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Environmental Accounting and Reporting: A Theoretical Analysis of Indian Scenario

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Abstract: *In recent years, environmental pollution becomes severe and the stakeholders are considerably worried about the issue which paved the way for the growing concern about the implementation of environmental accounting. Still, there exists a lacuna in the adoption of the environmental accounting practices by the corporates as the legal authorities, standard setting bodies, and other regulators cannot come to an accord regarding the conceptual framework of environmental accounting and reporting. Therefore, it is not mandatory for the corporates to disclose the environmental related cost and benefits except with respect to certain industries. In India, such disclosures are of voluntary nature and are guided by corporate social responsibility norms. In this paper, an attempt is made to discuss the theoretical foundation of environmental accounting and reporting practices with special reference to India. Environmental accounting and awareness have given more important as it is the need of the day.*

Key Words: *Environmental Accounting and Reporting, Environmental Policy, Corporate Social Responsibility.*

1. INTRODUCTION:

Earth provides enough to satisfy every man's needs, but not every man's greed (Mahatma Gandhi). The Earth’s environment is a prosperous legacy gifted to us by our ancestors. It is wealthy enough to satisfy the need of everyone living in it. However the greedy man exploits the abundant resources of the environment and the environment protection becomes a pressing issue in the present day context. The developmental activities undertaken by the present civilization generates huge amount of wastage with potential constituents. The disposal of such wastes contributes towards the environmental pollution. Today, the magnitude of environmental pollution is at an alarming level in many parts of the globe. Well-known environmental tragedies like Minamata mercury poisoning in Japan (1956), Chernobyl nuclear-power plant disaster in Ukrain (1986), Love canal incident in US (1978) and the Bhopal gas tragedy (1984) reinforced the importance of environmental protection in the minds of people. The issues such as rapid climate changes, glacier meltdown, soil erosion, degradation of lands, deforestation, and pollution contributed towards increased awareness about the importance of protecting the environment. The business, in their role as corporate citizen, is also conscious about the environmental changes and the optimum utilization of resources. Thus, the responsibility towards environment has become one of the most vital areas of corporate social responsibility. The developing countries like India are facing the challenge of promoting economic development without neglecting the environment. A tradeoff between environmental protection and development is a great concern today. The concern of environmental responsibility and the sustainable industrial development has given birth to a new branch of accounting i.e. Environmental Accounting. The paper focuses on the theoretical foundation of environmental accounting and reporting with special emphasis to the Indian scenario.

2. ENVIRONMENTAL ACCOUNTING: A CONCEPTUAL FRAME WORK:

Environmental accounting refers to the identification, measurement and communication of the data on environmentally responsible performance of a business entity to facilitate economic decision-making. It identifies the resources used by a business and measures and communicates costs of its impact on the environment. In other words, it is the process of accounting for any costs and benefits that arises out of the resulting change in environment due to the change to a firm’s product and processes of production. The costs include costs to clean up or remediate contaminated sites, environmental fines, penalties and taxes, purchase of pollution prevention technologies and waste management costs. Simply, environmental accounting is all about making environment related costs more transparent with corporate accounting system and reporting. The concept of environmental accounting was first adopted by Norway in the early 1970s. In India, the application of environmental accounting is limited to certain industries such as oil and petroleum, cement, power and electronics, natural gas, steel, engineering and textile industries.

3. OBJECTIVES OF ENVIRONMENTAL ACCOUNTING:

The objectives of environmental accounting and reporting are as follows:

- To help in negotiation of the concept of environment and to determine the enterprise's relationship with the society as a whole and the environmental pressure group in particular.
- To segregate and collaborate all environmental related flows and stocks of resources.
- To minimize environmental impacts through improved product and process design.
- To estimate the total expenditure on protection and enhancement of environment.
- To assess changes in environment in terms of costs and benefits.
- To ensure effective and efficient management of natural resources.

