ENVIRONMENTAL ACCOUNTING: A QUICK LOOK

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Abstract

Environmental accounting is an emerging concept of accounting. It has many meanings and uses. It can support national income accounting, financial accounting or internal business management accounting. It is a part of corporate social responsibility and attempts to evaluate impact of organizational activities on environmental resources. Environmental accounting helps an organization in reducing costs, improving profitability through better decision-making and enhancing image by meeting social responsibilities. But in order to make environmental accounting successful, it is necessary that various accounting bodies should come up with some specific accounting standard or guideline on environmental issues. A separate accounting standard and/or modifications in the existing standards, therefore, are required to deal with specific accounting issues relating to environment.

This paper discusses the term and concept of environmental accounting, its advantages and limitations and analyses the environmental accounting practices at international level.

Key Words: environmental accounting, environmental resources, social responsibilities.

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1. Introduction

Environmental Accounting is a broader term that relate to the provision of environmental-performance related information to stakeholders both within, and outside, an organization. According to United Sates Environment Protection Agency (USEPA) "An important function of environmental accounting is to bring environmental costs to the attention of corporate stakeholder who may be able and motivated to identify ways of reducing or avoiding those costs while at the same time improving environmental quality." Environmental Accounting consists of three separate disciplines viz., Global Environmental Accounting- it is an accounting methodology that deals with areas including energetic, ecology and economics at a worldwide level, National Environmental Accounting- it is an accounting approach that deals with country wise economy, and Corporate Environmental Accounting- it is an wing of accounting which focuses on the cost structure and environmental performance of a company. Corporate Environmental Accounting may also be divided into two wings and these are Environmental Management Accounting- it is a specialized method of accounting which integrates best management accounting and practice with best environmental management thinking and practices, and Environmental Financial Accounting- it is an upgraded form of accounting which provides information needed by the external users- investors, lenders and interested parties- on a company's financial performance. Conventional financial accounting does not deal with environmental issues separately. However, environment being an important factor in the establishment, survival and growth of an entity, there is ample justification for separate environmental accounting. The common accounting practice has been to hide the environmental costs in 'non-environmental' accounts (e.g. overheads) and not linking them to various related products, processes or activities. As a result, managers are forced to take crucial business decisions like what products to manufacture, what techniques to use and what materials to purchase - without command of all relevant facts. The major disadvantage resulting from following the conventional accounting model (with hidden environmental information) is that the organization is deprived of many opportunities to increases profits, to use materials more efficiently and to protect the environment. The concept of environmental accounting would lead to better exploitation of these opportunities.

2. Need of Environmental Accounting

In recent years, the adverse environmental effect of economic development has become a matter of great public concern all over the world. Gradually, environment is becoming a much more urgent economic, social and political problem. India as well as other developing countries are facing the twin problem of promoting economic development and protecting the environment. A balance between development and environmental protection is required. A careful assessment of the benefits and costs of environmental damages is necessary to find the tolerance limit of environmental degradation and the required level of development. But unless the proper accounting work is done either by the individual firm or by the Government itself, it cannot be determined whether both have been fulfilling their responsibilities towards the environment. Therefore, the need of environmental accounting has emerged. It may appear that greater attention to environmental matters may lead to an increase in costs and hence lower profits. Environmental costs and obligations are significantly growing as the world is becoming more environmentally conscious. Public corporations are being held more responsible and accountable to the society. Many people are willing to pay more for a product that is environmentally friendly. Accountants, as the basic custodians and light bearers of economic development, can no longer shut their eyes to the effect of environmental issues on business management, accounting, auditing and disclosure system. Protection of environment and the potential involvement of accountants is becoming a common subject of discussion among the accountants all over the world. Now-a-days, accountants are expected to take a proactive role in the environmental protection process. That is why environmental accounting and reporting thereof is of paramount importance today. Environmental accounting needs to work as a tool to measure the economic efficiency of environmental conservation activities and the environmental efficiency of the business activities of company as a whole. The need for accounting for corporate environmental measurement is to identify the role of accounting in measuring economically environmental activities and taking decisions on environment related issues. Environmental accounting means reporting of environment specific cost such as liability cost and waste disposal costs. It is accounting for any costs and benefits that arise from change to a firm's products and processes where the change also involves a change in environmental impact.

Corporate enterprises are facing the challenges to determine their true profits which are environmentally sustainable ones.

3. Scope of Environment Accounting

The scope of Environmental Accounting (EA) is very wide. It includes corporate level, national & international level. 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 sources used.

4. Advantage of Environmental Accounting and Reporting As an Essential Component of Business Strategy:

The organization that opts to disclose environmental issues in their statements get various benefits as given below:

- It improves image of the product or company which leads to improvement in sales and ultimately profitability.
- Possible competitive advantages as customers may prefer environmentally friendly products and services.
- Better borrowing access from the shareholders/bankers/creditors.

