

Socio Legal Dimensions in Transitory phases of Green finance towards Green Economy and Sustainable Development.

Dr. Swati Dheeraj Singh Rautela

Associate Professor, Department of Law, University of Mumbai, Fort

I. Global Movement Towards Green Finance

The consequences of Globalization - with expanding production and consumption have resulted in overwhelming destruction of our environment, which include air, water and soil pollution, towards the commodification of natural commons, public environmental goods and services. The world community is fraught with the challenges of climate change, started to shift efforts towards creating a more sustainable planet and bringing down carbon emissions. United Nations Conference on Sustainable Development in 2012 (Rio+20) has forwarded the notion of 'green economy', a follow-on concept from 'sustainable development'¹. In this paper the author is deliberating on varied perspectives of green finance towards sustainable development.

At international arena movement is towards promoting green economy; however there is dire need for nations to adopt and promote green economy. The researcher has adopted doctrinal method of research and her research design is exploratory.

The first Earth Summit in 1992 produced results in form of the Agenda 21, the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diverison (CBD), the Forest Principles, the Rio declaration defining widely accepted principles such as the precautionary principle, and established a process allowing meaningful civil society engagement – all under the banner of 'sustainable development', standing on its three pillars of environmental protection, economic development and social development. There is dire need for balancing of interests of varied stakeholders i.e. nations, environment, development and people at large. New mechanisms have to be initiated towards production and distribution for sustaining green economy without affecting the planet

II. Impact of Environmental Challenges in India and Regulatory Mechanisms

The new report from the World Bank, entitled, "*Diagnostic Assessment of Select Environmental Challenges in India*" is hailed as the first major report to look at the economic impact of environmental damage in one of the world's largest emerging economies. There are end numbers of environmental problems, such as air pollution, water pollution, and biodiversity loss, seriously undermining India's economic prospects. The biggest impact comes from indoor and outdoor air pollution, primarily from the burning of fossil fuels, which has serious health impacts and combined leads to economic costs totaling three per cent of GDP. The Indian government has taken steps in recent years to tighten environmental regulations and is pursuing a major clean energy investment programme, primarily through its high profile Solar Mission project. However there is dire need on behalf of government to host of tougher environmental policies and regulations for delivering significant long-term economic benefits and minimal short-term costs¹.

"Conventional measures of growth do not adequately capture the environmental costs, which have been found to be particularly severe at the current rapid growth rates," warned Mani. "There are also tools available now to estimate the significant contribution of natural capital in the form of ecosystem services. Therefore, it is imperative to calculate green Gross Domestic Product (green GDP) as an index of economic growth with the environmental costs and services factored in." The disastrous impact of recent storms, floods, droughts, and excessive heat experienced around the world, motivate us to think seriously about global warming and its impact, act accordingly for overcoming these issues.

21. Green Economy, Economic Agendas, conflicting interests of Developed and Developing Countries

There are different views among developing and developed nations on key areas like finance, Governance and technology sharing, the major disagreements are on how to make a swift transition of the respective own economy. Some industrialized countries face direct competition from developing nations, while others prefer to co-operate due to existing economic relationships. Among developing countries, the emergence of BRICS has different significations for LDCs and African nations. Nations weigh Green Economy with their own economic agendas, thereby, the alliance between nations and actors have to be as coordinated approach towards "global common good" that promises growth for future generations without commodification of

biodiversity. This is possible through a framework that allocates environmental benefits and costs fairly based on equity between nations and societal redistribution to achieve a more just and equitable society. For most developing countries the costs of adjusting to a green economy are higher relative to their fiscal situation, their technical capacity to steer adjustment in their own economic sectors and their access to affordable and adaptable technologies

A fair transition to the green economy thereby requires the international community to support vulnerable economies in coping with the difficulties of green structural change.

2.2. International Initiatives towards Green Economy

Internationally, there are several initiatives to create a common protocol to manage environmental concerns. Among them the United Nations Environment Programme Finance Initiative (UNEP FI) and the Equator Principles (EPs) are the two key initiatives.

The United Nations Environment Programme Finance Initiative (UNEP FI) seeks to encourage better implementation of sustainability principles at all levels of operations in financial institutions, namely through the incorporation of environmental, social, and governance factors in risk analyses. This initiative is a public-private partnership between the United Nations Environment Programme (UNEP) and the financial sector. It works closely with over 200 members including leading banks, investment funds, and insurance companies to develop and promote linkages between sustainability and financial performance¹.

The Equator Principles are a set of voluntary guidelines for the categorization, assessment and management of social and environmental risks in project financing. The EPs are based on the International Finance Corporation Performance Standards on social and environmental sustainability and on the World Bank Group Environmental, Health, and Safety (EHS) Guidelines. Currently, 78 financial institutions in 32 countries have officially adopted the EPs, covering over 70 % of international Project Finance debt in emerging markets. The EPs have promoted convergence around common environmental and social standards.

Governments, enterprises, and people, all have roles to play in combating global warming and building a sustainable environment. A proactive multipronged action is necessary by industry and business sectors, regulatory agencies and individuals.

