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ARTICLE

A Study on Green Banking Initiatives by SBI and Axis Bank

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ABSTRACT | Objective: This study aims to examine and compare the green banking initiatives undertaken by the State Bank of India (SBI) and Axis Bank from 2020 to 2022. It focuses on evaluating both the internal and external environmental impacts of these initiatives to highlight their contributions to sustainable development. **Methodology:** The research utilizes secondary data collected from research articles, journals, annual reports, newspaper articles, and the official websites of the banks. The data pertains to the green banking practices of SBI and Axis Bank over the financial years 2020-21 and 2021-22. The study applies the concept of environmental management accounting to analyze the data. **Results:** The findings indicate that both SBI and Axis Bank have significantly reduced their environmental impact through various green banking initiatives. SBI has increased its reliance on renewable energy, reducing its total energy consumption and greenhouse gas emissions. Similarly, Axis Bank has implemented several energy-saving measures, waste management practices, and water conservation techniques. Both banks have shown a consistent effort in promoting digital banking to minimize paper usage. **Conclusions:** Green banking practices by SBI and Axis Bank have positively contributed to environmental sustainability. While both banks have made notable progress, there remains a need for continuous and consistent efforts to further enhance these practices. The study underscores the importance of green banking as a crucial element for achieving sustainable development in the banking sector.

Keywords | Green Banking, Sustainable Development, State Bank of India, Axis Bank, Environmental Impact

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INTRODUCTION

In this present era of Globalization considering the 21st century, it is being felt that greenery in the nature is impoverishing due to increase in the emission of our environment. In the development and protecting the environment by various sustainable development marketing and eco-friendly action, the financial institutions such as banks act as the medium. When our nation gets the benefit with regard to the environment from the banking activities, in simple it is called the Green Banking.

Green Banking is a conception which is correlated to the Triodos Bank, which is entrenched during 1980, has the root of Dutch. Since beginning, the environmental sustainability concept was started at the banking sector. In order to continue the environmental-friendly projects, the banks popularized a new product in the market called the Green Funds during the year 1990 under the flag of Green Banking which is being detected that this action has in turn helped many banks across the world and the banking division on an all-round basis endorsed the prominence of green initiatives.

Green banking implies fulfilling of banking operational business in such parts and in a way which assists in all-round decline in the internal and the external carbon emissions. Where, the banks should grant funds to those kinds of projects which don't proliferate pollution and in turn are eco-friendly if not if they have other paths through which harmful emissions from pollution can be controlled. In this attempt of refurbishing the environment, it is an endeavor being made by banks in order to grow the industries green. This particular paradigm of Green banking shall be evenly helpful to the account holders, banking industry, industries present in our country, and the economic scenario of our country. To the general public, the transfer towards environmental banking refers that numerous deposits, loan products shall be made possible by mobile and net banking. In other words, it yields better interest on deposits by customers, money market accounts and the SB accounts. Another significant part of environmental banking by banks is the association and extent from each bank to the respective local community.

Statement of Problem

At present, there are expeditious developments in technologies on account of growing number of customers with banking sectors. All customers have their own desires and demand for their service. Whereas, it is the duty of the banker to analyze their behavior and understand what their requirements and need for, in the fulfillment of their expectation in turn lies in the success and survival of the banks. A consistent increase in the catering of multidimensional expansion of services to the customers will in turn result in more usage of papers and carbons to the environment. In order to reduce and overcome the environmental depletion there felt the need of an hour to start an e-banking facility or green banking facility, which will take care of both customers as well as the environment both hand in hand. Hence the present study, **"A study on Green Banking Initiatives by SBI and Axis Bank"** is an attempt being made in order to examine the 'Green' initiatives taken up by the State Bank of India and Axis Bank in India towards Green Banking from the year 2020 to 2022

OBJECTIVES OF THE STUDY

a) In order to examine and compare various Green Banking Initiatives by SBI and Axis Bank.

b) To evaluate internal and external environmental impact by SBI and Axis Bank.

METHODOLOGY

The data for the study are being collected from the secondary sources like research articles, journals, annual reports, newspaper articles, bank websites. Where the concept of environment management accounting concept is being applied to analyses the data. The study is being conducted for the year 2020-21 and 2021-22 considering merger of both the Public and Private sector banks of India from 2017 onwards. Here, the study is being confined to only State Bank of India and Axis Bank as they are being among the most renowned banks present in India with regard to Green imitative perspectives as per the 2020 report (https://www.wishfin.com/banks/list-of- best-banks-in-india/) on Banks in India.

