PalArch's Journal of Archaeology of Egypt / Egyptology

"Green Finance for Sustainable Development- study on the Indian context"

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Dr. Mahadev Kharade, Green Finance for Sustainable Development- study on the Indian context, -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(10), 2459-2466. ISSN 1567-214x

Keywords: Green, Finance, sustainable, development Etc.

Abstract

Rapid economic growth is usually achieved at the expense of the environment. Declining natural resources, degraded environment, and massive pollution are detrimental to public health and challenge sustainable economic growth. In order to protect and significantly improve the environment, nations around the world are increasingly focusing on the use of environmentally friendly technologies. Green finance is an emerging concept in the field of finance. Financing for sustainable development and limiting public financing to mitigate the effects of climate change have given the private sector its importance. Green finance, which is private finance capital, represents financial support for sustainable development. The present study, through secondary information, seeks to discuss the need, limitations, and government initiatives for green finance. The purpose of this paper is to make private investors aware of their sustainability role.

Introduction

Green finance refers to an economic system that is specific to use for economically sustainable projects or projects that embrace aspects of climate change. Environmentally sustainable projects include the production of energy from renewable sources such as solar, wind, biogas, etc.

Clean transportation includes low greenhouse gas emissions; Energy efficient projects such as green buildings; Waste management which includes recycling, efficient disposal, and conversion to energy, etc. Furthermore, sustainable defined projects under disclosure requirements for green debt securities include climate change adaptation, sustainable waste, and water management,

Sustainable land use including sustainable forestry and agriculture and biodiversity conservation (SEBI 2017). To meet the financial needs of these types of projects, new financial instruments such as green bonds; Carbon market tools (e.g. carbon tax); And new financial institutions (e.g. green banks and green eggs) are being set up. Together they make green finance. Green finance is at the center of the overall discussion on the sustainability of economic growth.

Rapid economic growth is usually achieved at the expense of the environment. Declining natural resources, degraded environment, and massive pollution are detrimental to public health and challenge sustainable economic growth. In order to protect and significantly improve the environment, nations around the world are increasingly focusing on the use of environmentally friendly technologies.

An appropriate incentive design is required for increased allocation of funds for setting up or adopting environmentally sustainable projects. Once funds are freed from traditional industries and entered into green and environmentally friendly areas, other resources, including land and labor, may also apply.

This ultimately leads to optimal allocation of resources that support sustainable growth over the long term. To achieve these objectives, targeted policies on green finance have been developed in major countries that include all stakeholders in economic development, such as corporates, governments, and central banks. In this paper, we evaluate the progress of green finance in India. We briefly discuss some of the best practices around the world to promote green finance and some of the major initiatives taken in India. We outline the progress of green finance in India.

(a) Public policy towards green finance

(a) International best practices Climate change has been on the G20 agenda since the first summit in 2008, focusing on the global carbon economy (CCE) to tackle harmful emissions.

(b) There are several major programs aimed at raising awareness around the world and promoting funding for green initiatives. These programs encourage financial and non-financial companies to incorporate environmental considerations into their financing. Principles for those responsible such as major events. Investors for Financial Institutions (PRI), Equatorial Principles (EP), United Nations Environment Program (UNEP) and signatures on financial institutions' commitments on sustainable development suggest ways to implement green finance. Many organizations in India sign up for these events. If there is a reliable source of information about the overall management of environmental and social risk organizations, it is possible to ensure a good rate of return only if the track record of the organizations has a good rate of identification of opportunities. And Environmental Benefits (UNEP).

In this regard, the Sustainable Stock Exchange is an initiative that recommends that stock exchanges of signing countries come up with stock price indices that track the performance of a set of companies operating in these countries, which are based on Environmental, Social and Governance (ESG) Principles 4 in their economic aspects.

The purpose of these indices is to guide investors who are willing to invest in green ventures. The two major stock exchanges in India, the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) are part of the initiative and publish independent ESG indices. Regulatory frameworks around the world can be broadly classified into four

The first is the disclosure of sustainability by financial and non-financial companies, which requires companies to report from time-to-time exposure to ESG related risks from their operations. Such revelations are compounded by the G20's emphasis on encouraging corporate voluntary adoption of the Task Force's recommendations on climate-related financial disclosure (TCFD).

By June 2020, 60 percent of the world's 100 largest public companies are committed to supporting TCFD's recommendation. Leading stock exchanges, financial market regulators and ministries dealing with corporate affairs in China (2008) 6, Hong Kong (2012), UK (2012), India (2012), Philippines (2013), Vietnam (2013), Singapore (2016) Related risks were among the nations implementing the framework for disclosure in their jurisdiction (Volz, 2018) .

Why Green Finance?

1) For the period 2021-2030, India has set the following targets in its "Objective Contribution at the National Level.

2) Reduce GDP emissions by 33 to 35 per cent from 2005 levels by 2030

3) Achieve approximately forty percent of the accumulated electrical installation capacity of non-fossil gas-based energy assets by 2030 with the transfer of Yuga and Coffee Fee Global Finance from the Green Climate Fund (GCF).