2.3. Initiatives at Indian home front for Promotion of Green Economy.

In December 2007, the Reserve Bank of India (RBI) issued a circular (RBI 2007-2008/216) highlighting the importance for banks to act responsibly and contribute to sustainable development and emphasizing the need for Indian banks to establish institutional mechanisms to enshrine sustainability¹.

The reasons for going green are manifold, and the key among them are: increasing energy consumption and energy prices, growing consumer interest in environmentally-friendly goods and services, higher expectations by the public on enterprises' environmental responsibilities and emerging strict regulatory and compliance requirements. Banking sector is one of the major sources of financing investment for commercial projects which is important for economic growth, thereby can play a crucial role in promoting environmentally sustainable and socially responsible investment (SRI)¹.

2.4 Indian Governments initiatives towards green technology

The Government of India has identified niche sectors for global competitiveness. By launching specialised funds/ schemes such as Textile Up gradation Fund, Credit Linked Capital Subsidy Scheme, Tannery Modernization Scheme etc., GOI showed its earnest desire to move Indian enterprises towards cleaner production. In the recent Union budget 2010-11 it has been proposed to set up a 'National Clean Energy Fund' for funding research and innovative projects in clean energy technologies. The Government of India has also increased its plan outlay by 61 percent to Rs 1,000 crore for Ministry of New and Renewable Energy. These steps indicate the Government of India's commitment towards energy efficiency. Report of the Prime Minister's Group on 'Measures for ensuring sustained growth of Indian manufacturing sector', under Chairmanship of V Krishnamurthy, Chairman, National Manufacturing Competitiveness Council (NMCC), has also recommended promoting clean technologies to achieve sustainable growth.

The Ministry of Micro, Small and Medium Enterprises (MOMSME) has formulated a scheme namely – Technology and Quality Up gradation Support to MSMEs (TEQUP). This scheme forms one of the components of the National Manufacturing Competitiveness Programme (NMCP) and aims to enhance competitiveness of MSEs through adoption of energy efficiency, clean development mechanism and Product

Quality Certification. The recently constituted Prime Minister's Task Force to address the issues of the (MSMEs) has also recommended that Government of India should consider earmarking a special fund to support clean technologies initiative of different ministries involved with MSME growth in the context of National Action Plan for Climate Change for meeting our national mission towards reduction of emission intensity, about 20% between 2005 and 2020.

2.5. SIDBI's role in promoting energy efficiency and clean production methods

The Small Industries Development Bank of India (SIDBI), as principal financial institution for the Micro, Small and Medium Enterprises (MSMEs) provides several financial and non financial services with a focus on linking financial assistance to eco-consciousness among Indian MSMEs. Green financing by SIDBI adopts a multi-pronged approach, from cluster level interventions (towards furthering competitive MSME agenda), to evolving technology mission for MSMEs with Vision 2020, institutionalizing technology management needs, being key nodal agency for promoting government schemes (aimed at developing niche sectors through technology upgradation) and engaging with international partners and draw on their global experiences.

SIDBI's green financing agenda aims at developing a culture of environmentally focused operations amongst India's MSMEs by supporting the entire value chain, from creating awareness amongst Indian MSMEs, to extending financial assistance for promoting energy efficiency and environment protection in a responsible and equitable manner. To further this agenda, SIDBI extends non-financial support in terms of awareness and motivational inputs and enabling the 'Market to work for MSMEs' through BDS market development in clusters. It has taken concerted steps towards collaborative efforts with its international partners, such as, World Bank, Japan International Co-operational Agency, Japan, KfW and GtZ, Germany, French Development Agency (AFD), France and National partners, such as, Government of India, Bureau of Energy Efficiency, TERI, State Financial Corporations etc. The first step towards fostering investment by MSMEs in the energy efficiency technologies and cleaner production measures, SIDBI has raised resources earmarked for promoting environment, energy efficiency and cleaner production, from its international partners, viz, World Bank, JICA, Japan KfW, Germany and AFD, France. SIDBI's green financing initiatives have so far benefited more than 5500 MSMEs. The Indian MSMEs need to be sensitized to invest in state of art, green and clean technologies as they perceive additional investment having no commercial advantage and involving longer payback period. Through various awareness campaigns, training of credit officers etc. SIDBI has attempted to bring perceptible change among MSMEs. SIDBI has also taken various initiatives to promote energy efficiency and clean production methods like setting up of dedicated Energy Efficiency Cell, launching awareness campaigns in MSME clusters, identifying energy efficient equipments/ technologies for each sector, etc¹.

III. Imperatives to Green Banking; Move towards Environment Friendly Initiatives

Green Banking is an umbrella term referring to practices and guidelines that make banks sustainable in economic, environment, and social dimensions. It aims to make banking processes and the use of IT and physical infrastructure as efficient and effective as possible, with zero or minimal impact on the environment. Hence, it is imperative to understand the need for sustainable practices for banking. Green Banking refers to the initiative by banks to encourage environment friendly investments, to give lending priority to those industries which have already turned green or are trying to grow green and thereby help to restore the natural environment. This initiative of green banking is mutually beneficial to the banks, industries and the economy. Contrary to the belief, environmental friendly technologies make economic sense for the industries and actually lessen their financial burden as well. The polluting industries face more resistance and often forced to close down or face massive resistance from the public. This adds to their cost enormously. So adopting environmentally sustainable technologies or modes of production is no more considered as a financial burden, rather it brings new business opportunities and higher profit. Green banking optimizes costs, reduces the risk, enhance banks reputations and contribute to the common good of environmental sustainability. So it serves both the commercial objective of the bank as well as its social responsibility.¹ Banks have explicit and implicit environment liability. Currently, in India, the concept of green banking is catching up and banks are actively looking for ways to portray themselves as a Green Bank.

