Sustainability and Green Finance; An Exploratory Study

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Sustainability and green finance are not only interrelated but also intricately related as the former one is dependent upon latter one in so far as meeting its timely funding requirements. Green financing is an apparatus that enables sustainability to remain as a central concern and addresses issues like climate change, environmental pollution and biodiversity loss which we call them as triple planetary crisis and paves the way for sustainable development.

It is a modest attempt to review the existing policies, laws and programmes meant for Green finance and ascertain the gaps, if any, and explore policy options to mop up resources for sustainability activities among others.

Firstly, it is to mop up resources from private sector and Corporates besides accessing public sector funding for undertaking activities pertaining to sustainability including mitigation and adaptation of climate change among others. Second, measures that promote green finance include Green banking, Green insurance, Sovereign Green bonds and other forms of assistance by the Governments and Corporates that encourage green economy, etc. Awareness generation by Governments and the Corporates, undertaking policy research on green finance, designing a proper regulatory framework which can manage the scarce resources from misuse and misappropriation and bringing about necessary laws and policies that can promote the mobilization of green finance and ensuring expenditures for the same and realizing sustainability ultimately.

Key words: *Sustainability, Green Finance, Regulatory Authority, Laws and Policies*

Contextualization

Sustainability and green finance are not only interrelated but also intricately related as the former one is dependent upon latter one in so far as meeting its timely funding requirements. Green financing is an apparatus that enables sustainability to remain as a central concern and addresses issues like climate change, environmental pollution and biodiversity loss, which we call them as triple planetary crisis and paves the way for sustainable development.

In fact, there are many attempts that tried to define the green finance in the literature. Green finance has been defined as the financing of environment friendly activities, green technology and projects that reduce pollution (Bahl, 2012). Lindenberg (2014) on the other hand, while supporting the idea of Bahl argued that green finance encompasses all investments in environmental goods and services and investment in activities that reduce damage to the environment and the climate. He felt that in public policy, green finance involves the financing of public policies that encourage the implementation of environment protection projects or environment damage mitigation projects and initiatives. Ozili (2021a) gave a quite interesting definition of green finance which says that green finance as the financing of projects that yield economic benefits while promoting a sustainable environment. Further, Wang and Zhi (2016) defined green finance as finance that integrates environmental protection with economic profits.

Green finance has been defined as the acquisition and utilization of funds for activities that protect the environment and deliver a fair return to investors or lenders (Berensmann and Lindenberg, 2019; Ozili, 2021a). It has been argued that the objective of green finance is to increase the level of financial flows from financial institutions to economic agents involved in activities and projects that preserve the environment towards achieving the sustainable development goals (Lee and Baral, 2017;Force, 2015).

'Green finance may be defined as any financial assistance provided as a grant/loan from public, private and alternative sources for projects/activities with the major objective of contributing to sustainability like promotion of green buildings, efficient management of energy, waste management, promotion of conservation of biodiversity (terrestrial and aquatic), renewable sources of energy and sustainable management of living natural resources and land use'. It also ensures a comprehensive development of sustainable projects and offers investors flexibility in risk management.

The 2030 Agenda for Sustainable Development presupposes adequate resources for undertaking activities that promote sustainable development which is a universal agenda. Therefore, green finance is essential for which exploring policy options and mobilizing resources is need of the hour.

Brief Review of Literature

Human-induced climate change is already affecting many in terms of weather and climate extremes in every region across the world. Evidence of observed changes in extremes such as heat waves, heavy precipitation, droughts, and tropical cyclones and in particular their attribution to human influence has strengthened since Fifth Assessment Report of IPCC (Climate Change, 2021, IPCC).

Hence, 'shared prosperity' had been an underlying principle for several international initiatives that we are following while trying to address the issues confronting the poor and vulnerable sections, be it poverty or climate change or inclusive growth and sustainability. But when it comes to the issue of climate change and sustainability, we are not able to come to consensus on some key issues and more importantly mobilizing resources for climate finance more specifically for green finance and green urban development etc.

A recent study argued that the developing countries are confronted by, not only, climate change but also with economic downturn, COVID-19, biodiversity loss and conflict, etc. Besides, at a macro level, there is a triple planetary crisis, i.e., climate change, biodiversity loss and pollution which are interlinked and influencing the developing economies, therefore, a multi-pronged approach is required for which financial resources are necessary (Reddy, T Prabhakar 2023). In this context, it is pertinent to mention that the Government of India in Union Budget 2022-23 announced the issue of Sovereign Green Bonds to reduce the carbon intensity of the economy. The Department of Economic Affairs, Ministry of Finance, Government of India has designed a 'Green Bond Framework' in line with the Green Bond Principles of International Capital Market Association (ICMA). The principles include: use of proceeds, project evaluation and selection, management of proceeds and reporting (Framework for Sovereign Green Bonds, GoI, 2022). Further, the ICMA recommended two things to ensure transparency which includes: a) the issuer set out a Green Bond Framework which is accessible to the investor, and b) advises the issuer to consider for an external review.

