Promoting Green Finance for Sustainable Development in Bangladesh

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Abstract:

Although green finance is still a relatively new concept in Bangladesh, it has attracted much interest in the global financial sector. Policymakers and scholars have recently concentrated on green finance in response to growing worldwide concern about environmental protection, climate change, and sustainable development. There is no alternative way to protect the world except sustainable development. Finance is the engine of the development of infrastructure projects, including energy projects. Sustainable finance is needed for sustainable development and the emerging concept of "green finance" is an integral part of it. By yielding environmental benefits, green financing is critical for ensuring equitable, resilient, and greener economic growth. Bangladesh is gradually strengthening its funding through green financing in order to reduce the consequences of climate change and protect the environment by private and public sector involvement. Additionally, the study illustrates the extent to which green financing is being adopted by banks and non-bank financial institutions in the country between 2017 and 2021.Besides, the current study focuses on the various green financing products/initiatives undertaken by public and private sector organizations, banks, and non-banking financial institutions (NBFIs) in Bangladesh. It also examines the current state of green finance in Bangladesh, as well as the major obstacles that it faces, and makes recommendations for how to address those challenges. The study's findings indicate that the banking sector, in collaboration with NBFIs, is focusing more on green finance by offering different green products. The paper highlights significant issues in the area of green finance in Bangladesh and also makes recommendations for overcoming those obstacles. The study is descriptive in nature and based on secondary data gathered from various Banks and Non-Banking Financial Institutions' reports released by the Central Bank of Bangladesh, as well as other publicly available reports from public and private sector financial institutions and banks in Bangladesh. Additionally, quarterly reports on green banking in Bangladesh were evaluated, as were the websites of commercial banks and non-bank financial institutions, as well as various organizations such as the World Bank and UNEP, as well as published articles in various journals and prominent newspapers. The objective of this article is to raise awareness of private investors' role in sustainability.

Keyword: Green Financing, Green Banking, Sustainable Finance, Bangladesh Bank (BB) Guidelines, Green Bond.

INTRODUCTION:

The banking sector is one of the major sources of financing industrial projects such as steel, paper, cement, chemicals, fertilizers, power, textiles, etc., which cause maximum carbon emission. Therefore, the banking sector can play an intermediary role between economic & social development and environmental protection, for promoting environmentally sustainable and socially responsible investment. Policymakers and scholars have proposed a wide range of remedies to environmental challenges, guided by the concept of sustainable development, including cleaner production, resource recycling, a climate fund, an environmental pollution tax, and green financing. The financial sector will have to be a key component of this green transformation. Sustainable investment and banking are important parts of green finance. Investment and lending decisions are made based on environmental screening and risk assessment to meet sustainability standards. Insurance services that cover environmental and climate risk are also important parts of green finance. According to the International Finance Corporation, the definition of green finance, a financial innovation product designed to achieve a win-win situation between economic development and environmental quality improvement, is the financing of ventures that generate environmental benefits. Green finance is defined as comprising "all forms of investment or lending that consider environmental effect and enhance environmental sustainability" (Volz et al. 2015: 2). This report reflects a review of banks and

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NBFIs efforts concerning People, Planet and Profit. Green banking initiatives of Bangladesh Bank (BB) has broadly categorized into the different aspects such as effective policy initiatives, stricter monitoring of green banking activities of banks and NBFIs, refinance support from BB in diverse green product or initiatives and BB's own initiatives for environmental management. Investment by scheduled banks and FIs in any impact fund which is registered under the BSEC (Alternative Investment) Rules, 2015 and formed for environment friendly sectors having scopes of resource and energy efficiency, renewable energy, waste management and treatment, climate friendly transportation, women and child right protection etc. will be considered as green finance (BB, SFD Circular No. 01). The study illustrates the extent to which green financing is being adopted by banks and non-bank financial institutions in the country between 2017 and 2021.Besides, the current study focuses on the various green financing products/initiatives undertaken by public and private sector organizations, banks, and non-banking financial institutions (NBFIs) in Bangladesh. It also examines the current state of green finance in Bangladesh, as well as the major obstacles that it faces, and makes recommendations for how to address those challenges. The study's findings indicate that the banking sector, in collaboration with NBFIs, is focusing more on green finance by offering different green products. The paper highlights significant issues in the area of green finance in Bangladesh and also makes recommendations for overcoming those obstacles. This is how the paper is organized. The second section examines key literature and conversations on the emergence of green finance, the role of the financial sector in green growth, and the role of regulators in encouraging green financing. The methodologies and materials employed in this research are then discussed in Section 3. Green financing initiatives for sustainable development in Bangladesh are reviewed and analyzed in Section 4. Green Financing Challenges in Bangladesh is discussed in Section 5. The research comes to an end in Section 6.

