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## A Conceptual Study on Environmental Accounting in India: Issues and Challenges

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**Abstract:** *Environmental accounting is an emerging and dynamic field. It is a fruitful attempt to identify and bring to the light the resources exhausted and cost rendered reciprocally to the environment by the business houses. Environment accounting is about making environment related cost more transparent with corporate accounting systems and reports. Broadly environmental accounting involves the identification, measurement and allocation of environment cost, the integration of these costs into business, identifying environmental liabilities, if any, and finally communicating this information to the companies. The main objective of the study is to understand the role played by environmental accounting in the development of the Indian economy and also the advantages that an economic entity can benefit when implementing green accounting. Paper also emphasis upon the issues and challenges of environmental accounting in India.*

**Key Words:** Environmental Accounting, Indian Economy, Economic Entity, dynamic field, emphasis.

Environmental Accounting is an important tool for understanding the role played by the natural environment in the economy towards the environmental safety and welfare of the society. It provides data highlighting both the contribution of business enterprises to economic wellbeing 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. An enterprise is a corporate citizen. There are many laws that have been enacted and amended from time to time to make the corporate sector to fulfil its social responsibility for better development of Indian environment and economy.

Environmental Accounting is also known as Green accounting. The term Green accounting was first introduced by The Economist Pete wood in the 1980s. It is Process of identification measurement and communication of information on the environmentally responsible performance of a business entity to permit economic decisions. It is essential for an organization to implement the concept of sustainable development as it facilitates to take into account ecological activities of an organization in economic measurement.

It is a practice of using traditional accounting and finance principles to calculate the cost that business decisions will have on the environment. It provides a framework to analyse the environment cost, which were incurred in a period of time, on the physical and monetary terms and to report them accurately. It is a management tool that integrates the financial implication of environmental issues in the financial management system of organisation. This enhances more effective decision making in order to promote environmental and economic sustainability.

Objectives of the Study

**The objectives of the study are as follows:**

- 1) To understand the concept of Environmental Accounting
- 2) To investigate the advantages of implementing Environmental Accounting within an economic entity.
- 3) To explore the issues and challenges concern to Environmental Accounting in India.

**Review of Literature**

1. Athambawa Haleem, Mohamed Cassim Abdul Nazar, M. Ismail Mujahaid (2017) "A Systematic Review on Environmental Accounting" the study investigates environment accounting and its importance. Environmental accounting is very useful and significant in controlling entities that are operating in environmentally sensitive industries. It provides a significant roadmap for internal and external auditors in their achievements as well as assists the entities in enhancing performance.



2. Amer Shakkour, Hamza Alaodat, Emad Alqisi and Ali Alghazawi (2018) "The Role of Environmental Accounting in Sustainable Development: Empirical Study" the paper identify how environmental or green accounting could contribute and ensure sustainable development. This study revealed that most organisation often ignore large environmental cost. The result of research shows that good practice of environmental accounting is vital for sustainability development, especially for focusing on environmental and environmental taxes, cost and appreciation of ecosystem service, the cost of carbon dioxide and the cost of water pollution which ensure the sustainable development.

3. N Anil Kumar, T Sai Pranitha, N Kiran Kumar (2015) "A study on green accounting and its practices in India" The study depicts accurate quantitative information on volumes and economic effects to people and to analyse and access of environmental cost and benefits. The main purpose of a green accounting is to help businesses understand and manage the potential between traditional economics goals and environmental goals.

**Research Methodology-** Research methodology of the paper is based on the secondary sources with respect to the role played by environmental account in India. Information has been derived through various websites, reputed journals, research papers and articles.

**Importance of Environmental Accounting within an Economic Entity-** Environmental accounting plays an important role in providing data regarding the environment impact for various internal and external users. Eco-accounting helps to minimize costs and the negative impact on the environment, presenting facts about: the supply process, from an environmental perspective; the product and the responsibility of the producer; the source of information for managerial activities about: product and design of project, distribution and control costs, supply process, pricing policy etc.; informing the organization about the effects of their activity on the environment and population; supporting the process of decision-making regarding the action plan for protecting the environment. Environmental accounting ensures the sustainable development of the entity's activity, the analysis of the costs and the benefits generated by the impact of the environment on the activity, the development of the practices and policies concerning the control of pollution, the selection of the materials that ensure the minimizing of the costs, the research for the possible alternatives concerning recycling. Environmental accounting is used in order to present the social and environmental responsibility as environmental costs (Caraiani, 2007). Environmental accounting is not just a simple reflection of the environmental costs in the financial situations, but is an effective information system on the degree of thinning of natural elements caused by business activities (Leotina Be?ianu, 2008). According to Paul Bailey, Senior Vice President in environmental consulting, environmental accounting is a useful modification of the life cycle's costs. The life cycle of costs was developed in the '60 s and '70 s in order to reflect the increasing costs of the systems, including the labor force and the costs of energy. In addition to the costs of the life cycle, environmental accounting includes the control of pollution and the costs of waste management. It is helpful in Promoting a company having wide environmental awareness and Control over operational and material efficiency gains by the competition global market as well. The user of information contained in the environmental accounting needs adequate knowledge of the process of environmental accounting as well as rules and regulation prevail either directly or indirectly related to environmental aspects.

#### **Forms of Environmental Accounting-**

**(1) Environmental Management Accounting (EMA):** This is accounting with a particular focus on material and energy flow information and environmental cost information.

Sub systems:

**a) Segment Environmental Accounting (SEA):** This an internal environmental accounting tool to select an investment activity, or a project, related to environmental conservation from among all process of operations, and to evaluate environmental effects for a certain period.



**b) Eco Balance Environmental (EBEA):** This is an internal environmental accounting tool to support PDCA for sustainable environment activities.

