Environmental Accounting-A Value Addition to Financial Reporting

DEEPA PRABHU.I

Asst. Professor

Department of Commerce

MIT First Grade College

Mysuru-08

Email: deepaguru23@gmail.com

KAVANA.N

Asst. Professor

Department of Commerce

MIT First Grade College

Mysuru-08

Email: Kavanaraj94@gmail.com

Abstract

In this highly competitive business world, everyone wants to rule the market or be the market leader in their business domain. In order to sustain in this competitive world most of the industrial and corporate houses globally are incorporating the concept of environmental element in their business operations. We cannot have a prosperous society in a degraded planet and all signs are pointing to human activity driving the planet to the edge, as business and people consume more natural resources than the Earth can regenerate. The key to a bright future for businesses, and of course the planet, lies in establishing resilient markets that produce more sustainably, consume more wisely and safeguard our natural wealth. Healthy economies depend on a healthy environment—that is the bottom line. The conventional accounting system considered only non living things and their relevant transactions. This system failed to interact between business and environment. But now there is an increased awareness and concern globally among nations about environmental degradation. So the emergence of environmental accounting is gaining relevance in this sense. Environmental Accounting is the major step towards understanding the role of business enterprises towards the environmental safety and welfare. These enterprises are clear in their prospect that along with the quality in their business they have to incorporate the concept of environment too in order to attain sustainable corporate growth. However, 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. The present paper focuses on exploring the concept of environmental accounting and reporting & its role in enhancement of corporate report with special reference to India.

Keywords: Environmental accounting, Environmental reporting, sustainable development, Corporate Social Responsibility.

INTRODUCTION

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 reference to the Indian scenario.

Objectives of the study

- ✓ To review the importance of environmental accounting in India.
- ✓ To find out the challenges faced by the corporate in implementation of environmental accounting in recent years.
- ✓ To examine the shortcomings of the conventional accounting system and importance of environmental accounting today.
- ✓ To study the interrelation between economic, social and environment in relation to environment reporting.

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.

Environmental Accounting is an important tool for understanding the role played by the business enterprises in the economy towards the environmental safety and welfare of the society. It provides data highlighting both the contribution of business enterprises to economic well being and the costs imposed in the form of pollution or resource degradation. Every business has an overriding responsibility to make the fullest possible use of its resources - both human and material. There are many laws that have been enacted and amended from time to time to make the corporate sector to fulfill its social responsibility for better development of Indian environment and economy. Therefore, recent years have witnessed rising concern for environmental degradation which is taking place due to increasing industrial activities. It may be noted here that the environmental degradation and pollution spoil human health, reduce economic productivity and lead to loss of amenities. The mitigation of energy resource use without impairing the quality and functions of the organization rendered the multi-national companies to stay competitive.

The International Accounting Standards Board (IASB) identified and recognized the measurement of energy conservation under the name and style of Environmental Accounting. The developing countries like India are facing twin problems of protecting the environment and promoting economic development. A trade-off between environmental protection and development. It is known that there are limited resources available for the use of all species on the earth and the enormous damage is done to the required hence a careful assessment of the benefits and costs of environmental damages is necessary to find the safe limits of environmental degradation and the required level of development. In fact, the industrial and business activities are directly and indirectly responsible for birth of incidences like the Bhopal Chemical Leak (1984), Chernobyl disaster(1986),Tsunami in India(2004), Huddudh cyclone(2014)etc. The issue of corporate social responsibility and the sustainable industrial development has given birth to a new branch of accounting viz., Environmental Accounting, it is relatively a recent entrant in the domains of Accounting.

Thus, the Environmental accounting is a type of accounting that attempts to factor environmental costs into the financial results of operations. It has been argued that gross domestic product ignores the environment and therefore policymakers need a revised model that incorporates green accounting. The major purpose of environment accounting is to help businesses understand and manage the potential quid pro quo between traditional economics goals and environmental goals. It also increases the important information available for analyzing policy issues, especially when those vital pieces of information are often overlooked. Environmental accounting is said to only ensure weak sustainability, which should be considered as a step toward ultimately a strong sustainability.

Objectives of Environmental Accounting

The objectives of environmental accounting and reporting are as follows:

1. 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.
2. To segregate and collaborate all environmental related flows and stocks of resources.
3. To minimize environmental impacts through improved product and process design.
4. To estimate the total expenditure on protection and enhancement of environment.
5. To assess changes in environment in terms of costs and benefits.
6. To ensure effective and efficient management of natural resources.

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:

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

Forms of Environmental accounting

Environmental accounting can be classified under three forms:

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:

(i) 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.

(ii) Eco balance environmental accounting: This is also an internal accounting tool to support the firm for sustainable environmental management activities.

(iii) 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.

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.