1. Literature review:

Sustainable economic growth, green banking, and green finance are becoming increasingly popular among academics, researchers, and practitioners. The financial sector, on the other hand, is regarded as an essential component of the economy, serving as a possible link between long-term economic growth and environmental conservation. Global climate change is now one of the world's greatest threats. The United Nations' sustainable development goals (SDGs) drew attention to growing concerns about environmental pollution and natural resource degradation, paving the way for the introduction of contemporary notions such as sustainable growth. According to the SFD, BB circular no. 01 in 2019, Investment by scheduled banks and FIs in any impact fund which is registered under the BSEC (Alternative Investment) Rules, 2015 and formed for environment friendly sectors/purposes having scopes of resource and energy efficiency, renewable energy, waste management and treatment, climate friendly transportation, women and child right protection etc. will be considered as green finance. (SFD circular no.01, BB, 2019). Although the World Bank issued the first green bond in 2007, it arrived in Bangladesh much later. On April 7, 2021, the Bangladesh Securities and Exchange Commission authorized Sajida Foundation, a non-governmental organization, to raise BDT 1 billion in the capital market through the first-ever issuance of green bonds in the country's history (BSEC,2021). In addition, On 23 June, 2021, Beximco secured the BSEC approval to launch its Tk3,000 crore Sukuk bond for a five-year tenure.

Three dimensions of GF, namely social, economic, and environmental, are linked to the ideas of ESG criteria and SDGs have significant practical implications for banks and financial institutions to improve their sustainability performance by prioritizing investment in environmentally friendly projects (1). Green banking is an emerging concept integrating the management of environmental issues with banking activities aiming to transform the financial sector and develop new sustainable business models [21]. The concept was first unveiled by a Dutch bank named Triodos Bank, which was established in 1980 [22]. The bank had formed a “Green Fund” in 1990 to provide support for environmentally friendly projects and, thus, acted as a precursor for other banks intending to adopt green bank initiatives [22,23]. However, due to increasing interest in the topic and external pressure on banks to consider sustainable practices [24], this has become a buzzword in today’s banking sector [20]. As a response to negative effects of economic development on the environment, as well as at the global financial crisis, the international community seeks solutions for sustaining a sustainable economy and society [25]. In this context, the concepts of “green economy”, “green growth”, and “low-carbon economy” evolved [26]. United Nations Environment Programme (UNEP) defines the green economy as “the process of reconfiguring businesses and infrastructure to deliver better returns on natural, human and economic capital investments, while at the same time reducing greenhouse gas emissions, extracting and using less natural resources, creating less waste and reducing social disparities” [27] (p. 5). Green growth is a more focused concept: growth created through investment in the environment [28]. Consequently, green financing/green banking has seen significant progress in recent times because banks as financier has a huge influence on providing funding for the projects undertaken by industries, and thereby green banking can play Sustainability 2021, 13, 1904 3 of 21 a significant role in the creation of growth through investment in the environment and ensuring responsible behavior of other businesses too [4,29,30]. There is not yet a universally accepted definition of green banking [31]; however, a common thread in the literature is that green banking has a dominant focus on environmental sustainability. Some researchers suggest that green banking is the normal process of banking where all the activities are controlled by the same authorities yet putting extra care on environmental sustainability [32–35]. Lalon [20] defines green banking as any form of banking that generates environmental benefits. Bhardwaj and Maholtra [36] stated that green banking is an effort by the banks to make the industries grow green and, in the process, restore the natural environment. According to Masukujjaman and Aktar [17], green banking refers to eco-friendly or environment-friendly banking systems to stop environmental degradation in order to make this planet more habitable. Tara et al. [37] indicated that green banking requires prioritizing financing to the sectors that promote various environmental protection activities. As a part of green banking initiatives, the banks and non-bank financial institutions adopt environment-friendly financing mechanism as well as green transformation of internal operations [38,39]. The process restores the natural environment with a view to ensure green safety and sustainable ecological balances [36]. Chowdhury and Dey [40] referred to GB as the operation of banking activities while giving special attention to social, ecological, and environmental factors with the aim of the conservation of nature and natural resources. However, the ambiguity as to what constitutes green banking activities and products represent an obstacle for the classification of green assets as well as for the identification of further opportunities for green investments [41]. Banking institutions are the primary source of finance for many industrial projects such as steel, paper, cement, chemicals, fertilizers, power, textiles, etc., with potentially significant adverse social or environmental impacts [53]. Therefore, as financiers they have huge influence on the projects undertaken by industries, and thereby green banking can play a significant role in ensuring responsible behavior of other businesses too [4,29,30]. Accordingly, green finance is defined as comprising “all forms of investment or lending that consider environmental effect and enhance environmental sustainability” [54] (p. 2). Important aspects of green finance are sustainable investments and banking, where investment and lending decisions are taken based on environmental screening and risk assessment to meet sustainability standards, as well as insurance services that cover environmental and climate risk [55,56]. Further literatures on green financing suggest [57–60], cited in Bai, 2011, that green finance, within the banking sector, can be presented in a wide spectrum of market-based lending or investing businesses, involving retail banking, project financing, asset management, types of loans, and investment finance that are all responsible for the environment and society.

