"CLEAN INDIA - GREEN INDIA" : AN OVERVIEW OF GREEN ACCOUNTING PRACTICES IN INDIA

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Abstract : Environmental degradation and pollution act as two major bi-products of development. As a result responsibility towards the environment is becoming an alarming issue throughout the globe. Building up "Green Economy" has become the focus area of all developing countries including India to signify human well-being and social equity and to minimize environmental risks and ecological scarcity. Sustainable Development cannot be feasible without having green environment and clean climate. "Clean India" and "Green India" movement of the Government of India are the two faces of sustainable development. To combat with the phenomenon of climate change due to environmental degradation and pollution, "Green India Movement" under National Action Plan on Climate Change (NAPCC) plays a vital role.

Present scenario demands consensus for corporate social responsibility as an indispensable criterion for sustainable development. Gross Domestic Product (GDP), Gross National Product (GNP), Net National Product (NNP) can not indicate sustainable development entirely because they deal only with changing stock and flow of man-made capital but not with the natural capital and its depleting stock caused by different economic activities. Accounting for environment or "Green Accounting" has the possibility to deal with different essential issues related to corporate social responsibility and sustainable development. The present study is an attempt to overview the concept of "Green Accounting" and its practices in India as a part of "Clean India – Green India" movement. The study also has an intention to identify different shortcomings of Green Accounting Practices in India and to find their solutions.

Index Terms: **Green Accounting, Clean India, Green India, corporate social responsibility, sustainable development**

I. INTRODUCTION

Environmental degradation and pollution act as two major bi-products of development. As a result responsibility towards the environment is becoming an alarming issue throughout the globe. Building up of "Green Economy" has become the focus area of all developing countries including India to signify human well-being and social equity and to minimise environmental risks and ecological scarcity. In other words sustainable development becomes the cry of the entire globe. According to Oxford English Dictionary, 2008 the word "sustainable" indicates economic and cultural activities of human being that avoid depletion of natural sources, conserve an ecological balance and are able to maintain a certain rate of growth over a long period. Sustainable Development cannot be feasible without having green environment and clean climate. "Clean India" and "Green India" movement of the Government of India are the two faces of sustainable development.

UNO has set 13 agenda in its Millennium Development Goals (MDG) under Kyoto Protocol as a yardstick of sustainable development. Agenda 3 amongst thirteen agenda of Sustainable Development Goal (SDG) deals with good health and well being, Agenda 6 deals with clean water and sanitation, Agenda 7 deals with affordable and clean energy, Agenda 11 deals with responsible consumption and production and Agenda 13 deals with climate change and these five agenda are very important for corporate social responsibility (Roy, 2017). Consensus for corporate social responsibility has emerged as an indispensable criterion for sustainable development. Gross Domestic Product (GDP), Gross National Product (GNP), Net National Product (NNP) can not indicate sustainable development entirely because they deal only with changing stock and flow of man-made capital but not with the natural capital and its depleting stock caused by different economic activities. Therefore the indicators of sustainable development are to be chosen in such a way so as to reflect the authenticity of economic growth and development. Right now it becomes a hardcore challenge for corporate houses to maintain social responsibilities including environmental issues as an integral part of "Clean India" and "Green India" and sustain their growth. Green Accounting works as the pivotal step towards the green economy. Accounting for environment or "Green Accounting" has the possibilities to deal with different essential issues related to corporate social responsibility as well as to "Green India" and "Clean India".

II. GREEN ACCOUNTING – CONCEPTUAL FRAMEWORK

Green Accounting or Environmental Accounting refers to the environmental or resource accounting that incorporates environmental assets, their sources and uses into the traditional accounting system. According to Pramanik (2002) green accounting involves the identification, measurement and allocation of environmental costs, integration of these costs into business, identifying environmental liabilities, and communication of results to stakeholders as part of financial statements of the company. Qureshi (2012) has explained green accounting as environmental component of the business strategy to produce the required performance reports and to recognise the multiple skills for measuring, compiling and analyzing requisite data. Solanki (2016) has expressed Green Accounting as a growing field that identifies resource use, their measures and communicates environmental costs and impacts of a company or the national economy in wider sense.

