Article

Revisiting the Current Status of Green Finance and Sustainable Finance Disbursement: A Policy Insights

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Abstract: The paradigm of green finance is currently in the developmental stage in Bangladesh; however, it has drawn enormous interest in the global financial sector. Recently, researchers, academics, policymakers, and both the supply-side and demand-side of these funds are more serious in Green Finance and Sustainable Finance than ever before. In creating a greener economy, market players need to focus on sustainable development. All banks and NBFIs have to disburse the funded loan greater than or equal to 5% in green finance and 20% in sustainable finance according to BB policy guidelines. This paper examines the recent target accomplishment scenario of green finance and sustainable finance through banks and NBFIs in Bangladesh for the year of 2021 (four quarters). This study also observes the highest and lowest contributors in both schemes and is descriptive in nature. Data has been collected from secondary sources. According to the findings of this study, Bangladesh’s central bank has made significant accomplishments in the effort to green the country’s financial system by implementing several green policies and regulatory measures. This study also indicates the total target achievements of banks and NBFIs were 3.16% of 5% in the green finance of total loan disbursement and 9.32% of 20% in sustainable finance, which is still far behind the SDGs’ goal that must be achieved by 2030. The intention of this research is to encourage the supply and demand sides of the fund and to capitalize more on future research directions. Independent experts in this field are needed to confirm the findings of any further research.

Keywords: sustainable finance; green finance; climate finance; green bond; BB guidelines

1. Introduction

Recent environmental challenges including biodiversity loss, climate change, natural resource depletion, and social issues—mainly related to severe socioeconomic gaps—impede economic advancement. Significant structural changes must be made to current production and consumption patterns so that these concerns can be addressed. A combined effort by the economic players consisting of enterprises, industries, governmental agencies, consumer organizations, active civic societies, engineers, and scientists can impact change. The current global consensus on environmental protection, climate change action, and achieving the United Nations Sustainable Development Goals (SDGs) by 2030 has pushed green financing to the forefront.

Green finance is also known as “sustainable finance”, “environmental finance”, “climate finance”, and “green investment”. The International Finance Corporation defines green finance as “the financing of ventures that generate environmental benefits to achieve a win-win situation between economic development and environmental quality
improvement”. All market-based instruments meant to deliver environmental quality and transfer environmental risk in a restricted sense are called Green (or environmental) finance [1]). Green finance is also called green investments by Zadek and Flynn [2]. It has a variety of definitions and connotations in both academia and industry [3]. UNFCCC defines green finance as “local, national or transnational financing-drawn from the public, private and alternative sources of financing-that seeks to support mitigation and adaptation actions that will address climate change”. Green finance comprises “all forms of investment or lending that consider the environmental effect and enhance environmental sustainability” [4]. Green finance is an investment by scheduled banks and NBFIs in any impact fund registered under the BSEC (Alternative Investment) Rules, 2015.

Green finance is formed for environmentally friendly sectors/purposes such as waste management and treatment, resource and energy efficiency, climate-friendly transportation, renewable energy, the protection of women’s and children’s rights, etc. [5] underline the significance of carbon finance within green finance. Finance that supports sustainable development in three dimensions—economic, environmental, and social—is called sustainable finance [6]. The primary goal of a sustainable financial system is to benefit the economy and society as a whole. According to society and the economy, finance should align with transitions towards sustainability, social transition, and digital transition. Climate change mitigation and adaptation, ecosystem protection, and species conservation require money as part of the environmental transition. For social transition, including decreasing poverty and inequality, financial resources must be redistributed. The digital shift impacts the financial business, which includes new technology, artificial intelligence, and the Internet of Things.

The role of finance is expected to shift into a green, low-carbon economy. The new goal of sustainable finance is to improve the financial system’s social, economic, and environmental performance. Bangladesh is ranked 109th, with an overall score of 63.5, in the 2021 SDG index. In contrast, Finland is ranked 1st, with the highest score of 85.9. The Central African Republic has ranked lowest (165), with an overall score of 38.3, according to Sustainable Development Report 2021, published by Cambridge University Press (Sachs et al., 2021). According to the policy of Bangladesh Bank (BB), target attainment in Green Finance (GF) is greater than or equal to 5% of the total term loan disbursement, and the target attainment in Sustainable Finance (SF) is greater than or equal to 20% of the total loan disbursement.