Central banks are among the most important stakeholders in the banking business as they have the necessary leverage to coerce/impose various influences on commercial banks and other financial institutions in order to conform to certain prescribed rules and regulations to carry out their business in an environmentally friendly manner [68]. Through their regulatory oversight over money, credit, and the financial system, central banks are in a powerful position to support the development of green approaches and enforce an adequate pricing of environmental and carbon risk by financial institutions [68]. Hence, to tackle climate-related financial issues and potential disruptions and to promote green and sustainable finance, a growing number of central banks and regulators around the world are becoming aware of their role and addressing climate change and environment risks in their mandate [68,69]. Globally, many central banks have already adopted sustainability policies to regulate or guide the activities of banks [42] or have started to incorporate climate risk into macro-prudential frameworks [70]. These regulations also seek to address in-house resource consumption for positive contributions towards the transition of green growth. Nevertheless, central banks and supervisors across different jurisdictions operate within different mandates and legal frameworks [71] depending on the country and related institutional frameworks [72]. It is evident that emerging economies are the most engaged in pursuing green policies in the banking sector primarily because of regulatory requirements [65,73] while the green finance activities in developed countries are mostly voluntary and driven by the decision-makers' awareness of sustainable development and corporate social responsibility [74]. Besides financial regulation, industry leadership plays a crucial role in implementing green/sustainable banking approaches. A growing number of financial institutions around the world have voluntarily either created their own networks or initiatives or joined platforms established by international development agencies such as the International Finance Corporation (IFC) and UNEP [75]. A group of central banks and supervisors launched the Networking for Greening the Financial System in 2017 to contribute to the analysis and management of climate and environment-related risks in the financial sector and to mobilize mainstream finance to support the transition toward a sustainable economy [76]. The Task Force on Climate-related Financial Disclosure was established by the Financial Stability Board, which is an international body that monitors and makes recommendations about the global financial system, with an aim to develop voluntary, consistent climate-related financial risk disclosures that would be helpful to investors, Sustainability 2021, 13, 1904 5 of 21 lenders, insurance companies, and asset managers in identifying and managing financial risks [77]. Moreover, the G20 Sustainable Finance Study Group, which was formerly known as G20 Green Finance Study Group, was created to identify barriers to green finance and improve the financial system to mobilize private capital for green and sustainable investment [78]. Global Alliance for Banking on Values (GABV) is an independent network of banks and banking cooperatives with a shared mission to use finance to deliver sustainable economic, social, and environmental development. Among other initiatives, Equator Principles (EP), the Impact Investing and Reporting Standards (IRIS), the Global Reporting Initiative (GRI) for subgroups of financial products and services, project finance, and institutional investment are worth mentioning [79].

