

A Study on Green Finance with Special Reference to India

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Abstract— Green finance represents a wide-ranging challenge to the traditional constructs of financial law. New 'green' instruments threaten to transform conventional investment practices ('ethical investment'), lending standards associated with project finance ('environmental/social impact assessment'), and accounting conventions ('green/social reporting'). Green financing is not new but effective concept in context of Indian Economy. It focuses on investing in environment friendly projects, technologies and policies. This paper discuss the challenges and opportunities in front of India in pursuance of Green Financing and also highlights environment friendly trends in Indian Economy like green jobs, green taxes, etc. which reflects the responsibility of government and corporate towards society and environment. The objective is to bring out the role of financial sector in promoting and facilitating green growth. There are certain steps taken by government and big business houses to conserve the Indian environment but scarcity of resources plays a major hurdle in goal towards Green Financing along with administrative barriers, lack of entrepreneurship, limited access to financial resources, lack of skills and technologies, etc

Index Terms— Green Finance, Green Growth, Role of Financial Sector, etc

I. INTRODUCTION

Green finance represents a wide-ranging challenge to the traditional constructs of financial law. New 'green' instruments threaten to transform conventional investment practices ('ethical investment'), lending standards associated with project finance ('environmental/social impact assessment'), and accounting conventions ('green/social reporting'). There is a significant relationship between climate change and production of crops. It has been predicted that by the end of 2050 there will be no glaciers in the world. There will be a significant effect on the production of crops and availability of food. Rise in floods, sea levels, famines and droughts are expected. To address the issue of renewable energy, non renewable sources of energy and their conservation NABARD organized a workshop focusing towards bankers, stakeholders, corporate, etc. on the theme of "opportunities in the Green Finance". It highlighted various issues related to the environment conservation, adoption of green finance, relationship of agriculture and climate change, preservation of natural resources, etc. which needs to be taken care of urgently. Much needed government interference in this matter is required. In fact there is a need for new government policies as well as private investment in the

concerned matter. This paper is focused on the opportunities and challenges in green financing in context of Indian Economy. A group of pioneering cities have demonstrated that energy efficiency conserves natural resources, strengthens resilience to meteorological disruptions, and leads to substantial savings in fossil fuel. The promise of green building programs while others have justified increased funding for climate solutions in the hopes that its market will generate "green jobs". Co-operations across the governments at various levels are most important. The support of government funding and administration which centered on effective use of energy and conservation of resources is of paramount importance in the problems related to environment and conservation of resources. The main constraint which can be observed in the period of economic crisis and recession is the lack of investment in environment friendly projects and policies. Implementation of green taxes and motivation of green finance can be proved as a source of revenue which can be further invested in implementing climate change practices.

II. GREEN FINANCE

Since the beginning of the 1990s environmental considerations have started to play a bigger role in the field of project finance, influencing and shaping the organizational routines governing lending decisions. It focuses on investing in environment friendly projects, technologies and policies. It is oriented toward future environment protection, economic growth. Green finance is a way to green growth of financial sector. Green financing comprises of financing to support environment friendly growth of an economy and preventing costs to the environment degrading activities. The financing part comprises of green loans, green funds, green indices, etc. and the latter comprises of curtailing investment in activities which are environment unfriendly. Lenders (commercial and government) have to impose self checks and requires to formulate stringent policies.

For promoting the concept of Green Finance, following points have to be considered:

- Awareness among the masses
- Reformulation of governmental policies and strategies
- Financial institutions are required to restructuring their norms and strategies
- Green investors should be promoted by providing some advantages / Incentives over others
- In order to address the regulation of global greenhouse gases, based upon the market mechanism, the development support of the carbon market as the most cost efficient alternative to cut back on greenhouse gases is essential.

Slogan of Go Green is popular throughout the world. Fuel efficient cars, reusable shopping bag, energy efficient consumer goods, workshops and seminars on recycling are common scenario in the entire globe. Financial Institutions

Manuscript received Jan 10, 2017

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are not spared from this wave and thus designing and offering environment friend services and products for attracting domestic as well as international customers.