**c) Corporate Environmental Accounting (CEA):** This is a tool to inform the public of relevant information compiled in accordance with the environmental accounting. It should be called as a corporate environment reporting. For this purpose the cost and effect (in quantity and monetary value) of its environmental conservation activities are used.

**2) Environmental Financial Accounting (EFA):** This is a financial accounting with a particular focus on reporting environmental liability cost and other significant environmental cost.

**3) Environmental National Accounting (ENA):** This is a national level accounting with a particular focus on natural resources stocks and flows, environmental cost and externality cost etc.

**Issues and Challenges Related to Environmental Accounting-** There is a no uncertainty that advancement improves lives and strength and economy, yet at a cost. One of the incredible challenges of the 21st century is the manner by which to accomplish essential improvement without making changeless harm nature. Throughout the year environmental challenges have been are as yet consuming issues in India. A portion of a these environmental challenges incorporate environment pollution, sanitation, depletion of Ozone layer, desertification flooding, erosion, poverty, hedge consuming, deforestation etc.

Environmental issue is a burning issue in the present day context due to its damage caused by natural and human activities. Its safeguard and prevention is thus a serious concern to all society and business in India.

The following issues and challenges exist in Environmental Accounting System

**1) Cost Involvement-** Environmental accounting and reporting will require extra man power and cost. Many Enterprise, unless otherwise compelled, may not be willing to incur such cost. Thus incurring additional cost may be considered as a problem in introducing environmental accounting.

**2) Lack of Skilled Manpower-** Educated skilled workers are vital for the efficient and effective implementation of environmental accounting. In such a context the respondent were requested to express the opinion as to this challenge. It is seen that respondents perceive the existence of skilled human resources must as the average score the respondent perception work out positive. Lack of the skilled workforce is an obstacle for the environment.

**3) Inadequate Environmental Accounting Standard-** Accounting has some accepted accounting standard for operating accounting practice. But there is no well- accepted accounting standard for environmental accounting. Thus the absence of environmental accounting standard poses the problem for standard compensation and presentation.

**4) Lack of Coordination with a different Stakeholders-** There are many stakeholders exist in manufacturing organisation viz., internal and external. But unfortunately lack of coordination with a different stakeholders related to environmental issue affect proper implementation.

**5) Institutional Constraints and Data Unavailability of Environmental Accounting-** The institutional constraints of environmental accounting are very important concerned issue. In such a context, the respondents were requested to express their perception as to this challenge. The negative statement of the respondents on institution constraints adversely affects environmental accounting adoption. The major problem faced by researchers and organisations in India who are working in the area of green accounting is data unavailability. Let us take the example of environmental accounting of mineral resources or subsoil resources. Mining has a significant contribution to the Indian economy, and especially for poor states like Odisha, Chhattishgarh, and Jharkhand. The contribution comes in terms of share in the GDP/GSDP, revenues, employment generation, and creation of forwarding and backward linkages. But mining also brings negative environmental outcomes in terms of air pollution, deforestation, health problems to the community living near the mining area, etc (Das 2014). These negative outcomes should be monetised and adjusted in national accounts. To our knowledge, these data are not available in the Indian context which makes





it difficult to account for the environmental aspect of mining. Furthermore, we do not have systematic data on reserves of mineral resource stocks for each year. This brings complications in constructing a physical account that comprises opening and closing stocks, discoveries, reclassifications, etc.

This problem of unavailability of comprehensive data can be realised in other natural resources as well. Another possible challenge that environmental national accounting may face is the lack of political will or indifference of union and state governments towards environmental concerns. Because working towards greening national accounts requires large-scale pan India data work like CSO's data collection for GDP estimation.

Independent research works by individual researchers or non-governmental organisations working in the limited area may facilitate the process of green national accounting method specific to India but not sufficient to estimate environmentally adjusted GDP. Hence, more proactive and comprehensive efforts by the union and state governments are necessary.

**6) Indifference of Union and State Governments towards Environmental Concerns-** Another possible challenge that environmental national accounting may face is the lack of political will or indifference of union and state governments towards environmental concerns. Because working towards greening national accounts requires large-scale pan India data work like CSO's data collection for GDP estimation.

Independent research works by individual researchers or non-governmental organisations working in the limited area may facilitate the process of green national accounting method specific to India but not sufficient to estimate environmentally adjusted GDP. Hence, more proactive and comprehensive efforts by the union and state governments are necessary.

#### **Suggestions-**

Awareness must be spread about the concept and need of environmental accounting to the general public as well.

Maintaining environmental accounting records must be made mandatory for all organisations and government must take strict actions against it.

Annual reports must also carry the information regarding the environmental accounts.

A proper accounting framework must be developed for the purpose of green accounting.

#### **Limitations of Environmental Accounting**

(a) There is no standard accounting method.

(b) Comparison between two firms or countries is not possible if method of accounting is a different, which is quite obvious.

(c) Environmental accounting is a long term process therefore to draw conclusion with help of it, is not easy.

(d) Environmental accounting cannot work independently; it should be integrated with the financial accounting which is not easy.

(e) Environmental accounting must be analysed along with other aspects of accounting.

**Conclusion-** In India, environmental accounting is in initial stage. To order to understand the role played by natural environments to economic development, the environmental accounting system is an essential element. This provides information reflecting the importance of natural resources to the economic well-being of the world, and also the expense of environmental pollution and loss of wealth. Companies and residential have to develop a specific environmental policy, take measures to control pollution and comply with the relevant rules and regulations. Challenges of environmental Accounting need to be managed appropriately and adequately.

An attempt has been to identify relevant problems of environmental accounting in India. Some important challenges or future problems has been identified which made draw the attention of the future policy planning for appropriate action.

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