. The total assets of the bank are worth Rs. 5,367.95 billion (US\$ 99 billion) at March 31, 2013 and profit after tax Rs. 83.25 billion (US\$ 1,533 million) for the year ended March 31, 2013. The Bank has a network of 3,611 branches and 11,162 ATMs in India, and has a presence in 19 countries, including India.<sup>10</sup>

ICICI Bank's equity shares are listed in India on Bombay Stock Exchange and the National Stock Exchange of India Limited and its American Depository Receipts (ADRs) are listed on the New York Stock Exchange (NYSE).<sup>10</sup>

#### *Green Banking Initiatives by ICICI Bank<sup>11</sup>*

- Eco-Friendly Vehicle Finance- As an initiative towards more environment friendly way of life, ICICI Bank offers 50% waiver on Auto Loans' processing fee on car models which use alternate mode of energy. The models identified for the purpose are, Maruti's LPG version of Maruti 800, Omni and Versa, Hyundai's Santro Eco, Civic

Hybrid of Honda, Reva electric cars, Tata Indica CNG and Mahindra Logan CNG versions.

- Home Finance- ICICI Home Finance offers reduced processing fees to customers who purchase homes in Leadership in Energy and Environmental Design (LEED) certified buildings.

- ICICI Bank also works with various institutions to help them find alternative cleaner solutions for their general operations. For instance, in coal technologies, ICICI Bank introduced innovative concepts like deep beneficiation of coal (coal washeries) and coal bed methane. It also assisted a company develop a product that provides an eco-friendly air-conditioning alternative to conventional air conditioners (ACs).

- ICICI Bank has extensively capitalized on the existing internal media- statements, inserts, and Credit Card Charge slips- to reach out to the customers and seek their collaboration in the Go Green movement. ICICI Bank also initiated a programme to sensitise corporate bodies, institutions, banks and government agencies involved in project planning on issues like biodiversity, wildlife habitats and environmental laws.

#### *iii. Axis Bank*

Axis Bank is the third largest private sector bank in India. Axis Bank offers the entire spectrum of financial services to customer segments covering Large and Mid-Corporates, MSME, Agriculture and Retail Businesses.<sup>12</sup>

The Bank has a large footprint of 1947 domestic branches (including extension counters) and 11,245 ATMs spread across the country as on 31st March 2013. The Bank also has overseas offices in Singapore, Hong Kong, Shanghai, Colombo, Dubai and Abu Dhabi.

#### *Green Banking Initiatives by Axis Bank*

- Recycling initiative under the Green Banking banner that helped the bank productively use around 21572 kilograms of dry waste during the year. The Axis Bank's corporate office in Mumbai is designed and constructed as a Platinum LEED-Certified Green Building.<sup>13</sup>

- The bank uses renewable energy to power emergency lights, generated through a solar power plant. It has also installed motion sensors for reducing energy usage, rainwater harvesting system and a sewage treatment plant for maintaining a green environment. Even the furniture in the bank is made out of a high percentage of recycled materials.<sup>13</sup>

- Launched a plant-a-sapling initiative, in which the bank planted over 1 lakh saplings on August 1 and 2 at over a thousand locations across the country. Rajiv Anand, President, Retail Banking, Axis Bank inaugurated the initiative by planting Ficus saplings on the banks of Meethi River at Dharavi. The bank also invited its customers to support the initiative.<sup>14</sup>

- Facility of e-statement and for each e-statement registration by a customer, Axis bank will donate a note book to the needy and poor. Axis Bank encourages its customers to subscribe for e-statements and other electronic formats of communication, thus significantly reducing paper consumption.<sup>15</sup>

- With an aim to spread awareness about environment protection and cultural heritage, the bank conducted 'Splash', a pan-India painting competition on various themes related to Environment. The competition started on Children's Day (November 14) and was held across all branches of the bank. The competition was open to all children in the age group of 7 to 12 years. The competition was not restricted to customers of the bank.<sup>16</sup>

#### iv. Kotak Mahindra Bank

Kotak Mahindra Bank is an Indian bank and financial service firm established in 1985. It was previously known as Kotak Mahindra Finance Limited, a non-banking financial company.