Further, the Green Deal of the Government of India has emphasized the need for an increase in the flow of capital from the national government and private sector to establish green infrastructure. The Deal has devised four key areas to help accelerate the progress of green finance in India.

Firstly, a clear solid taxonomy provides a pathway for development of green projects and minimizes transaction costs. Secondly, devising a framework for pricing carbon in India which will ensure that cost of climate change mitigation and adaptation strategies will be brought into the mainstream investments. Thirdly, the use of national investments comprising “Green Infrastructure Investment Trusts which include markets for bonds and instruments for green finance. Lastly, it is critical for entering into global markets by minimizing prevarication costs, designing guidelines for external borrowing and any other regulatory barriers that hinder green financing in India.

However, not many studies have attempted to establish the need for green finance for sustainability and discussed available policy options for Indian economy. Therefore, the present study assumes significance and tries to fill the gap with suggestive measures.

Objective

It is a modest attempt to review the existing policies, laws and programmes meant for Green finance and ascertain the gaps, if any, and explore policy options to mop up resources for sustainability activities among others.

Initiatives of Sustainability

The Hon’ble Prime Minister of India made a pronouncement in Glasgow in November 2021 to address the climate related issues and enhance the quality of climate by implementing the following five elements of India’s climate action (Framework for Sovereign Green Bonds, GoI).

1. Reach 500 GW of Non-fossil energy capacity by 2030
2. Generate 50 per cent of India’s energy requirements from renewable energy by 2030
3. Reduce total projected carbon emissions by one billion tonnes from now to 2030
4. Reduce the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels
5. Achieve the target of net zero emissions by 2070

Agriculture

When we look at the policies pertaining to agriculture, it is heartening to note that the Government of India has brought in major changes in the focus of agriculture with a view to make it climate resilient agriculture and aligned the budgets too. For instance, natural farming encouraged by the Government of India is receiving good response from farmers from different parts of the country while they are getting financial support from the Centre.

India being a climate vulnerable country the farming community requires huge support in several ways be it PM Kisan Samman Nidhi, cheaper credit from organized institutions and subsidized seed and fertilizers and financial assistance for pursuing natural farming on a large scale.

Industry

As regards the Indian banking sector, Reserve Bank of India (RBI) has issued a notification in 2007 emphasizing the importance of banks and need for making efforts in achieving the sustainable development. Further in 2016, RBI released a report in collaboration with UNEP to explore various facets of financial systems in India and promote sustainable financial systems. As per Indian Companies Act, 2013 large capital companies to contribute 2 per cent of their profits on annual basis to 'Corporate Social Responsibility' schemes which include environmental sustainability, ecological protection, health care, rural development and education.

Further, carbon trading has been introduced in the policy framework of Government of India with a scheme called "Perform, Achieve and Trade". It emphasized on sectoral development especially renewable energy sector in its mission towards transitioning to 'green energy'. The RBI encouraged lending for renewable energy projects by entities up to Rs. 15 crores and for private individuals up to Rs.10 lakhs. Added to it, RBI joined in 2021 as a member of the Network for Greening the Financial System (NGFS) which is a cluster of nationalized banks which support transition to green economy through practices that encourage the preservation of environment and address climate related risks in the financial sector.

Sovereign Green Bonds

As a matter of fact, the Government of India has raised resources through issuing sovereign green bonds and spending the same for climate change mitigation and adaptation with a commitment and dedication. Although India's climate actions have so far been largely financed from domestic resources, it is now targeting generation of additional global financial resources as well as transfer of technology as agreed under UNFCCC and the Paris Agreement.

It needs to be mentioned that already Rs. 5000 crore worth bonds with tenure of five years were sold in the market in November 2023. Further, Rs. 10,000 crore worth of bonds with tenure of 30 years in two tranches of Rs. 5000 crore each are sold in February and March

2024. Again, the Government is contemplating to issue bonds worth of Rs. 5000 crore soon into the market. It all shows that the government is determined in mobilizing the resources for financing green projects and working towards net zero emissions by 2070.

Green bonds accounted for a majority of Green, Social and Sustainability (GSS) bonds' market size. As of 2021, the total size of the Indian GSS bond market stood at 19. 5 billion USD in which Green bonds alone accounted for 18.3 billion USD. It is followed by sustainability and social bonds with 0. 6 and 0.5 billion US dollars respectively (Statista, 2024). It shows that the significance of Green bonds in Indian market is on the rise and related policies are also providing a fillip to it.

The Ministry of Environment, Forest and Climate Change has issued notification in February 2024 to involve the private sector and Corporates in environmentally sustainable activities. In this connection, an interesting initiative taken up by The Securities and Exchange Board of India (SEBI) has proposed 'green credits' generated by the listed companies and the value chain partners can be considered as a leadership indicator under Principle 6 of Business Responsibility and Sustainability Reporting (BRSR) which emphasizes that businesses should respect and make efforts to protect and restore the environment. Further, SEBI mentioned that "Inclusion in BRSR shall incentivize listed entities and their value chain partners to participate in the generation of green credits by following environmentally sustainable activities".