REVIEW OF LITERATURE

- **Dr. S. Sankareswari (2020)** is to study problems faced by the customers, customer's perceptions towards green banking initiatives by top two pioneering banks in both public and private sector that is SBI and ICICI Bank. The researcher has used a convenient sampling method from 120 respondents.

  Secondary data are also collected and compiled from Books, Journals, Magazines, Publications and Websites. By comparing SBI and ICICI Bank, in ICICI, majority of the respondents make use of Green Banking Services than SBI. The study, though extensive in nature, is certainly not exhaustive.
- **JeenaRaju and Dr. V. Sithartha Sankar (2019)** study is about green initiatives undertaken by the banking sector in both public & private, to promote green banking products, process, and technology to order to minimise the carbon emission from our surroundings. It also includes, to be familiar about the awareness & view point of the clients with regard to green initiatives. In the end, the study examined the level of satisfaction of their customers on green banking initiatives. Primary sources of data are being collected through structured questionnaires consisting of close ended multiple-choice questions. The secondary sources of data are various journals, research papers and banks websites.
- **Ankita Dhamija and Diksha Sahni (2018)** study to know the perception of customers and customer satisfaction level towards the adoption of green banking initiatives. Where explanatory research through questionnaire has been used to also know the relationship of cause-and-effect between perceptions of customers towards green banking. Totally 50 samples have been collected from customers of different banks. As per the analysis done by the researcher in this research paper, Young generation feels convenient to use e-banking facilities. In the coming future, not only youngsters, but every individual will prefer e banking as a mode of banking. The second interpretation says that there is no correlation between the increased incomes with the usage of e-banking.
- **DR Riya Doshi (2018)** study comprise of applying and implementing green revolution in all the sectors of the society, with regard to the banking sector. As per 'Green Coin Ratings', banking institutions are labelled on the basis ofcarbon emissions from their operations and on the amount of recycling, refurbishment and reuse material being used in their building furnishings and in the systems used by them like servers, computers, printers, networks, etc. Theyare also being valued on the basis of number of environment related projects financed by them with awards and recognitions given their customers for turning their businesses environmentally friendly. The literatures are being based from secondary collection of data like research articles, banks annual reports, various websites of company and etc. A conclusion has been drawn towards the end saying India must take certain strict measures in order to control the banks and other financial institutions too, to take in the principal equator guideline through which they can add towards the preservation of the environment for the future.

- **Dr C Vijai (2018)** study is to review and ascertain the green banking practices and the perception of the customers towards green banking practices of the selected commercial banks in Cuddalore district. This study has used both primary and secondary sources of data. Where the samples are collected from 625 consumers through questionnaire method and the tool used for analysis is Simple percentage Analysis. With regard to the increase in concern about both global warming and conservation of the environment the banks in India are becoming more compassionate towards the green aspirations of their customers. So, the commercial banks should adopt effective strategies for green banking by considering it as a strategic imperative, possible policy measures, regulatory framework and initiatives to promote green banking in India has presently become the need of the hour.
- **MS Neetu Sharma, Ms Sarika K, Dr R Gopal (2017)** article aims at identifying the view point and awareness of the employees of the bank and customers with regard to the concept of green banking among both Public and Private sector banks present India. The researcher studies result of gender on Green Initiatives undertaken by both Public and Private sector banks. For this study SPSS technique is being applied.
- **Girish S (2017)**study aims to study the opinion and alertness of the customers and work force with regard to Green banking initiatives in various Public and Private sector banks located in Kerala. The data is being based on both primary and secondary sources of data. Where the primary sources of data are being obtained using the informal interview method and secondary sources of data from journals, books, web sites and from published resources of Reserve Bank of India (RBI) and banks. In a nation like India, lacking infrastructure facilities, technical education, cooperation from the banking staff will prevent the large- scale acceptance of Green banking initiatives. Its currently the right period for our country to take some important steps to stick to the concept of go green practices by adopting environmental sensitive yardsticks to check the various risk involved before investing in different social oriented projects by way of Environmental Impact Assessment (EIA), Annual Reporting System (ARS), Environmental Management Audit (EMA), etc.
- **Dr G Prakash Raj and Dr A Pappu Rajan (2017)** study is to know various consumers readiness to accept the Green Banking Initiatives taken up by State Bank of India with reference to Branch in Anna Salai of SBI. Based on sample survey method the study is descriptive in nature. The primary data collection from SBI customers is done through questionnaires for collecting customer feedback. Secondary data are being collected from the report published by the Central Bank, banking publications, research articles. SPSS is the data analytical software being used in this study. To enhance the green banking activities the bank must obtain aid from Government, Non-Government Organisation (NGO), business organizations and potential customers. Banks shouldn't get pleased with present green banking products they have rather they should constantly announce the products for their advantage and the society as a whole.
- **Kavita S Vadrale (2016)** study makes an effort to study and understand the uses of various Green Banking Products in the banking sector and also to consider the green banking initiatives undertaken by the top three Public and Private Sector Banks in India. The data being collected using secondary sources of data such as annual reports, newspaper articles, journals etc. The conclusion has been drawn that both the sector banks have proposed green banking techniques but in comparison the private sector banks have shown better performance.
- **Dipika (2015)** research has been made with regard to the paradigm and expansion of Green Banking in order to create the environmentally friendly and also to improve the economic production. The study shall include the recent improvements done by banks in India for the organic growth and threats posed at banks under implementation. It's an exploratory research and hence the methodology is based on