Globally, various studies on green finance have been undertaken recently [7–13]. Recent trends, issues, and opportunities for the development of green finance to accomplish sustainable development goals (SDGs) were the primary focus of these studies. A few other studies have tried to ascertain the relationship between green finance and the green economy in China, between green finance and preventing climate change in the N-11 and BRICS countries, and between green finance, carbon intensity, and the use of non-fossil energy in China. Zheng et al. studied the role of green finance in Bangladesh [14]. Masukujjaman & Aktar) explored green banking as a new paradigm of financing in response to the global call for sustainable development [15]. Khafrunnessa et al. reviewed the recent developments of green banking in Bangladesh [16]. Scholars conducted research on green banking and green financing, but overlooked green finance and sustainable financial growth, the current status of its disbursement, and target achievement according to the policy framework. Only one study found, which is backdated to making policy decisions in this sector [9]. Furthermore, existing research could not cover green finance and sustainable financial growth, the current status of its fund disbursement or refinance rate, and target attainment of respected field aspects, all of which are required to gain comprehensive knowledge in academia and prospective managerial reform.

The objective of this paper is to examine the current target achievement scenario of green finance and sustainable finance through banks and NBFIs in Bangladesh. It also attempts to know the contributors to green finance and sustainable finance and investigates various issues concerning green finance and sustainable finance in Bangladesh.
This paper includes five parts: in Section 1, the introduction is established, and this section discusses the background of the study; in Section 2, we explain the literature review of the study; in Section 3, the methodology of the study is introduced; Section 4 discusses the findings and analysis; finally, the conclusion is given in Section 5.

2. Literature Review

In the Asia-Pacific region, Environmental, social, and governance (ESG) and environmental and social risk management (ESRM) practices are considered the critical topic, with a rising number of financial and monetary authorities monitoring how to integrate climate and other environmental aspects into their regulatory frameworks or enabling financial institutions to incorporate ESG standards [17]. Conversely, climate risk and sustainable finance are new themes in which most monetary authorities—mainly in the Asia-Pacific region, but also elsewhere—have minimal experience.

The latest changes in the financial sector are in response to the current trend of greening finance. According to L. Dziawgo, the financial market has been active in fostering pro-ecological transformations of society and economy while also gradually “greening” financial markets [18]. Bangladesh has made significant progress in establishing and growing green banking practices, infrastructure development, and green growth in recent years; however, it still lags behind wealthy nations in ecological performance [16]. The main hurdles for the expansion of green finance in Bangladesh are the substantial issues impeding development and the high transaction costs connected with green projects [7].

To increase the impact of green finance on reducing carbon emissions, we must continue to encourage its expansion, lower the financing barriers for energy-saving and environmental-protection businesses, and promote the research and innovation of green revolutionary technologies [19]. Due to the direct impact climate risks can have on central banks’ primary functions, all institutions should incorporate physical and transition risks associated with climate change into their policy frameworks to safeguard macro-financial stability [20]. Green finance has proliferated in countries with developing economies [21]. Green finance is a rapidly developing notion that lacks a formal and worldwide explanation [22]. At the macroeconomic level, the financial return and risk trade-off are optimized. This financial perspective supports both the idea of profit maximization by organizations and the idea of the country’s economic advancement. At the societal level, the impacts of corporate and financial actions are then optimized. Finally, the environmental impact is minimized at the environmental level. As we have seen, there are connections between the levels; therefore, finding the correct balance of economic, social, and environmental factors is crucial [23]. The mentioned three stages of sustainable finance are given below in Figure 1:

![Figure 1. Three stages of sustainable finance. Source: Schramade, 2019 [23].](image)

According to former United Nations Secretary-General Ban Ki-moon, “There can be no Plan B because there is no Planet B”. Banks’ seven most frequent green finance products are green loan/bonds, green investment, climate financing, green infrastructure bonds, green insurance, green securities, and carbon finance [24]. The social component of GF dimensions of PCBs has a positive impact on the economic dimension of GF dimensions.
in Bangladesh [7]. Even though the EU is leading the nation in the transformation to a sustainable economy, [25] found that much more investment is required in building renovation and energy efficiency, renewable energy generation and transmission, and low-carbon transportation. They argue that private sector support for pro-environmental measures may be a substantial source of revenue.

China’s green finance development faces several issues and challenges, including: (a) the limited portion of invested capital and loans for green initiatives by financial firms; (b) the lack of a green financial indicator system and rewards; (c) the government’s insufficient policy for the promotion of green industries; and (d) the failure to create a virtuous circular market mechanism for building in [21].

Green financing is critical to Bangladesh’s long-term economic progress and banking sector development [7]). Green finance can be generally emphasized by the two most recent research areas: sustainable development and finance [26]. Green finance is seen as a crucial financial instrument for every country’s sustainable economic development [27]. As a result, expanding green financing is critical to achieving the goals of long-term economic growth and improved environmental quality and resolving the economic–environmental conflict. A corporation may face early or late liquidation if it lacks economic viability. As a result, financial sustainability is a must for any organization, especially banking institutions like private commercial banks (PCBs), to continue long-term growth [7]. Bangladesh’s central bank is promoting green finance through concessional refinancing programs and credit allocations to financial enterprises and green bank policies, as well as sector-specific transformation projects supported by international donors. As a result, Bangladesh’s banks and non-bank financial institutions have already adopted a green finance system to support green growth and environmental improvements. Furthermore, green banking activities, mainly green financing, have the potential to minimize both internal and external carbon emissions [28]. In Bangladesh, private commercial banks (PCBs) and non-banking financial institutions (NBFS) are the leading participants in green finance, as opposed to state-owned commercial banks (SCBs) and foreign-owned commercial banks (FCBs) [14].

