

# Green Finance and Sustainable Development in Pakistan: A Thematic-Synthesis

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<https://doi.org/10.62345/jads.2024.13.2.24>

## Abstract

*Promoting sustainable efforts and initiatives that support the environment is essential, as it meets the Sustainable Development Goals (SDGs) set forth by the United Nations. In order to achieve sustainable development in Pakistan, green financing plays an essential role, managing environmental hazards well and looking for possibilities that minimize adverse effects on the environment and society while yet yielding a respectable rate of return. The green finance for sustainable development is an emerging concept in Pakistan. We conducted a thematic synthesis of published research studies discovered in the literature. The goal of this study is to gain a knowledge of the elements related to green financing and sustainable development in Pakistan. We identified key themes like "National Green Finance Strategy" "Green Guidelines of State Bank of Pakistan" Green Financial Instruments (GFIs), "Green Banking Strategy (GBS)" which are important tools for green finance and sustainable development.*

**Keyword:** Green Finance, Sustainable Development Goals, Green Banking Strategy

## Introduction

Corporate planners understand the limitations of using outdated technology and procedures. It is imperative to preserve the planet for upcoming generations due to the concerning depletion of natural resources. A move away from the conventional structure and toward sustainable development is required. The present-day objective is to invest in projects and initiatives that cause less harm to the environment. The financial sector's role is crucial in achieving sustainability. "Green finance" and its role in sustainable development are new and groundbreaking concepts in Pakistan. According to Volz (2015), "all forms of investment or lending that consider the environmental effect and enhance environmental sustainability". According to Bhatnagar et al. (2022), green finance is a crucial tool for attaining carbon neutrality and promoting sustainable economic growth through environmentally conscious investments and activities.

Sustainable development satisfies current needs without harming the capacity of future generations to satisfy their own (Brundtland, 1987). Sustainable development aims to improve society while preserving the environment and the next generation of people. The significance of sustainable development has been emphasized by multiple organizations. As a global call to action to end poverty, safeguard the environment, and guarantee that by 2030 everyone lives in peace and prosperity, the United Nations set 17 sustainable development goals (SDGs) in 2015 (United Nations Development Program, 2024).

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Several researchers have emphasized the significance that green finance plays in sustainable development (Che et al., 2021; Fu et al., 2023). In Pakistan, the ideas are still novel, and we discovered a lack of familiarity. The purpose of this study is to learn about the components of green financing and sustainable development in Pakistan through a thematic synthesis of published research studies found in the literature.

## Literature Review

### Green Finance

Green finance is a loan or investment. Enhancing or establishing environmentally beneficial initiatives should be the goal of the loan or investment. Green organizations are a good thing to start. By encouraging investment in net zero and nature-positive outcomes, the Green Finance Institute (2024) is quickening the shift towards an environmentally sustainable and resilient economy. The World Economic Forum (2023) reports that green money is growing. Green policies greatly increased a beneficial influence on the development of the green energy industry by opening up green finance and green investment (Tsai, 2024).

### Sustainable Development (SD)

A sustainable development meets present requirements without jeopardizing the ability of future generations to meet their own (Brundtland, 1987). Enhancing society while protecting the environment and the next generation of people is the goal of sustainable development. Many groups have stressed the importance of sustainable development. The Sustainable Development Commission (2024) defines SD as a human development strategy. They remarked that we shouldn't overlook the present when planning for the future. SD is a method for doing things better. SD helps us make decisions that have a less negative impact on other people. According to Mensah and Casadevall (2019), the term "sustainable development" (SD) has gained popularity in today's development debate. When it comes to the economy, society, and environment, the decision-makers must act responsibly. To demonstrate conformity, the role of relevant institutions like the UN, governments, the business sector, and civil society is more important.

### Green Finance and Sustainable Development

Green finance for sustainable development is the need of the day. We need green banking strategies. Initiatives must be made in Pakistan to raise awareness of the importance of green finance among various stakeholders, not only those in the banking and regulatory sectors (Mumtaz & Smith, 2019). According to Sharma (2023), green finance promotes sustainable growth throughout a range of time horizons. Xiong and Dai (2023) concluded that green finance has a favorable effect on sustainable development in China. Through promoting technological advancement, green financing can contribute to environmental improvement.