III. GREEN FINANCIAL PRODUCTS AND SERVICES

Retail Finance

It is useful to pause and take a theoretical look at the process of institutional change and how that applies to the cases at hand. Several economists offer guidance. Williamson (1985) has studied how institutions change when innovators find ways to do things more efficiently, or in ways that yield more benefits. Institutional change, however, inevitably takes place in the political arena, influenced by special interests (Libecap, 1989). It may be in the interest of a few rather than the general public. Institutions also become locked in to social and economic structures, and inefficient institutions may persist far beyond their usefulness (North, 1990). Thus, both kinds of forces of change can be found—those that help make institutions more efficient and those that reduce the efficiency of institutions. Green Home Loan, Green commercial Building Loan, Green Credit Cards Green Mortgage, etc. It is a very popular product of retail banking which lends at low rates to those consumers who are willing to invest environment friendly projects. Although to promote energy efficient mortgage they should also cover the cost of switching a project from conventional to energy efficient. Green credit cards are another new initiative. The incentives of having a green credit card are hard to measure, even infinite. Many banks in Europe offer emissions offset programs, provide discounts and grant low borrowing rates to customers who purchase green products and services. Some banks offer to donate card-member rewards to organizations that are dedicated to improving the environment or allowing cardholders to redeem these rewards for "green" products.

CORPORATE INVESTMENT FINANCE

Green Project Finance, Securitization, VCs, Green Leasing carbon financing, Green Ratings, etc..SME Rating Agency associated SIDBI introduced Green Rating for MSNEs which are involved in industrial activities for adoption of better technologies. Given indices which can rate companies on the basis of their contribution to environment and also a benchmark of financial performance. This will offer diversification, quality checks and environmental checks.

Strengths for Green Finance adopters involves Sustainability in a view that ,the model which states that grow first and clean up later should be avoided by developing countries instead they should initiate investment in green infrastructure which provides long term sustainability and competitiveness. Comparative advantage and competitive advantage can be gained by investing in green projects today. It will bring comparative advantage when environmental norms will become stringent. Then today's voluntary decision will become mandatory in presence of climatic crisis.

IV. BLOCKS TO GREEN INVESTMENTS

The march of green energy becomes limited even if all the financing rules and regulations are at their appropriate places. The blocks to green investments are current rules and regulations, market prices, incentives and risk uncertainties. Green investments are getting positive response from the

society, but the odds in the real world are stacked against them. In order to execute them the four main factors are:

1. Increase in return on green investments.
2. Reduction in perceived risk of green investments
3. Reduction on return on dirty investments
4. The perceived risk of dirty investments (we want market factors to factor in higher risks)

The risk of poor investments are mainly in coal fired power plants and gas turbines start to breakdown. This leads to under- estimation and discouragement of high investment projects. Greenhouse gas emissions drive climate change which is overwhelmingly harmful. The average carbon molecule stays in the atmosphere for around 200 years or so and it is the stock of GHG gases that drives global warming. Those emitting GHG gases now are also inflicting a cost on future generations so they also impose an inter-temporal externality.

The climatic risk will not be bear by the investor at any chance of time in green investment. Climate risk refers to both the impact that climate change itself might have on a business's physical assets, such as reduced agricultural productivity caused by a climate-related disaster. But still some investors might come under this risk under due diligence for the long term investment. The climate risk of much form they are physical risk, information risk, cost risk, competitive risk, regulatory risk, reputational risk, climate litigation risk, awareness risk.

V. CONCLUSION A SUCCESSFUL GREEN PROJECT EXAMPLE: INDIA

The energy supply of India is not keeping pace with the increasing growth rates of economy. This disturbance has lead to frequent power shortages and power cuts in the country. The Indian Government is consistently keeping focus on making strategies that will reduce economic dependency in the conventional energy sector for enhancing efficiency of energy and proper utilization of renewable sources. The main focus lies on MSMEs, as they play an important role in the India economy and also their vital role in increasing the potential for increasing in efficiency. Energy efficiency is often neglected by MSMEs because of its limited accessibility to technology and financial products. Some selected regions of India are getting access to advisory services, training and financial schemes by initiative of German Federal Ministry for Economic Cooperation and Development that will enable them to implement energy efficiency measures. This will bring an increase in the competition among various companies and simultaneously will reduce the negative impact on the environment. The project has adopted an integrated approach to scale the energy efficiency measures by developing an effective sustainable loan concept with the Small Industries Development Bank of India (SIDBI) and the State Bank of India (SBI). In this manner it contributes effectively in the development and environmental sustainability in the Indian MSME sector.

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