various literary reviews and secondary sources of information. Thus, conclusion has been drawn saying the paradigm of "Green Banking" will unanimously benefit the banking units, industries ofthe nation and economic scene in general. Not only does "Green Banking" certify the industries becoming green but also enhances the bank's asset quality in the long run.

Green Initiatives by Banks

State Bank of India (SBI) is an Indian multinational, public sector banking and financial services statutory body. It is a statutory body of the Government Corporation headquartered in Mumbai, Maharashtra. State Bank of India (SBI) ranks number two on the Fortune Global 6 list, of the world's largest corporations. It's the largest bank in India with market share of about 5% in assets, with one-fourth of total debt and deposit market. During the year 1972, bank started offering various merchant banking services to their customers. The sudden growth in the merchant banking in the mid of 1980's convinced the bank that they can create a subsidiary called SBI Capital Markets in 1986. In order to be competitive with the other private sector banks, the bank was being pressurized to refurbish their operations. In early 2000's, SBI modernized their bank undertakings by starting "Anytime and Anywhere" banking through Automated Teller Machine ATM, Internet banking, and banking through telephone networks. At the beginning of the year 2007, SBI devised a policy called 'Green Banking Policy' in order to give answers to the various issues of the country like climatic change and the global warming

Axis Bank is one of the best and the third-largest in the private banking sector. The Bank gives a wide of range of financial products and services to customer covering big and Medium Sized Corporations, Micro Small and Medium Enterprise, Farming industry, and Retailers. The Bank has operations spread across 4,050 domestic branches in India with 11,801 ATM's & 4,917 cash recyclers as on 31st March 2019. They are the first-generation private bank to begin their operations in the year 1994. In the year 1993, the bank was jointly being promoted by the Specified Undertaking of Unit Trust of India (SUUTI) (then known as Unit Trust of India), Life Insurance Corporation of India (LIC), General Insurance Corporation of India (GIC), National Insurance Company Ltd, The New India Assurance Company Ltd, The Oriental Insurance Company Ltd, and United India Insurance Company Ltd.

Green Banking Initiatives by Banks

Energy Management

The main source of energy being consumed by the bank is the purchased electricity from the grid, which contributes to the carbon footprint. The bank has increased its dependency on renewable sources of energy through roof top solar panel installation across various offices which also includes their corporate centre and the local head office in order to reduce energy consumption. As on March 2019 and 2020, the total installed capacity of renewable energy stood at 32 MW and 35 MW at the bank offices, branches and ATM. In the FY 2018-19, towards energy consumption spent about Rs 1243 crores which in turn constituted diesel and grid electricity set fuel consumption to about 5.11 million GJ electricity and 0.67 million GJ. During the reporting year, an amount of Rs 1,413.12 crores is being spent on the energy consumption, which in turn corresponds to electricity and diesel consumption of about 4.63 million GJ and 0.88 million GJ.

Energy and Emission Consumption at Source by SBI

SOURCE	2020-21	2021-22
I. Energy (GJ)		
a) Diesel	7,89,900.48	8,75,022
b) Grid electricity	5,107,464.95	4,625,287
TOTAL	5,897,365	5,500,309
II. Emission (t CO2e)		
a) Diesel	58724	65,052
b) Grid electricity	1,163,367	1,066,386
TOTAL	1,222,091	1,131,438

(As per SBI annual report 2018-19 and 2019-20)

SBI'S GHG Emissions and Emission Intensity Per FTE

SCOPE	EMISSION (t CO2E) FOR THE YEARS		EMISSION INTENSITY PER FTE FOR THE YEARS	
	2020-21	2021-22	2020-21	2021-22
I. Scope 1	418	390	0.002	0.002
II. Scope 2	1,163,367	1,066,386	4.53	4.27
III.Scope 3	1,81,822	1,92,459	0.71	0.77
TOTAL	1,345,607	1,259,236	5.24	5.05

(As per SBI annual report 2018-19 and 2019-20)

From the above tables, it is evident that the energy and emission consumption has been reduced in comparison to the previous year. It could only happen through rooftop solar panel installation at several offices, local head offices and corporate Centre's. In turn, this helped banks to minimize their dependency on fossil fuels. Where, the scope 3 emissions are being considered by estimating work related travel through bus, railways, airways and rental car, diesel generators by third partyand the paper consumption.