4. MERITS OF ENVIRONMENTAL ACCOUNTING:

The basic advantage of undertaking the practice of environmental accounting is that the identification and increased awareness of environment related cost gives the opportunity to find ways to trim down or to completely avoid these costs whilst improving environmental performance. To be more specific environmental accounting is an effective tool in order to place the environmental related issues resolutely before the top management, to provide valuable data to inform environmental and financial managers' decision making process, and to demonstrate environmental commitment of the company to its stake holders. The organization that opts to disclose environmental issues in their financial statements gets certain other benefits which are listed below:

- It enhances the image of the product and the company which may have an impact on the sales and ultimately profitability.
- It improves the safety of the workers which in turn will help increasing productivity.
- It provides competitive advantage as the customers may prefer environmental friendly products and services.
- It helps to build up trust and confidence in the society.
- Environmental cost can be offset by generating revenues through sale of waste or by products.
- Better knowledge of environmental cost can facilitate more accurate costing and pricing of products.

5. FORMS OF ENVIRONMENTAL ACCOUNTING:

Environmental accounting can be classified under three forms:

5.1. Environmental management accounting:

Environmental management accounting focuses on material and energy from information as well as environmental cost information. It can be studied under the following sub classes:

- Segment environmental accounting: This is an internal environmental accounting tool that facilitates the selection of an investment activity, or a project which is environmental friendly from among all processes of operations. It also helps in evaluating the environmental effects of the project for a certain period.
- Eco balance environmental accounting: This is also an internal accounting tool to support the firm for sustainable environmental management activities.
- Corporate environmental accounting: This is a tool to inform the public of relevant information compiled in accordance with the environmental accounting. It can be called as corporate environmental reporting and it uses the cost and effect of its environmental conservation activities.

5.2. Environmental Financial Accounting (EFA):

Environmental financial accounting refers to the financial accounting practice with special reference to the reporting of environmental liability costs and other significant environmental costs.

5.3. Environmental National Accounting (ENA):

Environmental National Accounting focuses on natural resources stocks & flows, environmental costs & externality costs etc.

6. RELEVANCE OF ENVIRONMENTAL ACCOUNTING:

Environmental course are one of the most important types of course that a business enterprise incurs as they provide goods and services to their customers. In the present global scenario the environmental performance of an enterprise holds an edge over determining the success of business. Environmental costs and performance ought to have enough management attention due to the following reasons:

- Most of the environmental costs can be effectively reduce or avoided as a result of better business decisions, ranging from base level to top level, to invest in "green" projects.
- Many environmental costs such as the waste row materials may provide no additional value to the product or system. Thus environmental costs may be obscured in overhead accounts.
- Better management of environmental costs can result in improved environmental performance and significant benefit to the society as a whole.
- The understanding of environmental costs and the performance of processes and products may lead to more accurate costing and pricing which will aid the organizations in developing more environmental friendly products and services in the future.
- It is identified that environmental cost can be written off by generating revenues through sale of waste by products or transferable pollution allowances such as carbon credits.
- Accounting for environmental costs supports a company's development and facilitate an overall environmental management system. Such a system will facilitate the company to obtain international standards such as ISO 14001 developed by International Organization for Standardization.

7. APPLICATION OF ENVIRONMENTAL ACCOUNTING AND REPORTING IN INDIAN COMPANIES:

Legal Framework for Environmental Accounting in India

The environmental clearance from various government authorities has taken the centre of attraction with the abolishing of industrial licensing for all practical purposes. India has a Union Ministry of Environment with the motive of coordinating among the states and the various ministries, the environmental protection and anti pollution measures. The country has also passed various legislations to ensure the protection of environment. The latest Companies Act, 2013 also incorporates a stress on green initiatives. The various laws pertinent to environmental protection in the country are listed below under two different heads:

Directly related to the protection of environment

- Water (Prevention and Control of Pollution) Act, 1974
- Water (Prevention and Control of Pollution) Cess Act, 1977
- Air (Prevention and Control of Pollution) Act, 1981
- The Forest Conservation Act, 1980
- The Environment (Protection) Act, 1986

Indirectly related to the protection of environment

- The provision in the Constitution (Article 51A)
- The Factories Act, 1948
- Hazardous Waste (Management and Handling) Rules, 1989
- Public Liability Insurance Act, 1991
- The Motor Vehicle Act, 1991
- Indian Penal Code
- The National Environment Tribunal Act, 1995
- Indian Fisheries Act, 1987

8. ENVIRONMENTAL ACCOUNTING PRACTICES IN INDIAN COMPANIES:

Environmental accounting is at inception stage in India. In the context of requiring environmental related disclosures from business units on a periodic basis, the first public announcement was made by the Government of India in 1991, immediately after adopting the financial reforms that liberalized the economic policies of the country. The Ministry of Environment and Forests has proposed that "Every company shall, in the Report of its Board of Directors, disclose briefly the particulars of steps taken or proposed to be taken towards the adoption of clean technologies for prevention of pollution, waste minimization, waste recycling and utilization, pollution control measures, investment on environmental protection and impact of these measures on waste reduction, water and other resources conservation."