In this situation, this special issue focuses on the vital role that the financial sector is expected to play in this framework. We are sure that sustainable finance is one of the most essential parts of this process. There are different ways to make this change happen, such as making new financial products related to these global goals, changing existing financial tools to help companies reach the SDGs, and making sure that all people who work in financial institutions or participate in financial markets as investors or applicants for financing are aware of what is going on.

3. Methodology of the Study

The research in this study is primarily descriptive and based on secondary data. It describes the compliance and policy initiatives (target and achievement) of the central bank concerning green financing and sustainable financing for the first four quarters of 2021. All scheduled banks (private & public) and non-banking financial institutions were particularly selected for this study due to their contribution to green finance and sustainable finance in Bangladesh for 2021 (four quarters). According to Stewart and Kamins, the benefit of this review procedure is that the data already exists in some form and can be examined in advance for appropriateness and quality [29]. In this study, secondary data was gathered from various Banks and Non-Banking Financial Institutions’ reports released by the Central Bank of Bangladesh and from other publicly available reports from public and private sector financial institutions and banks in Bangladesh. In addition, data are collected from quarterly and annual reports on green financing and sustainable financing in Bangladesh. Resources are collected from the websites of commercial banks and non-bank financial institutions. Furthermore, data are gathered from World Bank, the United Nations Environment Program (UNEP), and published articles in various journals and renowned newspapers. For analyzing data, this study used descriptive statistics using Microsoft Excel version 2016 and IBM SPSS 26. This study takes a quantitative method
and utilizes select indicators such as policy formulation and governance in three phases, a review on the refinancing schemes of Bangladesh Bank, and an overview of sustainable finance and green finance disbursement by banks and non-banking financial institutions for assessing compliance status, which is taken from the Bangladesh Bank Green Banking Policy (SFD Circular No. 01/2021). The research design entails organizing, gathering, and evaluating data samples to arrive at accurate research conclusions. This study’s scope is confined to banks and non-bank financial institutions (NBFIs) in Bangladesh excluding other financial institutions like capital market, investment firms, insurance companies, and brokerage firms.

4. Findings, Analysis & Discussion

4.1. Policy Formulation and Governance

The Bangladesh Bank published Green Banking Policy Guidelines in 2011. All commercial banks were urged to establish a comprehensive Green Banking policy in three stages: 

Phase one:
Create an environmental policy that covers the bank’s buildings and facilities, lending rules, a green banking unit, and a high-level committee to examine the bank’s environmental policies, plans, and initiatives. Set up budget lines for green finance, climate risk, and strengthening internal capability.

Phase two:
Develop strategies and goals for environmentally sensitive industries. Steps taken should be reported to the public. Set up “green branches” (e.g., solar-powered buildings) and use video conferencing more frequently. Develop an environmental risk management handbook for the project and working capital loan assessment and monitoring.

Phase three:
Publish Green Annual Reports that have been independently verified. Between 2014 and 2016, the central bank: set a minimum target of 5% in direct green finance total funded loan disbursement; established a ‘Climate Risk Fund’ for CSR budget with at least 10% allocations; included a Solid Waste Management System, Rainwater Harvesting, and Solar Power Panel in their newly constructed or arranged building infrastructure; and ensured the establishment and activeness of Effluent Treatment Plant (ETP) during financing to all possible clients. This year also saw the formation of Sustainable Finance United. The annual “Target & Achievement” of Green Finance and Sustainable Finance for Banks and NBFIs was finally set last year. Over the last five years, ESRM guidelines, a comprehensive green finance product list, a uniform reporting structure for the Quarterly Review Report, and a definition of green finance have been developed.

With the exception of Bengal Commercial Bank Ltd. and Strategic Finance & Investment Ltd., all scheduled banks and NBFIs have formed their Sustainable Finance Unit and Green Banking Policy. Bangladesh Bank approved a Sustainable Finance Policy in December 2020. Under this strategy, BB has defined Sustainable Finance for Banks and NBFIs. By 2021, all banks and non-bank financial institutions (NBFIs) must have a sustainable finance policy.

