Role of Green Finance as Crucial Tool in Combating Climate Change

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Abstract

Climate change is an urgent global issue that requires immediate attention and resolution. It affects all countries and calls for increased financing to address its impacts. Green finance has emerged as a worldwide concern, aiming to promote sustainable economic and financial progress in the face of climate change. Green finance refers to financial mechanisms designed to support environmentally sustainable programs and initiatives that consider the effects of climate change. These initiatives encompass various categories such as green financing, waste management and recycling, biodiversity protection, and climate change adaptation. In addition to assisting countries in achieving their Nationally Determined Contributions (NDCs) under the Paris Agreement, green funding can help countries like India and other developing nations raise funds to meet their sustainable development goals (SDGs). By channeling financial resources into environmentally friendly projects, greening the sector through finance can lead to positive environmental outcomes and contribute to the overall sustainable development of countries. Different countries may adopt various strategies and legal frameworks to implement green funding. In India, for example, corporate social responsibility (CSR) became mandatory for non-banking financial companies (NBFCs) and scheduled commercial banks (SCBs) in 2007. The National Action Plan on Climate Change (NAPCC) was established in 2008 to implement and mitigate climate change policies. In the Union Budget of 2022, the Finance Minister announced the issuance of sovereign green bonds for the upcoming fiscal year. Sovereign green bonds can attract more funds to support India's objective of achieving net-zero carbon emissions by 2070. They serve as an initial step in redirecting private capital towards public environmental projects. Green financing can also support other government initiatives aimed at combating climate change and transitioning to a low-carbon economy.

Keywords: Green Finance, Green Bond, Climate Change, Global Warming.

Introduction

The 2007 Stern Review provides a comprehensive introduction to the economics of climate change . The term "global warming" or "climate change" (CC) refers to the consequences of excessive greenhouse gas (GHG) emissions resulting from our past and present production and consumption patterns, particularly the elevated levels of carbon dioxide in the atmosphere. These emissions have wide-ranging impacts on our socio-economic system, including negative effects on living standards, productivity, and migration patterns.

Addressing climate change involves complex challenges, such as ambiguity, delayed effects, free riding, and collective action problems, which make it difficult for groups to reach consensus. The tragedy of the commons, where the actions of individuals harm the collective well-being, underlies the local origins of climate change. Unfortunately, its full effects will only become apparent after our generation has passed. While there are still uncertainties in climate change research, the impacts are undoubtedly permanent. Consequently, this review article focuses on a subject that encompasses risk, unpredictability, moral prioritization, and international cooperation for the common good. Green finance, which entails funding specifically allocated for climate-related initiatives, is required to address these concerns. Governments worldwide recognized the importance of green finance under the Kyoto Protocol.

The concept of green finance encompasses various financial instruments, including green bonds and other green investment vehicles, as well as financial institutions such as green banks and green funds that support environmentally beneficial projects [3]. Green finance aims to support long-term reductions in carbon emissions and promote positive environmental outcomes. Market innovations are driving the growth of green finance, and it is projected that investments in green infrastructure will reach $5 trillion per year by 2030, with a significant portion directed toward developing countries. India, for instance, will need to invest around $4.5 trillion in infrastructure by 2040 to achieve its national goals for renewable energy, electric vehicles, and green housing.

Review of literature

According to research, green bonds can be utilized for a range of environmental initiatives beyond just low-carbon and climate-resilient projects. Investors, including retirement funds, mutual funds, and hedge funds, can contribute significantly to the liquidity of the green finance market [Climate Bonds Initiative Report, 2019]. However, Asia (excluding Japan) had the lowest percentage of socially responsible investments compared to other regions, indicating a need for greater focus on sustainable investment in the region [Volz, 2016].

Insufficient disclosure regulations addressing environmental and long-term systemic risk factors pose a significant obstacle to sustainable development. Research conducted in Bangladesh suggests that banks should support various eco-friendly activities to promote sustainable growth and develop innovative environmentally beneficial products [Hoshen et al.]. Domestic green bonds have been found to provide additional finance for green infrastructure investment, with the government playing an active role in their issuance, along with sovereign and sub-sovereign bonds [United Nations Environment Report, 2016]. Public-private collaborations are necessary to boost green funding, and the G20 has an essential role in developing policies and best practices for a green transition [Goel, 2016].

Establishing an effective green financial system that balances ecology and finance is crucial, and if properly implemented, green finance can aid in resource allocation and reduce environmental risks [Goel, 2016]. Government intervention is vital in reducing barriers to green finance, with a focus on local administration and support for energy-saving initiatives. Green finance, seen as a cutting-edge financial strategy for resource sustainability and environmental protection, can effectively manage environmental risks and allocate resources through rational market mechanisms [Yao and Zhi]. Efficient policy regulation can address moral hazard and information asymmetry issues [Yao and Zhi].

Raghpathi and Sujatha concluded that India has significant potential for developing green infrastructure necessary for green financing by addressing obstacles and raising corporate awareness. The International Finance Corporation's research indicates that various stakeholders are actively working on strategies to evaluate and promote green financing, providing insight into the amount of money being invested in green projects by private financial institutions.