4) To create an additional carbon sink equivalent to 2.5 to 3 billion tons of CO2 by 2030 through additional forest and tree protection.

5) Preliminary estimates show that India will need about 6 206 billion (at 2014-15 prices) between 2015 and 2030 to implement agriculture, forestry, fisheries infrastructure, water resources and ecosystem adaptation.

6) A study by the Asian Development Bank to assess the cost of adapting to climate change in South Asia suggests that the estimated adaptation cost for India in the energy sector alone will be approximately 77.7 billion in 2030.

7) The National Institution for Transforming India (NITI) Commission estimates that mitigation measures for moderate to low carbon development will cost about 83 834 billion by 2030 at 2011 prices.

8) As it develops over time, a preliminary estimate suggests that at least 2 2 (2014-2015 fever) may be needed to complete India's climate change movement by 2030.

Literature review

According to the Weather Bond Initiative Report (2019), institutional investors can play an important role in green finance by creating liquidity in the market by raising funds from pension funds, hedge funds, mutual funds, etc. [1]

The study found that the proportion of socially responsible investments in relation to total managed assets in Asia (excluding Japan) in 2016 was only 0.8%, which is much lower than in global regions. The major challenge on the path to sustainable development is the lack of inadequacy of disclosure that addresses environmental or long-term systemic risk factors.[2] His study in Bangladesh recommended that banks finance various eco-friendly projects to promote sustainable development. Banks should play a pivotal role in launching new eco-friendly products.

[3] It has been shown that domestic green bonds will help provide additional financing and consequently help meet the demand for green infrastructure investments. In addition to issuing sovereign and sub-sovereign bonds, the government is playing an active role in issuing green bonds. The United Nations Environment Report (2016) proposes that financial systems and government play a key role in promoting green change.

Private public participation is essential for maintaining green finance. The G20 will continue to play an important role in formulating strategies for green transformation and designing good studies. Their paper suggests that the funds raised by Green Bonds should be used for various projects related to the environment in eligible categories rather than using only low carbon and climate. Flexible project. [4]

Demand for green bonds and green funds will increase as concerns about environmental sustainability increase investment in green projects, which in turn increases the demand for green finance. [5] It has been observed that a mechanism for harmonizing the relationship between environment and finance is established for an efficient green financial system. Proper management of green finance will help in the proper allocation of resources which will reduce the risk to the environment. The study suggested that the role of the government would be important in removing barriers to green finance.

Objectives of the study

1) To understand the various green financing initiatives taken by public and private sector institutions/banks in India.
2) To analyze the trend of green financing in India.

Research methodology

This study is of descriptive nature and is based on secondary data taken from various government reports published by the Government of India and other published reports from public and private sector institutions and banks in India.

Data analysis

To achieve the nationally defined contribution goal, India has pledged to reduce its emissions intensity by 33-35 percent by 2030 from 2005 levels and increase its use of renewable energy (RE) by 40 percent of its installed power capacity by 2030. The Government of India estimates that approximately US $ 4.50 trillion (US $ 450 million) will be needed over the next ten years to meet the renewable energy and urban sustainability goals.

In the 2015 Union Budget, the Government of India has set a target of achieving 175 GW RE by 2022. Various private and public banks and non-banking financial institutions have provided approximately 25 2570 million in funding to finance green initiatives. Figure I show the funds made by different financial institutions.