## Research Methodology

### Search Strategy and Article Review

We employed a thematic synthesis, which entails the methodical coding of data and the creation of descriptive and analytical themes. Following Higgins and Green's (2011) recommendations, we carried out a thorough search of the literature, encompassing published qualitative research studies from 2019 to 2024. There were searches conducted using terms like "Green Finance," "Sustainable Development," and "Sustainable Growth." Two searches were also carried out. The first step was searching for research publications that met the predetermined criteria. The identification of

pertinent journals was the second search step. Relevant research publications were looked for on Google Scholar. If an article fulfilled the following requirements, it was deemed suitable for the synthesis:

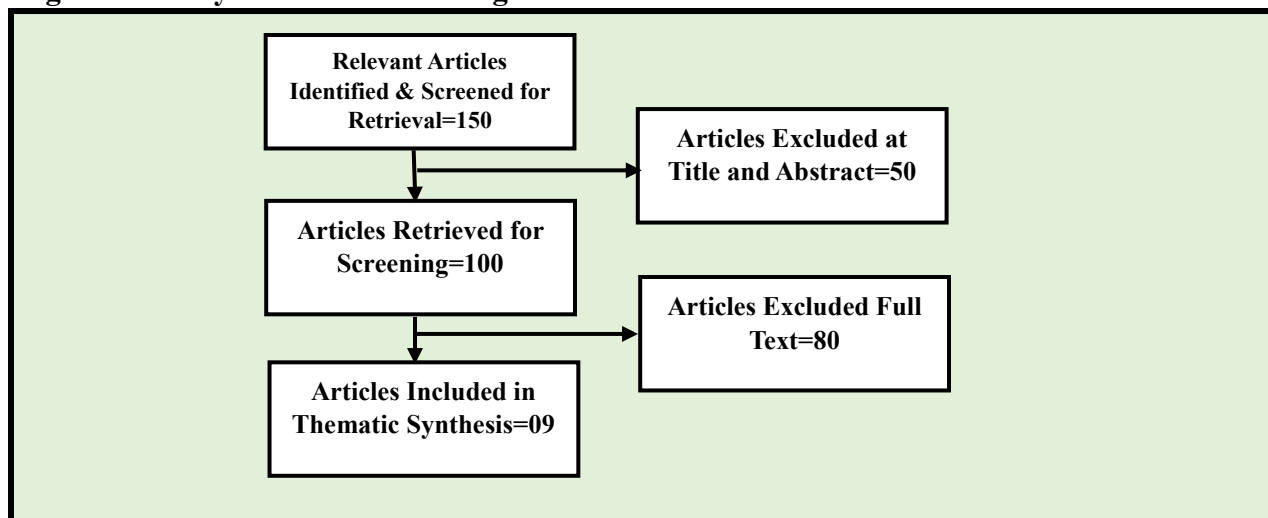
1. Provided information on sustainable development and green finance
2. Concentrated on sustainable development and modern green finance
3. Employed qualitative research techniques
4. Released from 2019 to 2024

The pre-synthesis procedure of quality appraisal aids in the screening of low-quality and irrelevant studies. We applied the criteria set forth by Walsh and Downe (2006) to assess the quality of publications. Data synthesis is an important stage of the thematic synthesis process. We used the three-stage thematic synthesis approach created by James and Harden (2008) to analyze and synthesize the qualitative research.

## Analysis and Results

Key themes on green finance and sustainable development were found by reviewing research studies using a thematic synthesis. Experienced researchers who had studied this field before discussed the themes. 150 research publications in all were found at first. 100 papers were collected for screening, and 50 articles were excluded based on the title and abstract. Due to their complete text's irrelevance, we further excluded 80 articles. We included 09 articles in the thematic synthesis.

**Figure 1: Study Selection Flow Diagram**



The figure 1 shows the study selection flow diagram. Ten publications reporting on qualitative studies were included as shown in table 1. The results of quality assessment of included publications are presented in table 2. The following themes were identified regarding green finance and sustainable development.

### The Green Guidelines of State Bank of Pakistan

The State Bank of Pakistan (SBP) has introduced Green Banking Guidelines (GBG) in 2017. Reducing down exposure to environmental risks is the aim of the GBG. The management and board's roles in environmental responsibility are outlined in the guidelines. The headlines are three.