4.2. Review on Refinancing Schemes of BB for Green Finance

1. Refinance Scheme for Environment-Friendly Products/Initiatives:

   In 2009, BB created a BDT 2 billion (200 crore) revolving refinance scheme for solar energy, biogas, and ETP using its resources. The fund increased from BDT 2 billion to BDT 4 billion to satisfy increased demand for funding environmentally friendly products and programs. There are now 55 goods in 9 categories. The fund has disbursed Tk. 6116.02 million as a refinance facility since its inception through 31 December 2021.

2. Refinance Scheme for Islamic Banks & Financial Institutions for Investment in Green Products/Initiatives:
To assist Shariah-based banks and financial institutions, the Bangladesh Bank developed a refinance plan funded by surplus liquidity of Shariah-based financial institutions in 2014. Bangladesh Bank issued an integrated and comprehensive “master circular” in 2018 by updating and integrating all current circulars and circular letters related to this refinance strategy. The number of products provided under this plan has been expanded to 51 and grouped into eight categories by BB. In the first three quarters of 2021, Bangladesh Bank achieved a profit of BDT 1.34 million on this product for “Working Environment and Factory Fire Safety”.

3. Green Transformation Fund (GTF)

The Green Transformation Fund (GTF) was established in January 2016 to assist long-term growth in the export-oriented textile and leather sectors, favorable to the country’s green economic transformation. Since September 2019, any manufacturer-exporter, regardless of industry, has been able to use this fund to purchase capital machines and accessories for carrying out green/environmentally friendly activities. The fund has recently received a boost of 200 million Euros. For export-oriented and qualified exporters, this Euro component of GTF can be used to buy green machines and industrial raw materials through the use of Buyer’s Credit. Bangladesh Bank and the intended banks inked a Participation Agreement to increase GTF financing. BB has inked GTF participation agreements with 30 banks and 26 banks. By 31 December 2021, this fund will have disbursed 134.66 million USD and 45.22 million EUR.

4. Technology Development/Up-gradation Fund:

Refinancing for export-oriented firms in Bangladesh is available through the BDT 10 billion Refinance Fund for Technology Development/Upgrading. The fund covers 32 industrial sectors from the Export Policy 2018–2021. On 17 January 2021, SFD Circular No. 2 was sent out to banks and financial institutions. So far, 25 banks and eight non-bank financial institutions (NBFIs) have been designated as Participating Financial Institutions (PFIs) until 31 December 2021.

4.3. Overview of Sustainable Finance & Green Finance Disbursement by Banks & NBFIs

This study examines the loan disbursement by banks and NBFIs in green and sustainable finance for four quarters of 2021 separately and represents the summary of the whole year.

Fifty-two banks and 11 NBFIs had exposure to sustainable financing in the first quarter of 2021, while 38 banks and 5 NBFIs had exposure to green finance. The total amount invested in sustainable financing by banks was BDT 181,506.16 million and 3764.16 million by NBFIs in the January–March quarter of 2021, and BDT 18,880.49 million and 985.33 million by FIs in green finance. Tables 1–3 show a glimpse of Green Finance and Sustainable Finance by banks and non-bank financial institutions for January–March 2021.

Table 1. Sustainable Finance Q1.

| Name of the Banks          | Target Attainment | Name of the NBFIs                                      | Target Attainment |
|----------------------------|-------------------|--------------------------------------------------------|-------------------|
| Bangladesh Krishi Bank     | 67.29%            | Infrastructure Development Company Ltd. (IDCOL)       | 100.00%           |
| National Bank Ltd.         | 59.28%            | Prime Finance & Investment Ltd.                       | 100.00%           |
| Bank Alfalah               | 28.66%            | Industrial and Infrastructure Development Finance      | 64.28%            |
|                            |                   | Company Ltd. (IIDFC)                                  |                   |
| Brac Bank Ltd.             | 27.45%            | Agrani SME Financing Company Ltd.                     | 37.27%            |
|                            |                   | Hajj Finance Company Ltd.                             | 37.22%            |
|                            |                   | IDLC Finance Ltd.                                     | 20.69%            |

Source: SFD, BB.
Table 2. Green Finance Q1.

| Name of the Banks         | Target Attainment | Name of the NBFIs                  | Target Attainment |
|---------------------------|-------------------|------------------------------------|-------------------|
| National Bank Ltd.        | 26.13%            | Infrastructure Development Company Ltd. (IDCOL) | 100.00%          |
| NRB Bank Ltd.             | 24.50%            | Prime Finance & Investment Ltd.     | 50.00%            |
| Premier Bank Ltd.         | 21.88%            | Bangladesh Infrastructure Finance Fund Ltd. (BIFL) | 11.84%           |
| Brac Bank Ltd.            | 27.45%            | Agrani SME Financing Company Ltd.   | 7.09%             |
| Basic Bank Ltd.           | 18.73%            |                                     |                   |
| Islami Bank Bangladesh Ltd. | 15.62%         |                                     |                   |
| Standard Chartered Bank Ltd. | 8.86%           |                                     |                   |
| Rupali Bank Ltd.          | 8.58%             |                                     |                   |
| IFIC Bank Ltd.            | 8.34%             |                                     |                   |
| Commercial Bank of Ceylon | 7.75%             |                                     |                   |
| Modhumoti Bank Ltd.       | 7.62%             |                                     |                   |
| Rajshahi Krishi Unnayan Bank | 6.14%         |                                     |                   |

Source: SFD, BB.