Axis bank

The most pressurizing matters of the current days are the effects of changes in the climate on the welfare of global community, business, natural resources like air, land and water. Where, its being identified by banks that the change in climate brings a significant risk to financial sectors like the financial risk which are being produced out of the increased cost of material and energy, reputation risk with the investments, security risk, physical risk by excessive weather events.

In order to achieve greater operational efficiency, the bank has been striving to reduce the carbon emission footprint through various diversified initiatives like products and services being digitalized, in systems and processes the technology being adopted, initiatives in energy efficiency and improvised waste management. Axis Bank's commitment across the key focus areas have been made reachable on the banks corporate website through the Bank's policy on Environmental Management.

Banking sector being one of the Service based industry, the energy sources which is being contributory to the carbon footprint of the bank is the electricity being purchased through secondary sources such as use of

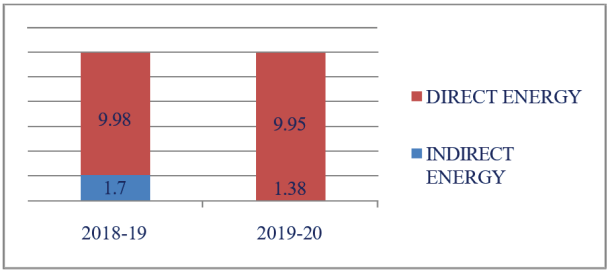
diesel and grid. To minimize the usage of the energy based from fossil fuel like the grid electricity, Axis Bank has aimed to increase the usage of renewable sources of energy by the installation of rooftop solar panels across all their branches and offices, by entering into an agreement for the purchase of power and investment in various energy resource efficiency initiatives.

Axis banks digitalization attempt to improve the experiences of their customers and improving the business efficiency shall assist the bank in reducing the resource requirement like sheets, printed forms, receipts and along with this the need for a customer to travel to a near-by or far off branch will also be reduced substantially. The Environmental Management policy of the bank monitors environmental related activities amongst their other functional branches and locations in India. The main improvements which is to be done on a yearly basis is being seeked by the banks and also to demonstrate continuous improvement in the step of disclosure in the GHG footprint and remission strategies undertaken.

Energy consumption (Unit: Terajoules)

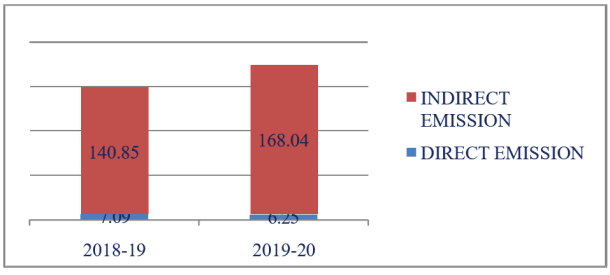
As per the above table, we can see that the electricity generated is comparatively less when compared to 2020-21due to raise in electricity consumption which is primarily due to the expansion of branches and offices in the year 2020-21 when being compared to last year. With regard to electricity produced it is vice versa where during the year 2020-21 the electricity produced is comparatively more which was possible due to the expansion of branches and offices across the country.

Energy Intensity (Unit: GJ per FTE)



As per the above table, we see that the direct and indirect energy consumption has been reduced by the bank when compared with 2020-21 report by depending less on energy resources among all its branches in regard to the previous years.

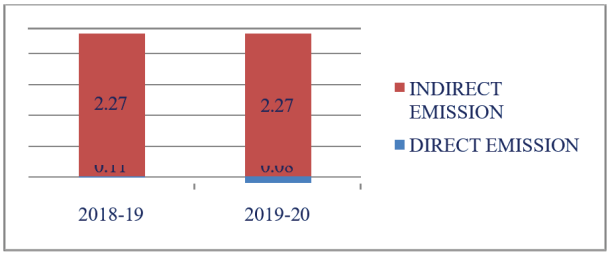
GHG Emissions (Unit: 1000 tonnes of CO_2e)



As per the above table, Greenhouse gases emissions with regard to direct emission in Axis bank has been reduced when compared to the previous year report. Scope 1 emission such as CO_2, N_2O and CO_2e are the direct

emissions from the bank in the usage of diesel in their big offices which includes leased and their owned branches. Whereas, the scope 2 emissions such as CO_2 is the indirect emission where the electricity is being consumed by the bank. The monthly usage of the electricity data is being procured by a department called Cap Hub who handle the month wise accounting and bills. The scope 2 emission has increased when compared to the previous year by the over usage of electricity.

