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Green Financing in India: Addressing the Challenges Ahead

VIVEK RANAUT[1]

ABSTRACT

Those who are engaged in financial sectors have realized that climate change is the biggest risk faced by the world. To tackle it, they've started to focus on a new emerging policy known as green finance which concentrates on financing projects which are environmentally sustainable. Although it is gaining some momentum, there is still no universally agreed-upon definition of green finance, not even in India. Government of India has increased its focus on green finance by introducing schemes which promote green finance in different sectors such as electric vehicles, priority sector lending scheme etc. However, there exists large number of barriers in the development of green finance which should be resolved as soon as possible. The challenges include lack of a clear definition, inability to internalize the externalities, maturity mismatch, poor institutional framework etc. The author in this article focuses mainly on the challenges of green finance and put forward some recommendations.

I. INTRODUCTION

Climate change is the biggest challenge of this century faced by the world. Global Climate Risk Index has listed India as one of the most exposed countries to the dangers of climate change. World Bank has projected that by the year 2050, climate change can diminish India's GDP by approximately 3% and decrease the living standards of nearly 50% of the country's population. Climate change has exponentially increased extreme weather events resulting in huge economic losses which is evident by a study which stated that losses due to such reasons have surged to USD 45 billion from 2008-17 as compared to USD 20 billion over 1988-2007[2].

Such possible concerns of climate change have pressed the governments to take action against climate change. Mobilizing capital for climate adaptation and mitigation is necessary to head towards becoming a low carbon emission economy. Financial sector has to avert the flow of

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[1] Author is a student at Vivekananda Institute of Professional Studies, India.

[2] Labanya Prakash Jena and Dhruba Purkayastha, Accelerating green finance in India: Definitions and beyond , CPI Discussion brief, Climate Policy Initiative, June 2020, available at: https://www.climatepolicy initiative.org/wp-content/uploads/2020/07/Accelerating-Green-Finance-in-India_Definitions-and-Beyond.pdf

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capital from carbon intensive sectors to less carbon emission sectors. To achieve this target, green finance is a crucial instrument.

II. Green finance: concept

There is not a single universally adopted definition of green finance. Different countries and institutions use different definitions but the basic idea is same i.e. green finance means finance to reach a sustainable planet. It includes country policies and initiatives, institutional arrangements, financial services, and products intended to stimulate the movement of finance in the direction of environmental friendly economic activities. This will result in a healthy environment, reduced climate change dangers, and improved efficiencies in preservation of natural capital and resource mobilization[3].

Green finance contains public as well as private finance. It encompasses the proactive management of environmental threats. One can argue that there has been some progress made towards green finance but there's still only a minuscule amount of bank lending and investments which is clearly categorized as "green"[4].

Broad categories of financial products and services are covered under green finance, which can be classified into investment, banking and insurance products. For example: green investment funds, green bonds, green-tagged loans, climate risk insurance etc.

III. Green finance in India

India had in fact initiated emphasizing on green finance from as far back as 2007 when RBI admitted the significance of climate change and global warming in the framework of sustainable development in its notification on "Corporate Social Responsibility, Sustainable Development and Non-financial Reporting – Role of Banks". In 2011, Climate Change Finance Unit (CCFU) was created within the Ministry of Finance to coordinate between several organizations whose work relates with green finance. India has introduced many financial and fiscal incentives like 'Faster Adoption and Manufacturing of Hybrid and Electric Vehicles' (FAME) scheme, 'green car loans' scheme, Production Linked Incentive (PLI) Scheme, Priority Sector Lending (PSL) scheme etc. The Reserve Bank of India is also working towards sensitizing people, investors and financial institutions about the need, opportunities, and

[3] Anouj Mehta, Sonia Chand Sandhu, et.al., Catalyzing green finance: A concept for leveraging blended finance for green development (Asian Development Bank, Manila, 2017) available at: https://www.adb.org/sites/default/files/publication/357156/catalyzing-green-finance.pdf

[4] G20 Green Finance Study Group, "G20 Green Finance Synthesis Report", September 2016, available at: http://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf

challenges of green finance[5].

Reserve Bank recognizes the barriers in the progress of green finance, like "greenwashing" or dishonest claims of environmental compliance, multiplicity of definitions, maturity incompatibilities between short-term interests of investors and long-term nature of green investment. It also takes note of the wider concerns related to green finance such as, "definition of green activities, aspects of intellectual property rights in development and transfer of technology from developed countries, and environmental risk assessment by the banks"[6].