In February 2003, Kotak Mahindra Finance Ltd, the group's flagship company was given the licence to carry on banking business by the Reserve Bank of India (RBI). Kotak Mahindra Finance Ltd. is the first company in the Indian banking history to convert to a bank. The Bank has its registered office at NarimanBhavan, Nariman Point, Mumbai.<sup>17</sup>

#### *Green Banking Initiatives by Kotak Mahindra*

Kotak Mahindra has taken various small and big environmentally conscious initiatives to significantly reduce its carbon footprints. Some of them are:<sup>18</sup>

- The Bank's 'Think-Green' initiative encourages customers to sign-up for e-statements and discontinue paper statements, thereby saving the environment. It levies Rs. 100 for cash payments for credit card dues. At Kotak Securities, e-contracts have been introduced to save paper, the number of pages in the Account Opening Forms has been reduced by 20 sheets and multiple client updation forms have been integrated into one.

- Grow-Trees.com is a web-enabled service where you can plant trees in large reforestation projects and dedicate the trees to honour friends/family on important occasions -birthdays, new births, weddings, anniversaries or to offset carbon emissions. By planting trees, you restore the productivity of the land benefitting rural communities and wildlife. Besides, trees offer myriad benefits to mankind and our planet. Under the arrangement with the bank, Grow-Trees.com plants a tree for every e-credit card statement on behalf of the customers.

- Further, in-line with the Government of India - Ministry of Corporate Affairs' (MCA) green initiative, bank is encouraging customers to opt for e-copies (electronic form) of the annual report instead of physical copies.

also supporting finance programs with incentives to go green.

v. *IndusInd Bank*

IndusInd Bank, which commenced operations in 1994, caters to the needs of both consumer and corporate customers. Its technology platform supports multi-channel delivery capabilities. As on December 31, 2013, IndusInd Bank has 573 branches, and 1055 ATMs spread across 392 geographical locations of the country. The Bank also has representative offices in London and Dubai. It has multi-lateral tie-ups with other banks providing access to more than 21000 ATMs for its customers<sup>19</sup>

IndusInd Bank is a keen participant in the Corporate Social Responsibility space. It is actively engaged in helping mentally-challenged and underprivileged children and on other hand, helps in sensitizing /upholding environmental and ecologically appropriate behaviour.

*Green Banking Initiatives by IndusInd Bank:*<sup>20</sup>

- Inauguration of Mumbai's first solar-powered ATM as part of its Green Office Project campaign 'Hum aurHariyali'. It also unveiled a 'Green Office Manual -A Guide to Sustainable Practices', prepared in association with the Centre for Environmental Research and Education (CERE), with which the bank has been collaborating with to promote the role of corporations in advancing environmental sustainability through the medium of the 'Green Office Project'.

- IndusInd's new Solar ATM replaces the use of conventional energy for 8 hours per day with ecofriendly and renewable solar energy. The energy saved will be 1980 kW hrs every year and will be accompanied by a simultaneous reduction in CO2 emissions by 1942 Kgs. In terms of costs, the savings will be substantial, approximately Rs. 20,000 per year in case of a commercial user with grid power supply.

- Other initiatives of the bank include thin computing, e-archiving, e-learning, e-waste management, paperless fax, energy conservation and

The Bank has been honored with "Best Use of CSR Practices in Banking & Finance" and "Innovation in Corporate Social Responsibility Practices" at Global CSR Excellence & Leadership Award 2013 and "Best Corporate Social Responsibility Practice 2013" at BSE - 7th Social and Corporate Governance Awards. The Bank has also been awarded with "Top Green IT Enterprise Award 2012" by CIO Magazine.