Green Accounting indicates accounting practices of a company that have a quality to incorporate environmental costs, benefits and consequences. The system of green accounting refers to the aggregation of data that links the environmental parameters to the financial parameters of the company having a long-run impact on both economic and environmental policy of the organisation. It is not the simple social cost benefit analysis of various projects or activities of the company or not merely the valuation of environmental goods and services produced. It denotes something more. It is an attempt to recognise and represent exhausted resources (including natural resources) and cost rendered for those by the organisation as well as benefits derived. Green accounting attempts to bring transparency in accounting system. Green Accounting specifies the accounting system that is characterised by environmentally differentiated conventional accounting. It measures both the impact of natural environment on the company and the impact of company activities on the natural environment. First one is quantifiable whereas the second one may or may not be quantifiable. In this system of accounting environmental expenditures are estimated first and then are to be capitalised. Environmental expenditures include production related costs and research and development expenditures related to protection of environment. As the second stage of this accounting system environmental liabilities are identified and measured. Environmental liabilities refer to the company obligation to mitigate the damage created by the very company to the environment as a result of its production or business activities. Environmental liabilities are also not quantifiable and therefore an estimate has to be made in this connection.

III. Objective of the Study

Objectives of the present study are as follows:

1) To appraise Green Accounting as an integral part of "Green India" and "Clean India" campaign launched by the Government of India.
2) To get an overview of the present scenario of Green Accounting in India.
3) To highlight limitations and future issues related to Green Accounting in India.

IV. Research Methodology

The study is consisting of secondary data. Secondary data have been collected from different reports such as report on Kyoto Protocol, report on National Mission for a Green India under National Action Plan on Climate Change, Companies Act 2013, Companies (Amendment) Act 2017 and Annual Reports of different companies for various years. The secondary data thus collected are verified in light of the existing literature.

V. "Clean India"- "Green India" vis-a-vis Green Accounting in India

Swatch Bharat Abhiyan or clean India with its slogan "One Step towards Cleanliness" is a national level campaign being started by the Government of India, on 2nd October 2014, 145th birth anniversary of Mahatma Gandhi. The campaign has been started with a motto to have clean India encompassing all its towns and villages. The main objective of the campaign is to provide development through Cleanliness and to establish Open Defecation Free (ODF) India by 2nd October, 2019, 150th birth anniversary of Mahatma Gandhi. The Government of India also has the aim to convert the insanitary toilets into pour flush toilets, to provide assistance for producing sanitary materials and rural sanitary marts, to clean roads and streets, to generate public awareness by promoting cleanliness programs in rural areas through linkage of people with different sanitation programmes and public health and by encouraging healthy sanitation practice, to promote solid and liquid waste management project for each Gram Panchayat, to generate scientific mechanism for processing, disposal, reuse and recycling of the Municipal Solid Wastes, to build up strong urban local bodies for proper planning, execution and functioning of total system related to cleanliness, to generate adequate Information Education Communication activities for monitoring the functioning of the relevant bodies and Government activities and to endow private sectors with required environment to contribute a handsome portion in capital expenditure for promoting clean campaign. The "Clean India" campaign is entirely associated with the socio- economic, cultural and behavioural change and the sustainable development of the country.

Besides promoting cleanliness the Government of India also has an aim to support "Green India" mission for preserving and conserving greenery. Being an important mission among the all eight missions of the National Action Plan on Climate Change (NAPCC), the "Green India" identifies the phenomenon climate change as a result of environmental degradation and pollution affecting natural biological resources, flora and fauna and the human life. The objective of the mission is to combat with the evils of climate change through a synthesis of adjustment and alleviation method. The "Green India" mission aims at lowering the environmental pollution, increasing the carbon sinks in the environment as well as in the ecosystem and thereby improving the adaptation method of the eco system to the changing climate and the development of forest dependent communities. Biodiversity conservation, enlargement of forest cover, water security and clean climate, saving of fossil fuel, clean environment, food security and livelihood security are some dictum of the "Green India" mission. The prima facie of "Greening" is not only limited to plantation of trees but the scope has been extended to cleaning of climate and environment and also to restoration of ecosystem and habitat diversity.

Sustainable development cannot be attained without "Clean India" and "Green India". To accomplish the present requirements devoid of making compromise with the call of the future generation is the essential building block of sustainable development. Green Accounting induces environmental and social aspects of an economic activity into the traditional accounting. Rules, regulations and limitations related to the environmental and social factor are considered in the dimension of Green Accounting. Green Accounting refers to the linkage of financial data with those of environment and society at large. It has a long-run impact on the economy as well as the environment and the society. Utmost economic growth can be attained only through the principles of sustainable development. Economic efficiency cannot be achieved without environmental efficiency and social efficiency. Environmental efficiency and social efficiency are the derivation of Green Accounting. “Green Accounting” deals with various significant issues related to corporate social responsibilities to meet the demands of “Green India” and “Clean India”. For keeping the pace with “Green India” and “Clean India” Indian corporate houses have chosen various parameters like health safety, environment safety, energy conservation, water management, waste management, renewable energy management, environmental initiatives, sustainability reporting, environmental information system, environmental disclosure practices, environmental reporting indicators, environmental cost and benefits to be analysed in Green Accounting system.