Objectives of the study:

a) To comprehend the various green finance initiatives undertaken by banks and non-bank financial institutions (NBFIs) in Bangladesh.
b) To look into the most recent trends in green finance in Bangladesh.
c) To investigate a variety of issues concerning green finance in Bangladesh.

2. Methodology of the study:

In this study, secondary data was gathered from various Banks and Non-Banking Financial Institutions' reports released by the Central Bank of Bangladesh, as well as from other publicly available reports from public and private sector financial institutions and banks in Bangladesh. In addition, quarterly reports on green banking in Bangladesh, websites of commercial banks and non-bank financial institutions and different organizations such as, World Bank, UNEP, published articles in different journals and renowned newspapers were also reviewed to gain insights. The research follows a qualitative approach and the research design involves organizing, collating, and assessing these data samples for valid research conclusions. The scope of the study is limited to banks and NBFIs operating in Bangladesh and excludes other financial institutions such as insurance companies, investment companies, and capital market intermediaries like brokerage houses.

3. Findings & Analysis:

3.1 Green financing Initiatives for sustainable development in Bangladesh:

Recently Bangladesh have taken some pivotal steps to fostering sustainable development in Bangladesh to achieve the national determined contributions goals. Table 1 represents the policy initiatives for sustainable development. From January 2020 onwards minimum target of green finance was set at 5% of the total funded term loan disbursement for all banks and FIs (GBCSRD Circular No. 04/2020). In addition, Bangladesh bank formulate a climate risk fund, sustainable finance policy, sustainability rating methodology, and yearly target & achievement' of green finance and sustainable finance for Banks & FIs has been fixed. Consequently, the parts that follow will study and analyze data from annual reports from 2017 through 2021 to give evidence for these four categories.

3.1.1 Policy Initiatives for sustainable development

Table 1: Policy Initiatives for sustainable development

Year	Policy/ Guidelines	Circular
2011	✓ Environmental Risk Management (ERM) Guidelines for Banks and Financial Institutions has been issued. ✓ Green Banking Policy Guidelines for Banks has been issued.	BRPD Circular No.01/2011&02/2011
2013	✓ Policy Guidelines for Green Banking was also issued for the Financial Institutions (FIs) and for thebanksscheduledin2013.	GBCSRD Circular No. 04/2013 & Letter No.05/2013
2014	✓ From January 2016 onwards minimum target of direct green finance was set at 5% of the total funded loan disbursement/investment for all banks and FIs.	GBCSRD Circular No. 04/2014
2015	✓ Banks and FIs were instructed to formal "Climate Risk Fund" having allocation at least10% of their Corporate Social Responsibility budget.	GBCSRD Circular No. 04/2015
2016	✓ Banks & FIs have been instructed to set up Solid Waste Management System, Rainwater Harvesting and Solar Power Panel in their newly constructed or arranged building	SFD Circular No. 01/2016 & 03/2016

	infrastructure. ✓ All the banks & FIs must ensure the establishment and activeness of Effluent Treatment Plant (ETP) during financing to all possible clients.	
2016	✓ All banks and FIs to establish Sustainable Finance Unit and Sustainable Finance Committee by abolishing both Green Banking and CSR units.	SFD Circular No. 02/2016
2017	✓ Guidelines on Environmental and Social Risk Management (ESRM) for Banks and Financial Institutions along with an Excel-based Risk Rating Model have been issued. ✓ A comprehensive list of product/initiatives of Green Finance for banks and FIs has been circulated	SFD Circular No. 02/2017 & 04/2017
2018	✓ A new uniform reporting format of Quarterly Review Report on Green Banking Activities has been circulated for Banks & FIs to monitor green banking policy & other regulations and to ensure the quality & uniformity of data provided by Banks & FIs.	SFD Circular No. 01/2018
2019	✓ Investment by scheduled banks & FIs in any impact fund which is registered under BSEC (Alternative Investment) Rules, 2015 and formed for environment friendly sectors/purposes (resource & energy efficiency, renewable Energy, waste management and treatment, women & child right protection etc.) will be considered as green finance.	SFD Circular No. 01/2019
2020	✓ From September, 2020 onwards minimum target of green finance was set at 5% of the total funded term loan disbursement/investment for all banks and FIs	SFD Circular Letter No. 05/2020
2020	✓ Sustainable Finance Policy for Banks & FIs was issued and new reporting format of Quarterly Report on Sustainable Finance has been introduced. ✓ Sustainability Rating Methodology for Banks & FIs was issued.	SFD Circular No. 05/2020 & 06/2020
2021	✓ Yearly 'Target & Achievement' of Green Finance and Sustainable Finance for Banks & FIs has been fixed.	SFD Circular No. 01/2021
2021	✓ Target Fixation of Green Finance & Sustainable Finance. ✓ About Sustainability Rating Methodology for Banks & FIs	SFD Circular Letter No. 03/2021 & 05/2021