B. *Initiatives by Public Sector Banks*

i. *State Bank of India:*

Founded in 1955, SBI is currently the largest banking and financial services company in India by means of market capitalisation, revenue and assets<sup>21</sup>. Headquartered in Mumbai, the bank has 14,816 branches (66% of which are located in Rural and Semi-urban areas), 32,752 ATMs<sup>22</sup> and 2,28,296 employees<sup>22</sup>. As of June 2013, the bank had 180 overseas offices spread over 34 countries with its presence across major financial centres like Frankfurt, London, Hong Kong, New York, Sydney and Tokyo. Apart from its core banking operations SBI deals in a wide range of services including insurance, mutual funds, factoring, investment advisory and asset management. With respect to financials, the bank registered an annual increase of 15.24% in Deposits, 20.7% in Loans & Advances (in INR terms), 16.8% in standalone Net Profit and 3.6% in domestic Net Interest Margin (NIM) for FY 2012-13<sup>22</sup>. The publicly issued equity shares of the bank are listed on Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). Its Global Depository Receipts (GDRs) are listed on London Stock Exchange (LSE).

*Green Banking Initiatives by State Bank of India:*

On the occasion of State Bank Day, the bank had launched 'Green Channel Counter' (GCC) facility on 1<sup>st</sup> July 2010 at 57 select branches spread across the country and the same was expanded to more than 5000 branches in 2011. This is a pioneering concept which is eco-friendly as it avoids use of paper and convenient as it saves time and employee effort.<sup>23</sup>

SBI became the first bank in the country to venture into generation of green power by installing windmills for captive use in 2010. As part of its green banking initiative, SBI installed 10 windmills with an aggregate capacity of 15 MW in the states of Tamil Nadu, Maharashtra and Gujarat.<sup>24</sup>

The bank has been encouraging customers by extending project loans on concessionary interest rates to reduce greenhouse gas (GHG) emissions by adopting efficient manufacturing practices through acquisition of latest technology. SBI offers an interest discount of 10 basis points on all such environment-friendly projects.<sup>25</sup>

The bank arranges consultancy services by roping in the services of empanelled consultants in CDM (Clean Development Mechanism) registration process. SBI has also launched a loan product to facilitate upfront finance to project developers by way of securitisation of carbon emission reduction (CER) receivables.<sup>25</sup>

SBI initiated the carbon disclosure projected in the financial sector in India, for the sake of environmental concern and safety by becoming a signatory to the Carbon Disclosure Project of World Wide Fund (WWF).<sup>26</sup>

#### ii. *Bank of Baroda:*

Established in 1908, Bank of Baroda is an Indian state-owned banking and financial services company headquartered in Vadodra and offering a range of banking products and financial services to corporate and retail customers through its branches and through its specialised subsidiaries and affiliates in the areas of retail banking, corporate banking, export and import financing, foreign currency credits, international treasury etc. Currently, it is the second largest bank in the country by means of market capitalisation on BSE<sup>21</sup>. The bank also has its international presence with 100 branches/offices in 24 countries outside India with its presence in major financial centre such as New York, Dubai, and Hong Kong, Singapore etc. The bank has a network of 4283 branches (out of which 4172 branches are in India) and offices, and over 2000 ATMs<sup>27</sup>. With its corporate headquarters in Mumbai, the bank has 100 international branches/offices in 24 countries including 61 branches/offices of the bank, 38 branches of its 8 subsidiaries and 2 representative offices in Thailand and Australia<sup>27</sup>.

#### *Green Banking Initiatives of Bank of Baroda:*

- The bank gives a due weightage while financing commercial projects, to green projects such

as windmills and solar power projects which helps in earning the carbon credit.

- The bank insisted to implement water treatment plant and obtain NOC from central/ state government pollution control board while lending the loan to manufacturing units which emit toxic polluting substance.

- Promotion of measure of pollution control and efforts for environmental protection & conservation and cleaning of environment.