For India to switch to a less carbon intensive economy and make its financial sector sustainable, mobilization of capital is an essential requirement. India requires $2.5 trillion in investments over 2016-30 to accomplish India's Paris agreement commitment to cut the carbon level by 33 to 35% by 2030 relative to the 2005 level. But in 2018, India managed to mobilize only $18 billion in climate investments which is a minuscule amount compared to the yearly requirement of $160 billion. Public finance does not have the capacity to meet this large capital gap; that's why a large amount of capital has to be contributed by private sector[7].

Green finance is still at the embryonic stage in India. Since 2018, of all the bonds issued in India, only 0.7% is green bonds. Lending to the non-conventional energy sectors by banks is less than 8% of outstanding bank credit to the power sector[8]. Financial intermediation for green sectors in India has been inadequate because of various challenges. In the next part, the author will discuss about such challenges in the development of green finance.

IV. CHALLENGES

1. Lack of clear definition

There is not a clear-cut definition of "Green Finance" in India. Because a proper definition is not available, various terms like climate finance, responsible finance, and sustainable finance are used interchangeably with Green Finance. These various jargons produce avoidable misunderstanding among stakeholders.

Lack of a clear definition is a ground for several other challenges as well, especially in the Indian context. Reserve Bank of India has stated that multiple green loan definitions are a major barrier that is confronted by financial intermediaries in lending to green sectors. Lack of

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[5] Saurabh Ghosh, Siddhartha Nath, et.al., "Green Finance in India: Progress and Challenges", RBI Bulletin 61-72 (2021) available at: https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/04AR_2101202185D9B6905ADD465CB7DD280B88266F77.PDF
[6] Ibid.
[7] Supra note 1
[8] Supra note 4

information on what is a green activity makes it problematic to keep track of capital invested into green sectors, which results in erroneous valuation of capital flows and inadequate investments towards Paris agreement commitments[9].

2. Failure to internalize externalities

Another vital issue is to efficiently internalize the environmental externalities. Externalities can be of 2 types: positive or negative. Positive externalities are benefits arisen to third parties due to green investments, and negative externalities are damages inflicted on third parties due to polluting investments. Complications in internalizing these externalities results in insufficient capitalization of "green" projects and excessive investment in "brown" projects.

For example if a water treatment project is set up in a residential area, it will increase the living standard of people living nearby and the worth of land in the area will also increase. But, in absence of appropriate methods to capitalize these externalities, the plan might not generate enough return to lure private capital. Similarly, many industries and firms cause pollution, but their negative externalities such as the harmful effect of pollution on people's wellbeing are not completely internalized[10].

3. Maturity mismatch

It is common challenge in long-term green projects to have dearth of supply of long term funding. This results in the shortage of infrastructure investment in green sectors. A report by G20 Green Finance Study Group says that, "the problem arises due to the fact that, in these markets, the financing of long-term green infrastructure projects relies heavily on bank lending, while banks are constrained in providing sufficient long-term loans due to relatively short tenor of liabilities".

This maturity mismatch problem is intensified in those scenarios where long-term finance is heavily required for green investments but not so much in traditional investments in the same sectors. For instance, renewable energy projects generally have large amount of combined operational expenditure and capital expenditure invested up-front as opposed to a traditional coal-fired power plant. In the second case, large portion of its overall life cost would be spent on paying for energy to operate it, which can be easily funded by short-term loans, while in the case of renewable energy project such as wind or solar projects, it won't be possible[11].

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[9] Supra note 1
[10] Supra note 3
[11] Ibid.

4. Information asymmetry

Green project is the new interest area for many investors these days, but lack of knowledge in the environmental subject and less disclosure by the companies increase the cost of the green asset and thus reduces the sector's charm. For example, when an investor has no information regarding their portfolio company's environmental performance in terms of consumption and emission, they will be unable to identify and actively finance and manage environmental risks. Further, the main problem with asymmetry information is unawareness and lack of information of commercial ability of green technology and uncertain policies on green investment. These drawbacks result in disproportionate risk aversion by investors in projects of renewable energies[12].

5. Poor analytical capabilities

The overall apprehensions of the repercussions of environmental hazards by financial institutions are yet to be gained. Investors in the market and banks have not yet developed the study to gain and quantify the credit and market risks that may arise from environmental exposure; thus underrating the risk of "brown investment" and exaggerating the risk in green investment projects. The deep knowledge and understanding of environmental risks subject are extremely crucial for risk mitigation in a better way and in enabling a better internalization of environmental externalities in analyzing and for giving speed to green investment projects[13].

6. Need of sensitization

The financial sector of India is not completely aligned to the world's efforts in accelerating green finance in aspects of interest and awareness about "green lending and green investment practices". Though India attempts to align itself with some global initiatives, however, it is limited to very few organizations. For example, India does not represent "Network for Greening the Financial System" (NGFS), which is the world's most successful network of banking regulators in the green finance system. Moreover, no association or collaboration has taken any initiative on green finance. Also, other investors in the market and banks do not consider this area of investment as fruitful. Thus it can be said that financial sector in India should be urgently sensitized to make further strides in green finance[14].