Source: BB, SFD, 2022

3.1.2 Green Products Introduces by Bangladesh Bank:

Initially, six green products or activities were designated to qualify for the scheme's refinance facility extension. Later, in response to market demand and expert opinions from the technical advisory committee, as well as periodic consultations with experts and stakeholders, Bangladesh Bank increased the number of eligible green products/initiatives for refinancing under the scheme from six to fifty-five (Table 2) until FY21.

Table 2: List of Green Products under "Refinance Scheme for Green Products/ Initiatives"

Sl No.	Green Products/ initiatives	Sl No.	Green Products/ initiatives
1	Solar Home System	29	Combination of Biological and Chemical ETP
2	Solar Pico Grid	30	Conversion of Chemical ETP into Combination of Biological and Chemical ETP
3	Solar Nano Grid	31	Central ETP
4	Solar Micro Grid	32	Waste Water Treatment Plant
5	Solar Mini Grid	33	Sewage Water Treatment Plant
6	Solar Park	34	Methane Recovery and Power Production from Municipal Waste Plant
7	Net Metering Rooftop Solar System	35	Compost Production from Municipal Waste Plant
8	Solar Irrigation Pumping System	36	Hazardous Waste Management Unit/Plant
9	Solar Pump for Drinking Water	37	Medical Waste Management Unit/Plant
10	Solar Photovoltaic (PV) Assembly/Manufacturing Plant	38	E-Waste Management Unit/Plant
11	Solar Cooker Assembly/Manufacturing Plant	39	Sludge Management Unit/Plant
12	Solar Water Heater Assembly/Manufacturing Plant	40	PET Bottle Recyling Plant
13	Solar Air Heater & Cooling System Assembly/Manufacturing Plant	41	Plastic Waste (PVC, PP, LDPE, HDPE, PS) Recycling Plant
14	Solar Powered Cold Storage	42	Paper Recycling Plant
15	Small size biogas plants - 1.2, 1.6, 2.0, 2.4, 3.2 and 4.8 cubic meter gas production per day	43	Recyclable Bag Manufacturing Plant
16	Medium size biogas plant varies between 6.0 to 25 cubic meter gas productions per day	44	Recyclable Poly Propylene Thread and Bag Manufacturing Plant
17	Large size biogas plant is 26 cubic meter gas production per day to 200 cubic meter gas production per day and above	45	Battery (Solar/Led Acid/Lithium Ion) Recycling Plant
18	Integrated Cow Rearing and Setting up of Bio-gas Plant	46	Compressed Block-Brick
19	Wind Power Plant	47	Foam Concrete Brick
20	Hydro Power Plant (Pico, Micro, Mini)	48	Environment Friendly/Brick Kiln Efficiency Improvement Project (Tunnel Kiln and HHK)
21	Installation of Energy Auditor Certified machineries including boiler	49	Establishment of Certified Green Industry
22	Auto Sensor Power Switch Assembly Plant	50	Establishment of Certified Green Building
23	Energy Efficient Cook Stove Assembly Plant	51	Establishment/Installation 'Green Featuring' in the Building/Industries
24	Led Bulb/Tube	52	Safety and work environment of factory

	Manufacturing/Assembly Plant		
25	Energy Efficient Lime Kiln	53	Production of Vermicompost
26	Improved Rice Parboiling System	54	Production of Palm oil
27	Pyrolysis Oil/Bio-crude Oil/Bio Fuel Manufacturing Plant	55	Production organic fertilizer from slurry
28	Biological ETP		

Source: SFD, BB, 2022

3.1.3 Current status and Green Financing practices by banks and NBFIs in Bangladesh:

Currently, the Bangladesh Bank (BB) regulates and supervises 61 scheduled banks, 34 NBFIs, and 5 non-scheduled banks (Bangladesh Bank, 2022). This section describes the situation of green finance in Bangladesh during the past several years and displays the green financing activities of banks and NBFIs compiled from their annual reports from 2017 to 2021. While table 3 below shows year on year disbursement of green finance during the last five years by state-owned banks (SCBs), development financial institutions (DFIs), foreign-owned banks (FCBs), private commercial banks (PCBs), and NBFIs in Bangladesh from 2017 to 2021.