3.1. Issues and Concerns of Green Investments

The driven factor under the Financial hurdles are current regulations, market practices, financial incentives and risk perceptions. The fact that green investments are overwhelmingly preferable from a societal perspective, the odds in the real world is stacked against them. In order to execute them the main factors are: - 1. The return on green investments (we would want to increase this). 2. The perceived risk of green investments (we need to reduce this). 3. The return on dirty investments (we would like this to fall. 4. The perceived risk of dirty investments (we want market actors to factor in higher risks). The poor investments are under price risk in coal fired power plants and even in gas turbines start to break down. This leads to a serious under-estimation of price risk for dirty projects and means that far too much dirty investment than is financially sensible goes through. This is also known as dirty investment which always paves the way for the under-estimate in price value. Greenhouse gas emissions drive and climate change 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 borne by the investor at the 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 risk¹. Encouraging environmentally responsible investments and prudent lending should be one of the responsibilities of the banking sector. Further, those industries which have already become green and those, which are making serious attempts to grow green, should be accorded priority to lending by the banks

3.2. Example of Successful Green Project in India

India's energy supply is not able to keep pace with the high economic growth rates in the country resulting in persistent power shortages and frequent power cuts. In order to minimize import dependency in the conventional energy sector, the Indian Government is increasingly focusing on strategies for enhancing energy efficiency and utilizing renewable sources. The main emphasis here is on MSMEs, because of their great importance for the Indian economy and in light of their huge potential for increases in efficiency. Energy efficiency in particular is often neglected by MSMEs due to limited access to technical know-how and appropriate financial products. On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) GIZ is tapping into these potentials by providing industrial MSMEs in selected regions of India with access to advisory services, training and financing schemes that enable them to implement energy efficiency measures. This allows the companies to increase their competitiveness and simultaneously reduce their negative impact on the environment. The project pursues an integrated approach to scale up energy efficiency measures in the sector by developing and implementing a specific energy efficiency loan concept with the Small Industries Development Bank of India (SIDBI) and the State Bank of India (SBI) that is complemented by training on sustainability measures for MSMEs¹. There is dire need to promote sustainable equitable agriculture and rural prosperity through effective credit support, related services, institution development and other innovative initiatives.

3.3 Need for Creating Attractive Green Finance Indices

- Green indices would identify and pool companies with solid environmental performance or in the green energy generation sector or on the basis of other 'green' criteria. They can provide both a benchmark for green performance of companies in general, as well as a benchmark for the financial performance of low carbon companies. The green indices offers for diversification potential, Quality control and Screening on the basis of number of green criteria.

It can be classified into three types they are

1. Tracking of companies' performance in the environmental set and social governance which participates to be the best.
2. The conceptual work of economic performance of companies within a specific sector to be considered as thematic indices.
3. The conventional indices that give companies weights according the climatic condition.
4. Aggregation of small green investments into large investment opportunities GREEN BONDS The importance of establishing standardized criteria for project eligibility; having minimum financial

characteristics such as size, rating and structure; and applying rigorous governance and due diligence project finance to aid index providers in putting green bonds on a fixed income¹.

5. 'Green Index' Institutional Investors can access green investments through traditional or alternative asset classes, more specifically through: Equity: Vehicles for green equity investing include indices, mutual funds, and ETFs. Fixed-income: Investors have a choice of "green bonds" that can be defined as fixed-income securities issued by governments, multi-national banks or corporations in order to raise capital for green projects. Alternative asset classes: The most common vehicles for green investing are real estate funds and infrastructure funds, which are often, organized as private equity vehicles.

'Green' Investment Products 'Green' saving Accounts for children 'Green' Children Accounts Saving products where the money is invested in 'Green' projects.

IV. Conclusion and Suggestions

The policy environment is depends upon the project size whether its micro level or macro level. In micro level improve the organs and train the talents, especially for establishing agencies. Followed by positive innovation to develop green financial business there should be risk management especially for carbon financial management. Green financial institutions should coordinate each other, enhance new products and services, and carry out education, strengthen the capacity of adjustment and response to the change of green financing mode. At macro level in Asian continent China is in a sound position of green financing. The ministries and commissions concerned should enhance harmony, further establish and improve operation guide and relevant laws and regulations¹. The government should draw up rational preferential policy and give incentives to the development of green finance.

There is earnest need for creating a platform for reducing the transaction cost and also to maintaining the environmental energy exchange. In most of the green financial services the professional service of intermediary organs should assist for accomplishing green initiatives at international and national level.

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