Table 3. Target Attainment by banks and NBFIs in Q1.

| Type of Bank/NBFI | Green Finance as % of Total Term Loan Disbursement | Sustainable Finance as % of Total Loan Disbursement |
|-------------------|-----------------------------------------------------|--------------------------------------------------|
| SOCBs (06)        | 2.29%                                               | 6.72%                                            |
| SDBs (03)         | 0.16%                                               | 35.67%                                           |
| PCBs (43)         | 3.95%                                               | 7.19%                                            |
| FCBs (09)         | 4.27%                                               | 8.98%                                            |
| Banks’ Total      | 3.59%                                               | 7.98%                                            |
| FIs (34)          | 3.16%                                               | 7.54%                                            |

Source: SFD, BB.

Figure 2 and Table 3 indicates that in Q1, the banks’ target attainment was 3.59%, while NBFIs were 3.16% in green finance and 7.98% and 7.54% in sustainable finance, respectively. The central bank fixed the target, and the policy was formulated in the previous year. SDBs were the highest in sustainable finance, and SOCBs were the lowest investment. The percentages were 35.67% and 6.72%, respectively. FCBs were the highest and SDBs were the lowest investment in green finance in the first quarter of 2021.
Tables 4–6 represent a brief picture of Green Finance and Sustainable Finance by banks and NBFIs for the April–June 2021 quarter.

Table 4. Sustainable Finance Q2.

| Name of the Banks       | Target Attainment | Name of the NBFIs                        | Target Attainment |
|-------------------------|-------------------|------------------------------------------|-------------------|
| Rupali Bank Ltd.        | 72.61%            | National Finance Ltd.                    | 40.23%            |
| State Bank of India     | 72.54%            | Industrial and Infrastructure Development Finance Company Ltd. (IIDFC) | 33.24%            |
| Bangladesh Krishi Bank  | 55.60%            | Agranti SME Financing Company Ltd.       | 32.19%            |
| Citi Bank NA            | 40.55%            |                                          |                   |
| United Commercial Bank Ltd. | 22.62%      |                                          |                   |

Source: SFD, BB.

Table 5. Green Finance Q2.

| Name of the Banks       | Target Attainment | Name of the NBFIs                        | Target Attainment |
|-------------------------|-------------------|------------------------------------------|-------------------|
| Citi Bank NA            | 100.00%           | IDLC Finance Ltd.                         | 7.91%             |
| Southeast Bank Ltd.     | 20.60%            | Agranti SME Financing Company Ltd.       | 7.29%             |
| Islami Bank Bangladesh Ltd. | 13.90%    | Infrastructure Development Company Ltd. (IDCOL) | 5.66%             |
| National Bank Ltd.      | 9.60%             |                                          |                   |
| IFIC Bank Ltd.          | 7.15%             |                                          |                   |
| Standard Chartered Bank Ltd. | 6.89%      |                                          |                   |
| Basic Bank Ltd.         | 5.48%             |                                          |                   |

Source: SFD, BB.

Table 6. Target Attainment by banks and NBFIs in Q2.

| Type of Bank/NBFI | Green Finance as % of Total Term Loan Disbursement | Sustainable Finance as % of Total Loan Disbursement |
|-------------------|-----------------------------------------------------|----------------------------------------------------|
| SOCBs (06)        | 0.49%                                               | 6.14%                                              |
| SDBs (03)         | 0.05%                                               | 47.12%                                             |
| PCBs (43)         | 2.60%                                               | 5.57%                                              |
| FCBs (09)         | 2.59%                                               | 9.26%                                              |
| Banks’ Total      | 2.38%                                               | 6.52%                                              |
| FIs (34)          | 2.58%                                               | 4.71%                                              |

Source: SFD, BB.

From Figure 3 it is seen that in the second quarter of 2021, 51 banks and 9 NBFIs had exposure to sustainable finance, while 39 banks and 6 NBFIs had exposure to green finance. The total amount invested during the April–June quarter of 2021 was BDT 166,635.13 million by banks and 2284.87 million by NBFIs as sustainable finance, and BDT 17,081.49 million by banks and 799.49 million by FIs as green finance.