GHG Emissions Intensity (Unit: tCO_2e per FTE)



From the above table it is quite evident that the GHG emission intensity with regard to direct emission has been consistently reduced and the indirect emission has continued to remain the same. The data relating to Pan India is with regard to the emission and consumption among the bank's offices and branches in India.

The Bank discords to make frequent efforts with regard to the reduction in the scope 3 emissions.

- In both the reporting years, Axis Bank has limited their employees travelling by air until it is very much important and with this the bank also stopped booking of air tickets within their 7 days of travel, this in turn minimized ticket booking cost for the which also reduced the emissions from scope 3 Green House Gases.
- Likewise, in order to minimize paper consumption in the premises the bank has stopped the print of stationery requirements of the bank among all their branches and offices.

The Scope 3 Green House Gases (GHG) emissions refers to the Employee Commuting where the bank provided their employees buses and travelling services which produced CO_2e of about 3,534 tonnes and Business Travel conveyance like employees Air Travel for business purpose and Local allowances of the employees for their work visits to the bank's various branches and offices, CO2e of about 4907 and 11532 tonnes of Green House Gases is being produced. offices/ branches were 4,907 and 11,532 tonnes of CO2e respectively.

Waste Management

SBI focus on the waste management has been increased during all the reporting years. Where, the bank has taken up the key initiative by installing waste segregation and composting units across all their offices and LHO. As on 31st March 2020 and 2021, waste management units of about 61 and 68 were being kept around all the branches of the bank, offices and different establishments of the bank. With regard to this, the plastic waste reduction initiative has also been undertaken where, plastic water bottle and jars at the SBI campuses are being replaced with something similar made of glass, steel and copper. In addition to these the vermin composting machines have also been installed to collect all the decomposition of food waste from the canteens of the SBI branches.

Axis Bank Waste Management

2020-21	2021-22
1. The bank has on an approximately converted food and wet waste of about 90 kg to compost by the utilization of composting machine in the Axis House, Mumbai daily.	1. The bank is converting 40 MT of food and waste of about 40 MT to compost by the utilization of through composting machine which is mostly used for gardening or landscaping of the bank at Axis House, Mumbai.
2. The bank has successfully done reprocessing of paper waste like paper and etc weighing about 61 quintals approximately into stationery items like notepads, notebooks at Axis House, Mumbai	2. The bank has Re-cycled dry waste like newspapers, certain waste documents, paper cups and tissues used weighting about 78 MT into stationery items like notepads being collected annually at Axis House, Mumbai
3. The bank has completed paper obtainment through Wheat straw among their important office locations.	
4. The bank has reduced Paper usage by the introduction of digital banking services by the bank like the procurement of e-statements, electronic welcome kits to their customers, annual report copies for the customers are sent through e-copies.	

Water and Waste Water Management

The bank with the support of its circles have made enormous efforts to bring observable changes among all the employees to minimize the utilization of water. For this various minute awareness steps like turning off the taps when not in use have been undertaken and also extensively acknowledged. Likewise, along with awareness the bank has also taken up an initiative to intensify the capacity for rainwater harvesting among all its offices in India. During the years 2020-21 and 2021-22 around 70 and 248 across all its locations new rainwater harvesting units have been set up.

With rainwater harvesting the bank has also undertaken another initiative by setting a plant unit which reprocesses waste water from the hostel and management blocks which in turn is utilized to water the plants in the gardens of its Hyderabad branch. And also, to minimize the utilization and saving of the underground water, a drip irritation and sprinklers have been directly connected to the water reprocessing plant. Finally, by this implementation the water consumption at the campus has been reduced by 50%.