- Bank has adopted environment friendly systems and technologies in the design of the new Data Centre (Green Initiative), which includes:

1. Energy efficient electrical and HVAC design
2. Environment friendly construction material
3. Temperature monitoring
4. Intelligent building management software
5. High efficiency Precision air-conditioning units<sup>28</sup>

#### iii. *Canara Bank:*

Canara Bank is one of the oldest Indian public sector banks which was established as Canara Hindu Permanent Fund in 1906 and further renamed as Canara Bank in 1910 & nationalized in the year 1969. The bank holds a record for registering annual profits since its inception till date. The bank has a string of subsidiary companies which offer specialised financial services such as factoring, venture capital funding, asset management, insurance etc. The Bank has a network of 3723 branches and 3526 ATMs catering to more than 4.7 crore customers<sup>29</sup> spread across all geographical segments. The bank launched the first inter-city ATM network in the country and also obtained the first ISO certification for a branch in India. The Bank's international operations are well supported by a wide network of 373 Correspondent Banks spread across 79 countries with offices in London, Hong Kong, Moscow, Shanghai, Doha, and Dubai.<sup>30</sup>

#### *Green Banking Initiatives by Canara Bank:*

- Canara Bank initiated paperless banking and is the highest financer for solar energy related projects. The bank is also known to be conducting carbon financing in Delhi and Mumbai.<sup>31</sup>

- The bank lays down the following principles and guidelines for its conduct of operations and business in its 'Policy for Sustainable development and Corporate Social Responsibility 2013-14':

a) Take steps to minimize resource consumption and waste generation by following the principle of “Reduce, Reuse, Recycle”

b) Strive to progressively adopt sustainable sourcing

c) Dispose the waste responsibly, in line with applicable regulatory requirements

d) Adopt best practices to address climate change and related issues

e) Adopt greener technologies wherever practical in order to reduce our environmental footprint.

f) Encourage and support our members of value chain to adopt good environmental practices, environmental compliance and reporting

g) Comply with all applicable regulatory requirements

h) Shall report our environmental performance to our key stakeholders on an annual basis

- To drive the Sustainability Development and Corporate Social Responsibility agenda of the Bank, following committees have been constituted: a) Sustainable Development & Corporate Social Responsibility (SD & CSR) committee of the Board; b) ED-SD & CSR Committee; c) GM-SD & CSR Committee AGM-SD & CSR Committee<sup>32</sup>

- The bank is extensively providing loans for implementing solar lighting systems and has financed 50,000 such units by lending INR 5-8 lakhs to each unit.<sup>25</sup>

#### iv. Punjab National Bank

Punjab National Bank is India’s second largest public sector financial services company by means of net sales<sup>33</sup>. Founded in 1895, the bank has over 5,800 branches and over 6,000 ATMs across 764 cities. It serves over 80 million customers<sup>34</sup>. The bank has been ranked 248th biggest bank in the world by the Bankers' Almanac. The bank has expanded its footprint into 10 countries. The bank also has 5 overseas branches in Hong Kong, Dubai & Afghanistan and an Offshore Banking Unit (OBU) Branch in SEEPZ, Mumbai. The bank has three subsidiaries viz. PNB International Ltd. (UK), Druk PNB Bank Ltd, Bhutan and JSC SB PNB Kazakhstan. The bank also has a joint venture with

Everest Bank Limited, Nepal with 48 branches. The Bank has Five Representative Offices each in Sydney (Australia), Dubai (UAE), Almaty (Kazakhstan), Shanghai (China) & Oslo (Norway). It offers a wide variety of financial services for its varied classes of customer base like retail banking, corporate banking, equity and foreign exchange trading, asset-backed financing, wealth management, insurance etc. As on 31 March 2013, the bank had 63,292 employees.<sup>35</sup>

#### *Green Banking Initiatives by Punjab National Bank:*

- The bank introduced Green Banking by completing transformation into Core Banking Solutions (CBS) Banking.

- Bank has started using energy efficient appliances & conducting the electricity auditing of their offices. On the other side the bank is also accenting on green infrastructure. A separate green audit sheet is being employed by the bank to access the impact of various green banking initiatives implemented in the bank.<sup>36</sup>

- The bank has conjointly placed guideline for supply of term loan to business units and commercial projects that are producing renewable energy and special guidelines have been issued to curb the units that use environmental depleting substances.<sup>36</sup>

- In the year 2010-11 the bank sanctioned nine commercial projects of wind energy comes with total sum of INR 1850.81 million to push and develop the renewable supply of energy.<sup>35</sup>

- The bank introduced e-solutions by paperless dealings in complaint & vigilance procedures by a speedier communication system through e-network which drastically cuts down cost & time.