Table 3: Green financing by banks & NBFIs in Bangladesh from 2017 to 2021

Types of banks/NBFIs	2017	2018	2019	2020	2021
SCBs(06)	7220.60	1815.20	1219.44	1908.91	3372.68
SDBs(03)	18.90	45.40	3.56	9.83	22.63
PCBs(43)	425,944.50	65,904.30	78,316.88	69,668.75	62,700.72
FCBs(09)	101,524.90	192.60	19213.16	34332.69	2751.73
Banks Total	**534,708.90**	**67,957.50**	**98,753.09**	**105,920.18**	**68,847.76**
NBFIs(34)	13907.70	3389.60	6499.87	5295.20	4548.03
Grand Total	**548616.66**	**71347.10**	**105252.91**	**111215.38**	**73395.79**

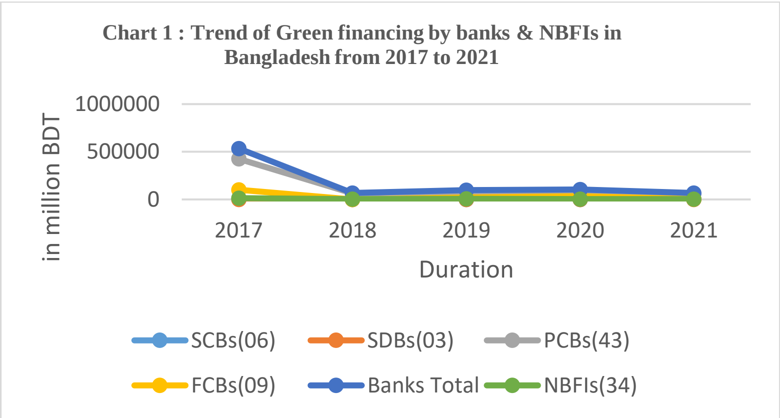
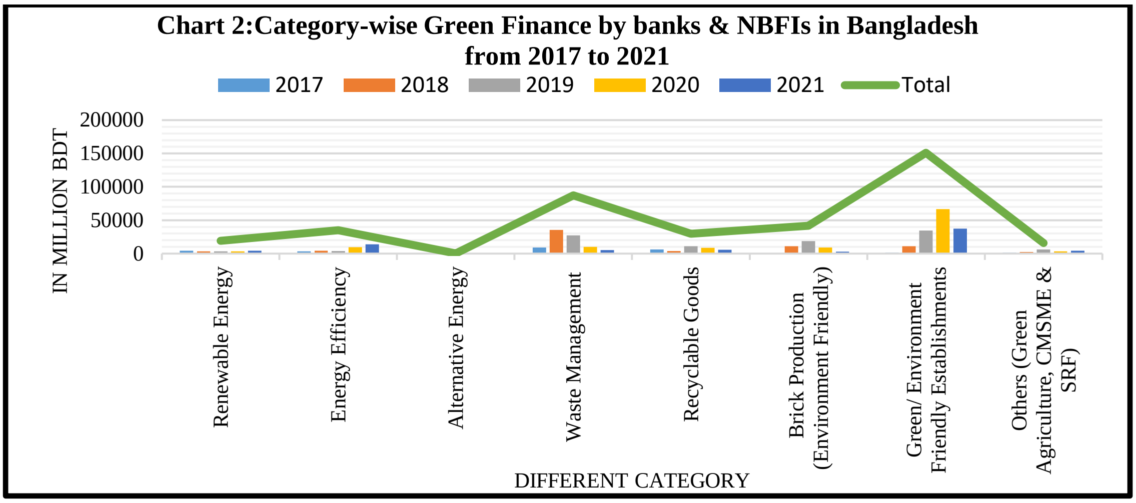