Objectives of study

1. To understand the global and India's progress in the development of the concept of green finance.
2. To evaluate the requirements and necessity of green financing in India.
3. To identify and analyze the various challenges and issues that exist in the field of green finance.

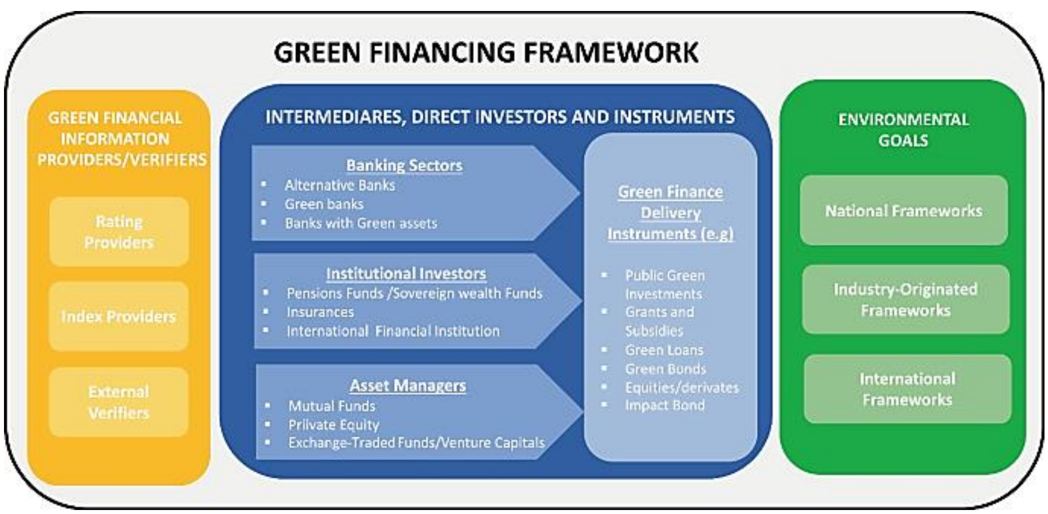
Research Methodology

This study is conducted in a descriptive manner and relies on secondary data obtained from various government reports published by the Indian government, as well as publications from public and private sector organizations and Indian banks.

Result and Discussion

Working principle of green finance

It is based on providing financial support to green enterprises and innovations at different stages of growth, utilizing various sources of funding. These sources include domestic government funding, international funding from organizations and multilateral development banks, and private sector funding from both domestic and international sources. Different investment structures allow for the integration of different types of green finance.



On a global scale

The United Nations Environment Program (UNEP) and commercial banks collaborated to establish the UNEP Finance Initiative (UNEP FI) in 1992, aiming to raise awareness of environmental issues within the banking sector. The UNEP FI engages in discussions with financial organizations to incorporate environmental factors into their practices and services. Over 40 countries and 190 financial institutions have signed the UNEP FI declaration.

Another significant development is the Equator Principles (EPs), introduced in 2003, which provide guidelines for assessing and managing social and ecological risks in venture finance. Financial institutions globally have adopted and implemented the EPs, which apply to projects with capital expenses equal to or exceeding US$10 million. The EPs focus on project finance and incidental consulting services within the financial industry. The UN Global Compact (UNGC) includes ten optional principles that participating banks commit to, aiming to uphold human rights, labor laws, anti-corruption measures, and environmental protection.

Overall, green finance operates on the principle of integrating environmental factors into financial practices and providing financial support to green initiatives. Various initiatives and principles, such as UNEP FI, EPs, and UNGC, contribute to promoting sustainable economic growth and environmental protection within the financial sector.

Green finance in India:

India demonstrated its commitment to addressing climate change by supporting the Kyoto Protocol in August 2002. Recognizing the need for significant capital investments to achieve Sustainable Development Goals, India has established mechanisms to engage multiple stakeholders, as governments and public sector organizations alone cannot meet these financial requirements. The Companies Act of 2013 mandates that larger businesses allocate at least 2% of their annual net profits to Corporate Social Responsibility (CSR) activities, including environmental protection.

In line with promoting green finance, India has been issuing green bonds since 2015. According to the Reserve Bank of India (RBI) Bulletin in January 2021, India had approximately $16.3 billion in outstanding green bonds as of February 2020. From January 2018, India has issued green bonds worth around $8 billion, accounting for a small portion of the overall bond issuance in the Indian financial market. Despite this, India has maintained a favorable position compared to several advanced and emerging countries in terms of green bond issuance.

Conclusion

The significance of green finance in promoting sustainable economic and financial systems has gained global attention. Concerns about climate change and pollution are shared by countries worldwide. This essay examines the importance of green funding in national development. The adverse impacts of global warming and the role of greenhouse gas emissions are acknowledged by environmental experts and scientists. The study highlights the potential reduction in greenhouse gas emissions through green financing. By addressing obstacles and increasing awareness among corporate entities about the importance of sustainable growth, India has the potential to develop the necessary green infrastructure for green financing. It is anticipated that green financing will gain widespread acceptance across all societal levels in the near future.

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