- The bank has introduced “Green practices” to conserve resources “Green audit” of all our functional units to sensitize the staff towards sustainable practices. Efforts for rainwater harvesting in existing buildings and new constructions are being made along with promotion of wind and solar energy usage in rural areas.<sup>36</sup>

#### v. Bank of India:

Bank of India is one of the well-established and leading public sector commercial Banks in India with presence all over the country as also in all time zones of the world. The bank was nationalised in 1969 and since then it has remained a government owned entity. The Bank is now rated as one of the top five banks of the country by market capitalisation, having 4545 branches as on 31 December 2013, including 54 branches outside India. The gamut of services provided by the bank includes corporate credit, trade finance, loan syndication, export finance, foreign exchange operations and retail banking. The bank is a founder member of SWIFT(Society for Worldwide Inter Bank Financial Telecommunications) which facilitates provision of cost-effective financial processing and communication services.

#### *Green Banking Initiatives by Bank of India:*

- Provision of Internet banking, mobile banking, phone banking and electronic cards was added as alternate delivery channel to reduce the use of paper in banking procedure.
- Reduction in paper usage by issuing e-transaction advices to corporate customers & encouraging electronic statements among retail customers.
- Various green initiatives such as distribution of tree saplings and creating awareness among society have been taken by the bank
- The bank has undertaken initiatives to popularize use of solar street lights and rain water harvesting in rural areas.<sup>37</sup>

#### VI. CONCLUSION

The current study has revealed that the banking sector has become extremely conscious of the need to go green. The Private Banks are as much involved in the green banking approach as the Public Sector Banks. All the banks are making efforts to make banking paperless. This has been fully supported by technology in terms of electronic fund transfers, ATMs, internet and mobile banking. Banks are in search of alternative energy sources for running facilities like ATM's etc. The adoption of Green Banking not only enhances the image of the bank, but also protects the environment and makes the overall growth sustainable.

#### REFERENCES

- [1.] Green Banking: IDRBT Publication, August 2013.
- [2.] Bhardwaj, BrotoRauth, and AarushiMalhotra. "Green Banking Strategies: Sustainability through Corporate Entrepreneurship." *Greener Journal of Business and Management Studies* ISSN: 2276-7827 Vol. 3 (4), pp. 180-193, May 2013.
- [3.] A model of green bank marketing by Constantine Lymperopoulos, Ioannis E. Chaniotakis, MagdaliniSoureli © 2012 Macmillan Publishers Ltd. 1363-0539 *Journal of Financial Services Marketing* Vol. 17, 2, 177–186
- [4.] Jarin, Asma, Mohammad Rahat, and Mohammad AbulKashem. "Eco-Banking Strategies for Competitive Advantages." *European Journal of Business and Management* 6, no. 3 (2014): 84-91.
- [5.] Islam, MdShafiqul, and Prahallad Chandra Das. "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 www.iosrjournals.org*
- [6.] Jain, Neetu."GREEN BANKING: A GROUND BREAKING INITIATIVE FOR SUSTAINABLE DEVELOPMENT." *International Journal of logistics and Supply Chain Management Perspectives*
- [7.] Moneycontrol.com-  
<http://www.moneycontrol.com/stocks/top-companies-in-india/market-capitalisation-bse/banks-private-sector.html>
- [8.] AboutUs, HDFC Bank, [http://www.hdfcbank.com/aboutus/Business\\_Responsibility\\_Report](http://www.hdfcbank.com/aboutus/Business_Responsibility_Report), HDFC Bank
- [9.] <http://www.icicibank.com/aboutus/about-us.html>
- [10.] <http://www.icicibank.com/go-green/Index.html>
- [11.] [http://www.business-standard.com/article/beyond-business/for-banks-green-is-the-new-black-110052100014\\_1.html](http://www.business-standard.com/article/beyond-business/for-banks-green-is-the-new-black-110052100014_1.html)
- [12.] <http://www.axisbank.com/media-center/bank-profile.aspx>