7. Poor Institutional Frameworks

Absence of stability and an assured green growth agenda as a prime focus in current political

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[12] Ibid.
[13] Ibid.
[14] Supra note 1

environment is concerning for potential investors of green projects. These projects are often confronted with systems where subsidies and tariff setting in market leads to 'ungreen' practices. Lack of sufficient regulation, legal enforcement and major reforms needed in certain sectors or subsectors signals the financial markets to overlook the green approach. Regulatory barriers prevent entrance of new players hence limiting the scope and instruments in which investors can invest[15].

V. RECOMMENDATIONS

1. Making a proper definition

The primary step in India's green financial strategy should be to provide the definition of Green Finance. It will lead to increased amount of capital allocated to the green sectors. While defining Green Finance, India can use combination of the following options: 1. taking cues from international trends; 2. outlining its objectives; 3. considering the opinions of the stakeholders involved. A set of basic principles should be established, which can be used as a basis to describe a green activity, for example, the promotion of green economic undertakings in line with the India's climate change commitments; any project that helps in reducing net carbon emissions etc. Stakeholders have indicated that green finance definition should also contain a proper distinction between the green and non-green sectors and sub-sectors[16].

2. Creating a conducive policy framework

Environmental law requiring manufacturers to comply with certain standards and internalizing the external factors is extremely important. To address the external issue, PPP approach has been used by few countries that include, for instance, a housing developer in water decontamination or a land reformation project. Excessive return from a property project (due to environmental enhancement over time) is adequately used to reimburse financiers for a green proposal/project. Moreover, for financing subway projects (clean transportation), corresponding business models have been used by other countries and regions through combining them with residential and business-related projects near subway stations, as such subway projects would increase the worth of the latter in the market.

In addition, the barriers in green investment can be overcome with the help of various public schemes by minimizing the financial and investment risks of, for example, through public-funded schemes or grants. Tax incentives can, further, enhance the desirability of green investments in large firms. These likely plans, notwithstanding, require consistency and

[15] Supra note 2
[16] Supra note 1

reliability in the future. Further, public interventions ought to be restricted to the chances related with market failure. In the long run, any method other than the elimination of certain risks includes the probability of being inefficient or detrimental to the market process. Additionally, it is significant that public intervention is unambiguous and trustworthy and that the policy formulated is considered to be speculative, reliable and impartial[17].

3. Increasing the supply of green finance

Capacity building can assist in better valuation of the possible risks and benefits involved in a green investment. For instance, bank officials need to develop different methods of calculating the expected cash flow of a project in order to transfer the profits from energy savings into an account. A modest but efficient method would be to provide loan or funding manuals that explicitly offer a guide to evaluate environmental risks and identify environmental opportunities. Environmental factors can be incorporated in credit ratings to build strength in environmental risk analysis (e.g., recently published green credit rating methods developed by Moody's and S&P). Many risk mitigation tools can be considered to increase the provision of green funds. Guarantee schemes, for instance, can serve as a green loan guarantee tool. They assure borrowers to recover some portion of their loan in case the investment fails[18].

4. Fostering the demand side

Further, there is a necessity for environmental awareness and building capacity in the commerce sector particularly in relation to new green technologies. For instance, Green exhibitions can provide opportunities to innovation makers and consumers and a platform for advancing belief in green technology among businesses. Facilitation to the access of energy audit is a beneficial strategy to raise awareness among businesses about energy efficiency. In addition, a variety of incentives can be offered to make green investments more attractive, to influence tax incentives, soft loans, and discounts on green technology purchases or customized green credit lines.

Although the ability to evaluate and make green investments is high, businesses may be hesitant to take the chance of investing in large-scale, capital-restricting activities with long-term plans. There are, nevertheless, many tools for minimizing the risks at the large corporations. Firms may opt for leasing options rather than holding assets and acquiring new technologies. Leasing allows the company to avoid investing too much in new innovations by hiring various equipment and machinery for a certain period of time.

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[17] Ulrich Volz, Judith Böhnke, et.al., Financing the green transformation 17 (Palgrave Macmillan, London, 2015)
[18] Id. at 18

Another way of alleviating venture risks is to utilize equity capital funds or mezzanine financing to enhance the funding. Equity capital funds and mezzanine finance act as assets in an organization's accounting report, which attracts corporations as it enables them to accept more standard bank financing. These two kinds of financing serve basically to convey venture hazard among financiers and entrepreneurs[19].