Initiatives for Water Management by Axis Bank

2020-21	2021-22
1. On a day-to-day basis, through the sewage treatment plant daily of about 110 KL of sewage and the water wasted gets reprocessed at Axis House, Mumbai.	1. Whereas, through the sewage treatment plant everyday 150 KL of sewage and the water wasted gets reprocessed at Axis House, Mumbai.
2. By the installation of aerators the water consumption has been reduced at Axis House, Mumbai and the Gigaplex building.	2. By the installation of aerators the water consumption has been reduced at Axis House, Mumbai and the Gigaplex building.
3. To optimize the flow of water at selected large offices, sensors have been installed in the washbasins.	3. To optimize the flow of water at selected large offices, sensors have been installed in the washbasins.
4. By the usage of Bio blocks at urinals the water consumption has been reduced at selected large offices.	4. By the usage of Bio blocks at urinals the water consumption has been reduced at selected large offices.
5. On an estimate close to 16,000 KL of rain water harvesting has taken place at Axis House, Mumbai on an annual basis.	5. On an estimate ~2000 KL of rain water harvesting has taken place at Axis House, Mumbai.

Renewable Energy

When the matter arrives with regard to maximizing renewable energy generation capacity, SBI rules and is continuously arranging its investments in the same direction. Where, the bank has extended its support to fund viable renewable energy projects to the Government of India for a period of five years from 2015-2020.

2020-21	2021-22
1. In order to Finance various viable renewable energy projects a commitment to Government of India has been done for a five-year period i.e., from 2015-2020	1. In order to Finance various viable renewable energy projects a commitment to Government of India is being done.
2. Under the World Bank line of credit an amount of USD 625 million is being sanctioned for funding about 179 rooftop solar project.	2. Under the World Bank line of credit an amount of Rs 1,744 crore has been sanctioned to fund about 241 rooftop solar projects
3. The bank has successfully completed 656 renewable energy projects with 12,334 MW capacity	3. The bank has successfully completed with a capacity of 11,488.48 MW renewable projects of around 608 projects through loans of worth Rs 25,914.82.
4. The bank has sanctioned about 29,821 crores for renewable energy projects	4. The bank has sanctioned about USD 30 million under the KFW Development Bank line of credit for renewable energy projects.
5. The bank has funded about USD 177.33 million for solar energy projects from KFW	5. The bank has entirely utilized line of credit from the European Investment Bank of about USD 214.3 million for helping in the set-up of utility scale 493 MW green field solar power projects.

From the table above, its being observed that State bank of India (SBI) ranks first whenever the matter comes with regard to increase the generation capacity of the renewable energy in India. Where they have been constantly arranging its investments in that particular direction. The Government of India has been supported by the bank in order to fund feasible renewable energy projects for a five -year period from the year 2015-2020. The social impacts are a substantial element of investment cycle by prioritizing various ESG aspects like environmentalregulations, safety performance and the health.

Axis Bank

In Axis Bank, the key focus areas have been the energy and natural resource conservation where various efforts are being made to improve the energy and natural resource performance every year. To improve these, numerous initiatives have been taken up across various branches or offices. In order to proceed with their commitment to achieve greater environmental efficiency in their operations they have invested in digital solutions and numerous initiatives which are energy conserving. On an overall, these initiatives have given rise to significant amount of energy saving in the financial year 2020-21 and 2021-22, by avoiding 9,162.24 MT and 12,046.39 MT of GHG emissions.

Various steps undertaken for utilizing alternate sources of energy or energy efficiencies are:

2020-21	2021-22
1. The installation of Solar power projects around 248 branches or office of about 7.05 MW capacity.	1. Installation of Solar power projects around selected Branches or Offices is with capacity of about ~ 7.05 MW.
2. Installation of Centralized Energy Management System (CEMS) is being done in around 893 Branches with the reduction of energy consumption by 10% has been achieved through controlling temperature operations.	2. Installation of Centralized Energy Management System (CEMS) is being done in around 1,493 branches from about 893 branches during the previous financial in order to monitor and control the energy Consumption.
3. For optimum use of power the unity power factor has been maintained by 4 numbers of 500 KVAR APFC panel in the auto mode at Axis House, Mumbai.	3. For optimum use of power, the unity power factor has been maintained through APFC panel in auto mode at Axis House, Mumbai and Noida
4. In all new branches and offices, the conversion of conventional lighting to LED also 100% LED lights installation have been done.	4. In all new branches and offices, the conversion of conventional lighting to LED in about 1100 in existing branches and about 250 branches in the previous financial year have been done.
5. The installation of Motion sensors have been done at the work station and common area lighting of the Axis House, Mumbai	5. The Installation of Motion sensors have been done at the work stations and common area lighting of the large offices.
	6. In order to reduce diesel consumption in rural areas the implementation of on grid inverter solutions have been set up at 250 branches compared to 100 branches during the previous year. By this adoption, there has been 2,22,000 per annum diesel being saved on an estimate.
	7. An agreement has been done in order to procure solar power of about 3.50 lakhs units per annum for the data Centre in Bangalore under the power purchase agreement.
	8. At across 245 locations the power generated through solar installations have been monitored by Internet of Things (IOT)