VI. Legal Framework steering Green Accounting in India

Preparation of corporate environmental reporting (CER) has become a burning issue in India for overall corporate governance. At present traditional reporting has become outdated to include environmental reporting. Mandatory environmental disclosure now a day is not enough to fulfil the expectation of stakeholders. Beside mandatory disclosure voluntary disclosure could become the part of scientific reporting. Satellite reporting, sustainability reporting, GRI reporting and internet reporting have been experienced as the popular reporting procedure in India. Beside the Directive Principles of the Indian Constitution, there are numerous laws that support the green accounting in India. Some of them have direct influence and some other have indirect influence.

Important laws having direct influence on green accounting include (Prevention and Control of Pollution) Act 1974, Water (Prevention and Control of Pollution) Act 1974, Water (Prevention and Control of Pollution) Cess Act 1977, Water Biomedical Waste (Management and Handling) Rules 1998, The Air (Prevention and Control of Pollution) Act 1981, The Forest (Conservation) Act, 1980, The Environment (Protection) Act, 1986, Hazardous Waste (Management & Handling) Rules 1989, Municipal Solid Waste (Management and Handling) Rules 2000 etc. and laws bearing indirect influence on green accounting include constitutional provision (Article 51A), Indian Penal Code, The National Environment Tribunal Act 1995, The Factories Act 1948, Public Liability Insurance Act 1991, Motor Vehicle Act 1991, Indian Fisheries Act 1987, Merchant of shipping Act 1958, Indian Port Act, Noise Pollution (Regulation and Control) Rules 2002 (Amendment), Biological Diversity Act 2002 etc. (Malik & Mittal, 2015).

In 1991 Government of India has declared the need of environmental disclosure in the company’s annual reports. Accordingly disclosure related to protection of environment is proposed in the Companies' Bill 1993 and 1997. Section 217(1)(e) of the Companies Act 1956 made it mandatory for Indian companies to prepare report on matter like conservation of energy, technology absorption etc. Later section 135 and schedule VII of the Companies Act 2013 has mandated the expenditure amounted to minimum of 2% of average net profit for CSR (Corporate Social responsibility) which includes green accounting system. Companies Act 2017 amended the section 135 and has mentioned that every company having net worth ₹500crore or more or a turnover of ₹ 1000crore or more or a net profit of ₹500crore or more during any financial year should constitute a Corporate Social Responsibility Committee of the Board consisting of 3 or more directors having one independent director to deal with CSR including Green Accounting.

VII. Present System of Green Accounting in India

Parameswaran (2011**)** in his study identified three phases related to green accounting in India. They are: (i) Physical Accounting to determine the resource type and the extent of use (ii) Monetary Valuation to assess tangible and intangible resources (iii) Integration with Economic Accounting to assimilate the money value of environmental resources with that of other resources. Minimol & Makesh (2014) have identified some stages relating to Green Accounting Practices in India. According to them steps related to Green Accounting Practices in India are as follows:

(i) ***Identification of Environmental Accounting Parameters:*** First of all organisations identify their respective environmental reporting parameters such as environmental policy, health safety and environment, energy conservation, corporate sustainability/environmental initiatives, sustainability reporting, waste management, water management, wind/renewable energy sources, environmental information system, environmental disclosure practices, environmental targets, environmental reporting indicators, environmental cost and benefits, environmental liabilities and environmental assets.

(ii) ***Defining the Environmental Reporting Parameters:*** Secondly, organisations clearly explain the operational meaning of each parameter they identified yet to measure the environmental performances in long run.

(iii) ***Specify the Environmental Targets to be achieved:*** Here, organisations make effort to formulate the environmental targets to be achieved both in short run and long run.

(iv) ***Developing the Environmental Performance Indicators:*** In fourth step, organisations require to develop the indicators for measuring the environmental performance such as environmental policy framework, health and safety standards, energy conservation practices, waste management programmes, water management policies etc.

(v) ***Measure the Environmental Performance Indicators:*** In this step organisations need to measure the actual environmental performance in terms of the predetermined standard performance indicators. Measurement may be either qualitative or quantitative in nature. For instance, indicators such as environmental policy framework need to be qualitatively measured while waste management programmes are to be measured quantitatively.

(vi) ***Report the Environmental Performance Results:*** Lastly organisations integrate their environmental performance with that of financial to provide the environmental impact in their financial performance.