In Q2, the bank’s target achievements were 2.38% in green finance and 6.52% in sustainable finance, whereas NBFIs were 2.58% in green finance and 4.71% in sustainable finance. The central bank fixed the target, and the policy was formulated the previous year. SDBs were the highest and PCBs were the lowest in sustainable finance; PCBs were the highest and SDBs were the lowest investment in green finance. The percentages were 47.12% and 5.57% and 2.60% and 0.05%, respectively.
Figure 3. Target Attainment by banks and NBFIs in Q2.

The disbursement scenario for this program during the July–September quarter of 2021 is presented in Tables 7–9 below:

Table 7. Sustainable Finance Q3.

| Name of the Banks          | Target Attainment | Name of the NBFIs                                      | Target Attainment |
|----------------------------|-------------------|--------------------------------------------------------|-------------------|
| Bangladesh Krishi Bank     | 61.02%            | Infrastructure Development Company Ltd.                | 100.00%           |
| State Bank of India        | 53.81%            | Industrial and Infrastructure Development Finance Company Ltd. (IIDFC) | 65.26%           |
| Shimanto Bank Ltd.         | 32.78%            | Bangladesh Infrastructure Finance Fund Ltd.           | 48.03%            |
| Bank Alfalah               | 30.52%            | Agrani SME Financing Company Ltd.                     | 38.67%            |
| Citi Bank NA               | 40.55%            | Prime Finance & Investment Ltd.                       | 24.12%            |
| Citi Bank NA               | 21.59%            | IDLC Finance Ltd.                                     | 23.73%            |
| Mutual Trust Bank Ltd.     | 21.29%            | Bangladesh Finance Limited                            | 20.16%            |

Source: SFD, BB.

Table 8. Green Finance Q3.

| Name of the Banks          | Target Attainment | Name of the NBFIs                                      | Target Attainment |
|----------------------------|-------------------|--------------------------------------------------------|-------------------|
| State Bank of India        | 67.86%            | Infrastructure Development Company Ltd.                | 100.00%           |
| Islami Bank Bangladesh Ltd.| 16.22%            | Bangladesh Infrastructure Finance Fund Ltd.           | 48.03%            |
| Rupali Bank Ltd.           | 11.28%            | Agrani SME Financing Company Ltd.                     | 9.04%             |
| Mutual Trust Bank Ltd.     | 10.49%            | Bangladesh Finance Limited                            | 8.18%             |
| IFIC Bank Ltd.             | 8.92%             | Bay Leasing & Investment Ltd.                         | 8.10%             |
| Brac Bank Ltd.             | 6.05%             | IDLC Finance Ltd.                                     | 7.39%             |
| Pubali Bank Ltd.           | 5.93%             |                                                        |                   |
| NRB Bank Ltd.              | 5.89%             |                                                        |                   |
| Eastern Bank Ltd.          | 5.06%             |                                                        |                   |

Source: SFD, BB.
Table 9. Target Attainment by banks and NBFIs in Q3.

| Type of Bank/NBFI | Green Finance as % of Total Term Loan Disbursement | Sustainable Finance as % of Total Loan Disbursement |
|------------------|--------------------------------------------------|--------------------------------------------------|
| SOCBs (06)       | 1.34%                                            | 3.40%                                            |
| SDBs (03)        | 0.03%                                            | 47.00%                                           |
| PCBs (43)        | 3.41%                                            | 7.32%                                            |
| FCBs (09)        | 1.79%                                            | 14.13%                                           |
| Banks’ Total     | 3.12%                                            | 8.37%                                            |
| FIs (34)         | 3.49%                                            | 9.02%                                            |
| Grand Total      | 3.14%                                            | 8.38%                                            |

Source: SFD, BB.

Figure 4 indicates that in the third quarter of 2021, 53 banks and 10 NBFIs had exposure to sustainable finance, while 35 banks and 7 NBFIs had exposure to green finance. The total amount invested during the July–October quarter of 2021 was BDT 187,799.19 million by banks and 3955.38 million by NBFIs as sustainable finance, and BDT 15,034.95 million by banks and 928.85 million by FIs as green finance. The bank’s target achievements were 3.12% in green finance and 8.37% in sustainable finance, respectively; in NBFIs, the target achievements were 3.49% in green finance and 9.02% in sustainable finance, respectively. Total target achievements were 3.14% of 5% in green finance and 8.38% of 20% in sustainable finance by banks and NBFIs as of last year.

Tables 10 and 11 represent a brief picture of Green Finance and Sustainable Finance by banks and NBFIs for the October–December 2021 quarter.