These are environmental risk management, Guidelines on own impact reduction and green business facilitation (SBP, 2017). According to Mumtaz and Smith (2019), more banks and development finance institutions (DFIs) are currently developing SBP-like guidelines. Reforms in green finance are a commendable endeavor. They added that governments must support and control green industrial markets by promoting green technology, goods, and consumption in order to establish the connections between green finance and green growth.

According to Akram and Rappai (2023), the SBP had made significant progress toward realizing the importance of greening Pakistan's financial system; nevertheless, they needed help translating this recognition into measures that banks could put into practice. They added that Pakistan is no stranger to the threat posed by climate change in a chat to International Finance Corporation (IFC). According to Khan and Zegedi (2019), the banking industry is a significant player in the Pakistani economy. Given the enormous environmental dangers Pakistan is currently experiencing, banks should embrace sustainable and green banking practices. Corporate planners are interested to achieve the sustainable development goals of the United Nations (see figure 2).

**Figure 2: The Sustainable Development Goals, United Nations**



*Source:* United Nations Pakistan: <https://pakistan.un.org/en/sdgs> (2024)

### **National Green Finance Strategy (NGFS)**

The central bank plays a crucial role in establishing a national green finance policy that connects green finance to sustainable development. Global financial planners and organizations are beginning to acknowledge the need for developing national policies or roadmaps for sustainable finance. The deterioration of the country's climate is linked to numerous problems. Pakistan is severely impacted. Financial systems and the economy may be at risk from climate change and other environmental issues. According to a report of Noh (2018), published in Asian Development Bank Institute (ADB) states that green finance is required. For sustainable development and green financing, NGFS is more crucial. Creating laws and policies will promote green development, with green banks creating green systems and goods. Establishing green infrastructures is one of green finance's primary goals. Green growth aims to improve the environment and advance the economy at the same time. The development of the green finance sector is required to provide financial support for green growth.

**Table 1: Characteristics of Qualitative Studies**

No.	Reference	Setting	Aim of the Study	Data Analysis	Main Themes
1	Mumtaz & Smith (2019)	Banking Industry, Pakistan	Analysis the green finance mechanism in Pakistan	Exploration	Green finance guidelines, risk management process, green banking
2	Jha & Bakhshi (2019)	Public and Private Sectors, India	Analysis of challenges in green financing	Descriptive study	Economic Development in a Sustainable Manner, National Green Finance Strategy.
3	Saleem & Khan (2021)	A bibliometric review	Exploration of green finance	A bibliometric review	Market mechanisms, formulation Of policies, “green bonds” “best practices”
4	Kharade (2021)	Government initiatives, India	Exploration of green finance for sustainable development.	Descriptive study	Green investment policy, green finance instruments
5	Kumar et al., (2022)	Textile and Leather industries, Pakistan	The examination of SME, green banking, and demand and supply side constraints	literature review	Policy uncertainty
6	Idrees et al., (2023)	Non-public sector, Pakistan	Exploration of Green financing within Pakistan, the barriers, enhancement	Analysis of published articles	Incentives for non-public sector, providing financial help, uniform descriptions and processes
7	Mudalige (2023)	A bibliometric review	Emerging themes within the domain of green finance	Systematic literature review	Green finance and environmental sustainability, investments, innovation
8	Liu & Wu (2023)	Analytical framework	Review green financial instruments	Systematic literature review	Green practices
9	Van Niekerk (2024)	A bibliometric review	Green finance and economic inclusion	Analysis of theoretical literature	A strong synergy exists between green finance and economic inclusion.