Schedule VII of Companies Act 2013 proposed some activities for the purpose of corporate social reporting of which there are some issues relating to green accounting or environmental accounting. Activities preventing healthcare and sanitation, ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agro forestry, conservation of natural resources and maintaining quality of soil, air and water are proposed to be recognised and measured while preparing financial statements. Accordingly guidance note issued by ICAI on corporate social responsibility provide guidance on recognition, measurement, presentation and disclosure of expenditure on activities related to CSR. This guidance note is applicable to all activities related to CSR including those mentioned above. Hence, recognition of environmental accounting parameters including identification and definition of those parameters should be done firstly. For measuring the environmental performance environmental targets should be specified and environmental performance indicators should be developed followed by measurement of actual performance in comparison with predetermined performance. Environmental performances should be provided in the Director's report so that all the stakeholders can be aware of environmental performance. All the environmental assets along with expected expenditures and incomes to be catered from those assets and the expected liabilities should be mentioned in the project level reporting and these project reports should be consolidated with programme related reports aligned with the policy formulation as per the Companies Act 2013. Some of the most used parameters in the Indian corporate world are – health safety, environment safety, energy conservation, water management, waste management, renewable energy management etc. For measuring the environmental performances environmental policy, environmental targets, environmental information system, environmental disclosure practices, environmental assets, environmental liabilities, environmental costs and benefits, corporate sustainability are considered generally by Indian houses.

Most companies are moving towards creating sustainable growth models in different ways. As manufacturing companies explore the inter linkages between supply chains, it is evident that waste, water, energy and materials are closely related to business continuity. It is now an expected goal to provide growth without adverse impact on the environment. Forward looking companies like Ambuja Cement, ITC, Dalmia Bharat etc. are talking of being water positive several times (Rana and Majumdar, 2017).

VIII. Limitations and Future Issues related to Green Accounting

A survey on the level of reporting on health, safety, social, and/or environmental issues by the top 250 companies in the Global Fortune 500 (GFT 250) and the top 100 companies from 19 countries by KPMG has pointed out that most companies have prepared an HSE (Health, Safety and Environment) report. At present there is hardly any country that has no official regulation for companies to issue company-wide stand-alone report on environmental performance. In Sweden, from 1989 onwards, all operations sites that require special permits due to the presence of environmental hazards must submit an annual environmental report to the authorities. Since 1996, companies in Denmark with significant environmental impacts are required to publish ''green account'', in details with full information about the consumption of energy, water, and raw materials. From 1999, The Netherlands mandates environmental reporting from the end of companies for both the government and public. UK has also mandated environmental reporting (Abdel-Rahim & Abdel-Rahim, 2010). The study conducted among 80 executives of different industries has revealed that corporate world is fully aware of the requirements of environmental reporting. They are also aware of the environmental issues. The corporate executives have also expressed their views in favour of environment reporting by the industries (Malik & Mittal, 2015). Despite the awareness and consent over environmental reporting real life practices of Indian companies were very poor. Environmental reporting scenario reveals that it is too little to provide information in their annual reports. So, in India detailed reports regarding health issues, safety issues and environment related issues along with project level reports should be mandated for every company whether small, medium or large.

It has also been revealed that in India most of the companies disclose the environment information in descriptive manner rather than financial type i.e. no account is made for the degradation of natural capital when calculating corporate profits. But measurement and valuation of water used and non-renewable energy like coal, petroleum, carbon, natural gas used in quantitative terms must be the call for today. So, more discussions and corporate initiatives are needed for water and non-renewable energy management and valuation. Besides preparing detailed accounts and reports on water resource and non-renewable energy resources, a detail report should be prepared on the use of renewable energy like solar energy and wind energy. Integration of renewable and non-renewable energy in corporate portfolio should achieve greater footing.

After launching Swachh Bharat Abhiyan or "Clean India" campaign and "Green India" mission four years back there is a tendency of scepticism. Only 39% companies have allocated funds for health, safety, and environment related issues. Most of the Indian companies have spent money on environment related issues in form of charity. Thus at present it becomes the need for every company to build proper Corporate Social Responsibility (CSR) strategy instead of charity. For that purpose, NGOs may be asked for strict and vivid reporting.

IX. Conclusion

Environmental accounting is in its initial stage in India. Whatever disclosed in the annual reports of any company is mainly an attempt to comply with the rules and regulations as mentioned in the Companies Act. Unless and until the awareness regarding health and environmental safety is properly developed, environmental accounting or green accounting cannot be widely accepted. With the increasing pollution and health hazards it is the call of the time to management of corporate houses to formulate firm environmental policy, take necessary steps to control pollutions, recognise environmental parameters, measure environmental assets, liabilities, income and expenditures, comply with related rules and regulations, and make adequate disclosure regarding environmental aspects in their annual reports. A well defined green accounting and reporting policy will help a country to reach the objective of sustainable development which is the ultimate aim of "Clean India" and "Green India".

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