Table 10. Sustainable Finance Q4.

| Name of the Banks            | Target Attainment | Name of the NBFIs                          | Target Attainment |
|------------------------------|-------------------|--------------------------------------------|-------------------|
| State Bank of India          | 80.57%            | Bangladesh Infrastructure Finance Fund Ltd.| 100.00%           |
| Bangladesh Krishi Bank       | 59.15%            | Prime Finance and Investment Ltd.          | 87.00%            |
| Eastern Bank Ltd.            | 31.75%            | Industrial and Infrastructure Development Finance Company Ltd. | 49.34% |
| National Bank Ltd.           | 30.92%            | Agrani SME Financing Company Ltd.          | 36.88%            |
| The City Bank Ltd.           | 22.83%            | National Finance                          | 27.10%            |
| Brac Bank Ltd.               | 20.40             | Haji Finance Company Ltd.                  | 26.66%            |
| Bangladesh Commerce Bank     | 20.30%            | IDLC Finance Ltd.                          | 21.44%            |
| Bengal Commercial Bank       | 20.30%            | Lankan Alliance Finance Ltd.               | 21.08%            |

Source: SFD, BB.
### Table 11. Green Finance Q4.

| Name of the Banks                  | Target Attainment | Name of the NBFIs                               | Target Attainment |
|-----------------------------------|-------------------|------------------------------------------------|-------------------|
| State Bank of India               | 90.58%            | Bangladesh Infrastructure Finance Fund Ltd.     | 100.00%           |
| Community Bank Bangladesh Ltd.    | 17.25%            | CVC Finance Ltd.                                | 15.77%            |
| Bank Asia Ltd.                    | 16.15%            | IDLC Finance Ltd.                               | 10.23%            |
| South East Bank Ltd.              | 13.27%            | Agrani SME Financing Company Ltd.               | 7.67%             |
| Islami Bank Bangladesh Ltd.       | 12.38%            | Infrastructure Development Company Ltd.         | 6.11%             |
| Global Islami Bank Ltd.           | 10.01%            |                                               |                   |
| Shahajalam Islami Bank Ltd.       | 8.16%             |                                               |                   |
| EXIM Bank Ltd.                    | 7.39%             |                                               |                   |
| Modhumoti Bank Ltd.               | 5.93%             |                                               |                   |
| Eastern Bank Ltd.                 | 5.88%             |                                               |                   |
| Brac Bank Ltd.                    | 5.57%             |                                               |                   |

Source: SFD, BB.

Tables 12 and 13 represents a snapshot of Green Finance and Sustainable Finance by banks and NBFIs for January–December 2021.

### Table 12. Sustainable Finance Jan–Dec 2021.

| Name of the Banks                  | Target Attainment | Name of the NBFIs                               | Target Attainment |
|-----------------------------------|-------------------|------------------------------------------------|-------------------|
| State Bank of India               | 70.99%            | Prime Finance and Investment Ltd.               | 74.43%            |
| Bangladesh Krishi Bank            | 60.58%            | Industrial and Infrastructure Development Finance Company Ltd. | 51.20% |
| National Bank Ltd.                | 25.50%            | Agrani SME Financing Company Ltd.               | 36.55%            |
| Rupali Bank Ltd.                  | 24.61%            | Bangladesh Infrastructure Finance Fund Ltd. (BIFFL) | 32.96%            |
| Eastern Bank Ltd.                 | 20.99%            | National Finance                               | 26.87%            |
|                                   |                   | IDLC Finance Ltd.                               | 20.99%            |

Source: SFD, BB.

### Table 13. Green Finance Jan–Dec 2021.

| Name of the Banks                  | Target Attainment | Name of the NBFIs                               | Target Attainment |
|-----------------------------------|-------------------|------------------------------------------------|-------------------|
| CITI Bank NA                      | 100.00%           | Bangladesh Infrastructure Finance Fund Ltd.     | 32.96%            |
| State Bank of India               | 71.80%            | Infrastructure Development Company Ltd.         | 16.30%            |
| Islami Bank Bangladesh Ltd.       | 14.33%            | CVC Finance Ltd.                                | 15.22%            |
| Community Bank Bangladesh Ltd.    | 9.70%             | Agrani SME Financing Company Ltd.               | 7.66%             |
| NRB Bank Ltd.                     | 9.10%             | IDLC Finance Ltd.                               | 6.43%             |
| BASIC Bank Ltd.                   | 7.42%             | Prime Finance & Investment Ltd.                 | 5.69%             |
| South East Bank Ltd.              | 7.18%             |                                               |                   |
| Bank Asia Ltd.                    | 6.81%             |                                               |                   |
| IFIC Bank Ltd.                    | 6.56%             |                                               |                   |
| Standard Chartered Bank           | 5.78%             |                                               |                   |
| Modhumoti Bank Ltd.               | 5.23%             |                                               |                   |
| Rupali Bank Ltd.                  | 5.12%             |                                               |                   |

Source: SFD, BB.
Table 14 indicates that, in the fourth quarter of 2021, 53 banks and 16 NBFIs had exposure to sustainable finance, while 39 banks and 9 NBFIs had exposure to green finance. The total amount invested during the July–September quarter of 2021 was BDT 261,334.27 million by banks and 6266.89 million by NBFIs as sustainable finance, and BDT 17,850.37 million by banks and 1834.36 million by FIs as green finance.