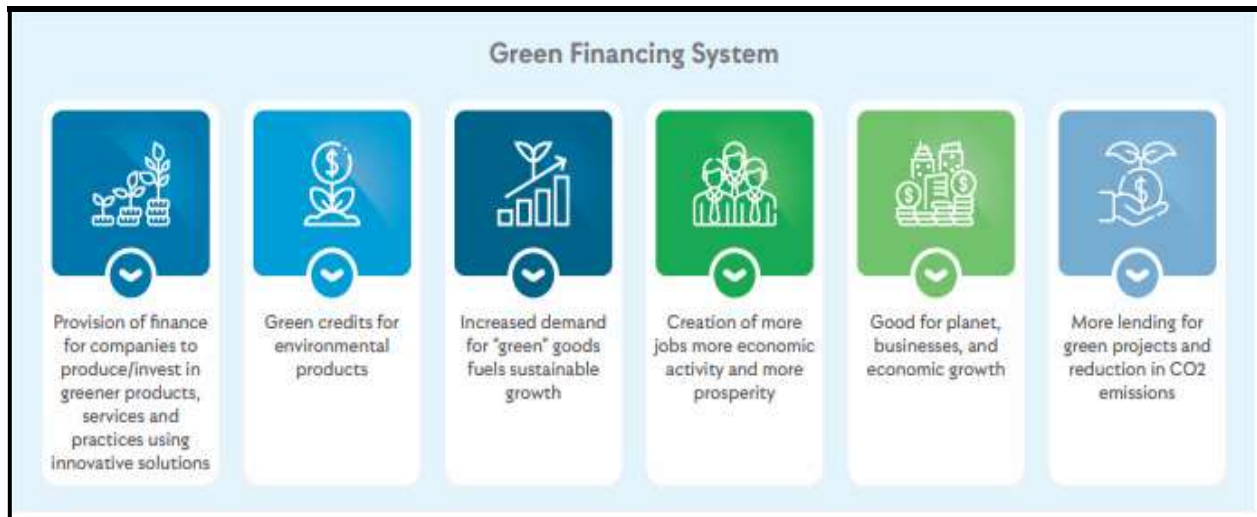
Abbreviations: **SALSA**: Search, Appraisal, Synthesis, Analysis, **SME**: Smal and Medium Enterprises



### Green Finance Instruments (GFIs)

The third area we observed is green financial instruments (GFIs). There are many different kinds of GFIs, including green bonds, green loans, green equities, and green microfinance. According to a report released by the Climate Bonds Initiative (2019), financial products like green-labeled bonds, sukuk, and loans are now widely acknowledged as efficient ways to allocate capital toward projects that address both climate change adaptation and mitigation. According to a study by Siddiqui and Navaneeth (2023), green bonds are financial instruments that have good environmental effects in addition to rewards. They added on to say that rules play an even more crucial role in protecting the environment. This process has been expedited by the green bonds. The financial sector's policies and incentives for climate and environmental goals are not aligned, according to Wijeweera and Rashid's (2023) excellent analysis on greening Pakistan's financial system. The following actions (see figure 3) can help speed up the shift to a green financial system (GFS):

**Figure 3: Green Financing System**



**Source:** UNDP: [https://www.undp.org/sites/g/files/zskgke326/files/2023-08/policy\\_brief\\_-\\_greening\\_the\\_financial\\_system\\_of\\_pakistan.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2023-08/policy_brief_-_greening_the_financial_system_of_pakistan.pdf) (2024)

### Green Banking Strategy (GBS)

The GBS is an excellent idea to develop an eco-friendly activity. It is a step in the direction of environmental and natural resource conservation. Similar to electronic transactions like ATMs and mobile banking, GBS reduces paperwork. Other ideas that fall under the category of "green banking" include green savings accounts, green mortgages, green automobile loans, and green loans for house modernization. According to Mir and Bhat's (2022) research study, companies with higher carbon emissions could be perceived as riskier in the future. They shouldn't receive money from the banks. Innovative technological solutions that absorb or reduce carbon emissions should receive funding from banks. A green banking strategy needs to be developed by the financial sector. Park and Kim (2020) assert that green banking is a developing field for gaining competitive advantages and that climate change poses a threat to the environment.

## Concluding Remarks

This research aims to educate participants on the components of sustainable development and green finance. From the released papers, we created a thematic synthesis. We identified key themes. "The Green Guidelines of State Bank of Pakistan" are the first set of guidelines. 2017 saw the introduction of the Green Banking Guidelines (GBG) by the State Bank of Pakistan (SBP). Development finance institutions (DFIs) and banks are increasingly creating SBP-like criteria, claim Mumtaz and Smith (2019). The initiative to reform green financing is praiseworthy. To connect green finance and green growth, they continued, governments need to foster and regulate green industrial markets through the promotion of green goods, technology, and consumption.