In this direction, the markets regulator in May 2021 introduced BRSR, which requires the top 1000 listed entities by market capitalization to file BRSR covering Environmental, Social, Governance (ESG) perspective as part of the annual report from FY2022-23 onwards. In July 2023, SEBI introduced BRSR core, a subset of the BRSR comprising nine Key Performance Indicators (KPIs) for several ESG factors that need to be assured.

Green Banking

Green Banking is a policy and a form of banking activity wherein the banks undertake initiatives and daily activities as a conscious entity in the society by considering in-house and external environmental sustainability. The banks who perform such kind of banking activities are known as socially responsible and a 'sustainable bank' or 'green bank' or 'ethical bank' (Hossain et al., 2020; Zhixia et al., 2018).

State Bank of India being the largest commercial bank taken a lead in setting higher standards of sustainability and undertook foremost step towards 'green banking' initiative. SBI is the first bank to inaugurate wind farm project in Coimbatore in this regard. The green banking initiatives include: green loans, green financing, green mortgages, loans for green construction, loans for eco friendly vehicles, automated cash deposit terminals, solar ATM and online payment channels, etc.

Implications and Intricacies

Indeed, the green financing benefits directly the environment and indirectly the economy and in several ways which include: healthy environment, efficient energy management, enhances eco-friendly projects with convergence between the Governments and the Private sector through corporate social responsibility and attracts Foreign Direct Investment. Of course, the Government of India is trying to mobilize the resources from external sources for environment and ecological balance.

Further, the Union Budget, 2022-23 announced the issue of Sovereign Green Bonds with a view to reduce the carbon intensity of the economy.

It says that as part of the government's overall market borrowings in 2022-23, Sovereign Green Bonds will be issued for mobilizing resources for green infrastructure. The earnings/proceeds will be invested in public sector projects which help in reducing the carbon intensity of the economy. As a result, resources are mobilized substantially which has been clear from the Ministry of Finance statement recently.

Further, the Union Budget 2022-23 has called for a shift from chemical farming to nature positive farming which depends on organic and locally available inputs. Further, nature based solutions that protect, sustainably manage and restore ecosystems can help effectively and adaptively address the challenges of this shift benefiting people and nature simultaneously. In fact, healthy soils help mitigate climate change by storing carbon and reducing green house gas emissions. Climate smart practices create important synergies for agricultural production, climate adaptation and mitigation, and livelihood and environmental objectives, through coordinated action at the level of the farm as well as the landscape (Varma and Sharma, 2023).

Furthermore, Government of India will utilize the proceeds raised through Sovereign Green Bonds to finance and / or refinance expenditure for eligible green projects falling under 'Eligible Categories' defined by the authorities. They include: Renewable energy (SDG-7, 13), energy efficiency (SDG-7, 13), clean transportation (SDG-9, 11, 13), climate change adaptation (SDG-13), sustainable water and waste management (SDG-6), pollution prevention and control (SDG-12,13), Green Buildings (SDG-11), Sustainable Management of living Natural Resources and Land Use (SDG-13, 14, 15), Terrestrial and Aquatic Biodiversity Conservation (SDG-14, 15).[1]

As a matter of fact, the principle of selection of green projects by Green Finance Working Committee (GFWC)[2] lies in mapping eligible green expenditures to the environmental objectives of ICMA Green Bond principles, UN SDGs and which must be in accordance with the Framework in letter and spirit.

Policy Options

The following policy options are available in order to mobilize the resources for green finance and achieve the sustainability. Firstly, the policy option is to mop up resources from Private Sector and Corporates besides accessing public sector funding for undertaking activities pertaining to sustainability including mitigation and adaptation of climate change while reviewing the existing policies in terms of efficacy. Secondly, measures that promote green finance include Green banking, Green insurance, Sovereign Green bonds, National Mission for a Green India and other forms of assistance by the Governments and Corporates that encourage green economy should be given priority. Finally, any innovative thinking and funding mechanisms that really contribute to the promotion of sustainability is welcome and we should realize that all of us are stakeholders in working towards the achievement of green economy.

The Way Forward

The path for the future is creating awareness about green finance for sustainability by Governments and the Corporates, undertaking policy research on mobilization and utilization of green finance, designing a proper regulatory framework which can manage the scarce resources from misuse and misappropriation and bringing about necessary laws and policies that can promote the mobilization of green finance and ensuring expenditures for the same and realizing sustainability ultimately. For this to happen, National Policy on Green Finance need

[1] Green project category followed by related SDG is given in parentheses.

[2] The composition of GFWC includes: Chief Economic Advisor (Chair), Additional Secretary, Infrastructure Finance Secretariat (Member Secretary), Ministry of Environment, Forest and Climate Change, Ministry of New and Renewable Energy, Climate Specialist from NITI Aayog, Public Debt Management Cell, Budget Division, Ministry of Finance and any other Ministry co-opted from time to time.

to be designed and implemented with commitment so as to achieve the NDCs mentioned by the Government of India.

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