Table 14. Target Attainment by banks and NBFIs in Jan–Dec 2021.

| Type of Bank/NBFI | Green Finance as % of Total Term Loan Disbursement | Sustainable Finance as % of Total Loan Disbursement |
|-------------------|-----------------------------------------------------|--------------------------------------------------|
| SOCBs (06)        | 0.25%                                               | 4.22%                                            |
| SDBs (03)         | 0.03%                                               | 41.57%                                           |
| PCBs (43)         | 3.67%                                               | 8.69%                                            |
| FCBs (09)         | 2.24%                                               | 11.63%                                           |
| Banks’ Total      | 3.09%                                               | 9.29%                                            |
| FIs (34)          | 4.17%                                               | 10.86%                                           |
| Grand Total       | 3.16%                                               | 9.32%                                            |

Source: SFD, BB.

In Indonesia, the lending portfolio in sustainable finance priority areas has expanded dramatically. The sector of sustainable agriculture has seen the greatest growth, reaching over 108 million USD in 2018, with an emphasis on palm oil. This represented around 7.3% of overall financing to the palm oil industry in the same year, which was $1466 million. The renewable energy sector comes second in the green lending portfolio, receiving significantly less investment than sustainable agriculture, with a total lending volume of USD 10.6 million. The palm oil industry has considerably contributed to Indonesia’s economic growth, with palm oil exports exceeding USD 23 billion in 2017 [10]. As the government has set an ambitious output target, a number of fiscal incentives have been implemented to encourage the establishment of oil palm plantations by the private sector.

According to the China Banking Association, by 2017, 21 major Chinese banks reported funding of more than RMB 8.2 trillion to green projects, or about 10% of their total outstanding loans. Regulatory and policy maturity is determined by assessing government and central bank requirements as well as the quality of legislation. Initial formulating, emerging, established, measuring, maturing, and modifying behavior are the five stages. There are 8 countries (China, Bangladesh, Brazil, Morocco, Columbia, Nigeria, Vietnam, and South Africa) in the measuring stage out of 35 established countries, and no countries in the mature stage [19].

In brief, the total target achievements of banks and NBFIs were 3.16% of 5% in green finance of total loan disbursement and 9.32% of 20% in sustainable finance in Bangladesh, which is still far behind the SDGs goal that must be achieved by 2030.

5. Conclusions

As a developing country, Bangladesh is susceptible to the threats of climate change and must go forward by incorporating GF and SF into its mainstream finance. A good aspect is that the Bangladesh Bank is leading the way in introducing GF and SF to the local market and has a clear goal to internalize green banking in the financial industry. It has enacted several policy decisions for environmental and social safeguards that banks and non-bank financial institutions must adhere to when extending loans to commercial firms. To make the SFU practical, additional efforts to solve these obstacles are required. In addition, the role of the capital market in green funding initiatives is unfavorable due to Bangladesh’s underdeveloped bond market and low venture capital exposure. At present, the central bank of Bangladesh is trying to implement the best policy to adopt the framework and come out with the best benefits from the supply side and have put a mandatory target achievement requirement for all banks and NBFIs. From 2021, they must publish quarterly
sustainable financing reports to be followed by their prescribed format. Last year, they also published a sustainability rating methodology for all banks and NBFI. Therefore, Bangladesh must focus on the capacity building of banks and non-banking financial institutions. In addition, the development of bond and equity markets, a well-coordinated policy monitoring body, and the mainstreaming of green finance and sustainable finance to promote green financing are needed to attain sustainable development.

Some managerial and policy implications are as follows. Firstly, the central bank forms a policy framework for GF & SF and implements this policy through guidelines. The central bank will get the most up-to-date information from this report and may impose new instructions on all banks and NBFI. They may know the percentage of target achievement by all banks and NBFI from this study and also be well informed about individual banks’ performance regarding green finance and sustainable finance. The central bank can require all parties to put money into the green fund by lowering interest rates or giving other special incentives. Secondly, the government may formulate a new policy for sustainable development. This response will significantly raise borrowers’ awareness.

Some limitations are mentioned below: (1) this analysis utilizes only secondary statistics data from the Bangladesh central bank; (2) no advanced statistical tools were used. Advanced research could be done using Stata or panel data. The research wanted to examine the compliance of central bank target achievement for 2021; (3) The study only considered one-year data (four quarters) due to having one-year available data and the duration of target achievement of green finance and sustainable finance, which could be extended in the future by integrating more years and FI. In the future, when all phases will be implemented, advanced research can use panel data.

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