5. Government-supported Green Bank

Green Bank is a financial institution that utilizes new monetary techniques and market advancement mechanisms in association with the business sector to expedite the organization of clean energy advances. In May 2016, the Indian Renewable Energy Development Agency (IREDA) declared its intention to become India's first green bank. It will be to utilize restricted public funds to pull in more prominent private ventures to develop the clean energy market. These changes may enable IREDA to get national and worldwide capital and more desirable monetary terms, comprising lower loan fees with extended loan terms. More such government supported banks could be created to provide more amount of easy access to green finance[20].

6. Blended finance

Blended funds refer to the consolidation of concessional (public/philanthropic/ multilateral) funds focusing to increase revenue under market environment by catalyzing private firms through guarantees or grants. In terms of blended finance, different aspects of each type of capital can be used for the shared purpose of increasing private investment, and thereby the impacts of climate change. India has great potential in terms of its altruistic financing, as a growing number of philanthropists are turning the tide. These funds which contribute in increasing green investment should be subsidized[21].

7. Green Building Finance

The greatest investment opportunity in the Asia-Pacific region by 2030 at US$17.8 trillion lies in green buildings, according to an IFC report. With 70% of the housing, retail and other related buildings need to be built by 2030, there is a significant future growth in infrastructure sector of India and has the potential to come up as the world's biggest green construction market. Financing green buildings creates a viable market and the opportunity for financial institutions to support and accelerate green growth. At present, the variety of products in green

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[19] Id. at 20

[20] Shreyans Jain, "Financing India's green transition", ORF Issue brief no. 338, Observer Researcher Foundation (2020) available at: https://www.orfonline.org/wp-content/uploads/2020/01/ORF_IssueBrief_338_FinancingGreenTransition_NEW27Jan.pdf

[21] Supra note 19.

infrastructure supported by commercial banks in India is limited only to green home loans or mortgages. By incorporating green value into all building loans through new products and methods that stimulate the acquisition of green buildings, commercial banks can make a significant contribution to the green growth agenda[22].

8. Green Insurance

In June 2016, the RBI Financial Stability Report introduced the concept of green insurance: "Green insurance helps in mitigating and managing ecological and environmental risks. Such insurance policies cover potential liabilities arising from the pollution of water, land or air or collateral damages to the ecology and environment by policyholders". Insurance prevents the risk of environmental pollution and damages are distributed. In a broader sense, the mandatory requirements for Green insurance in polluting companies will increase the future pollution costs and thus discourage highly risky environmental products investment. Thus, green insurance should be an integral part of the green financial system[23].

9. Priority Sector Lending

The Priority Sector Lending (PSL) policy can be used to facilitate the identification of sustainable businesses to improve the performance of the PSL. A way can be created where unspent PSL funds can be directed to sustainable projects. Production of clean energy projects and waste-to-energy projects should be incorporated in the PSL renewable energy guidelines. The priority sector lending should be broadened to provide a wider network for a variety of renewable energy projects in both manufacturing and generation[24].

10. Viability Gap Funding for SMEs

SMEs usually lack the securities required for standard bank-based lending, or repayments large enough to motivate well-functioning entrepreneurs, this problem can be termed as a SME financial gap. To solve this, a variety of new financial instruments, such as expanding the existing mortgage mechanism by motivating bank lenders to fund SMEs at lower rates and with minimal collateral, should be put in execution. This can be done by an external group that provides the required collateral or guarantees. Another option would be to provide bank or private funds to the right applicants for SMEs in accordance with the mutually agreed terms

[22] Ibid.
[23] Ibid.
[24] Rita Roy Choudhury, Priyanka Dhingra, et.al., Delivering a sustainable financial system in India , UNEP Inquiry, April 2016 available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/7525/-Delivering_a_Sustainable_Financial_System_in_India_-_Final_report-2016Delivering_a_Sustainable_Financial_System_in_India.pdf.pdf?sequence=3&isAllowed=y

and conditions[25].

VI. Conclusion

Financial sector has acknowledged that climate change is a huge menace to the economy. To address climate change, green financing is going to play a crucial role. However, it has to overcome many barriers. An organized approach and resolute efforts from regulators, politicians and players in the financial system is required. An integrated approach on taxonomy, guidelines and financial products and services is essential. This will help Indian financial system in faster adoption of green finance. Our financial systems need a roadmap that aims to build up the resilience towards climate change risks and facilitate resources for green projects. A committee comprising of experts from various relevant sectors should be established that can guide these financial intermediaries and regulators towards green finance.

Currently, the India is struggling with COVID-19 which has deeply shaken its economy. But at the same time this pandemic also presents an opportunity for us to reconsider the policies and strategies that we have hitherto adopted and promote an approach that is more environmental friendly in the long-term. Whether we achieve the ambitious sustainability targets, will depend largely on the pace with which the growth of green finance takes place.

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[25] Ibid.