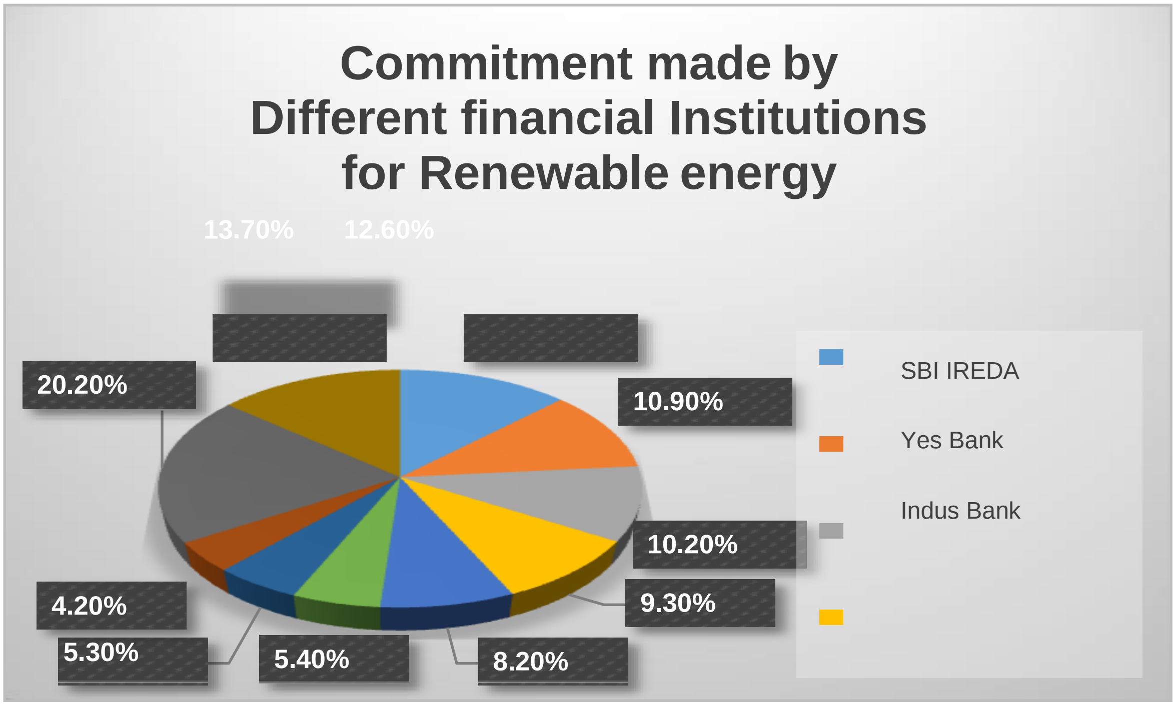

Figure I. Funds Committed by Different Financial Institutions

Source: [6] ADBI Working Paper Series, 2018

Senior notes, non-convertible debentures, and Flexi line of credit are used to extend credit to renewable projects. Among capital market instruments, green bonds offer the opportunity to tap the domestic capital market. Green bonds are fixed-income securities whose income is given to green enterprises. The Indian green bond market is still in its infancy and only 20 green issues have been issued so far.
The Indian green bond market is still in its infancy and only 20 green issues have been issued so far. In India, the combined issuance of green bonds between November 2015 and November 2018 is 7. 7.15 billion (Care Rating Report, 2018). Figure II shows the issuance of green bonds in 2018 by various constituents in India.

Figure II: Green Bonds Issuance by Different Entities in India in the Year 2018.

Source: CARE Rating Report, 2018

The amount of green bonds is used in renewable energy projects,
Low carbon buildings, industry, and energy-focused commercial, waste, and pollution control and sustainable transportation projects. Figure 3 shows the use of green bond yields in India.

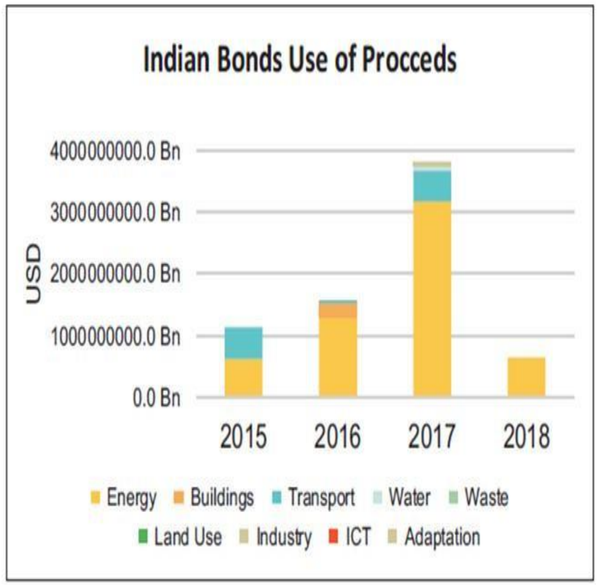

Figure III: Use of Proceeds of Green Bonds in India 2015-Q3 2018

Source: [5] ORF Special Report No. 85, April 2019

Although debt financing is a major source of green financing in India, mainly through debt instruments, many other initiatives are also being taken by the government, institutions, and other investors.

➢ Equity investors are participating in green financing, mainly through private equity and venture capital.

➢ 2015 In April 2015, the RBI included drinking water facilities and small renewable energy projects in its priority sector lending targets and required banks to lend 40% to key sectors.

➢ The idea of setting up Green Banks to promote and finance clean energy was explored in India and the first step in that direction was the establishment of the first Green Bank „The Indian Renewable Energy Development Agency (IREDA) in 2016. Many other banks like SBI, Union Bank of India, etc. are also taking initiatives to transform themselves into green banks.

➢ Crowdfunding is also emerging as a new source of finance in India in which a large number of investors invest through funds deposited in a particular fund. Sun Funders and Better West are playing a major role in financing green projects.

➢ Green finance is also being deployed by international and multilateral organizations. The UNDP recently provided 43 million to India to increase climate resilience on the coast.

Conclusion

Given the alarming rise in pollution levels in India, it becomes imperative to utilize the potential that green finance does not use to finance green projects or investments. Mixed financing is needed which can reduce the total cost of capital of private capital investors. The Government of India should pursue a clear green

investment policy with a long-term, broad-based view of the economy
The regulatory policy should be transparent and more favorable so that it can build trust and confidence among investors. India should focus not only on domestic investors but also on foreign investors. Green finance instruments should be designed to attract both local and international investors.

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