Other Green Initiatives by SBI and Axis Bank

Innovation in the Information Technology (IT) infrastructure

During the financial years, SBI commissioned its first advanced 'TIER- 3' data Centre's at a safe seismic zone in Hyderabad which was being designed under the Green Building Concept. It was being done as an attempt to start paperless offices where the bank in turn introduced an 'Easy Approve'- which is a customized solution for the note approval on cloud. In turn, it has been a benefit of reducing the cost and by improving the work efficiency within the bank by the paper saving initiative.

With an intension to save paper and in order to simplify the branch processes and also to promote Green Banking the bank has come up with an idea of digitization of the registers at its branches. Where, the register numbers have been reduced from 194 to 107 and out of the 107 registers, for the transformation of e-Register Module the 60 remaining are being discovered.

Green Banking Channels by SBI

You Only Need One (YONO) is one among the first step taken by SBI in its digital journey. From its implementation, various accounts are being opened up by the app this in turn reduced customers visit their branches and also reduced the usage of paper. This app also ensures quick approval of processing the pre-approved personal loans (PAPL) without any tedious physical documentation of the loans. During the financial year 2019 and 2020 it was possible for the bank to indirectly save paper about 300 tonnes approximately through the opening of accounts and PAPL about 69 lakh and 6,43,889 whereby, preserving about 7900 trees on an estimate

from being cut. The rise in the usage of the YONO app for the above-mentioned activities has increased the saving of paper of about 14% compared to the previous year 2020-21. Along with this the institution has also set up solar panels in approximately 2000 ATM sites.

SBI's Green Channel Counters (GCCs)

Green Channel Counter by SBI was an initiative made with an agenda to replace the conventional paper-based banking to card based green banking with an objective of saving paper through the installation among all the retail branches in India. The variety of services offered by Green Channel Counters (GCC) include the cash deposit, internal fund transfer, balance enquiry, green PIN change and generation option, cash withdrawal through ATM's, and downloading of mini statement. The transactions directed through GCC on each day for the financial years 2018-19 and 2020-21 were on an average of about 8.2 lakh and 7.62 lakh for both the reporting periods.

Green remit cards (GRC) by SBI

Green Remit Card by SBI is nothing but a magstripe based card without a personal identification number (PIN). In order to deposit money to designated beneficiary's account it can be done using GCC or cash deposit machines (CDM) present in ATM's or Automated deposit and Withdrawal Machines (ADWM). During the year 2020-21 on an average of about 1.5 lakh transactions were being directed through Green Remit Cards on each day.

Green PIN'S by SBI

A simple and favorable method of obtaining a debit card personal identification number (PIN) is possible by mediums through using the Internet banking services, IVR, by sending an SMS and through ATM is called Green Pin. This service by SBI has benefitted the customers of the bank by preventing delays and their visits to their particular branch in order to submit the requests for the generation of ATM personal identification number (PIN). Whereas, Green Initiative is nothing but a step taken towards achieving the concept of paperless banking which shall be benefitting both customers and the employees of the bank and also it shall, substantially reduce the carbon footprint of the bank. It was indirectly possible by SBI to generate 6.41 and 9.4 crores through Green PIN's and save about 307 tonnes of paper during the financial year 2018-19 and 2019-20 whereby, saving about 8000 trees frombeing cut on an estimate.

Green bond issuance by SBI

SBI with an agenda of establishing positive impact on the environment has adopted a Green Bond Frame work. Where, it provides directions regarding the issuance of the Bond and the usage of the reward towards various projects coming under the boundary of Green Bond Portfolio of the bank. Going ahead with the bank's sustainability excursion the bank raised USD 100 million worth Green Bond in order to finance their green projects falling under the framework. During FY 2018-19 and 2019-20, USD 50 million and USD 650 million worth Green Bonds marked the third such issuance by SBI. All the rewards through the projects of renewable energy, sustainable mobility space and solar power from Green Bonds are being utilized by the bank effectively.

A Green Bond Committee has been set up by SBI in order to check the eligibility of certain projects under the framework of Green Bond, in order to monitor all the portfolios on quarterly basis. As per the eligibility criteria any such project must be cleared by the committee and later it shall be labelled under the Core Banking Solution (CBS) in order to monitor and track. For the existing customers marked under Green Bonds, a mechanism named

the labelling mechanism is being formulated in the loan life cycle management system (LLMS)/Core banking solutions (CBS).