Another crucial them is the "National Green Finance Strategy (NGFS)". Establishing a national green finance policy that links green financing to sustainable development is a major responsibility of the central bank. Noh (2018) asserts in a report published in the Asian Development Bank Institute (ADBI) that green finance is necessary. NGFS is more important for green funding and sustainable development. The third them we observed is green financial instruments (GFIs). There are many different kinds of GFIs, including green bonds, green loans, green equities, and green microfinance. Climate Bonds Initiative (2019) and Siddiqui and Navaneeth (2023) have stated that green bonds are financial instruments that have good environmental effects in addition to rewards. They added on to say that rules play an even more crucial role in protecting the environment. This process has been expedited by the green bonds.

The "Green Banking Strategy (GBS)" is also a great concept for creating environmentally friendly activities. It's a positive step toward protecting the environment and natural resources. GBS minimizes paperwork in a manner akin to automated transactions through ATMs and mobile banking. In addition, green savings accounts, green mortgages, green vehicle loans, and green loans for home renovations are examples of "green banking" concepts. According to Mir and Bhat (2022) and Park and Kim (2020), there is a threat to the environment from climate change, and green banking is a growing industry for generating competitive advantages.

## References

- Akram, P., & Rappai, S. A. (2023). *Greening Pakistan's Finance Sector*. (International Finance Corporation 2023) <https://www.ifc.org/en/stories/2023/greening-pakistans-finance-sector>. (Accessed on May 28, 2024).
- Bhatnagar, M., Taneja, S., & Ozen, E. (2022). A Wave of Green Start-Ups in India—The Study of Green Finance as a Support System for Sustainable Entrepreneurship. *Green Finance*, 4(2), 253–273.
- Brundtland, G. H. (1987). *Report of the World Commission on Environment and Development: Our Common Future*. <http://www.un-documents.net/our-common-future.pdf> (Accessed on May 25, 2024).
- Che, C., Chen, Y., Zhang, X., Zhao, L., Guo, P., & Ye, J. (2021). Study On Emission Reduction Strategies of Dual-Channel Supply Chain Considering Green Finance. *Front. Environ. Sci.* 9, 687468. doi:10.3389/fenvs.2021.687468
- Climate Bonds Initiative (2019). *ASEAN Green Financial Instruments Guide*. [https://www.climatebonds.net/files/reports/asean\\_green\\_fin\\_istruments\\_cbi\\_012019\\_0.pdf](https://www.climatebonds.net/files/reports/asean_green_fin_istruments_cbi_012019_0.pdf). (Accessed on May 28, 2024).
- Fu, C., Lu, L., & Pirabi, M. (2023). Advancing Green Finance: A Review of Sustainable Development. *Digital Economy and Sustainable Development*, 1, 20. <https://doi.org/10.1007/s>