3. Environmental National Accounting (ENA)

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

Scope of Environment Accounting

The scope of Environmental Accounting is very wide. It includes corporate level, national & international level. As far as this article is concerned the emphasis is given on the corporate level accounting. The following aspects are included in EA:

1. From Internal point of view investment made by the corporate sector for minimization of losses to environment. It includes investment made into the environment saving equipment devices. This type of accounting is easy as money measurement is possible.

2. From external point of view all types of loss are indirectly due to business operation/activities. It mainly includes:

a. Degradation and destruction like soil erosion, loss of bio diversity, air pollution, water pollution, voice pollution, problem of solid waste, coastal & marine pollution.

b. Depletion of nonrenewable natural resources i.e. loss emerged due to over exploitation of nonrenewable natural resources like minerals, water, gas, etc.

c. Deforestation and Land uses. This type of accounting is not easy, as losses to environment cannot be measured exactly in monetary value. Further, it is very hard to decide that how much loss was occurred to the environment due to a particular industry. For this purpose approx idea can be given or other measurement of loss like quantity of non-renewable natural re-sources used, how much Sq. meter area deforested and total area used for business purpose including residential quarters area for employees etc., how much solid waste produced by the factory, how much wasteful air pass through chimney in air and what types of elements are included in a standard quantity of wasteful air, type and degree of noise made by the factory, etc. can be used.

Relevance of Environmental Accounting

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:

1. 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.
2. Many environmental costs such as the waste raw materials may provide no additional value to the product or system. Thus environmental costs may be obscured in overhead accounts.
3. Better management of environmental costs can result in improved environmental performance and significant benefit to the society as a whole.
4. 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.
5. 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.
6. 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.

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:

1. Directly related to the protection of environment

(i) Water (Prevention and Control of Pollution) Act, 1974
(ii) Water (Prevention and Control of Pollution) Cess Act, 1977
(iii) Air (Prevention and Control of Pollution) Act, 1981
(iv) The Forest Conservation Act, 1980
(v) The Environment (Protection) Act, 1986

2. Indirectly related to the protection of environment

(i) The provision in the Constitution (Article 51A)

(ii) The Factories Act, 1948

(iii) Hazardous Waste (Management and Handling) Rules, 1989

(iv) Public Liability Insurance Act, 1991

(v) The Motor Vehicle Act, 1991

(vi) Indian Penal Code

(vii) The National Environment Tribunal Act, 1995

(viii) Indian Fisheries Act, 1987

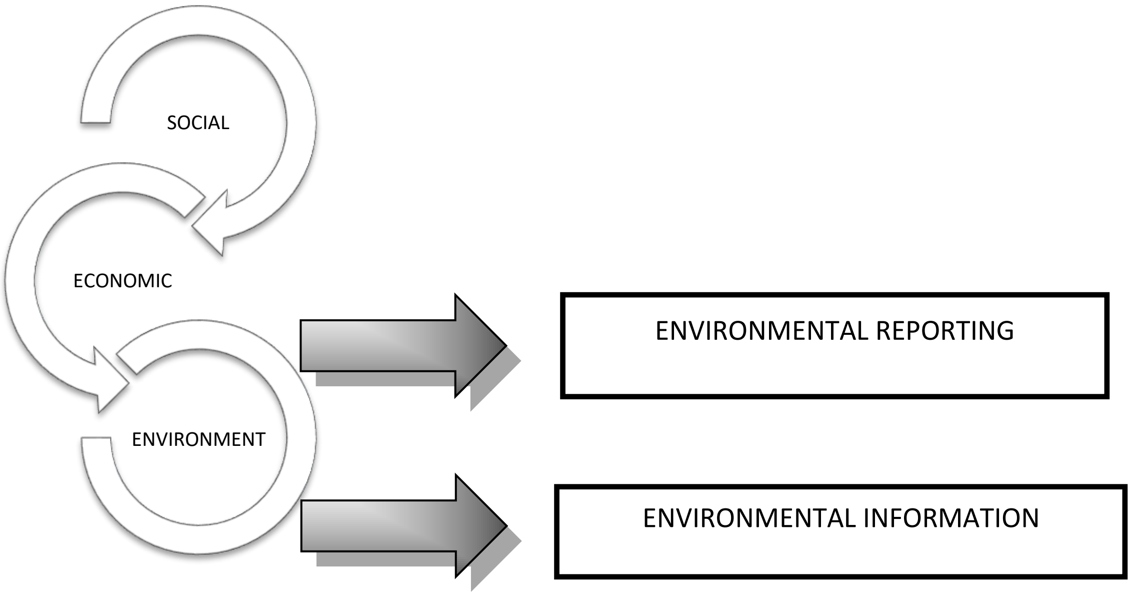
Environmental Accounting and Reporting

Protection of environment has become a key issue all over the world. Several factors influence the destruction of environment. Rapid growth of Industrialization is the major reason for the economic depletion. Although industrialization is essential for Economic and Sustainable development of all the countries. By reporting the environmental protection activities, it creates Green image of the organisms.