Table 4 represents category-wise direct green finance in last five years. Chart 1 presents Trend of Green financing by banks & NBFIs in Bangladesh from 2017 to 2021 where Chart 2 indicates the category-wise green finance by banks & NBFIs in Bangladesh from 2017 to 2021. The findings of the study revealed that the total amount of direct disbursement of green finance by banks and NBFIs in Bangladesh during the last five financial year (2017-2021) were 909,828.37 million Bangladeshi Taka

(BDT) (see Table 3). The highest disbursement was in 2017 and lowest was in 2018 among the five financial year. The amount were 548616.66 and 71347.10 million respectively. Comparing all financial institutions in green financing projects PCBs was the highest and SDBs was the lowest contributors among all. However, in the case of the NBFIs in 2021, it has been decreased by BDT 747.17 million, which is 14.11% lower than the previous year. In 2021, however, a rather modest expansion is anticipated. It is possible that the pandemic impacted investment prospects in the country as a whole. It is also obvious that private commercial banks have contributed around 80% of the total green finance and have played a vital role in greening the nation's economy.

Table 4: Category -Wise of Green Financing

Category-wise Green Financing	Renewable Energy	Energy Efficiency	Alternative Energy	Waste Management (Liquid & Solid)	Recyclable Goods (Recycling & Manufacturing)	Brick Production (Environment Friendly)	Green Establishments (Environment Friendly)	Others (Green Agriculture, CMSME & SRF)
2017	4443.8	3398.3	132.7	9084.5	6276.4	193.6	1577.8	1626.5
2018	3,355.6	4,236.9	9.0	35,356.6	3,867.2	10,989.2	11,270.0	2,262.6
2019	3,442.43	4,031.59	83.98	27,359.40	11,238.68	18,585.92	34,303.21	6,207.70
2020	3,546.19	9,545.09	16.08	10,062.72	8,866.69	9,198.28	66,740.18	3,240.16
2021	4,339.56	13,795.70	43.84	5395.73	5,536.03	2,931.03	37,193.66	4159.98
Total	**19127.58**	**35007.6**	**285.6**	**87258.95**	**29,508.60**	**41,704.43**	**151084.85**	**15,870.44**



But the NBFIs are not in the same situation. Even though NBFIs have grown a lot in the past few years, the growth of green finance from year to year has been uneven and slow. Bangladesh now has 34 non-bank financial institutions (NBFIs) and 61 scheduled banks. NBFIs have a narrower business line than commercial banks, as their investments are largely centered in the industrial sector. The majority of NBFIs conduct merchant banking through independent subsidiaries, much like banks. These could be the causes for the NBFIs' poorer green performance as compared to banks. Charts 2 shows that the category-wise green financing from 2017 to 2021 where it is evident that the majority of the green finance was mobilized in the green and environment friendly establishments of green finance followed by waste management, brick production and energy efficiency.

3.2 Recent development of green bonds in Bangladesh:

3.2.1 Guidelines and standards for green bonds: At the international, regional, and national levels, a diverse set of norms and standards for green bonds has been produced. Proceeds from issue should be held in a separate subaccount or properly tracked until spent, and environmental impacts should be transparently disclosed. The CBI standard requires that proceeds from green bonds be transferred to investments within 24 months after their issuance, whereas the other frameworks make no such requirement. All frameworks advocate for environmental reporting, ideally quantitative, on the effects of projects financed with bond funds. At their most fundamental level, guidelines differ in that they either establish a comprehensive set of rules and criteria specifying the exact standards that green projects must meet, or they describe a process for disclosing how bond proceeds will be spent while allowing issuers to define their own project standards. In general, green bond guidelines typically cover:

- ✓ use of proceeds – the issuer should declare the eligible green product categories upfront, providing clear environmental benefits;
- ✓ process for project evaluation and selection – the issuer should outline the process of selection and work to establish impact objectives;
- ✓ management of proceeds – funds should be segregated or otherwise tracked;
- ✓ reporting – issuers should report regularly on projects and where feasible, on the impact of the specific investment.

Bangladesh, on the other hand, is attempting to establish a bond market with more endurance and compatibility. In this trial, Green Bonds will be a critical tool. Green Bonds are used to finance environmentally beneficial projects that aim to reduce carbon emissions and industrial pollutants in general. Due to this distinguishing characteristic, green bonds may contribute to the revitalization of Bangladesh's currently sluggish bond market.