In 2011, the Securities and Exchange Board of India mandates listed companies to report on Environmental, Social and Governance (ESG) initiatives undertaken by them, according to the key principles enunciated in the 'National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business.' The Companies act 2013 emphasizes on corporate social responsibility that makes it mandatory for certain class of profitable enterprises to spend money on social welfare activities. It is mandatory for companies with net worth of more than Rs 500 crore, or turnover of Rs 1,000 crore to adopt a CSR policy. Also it provides that the companies are required to give more disclosures besides Company's general state of affair and financial performance regarding conservation of energy and environmental protection. Also, The Union Ministry of Environment and Forests has issued various instructions in to prepare environment statements. It is mandatory in the country to get an environmental clearance for all new projects that concerns both the Union Ministry of Environment and Forests and the corresponding State Government department of environment. There are various guidelines in this regard and all such projects are expected to obtain environmental and antipollution clearance before they are actually set up. It can be observed through their accounts that mainly the following set of information is disclosed.

- What type of devices are installed to control pollution
- The steps taken for energy conservation
- Steps taken for optimum utilization of resources
- Steps taken for decompose the waste water and production process waste
- Steps taken for improving the quality of product and services, production process etc.

A gazette notification on environmental audit has been issued by ministry of environment and forests on 3-3-1992 which was amended through a notification on 22-4-1993(India: Environment Statement, as a part of Environment Audit, Govt. of India, 1993) requires the submission of an environment statement to the Central Pollution Control Board. This notification is applicable to any person carrying out an industrial operation or process requiring consent to operate by under section 25 of the Water (Prevention and Control of Pollution) Act 1974, under section 211 of the Air (Prevention and Control of Pollution) Act, 1981 or both, or authorization under the Hazardous Waste (Management and Handling) Rules, 198, issued under the Environment (Protection) Act, 1986. In this environment statement, the concerned industry is required to provide information on:

- Water and raw material consumption
- Pollution generated
- Impact of pollution control measures on conservation of natural resources
- Nature of hazardous and solid wastes produced and disposal practices adopted
- Measures taken for environmental protection, and
- Steps taken to popularize the benefits of environmental accounting and reporting among the corporate sector.

9. CHALLENGES OF ENVIRONMENTAL ACCOUNTING AND REPORTING:

Even though the environmental accounting and reporting practices are being attempted by many countries, the concept has certain obstacles in implementation. The major limitations are as follows:

- Environmental accounting lacks economic value.
- There is no standard method of estimating the social value of environmental goods and services.
- Social value given to environmental goods and services are changing so fast that the estimates are likely to be obsolete before they are available for use.
- There is no accounting standard for environmental accounting
- It involves inapplicable assumptions
- Environmental accounting is not a legal obligation except for few industries in India.
- It lacks reliable industry data.

10. CONCLUSION:

Environmental accounting is an important measure for understanding the role played by natural environment in the development of an economy. It provides data that contains the contribution of natural resources to economic well being as well as the costs imposed by environmental pollution and resource degradation. In India, the level of environmental related disclosures in the corporate annual reports is poor. Neither the latest company law nor the accounting standards by ICAI prescribes the disclosure norms for environmental related aspects in the corporate financial reports. As the environmental disclosures are voluntary in nature, except few industries for which environmental accounting is mandatory such as oil and petroleum, natural gas, cement, steel, etc. the companies hesitates to implement the practice in their books of accounts. The poor environmental performance of the company may also bind them to no-disclosure. The lack of awareness and commitment on the part of company management about the social responsibility of the firm also keeps the firms away from reporting environmental costs and benefits. Thus, it can be concluded that the absence of a standardized environmental accounting practice and disclosure norms at national as well as international levels spur the corporates to be away from the environmental accounting practices and to shut their eyes towards the deterioration in the environment.

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