The Ministry of Environment & Forest 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".

Position of Environment Reporting

Enterprises, playing a key socio-economic role, to fulfill their accountability by reporting information concerning their usage of the environment impacts. As the result, relationship among the Environment, Economic and Social challenges are expected to diversify and closely related.



Environmental accounting has proved to be highly essential in measuring a nation's economic development , social welfare , development of industries and in satisfying needs of government , still the system is in inception stage. But with the passage of time, the system will gradually develop and fulfill the needs for which it was originated.

Environmental accounting helps company's relationship with society in general. This helps an organization to manage a new and emerging issue with its stakeholders.

STATE OF INDIA'S ENVIRONMENT [SoE]

India stands today at the bottom of the Global Environment Performance Index[EPI] rankings. Because India is unable to improve its Air quality, protect its Bio-diversity and cut its greenhouse gas emissions.

In 2016, the country had ranked 141th out of 180 countries.

In 2018, it has slipped to the 177th position.

Thus Environmental reporting is an important communication tools by which an enterprise explain its Business activities and their environment impacts, along with related economic and social information.

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.

Achievements and activities of The Ministry of Environment, Forest and Climate Change 2017-18 report

It highlights the following;

- **BRICS partnership for urban environmental sustainability initiative.**
- **8th India-European union environment forum was organized by EU on the theme of "RESOURCE EFFICIENCY AND THE CIRCULAR ECONOMY BENEFITS BEYOND ENVIRONMENT" in New Delhi on 30th June 2017.**
- **Convention on Migratory Species(CMS) was held on 23-28 October 2017 at Manila, Philippines specializing in the conservation of migratory species, their habitats and migration routes, CMS compliments and co-operates with a number of other international organizations, NGOs and partners in the media as well as in the corporate sector.**
- **India participated in G20 Resource Efficiency Dialogue held during 27-28th Nov 2017 in Berlin. The motive is to improve the efficiency and sustainability of nature resource use across the entire life cycle, and to promote sustainable consumption and production patterns.**

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:

1. Environmental accounting lacks economic value.

2. There is no standard method of estimating the social value of environmental goods and services.
3. 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.
4. There is no accounting standard for environmental accounting
5. It involves inapplicable assumptions
6. Environmental accounting is not a legal obligation except for few industries in India.
7. It lacks reliable industry data.
8. Input for Environmental Accounting is not easily available because costs and benefits relevant to the environment are not easily measurable.
9. Many business and the Government organizations even large and well managed ones don"t adequately track the use of energy and material or the cost of inefficient materials use, waste management and related issue. Many organizations, therefore, significantly underestimate the cost of poor environment performance to their organization. So, implementation of environment accounting is a major challenge.
10. Lack of policies and management support regarding Environmental Accounting and Reporting practices.
11. Shortage of qualified and trained staff in Accounts Department.
12. Lack of knowledge and training of the Accounts Department staff on Environmental Accounting and Reporting.
13. Lack of favorable attitude of the Accounts Department staff regarding Environmental Accounting and Reporting

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 keeps the corporates away from the environmental accounting practices and to shut their eyes towards the deterioration in the environment.

References

1. Alok Kumar Pramanik, Chandra, Nikhil and Das, Bhagaban (2007), "Environmental Accounting and Reporting with special reference to India", *Munich Personal RePEc Archive,* December.
2. Banerjee, B. (2005), "Corporate Environmental Accounting & Reporting Practices in India", *Indian Accounting Review,* December: 25-46.
3. Gray, R., Javad, M., Power, D. and Sinclair, C. D. (2001), "Social and Environmental Disclosure and Corporate characteristics: A Research Note and Extension", *Journal of Business Finance & Accounting,* 28(3&4), 327–356.
4. Hossain, M. (2002). "Corporate Environmental Disclosure in Developing Countries: Evidence from Bangladesh", *Bangladesh Environment,* 1(12), 1077.
5. Mobus, J. (2005), "Mandatory Environmental Disclosure in a Legitimacy Theory Context", *Accounting, Auditing &Accountability Journal*, 3(2).
6. Quereshi, Nasir, Kulshrestha, Dhiresh and Tiwari, Surya (2012), "Environmental Accounting and Reporting: An Essential Component of Business Strategy", *Asian Journal of research in Banking and Finance,* April, Vol.2 Issue 4.
7. Rahman, M. A. and Muttakin, M. B. (2005), "Corporate Environmental Reporting Practices in Bangladesh – A Study of Some Selected Companies", *The Cost & Management*, 33(4), 13-2
8. Annual Report 2017-18 published by Ministry of Environment, Forest and Climate Change(MoEFCC).