3.2.2 Green Bond: Green bonds are nearly identical to conventional bonds, except that the funds obtained from investors are used to finance projects that have a good impact on the environment. For instance, renewable energy, green buildings, and eco-friendly clothing. On April 7, 2021, the Bangladesh Securities and Exchange Commission authorized Sajida Foundation, a non-governmental organization, to raise BDT 1 billion in the capital market through the first-ever issuance of green bonds in the country's history. The non-profit organization intends to use the proceeds from the Green Zero-Coupon Bond to expand the reach of its microfinance program and to assure environmental development. These bonds are available for purchase by public financial institutions, mutual funds, insurance companies, publicly traded banks, cooperative banks, regional rural banks, organizations, trusts, and autonomous businesses.

3.2.3 Green Sukuk Bond: Beximco first issued a Tk3,000 crore Sukuk bond with a five-year maturity, intending to use the proceeds to expand its textile operation and implement two solar power projects under its power division. The Investment Corporation of Bangladesh served as trustee for the Sukuk, which was co-managed by City Bank Capital Resources Ltd. and Agrani Equity and Investment Ltd. The Sukuk's base rate was set at 9%, implying that investors will receive a 9% guaranteed yearly return. Over the course of the five-year term, investors can convert their Sukuk into shares of Beximco. They can convert only 20% of the total in a single year.

4. Challenges and recommendation of Green Financing in Bangladesh:

- ✓ Despite the existence of green banking policy guidelines, banks and financial institutions' inability to manage green projects has resulted in a slow growth of green financing promotion.
- ✓ Bangladesh's green bond market is still in its early stages, and it has struggled to attract enough investors. Investors choose to put their money into highly rated bonds or low-risk investments. To make these bonds appealing to investors, the bond market requires an appropriate framework.
- ✓ Investment in green initiatives becomes too expensive due to the high cost of borrowed funding. High debt costs are related to reasons such as high interest rates, short maturity

periods, and the lack of non-recourse loans. So, borrowing cost must be reduced from the other risky investment. Though cost of capital is comparatively lower than conventional financing.

- ✓ Current market behaviors, market regulation, and financial incentives are all becoming major roadblocks to the success of financial instruments. However, different regulatory framework need to be formed to get the benefits of green finance.
- ✓ The availability of financial resources is hindered by the presence of a number of hazards that are associated with green finance. These risks include currency risk, risk related to technology, and credit risk. So, professional risk analyst should be employed to assess the risk management.
- ✓ In addition to investors' ignorance of innovative financial mechanisms, a lack of investor awareness is a barrier to green financing. So, investor awareness must be increased.
- ✓ Funding green projects is hampered by the absence of an efficient framework for evaluating sustainable ventures, particularly in the early stages of innovation.

CONCLUSION

The report reveals that the Bangladeshi financial sector has been at the forefront of green banking since 2011. It shows that Bangladesh's central bank has played a vital role in greening the Bangladeshi banking system. There is also a good synergy between green banking legislation and the government's green growth agenda. The Central bank strengthens the consistency of governmental policies and activities by using in-house green practices. We argue that central bank policy and financial supervisory support in emerging nations affect long-term results for sustainable development and a just transition to a green economy.

Currently, all are concerned about protecting the environment and maintaining ecological equilibrium. A number of stakeholders, including the general public, the news media, environmental organizations, corporations, and the government, are required to raise public understanding of environmental issues. All of these stakeholders have benefited from a company's sustainability initiatives, which have a wider impact on society and the global environment. Banks and other financial institutions play a crucial role in protecting the environment by supporting a variety of eco-friendly projects, including renewable energy, green sector development, and waste management. Green financing benefits a variety of stakeholders, including bankers, managers, suppliers, academics, and communities, by assisting them in achieving environmental sustainability through the implementation of various strategies, such as energy conservation, online banking, paperless transactions, employee engagement programs, training, etc. In conclusion, green financing is essential for Bangladesh's long-term, sustainable economic growth and banking sector development.

More research is needed to assess the success of central bank greening measures in emerging markets, as well as to look into the variables that make green finance efforts easier to embrace.

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