- Green Finance Institute (2024). *A Greener Future Made Possible by Finance*. (Green Finance Institute) <https://www.greenfinanceinstitute.com/> (Accessed on May 25, 2024).
- Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., & Li, T. (2023). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.4. Cochrane. [www.training.cochrane.org/handbook](http://www.training.cochrane.org/handbook).
- Idrees, M. A., Mehmood, S., Shah, Z., & Zafar, M. U. (2023). A Systematic Review on Green Finance and Sustainable Development. *Journal of Accounting and Finance in Emerging Economies*, 9 (4), 529-536.
- Jha, B., & Bakhshi, P. (2019). Green Finance: Fostering Sustainable Development in India. *International Journal of Recent Technology and Engineering*, 8(4), 2277-3878.
- John Wiley and Sons Ltd. ISBN 978-0-470-51845-8 <http://unportal.un.org.pk/sites/UNPakistan>
- Khan, Y., & Szegedi, K. (2019). The Concept of Green Banking in Pakistan. *Sarhad Journal of Management Sciences (SJMS)*, 5(2), 357 – 367.
- Kharade, M. (2021). Green Finance for Sustainable Development- Study on The Indian Context. *Palarch's Journal of Archaeology of Egypt/Egyptology* 18(10), 2459-2466.
- Kumar, L., Nadeem, F., Sloan, M., Restle-Steinert, J., Deitch, M.J., Ali Naqvi, S., Kumar, A. & Sassanelli, C. (2023). Fostering Green Finance for Sustainable Development: A Focus on Textile and Leather Small Medium Enterprises in Pakistan. *Sustainability*, 14, 11908. <https://doi.org/10.3390/su141911908>
- Liu, C., & Wu, S. S. (2023). Green Finance, Sustainability Disclosure and Economic Implications. *Fulbright Review of Economics and Policy*, 3(1),1-24.
- Mensah, J., & Ricart Casadevall, S. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature Review. *Cogent Social Sciences*, 5(1), 1 – 21.
- Mir, A. A., & Bhat, A. A. (2022). Green Banking and Sustainability – A Review. *Arab Gulf Journal of Scientific Research*, 40(3), 247-263.
- Mudalige, H. M. N. K. (2023). Emerging New Themes in Green Finance: A Systematic Literature Review. *Mudalige Future Business Journal*, 9, 108 <https://doi.org/10.1186/s43093-023-00287-0>
- Mumtaz, M. Z., & Smith, Z. A. (2019). Green Finance for Sustainable Development in Pakistan. *IPRI Journal*, XIX (2), 1-34.
- Noh, H. J. (2018). Financial Strategy to Accelerate Green Growth. (Asian Development Bank Institute). <https://www.adb.org/sites/default/files/publication/452656/adbi-wp866.pdf>. (Accessed on May 28, 2024).
- Park, H., & Kim, J. D. (2020). Transition Towards Green Banking: Role of Financial Regulators and Financial Institutions. *Asian Journal of Sustainability and Social Responsibility*, 5(5), 1 - 25.
- Saleem, M., & Matloob Ullah Khan (2021). Green Finance for Sustainable Development: A Bibliometric Review of Current Status, Development and Prospects. *International Journal of Advanced Research in Commerce, Management & Social Science (IJARCMSS)*, 4(4), 1-9.
- Sharma, S. (2023). Green Finance and Sustainable Development: Exploring Dynamic Causal Links and Global Implications. *E3S Web of Conferences*. 453. 10.1051/e3sconf/202345301053.
- Siddiqui, I., & Navaneeth, M.S. (2023). Green Finance: Perspectives in Sustainable Finance Instruments. *Economic and Political Weekly*, 58(6), 23–26.

- State Bank of Pakistan (2017). *Green Banking Guidelines*. <https://www.sbp.org.pk/smefd/circulars/2017/C8-Annex.pdf>. (Accessed on May 27, 2024).
- Sustainable Development Commission (2024). *What is sustainable development*. (Sustainable Development Commission). <https://www.sd-commission.org.uk/pages/what-is-sustainable-development.html> (Accessed on May 25, 2024).
- Thomas, J., & Harden, A. (2008). Methods For the Thematic Synthesis of Qualitative Research in Systematic Reviews. *BMC Medical Research Methodology*, 8 (45), 1-10.
- Tsai, W. T. (2024). Green Finance for Mitigating Greenhouse Gases and Promoting Renewable Energy Development: Case study in Taiwan. *Green Finance*, 6(2), 249-264.
- United Nation Development Program (2024). *What are the Sustainable Development Goals?* <https://www.undp.org/sustainable-development-goals>. (Accessed on May 25, 2024).
- van Niekerk, A. J. (2024). Economic Inclusion: Green Finance and the SDGs. *Sustainability*, 16, 1128. <https://doi.org/10.3390/su16031128>
- Volz, U. (2015): Towards a Sustainable Financial System in Indonesia. Geneva and Washington, DC: UNEP Inquiry into the Design of a Sustainable Financial System and International Finance Corporation. <https://www.unep.org/resources/report/towards-sustainable-financial-system-indonesia>
- Walsh, D., & Downe, S. (2006). Appraising The Quality of Qualitative Research. *Midwifery*, 200(22), 108-119.
- World Economic Forum (2023). *What Is Green Finance and Why Is It Important?* (World Economic Forum). <https://www.weforum.org/agenda/2020/11/what-is-green-finance/> (Accessed on May 25, 2024).
- Wijeweera, K. R., & Rashid, H. (2023). *Greening the Financial System of Pakistan*. (United Nations Development Program Pakistan). [https://www.undp.org/sites/g/files/zskgke326/files/2023-08/policy\\_brief\\_-\\_greening\\_the\\_financial\\_system\\_of\\_pakistan.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2023-08/policy_brief_-_greening_the_financial_system_of_pakistan.pdf) (Acceded on June 2, 2024).
- Xiong, Y., & Dai, L. (2023). Does Green Finance Investment Impact on Sustainable Development: Role of Technological Innovation and Renewable Energy. *Renewable Energy*, 214, 342-349.