- [13.] Axis Bank, Annual Report 2012-13
- [14.] [www.axisbank.com/download/Axis-Bank-Plant-a-Sapling.pdf](http://www.axisbank.com/download/Axis-Bank-Plant-a-Sapling.pdf)
- [15.] <http://timesofindia.indiatimes.com/home/environment/flora-fauna/Axis-Bank-plants-over-1-lakh-saplings-at-1000-locations-across-country/articleshow/21631758.cms>
- [16.] [http://en.wikipedia.org/wiki/Kotak\\_Mahindra\\_Bank](http://en.wikipedia.org/wiki/Kotak_Mahindra_Bank)
- [17.] Kotak Mahindra Bank, Sustainability Report, 2011-12
- [18.] <http://indusind.com/indusind/wcms/en/home/top-links/about-us/our-profile/index.html>
- [19.] [http://www.indusind.com/indusind/wcms/en/home/top-links/media-room/press-releases/0910\\_1st\\_solarATM.avsFiles/PDF/IndusInd%20Bank%20inaugurates%20its%20first%20solar-powered%20ATM%20in%20Mumbai.%20Green%20Office%20annual%20unveiled%20as%20.pdf](http://www.indusind.com/indusind/wcms/en/home/top-links/media-room/press-releases/0910_1st_solarATM.avsFiles/PDF/IndusInd%20Bank%20inaugurates%20its%20first%20solar-powered%20ATM%20in%20Mumbai.%20Green%20Office%20annual%20unveiled%20as%20.pdf)
- [20.] Moneycontrol.com - <http://www.moneycontrol.com/stocks/top-companies-in-india/market-capitalisation-bse/banks-public-sector.html>
- [21.] Annual Report of State Bank of India for FY 2012-13
- [22.] State Bank of India website - [http://www.sbi.co.in/webfiles/uploads/files/1277989404216\\_WEB\\_SITE\\_GREEN\\_CHANNEL\\_COUNTER\\_NEW.pdf](http://www.sbi.co.in/webfiles/uploads/files/1277989404216_WEB_SITE_GREEN_CHANNEL_COUNTER_NEW.pdf)
- [24.] Economic Times Website - [http://articles.economictimes.indiatimes.com/2010-04-/news/27587704\\_1\\_windmills-wind-power-mw-capacity](http://articles.economictimes.indiatimes.com/2010-04-/news/27587704_1_windmills-wind-power-mw-capacity)
- [25.] Financial Express Website - <http://www.financialexpress.com/news/banking-on-green-projects/811954>
- [26.] World Wide Fund Website - <http://www.wwfindia.org/?5541/State-Bank-of-India>
- [27.] Bank of Baroda Website - <http://www.bankofbaroda.com/int/index.asp>
- [28.] Bank of Baroda Annual Report 2012-13
- [29.] Canara Bank Website - <http://www.canarabank.com/english/scripts/Profile.aspx>
- [30.] Canara Bank Annual Report 2012-13
- [31.] 6<sup>th</sup> December 2012, Deccan Herald - <http://www.deccanherald.com/content/296615/major-banks-should-lead-way.html>
- [32.] Canara Bank Website - <http://www.canarabank.com/Upload/English/Content/Policy%20for%20Sustainable%20Development%20&%20Corporate%20Social%20Responsibility%20of%20Canara%20Bank-2013-14.pdf>
- [33.] Moneycontrol.com - <http://www.moneycontrol.com/stocks/top-companies-in-india/net-sales-bse/banks-public-sector.html>
- [34.] Punjab National Bank Annual Report 2012-13
- [35.] Punjab National Bank Website - <https://www.pnbindia.in/en/ui/profile.aspx>
- [36.] Punjab National Bank CSR Report 2010-11
- [37.] Bank of India CSR Report - <http://www.bankofindia.com/pdf/CSRNoteforWebsite.pdf>