Axis Bank

During the FY 2018-19 under Axis Bank's program of banking on solar with 2MW capacity Solar Plant located at Solapur.

India has set for itself resourceful targets for the generation and adoption of renewable sources of energy with the promise made under 'Paris Agreement'. In adopting the renewable sources of energy in order to act-upon its operation when reducing bank's own emissions footprint, the corporate sector of India has been playing a very proactive part in that. Being a financial institution, in funding to clean energy and other climatic action linked sector the banks can play an active role then it means that, it has also been strategically investing in the solar energy generation for their own operations.

The bank has decided to make advantage from this opportunity to implement one of it and give an open access to the solar plant located at Solapur, Maharashtra with its utility suppliers who are in better position to offer better access to the renewable sources of energy. Which in turn can also play a key role in the emission reduction strategy of the bank? On March 2019, a solar power plant with capacity 2 MW been successfully installed at Sangola, Solapur. The plant on an estimate generated electricity on an annual basis of about 28 lakh units approximately based on the standard industrial practice through solar power generation of 4 units/Kw/day. Onan overall, the bank has solar power installed with 7.05 MW capacity out of that 5.05 MW through installation of roof top solar in about 247 other locations with this plant establishment. During the FY 2018-19, approximately 2,840 MWH energy was being produced by this installation in helping to avoid approximately 2,328 tCO_2e.

Axis Bank's Environmental Awareness Spreading among their Branch Customers (2018-19)

In order to promote Greener lifestyle among their bank customers various branches were being partnered with the Axis Bank Foundation in order to organize a themed event called the 'GO GREEN, which was to highlight the importance of protecting our environment and also by, raising awareness on minimizing the use ofplastic bags and other plastic items among the branch customers of the bank. Whereas, a few of the Axis Bank branches distributed saplings to their bank customers as one of the part of their event in order to save the natural environment.

Axis Bank's Spreading awareness about the environment to their employees

In protecting the environment and contributing towards the environment Axis Bank remained conscious of their role through various interventions. Under the theme 'Beat Air Pollution', on the ceremony of The World Environment day being conducted on June 5, 2019 the institution also aimed towards withstanding air pollution and minimizing its ailing impact on the human health. A campaign named communication campaign of the bank motivated their employees to walk to nearby places, instead use public transport than own vehicles, plant saplings, cycle to places around than using vehicles with this an idea was also shared, which employees could adopt in lowering the carbon footprint of the individual to the natural environment.

Through Axis Care Various Environmental initiatives

Axis Bank Foundation (ABF) supports various mediation which focusses on environment protection and its revival, through Axis Care employee payrollprogram. Axis Bank Foundation (ABF) conducts various large-scale activity of plantation on the trees grown in the locality through various implementing partners, with an objective of improving the land quality by stopping land exhaustion/depletion which in turn, also helps in recovery of the bio-diversity in the particular region. On the common lands and the native forest for providing things like fuel wood, water and food which supports the livelihood of poor rural people, the pressure shall be reduced. The technical know -how of the project is not just being transferred to the participants in monitoring the plantations but along with this, the quality saplings are being provided by the bank in order to raise all the nurseries and plantations in employee's particular village assigned to them.

CONCLUSION

'Green Banking' is the renowned topic in the present days. For a few years, none of the Public or the Private sector practiced any of the Green Banking or the eco- friendly activities so seriously. Instead, it was just a one-day event by planting tree saplings on the World Environment day i.e, on June 5. But now it is the need of the hour to not just our country but also for the world economy to stay intact.

In India Green Banking initiatives started during the year with the implementation of Automated Teller Machine (ATM) in order to transfer the crowded people in the bank. When our banks decided to enter the international market, implementation of Green Banking was very much important and initiatives like reducing the carbon footprint, waste management, water management and etc were being undertaken by both Private and Public Sector banking institutions in order to contribute to the environment. In this effort of contribution as per the above-mentioned initiatives grounds it has been observed that the contribution from Axis banks has been numerous and efficient, they have also been maintaining the contribution towards the environment by reducing the usage of the resources of the environment at a consistent rate and certain initiatives are very well elaborated among all the years which is very much appreciated after comparing both the financial years mentioned for my study. Whereas, the contribution from State Bank of India has also been significant towards the environment. But there is no much consistent rate in reduction of the dependency on the environment though the banks are being compared on the same grounds of initiatives. Therefore, for the sustainable and smooth activities in the banking industry it is very much need for the banks to Green Banking as a rule for their businesses to flourish in the Indian and the world market.

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