- Improvement in the health safety of the workers which will help increasing productivity.
- Lower labour turnover ratio, thereby reducing recruiting costs.
- Enhanced image with in the eyes of stakeholders because the organization will get the special status.
- Build up trust and confidence within the community.
- Improved environmental performance which may have a positive impact on human health and business success.
- It is also helpful regarding pricing policy decision making since this accounting system supplies information regarding particular costs which are generally obscured by the management, a big lacuna on the part of management. Environmental accounting not only recognized or identifies environmental related costs but also tries to reduce those which in turn help every level of the organization.
- It provides results in more accurate costing or pricing of products and more eco-friendly processes.

5. Stages in Environmental Accounting

The following stages are involved in environmental accounting.

1. The organization potential environmental problems and possible modes of remedy should be identified through effective communication within the organization and outside.
2. Environmental costs must be projected and future costs, if any, must be forecasted after due consultation with environmental project engineering.
3. Full disclosures should be made of all uncertainties and liability recognition may be required.
4. Environmental budget should be prepared by the organization with a view to ascertaining the amount to be allocated for environmental activities. It involves comparing the environmental costs with the budgets amount and to find out variances if any.
5. The organization should report for the environmental activities, the cost imposed by the organization on environment, benefits rendered by the organization, social responsibilities will be fulfilled by the reporting.

6. Limitations of Environmental Accounting

Environment Accounting (EA) suffers from various limitations as follows:

1. There is no standard accounting method.
2. Comparison between two firms or countries is not possible as the method of accounting is different.
3. Input for EA is not easily available because costs and benefits relevant to the environment are not easily measurable.
4. Many business and the Government organizations even large and well managed ones do not 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.
5. It mainly considers the cost internal to the company and excludes cost to society.
6. EA is a long-term process. Therefore, to draw a conclusion with its help is not easy.
7. EA cannot work independently. It has to be integrated with the financial accounting, which in turn is not easy.
8. EA needs to be analyzed along with other aspects of accounting because costs and benefits related to the environment itself depend upon the results of the financial accounting, management accounting, cost accounting, tax accounting, national accounting etc.
9. The user of information contained in the EA needs adequate knowledge of the process of EA as well as rules and regulations prevailing in the country relating to environmental aspects.

7. Environmental Accounting Practice at International Level

- **Environment Accounting in Japan:**

  "Environmental accounting" is now attracting the attention of Japanese industry. In the past, environmental audit, eco-labeling, EPE, LCA and other techniques have been developed to support environmental management by enterprises. Ecomaterials and eco-design focusing on environmental harmony of raw materials, materials and products have been developed and are used. The year 1999 is regarded as the first year of environmental accounting in Japan. The Guidelines on Measurement and Reporting of Environmental Cost announced by the Environment Agency in March 1999 [Environment Agency, 1999] were taken up prominently by the mass media and attracted the attention of many companies. In September 1999, a decision on the inauguration of the Environmental Accounting Committee within the Ministry of International Trade and Industry was taken. In the private sector, the Japan Management Association formed its Environmental Accounting Research Group in July 1999, which was joined by about a dozen leading companies including Toyota Motor and Fuji Heavy Industries. The research group has developed environmental accounting methods and techniques mainly intended for internal management uses.

- **Environment Accounting in Europe:**

For the last 10 years, a strong effort is being done by the European Commission to encourage the European countries to compile Environmental Accounts providing both methodological and financial support to pilot projects. The environmental accounts framework is now mature and robust enough for comprehensive implementation and analysis of environmental data. With respect to the three priority areas, the activities in the European countries are quite comprehensive: 24 countries have developed air emission accounts, while 2 more are contemplating to do so in the near future. A total of 23 countries are involved in compiling economy-wide material flow accounts or are planning to do so. 21 countries are collecting data on environmental expenditure and 2 more will follow in the near future. In a bit more than half of the countries the Environmental Accounts have been used for research purposes and/or for monitoring environmental performance (i.e. indicators). Environmental Accounting was used for analysis and assessment of environmental policies (e.g. regulations, taxes, international agreements) in 7 European countries, and for raising public awareness of environmental problems in 8 countries. While many countries have been involved in pilot studies, only some countries are presently compiling the accounts on a regular basis. For the three priority areas, 15 countries are compiling accounts for air emissions, 10 for economy wide material flow accounts, and another 10 countries are active in compiling environmental expenditure statistics.

- **United States:**

In United States, the Environmental Protection Agency (EPA) has been implementing the "Environmental Accounting project" since 1992. This represents the earliest approach made towards environmental management accounting, and its mission is "to encourage and motivate business to understand the full spectrum of their environmental costs, and integrate these costs into decision making". In the initial stages of Environmental Accounting Project, a large amount of efforts were concentrated towards development of a total cost assessment method as a method for assessing investments in environmental facilities, and there were presentations of numerous findings relating to the fundamental concept and method for total cost assessment (TCA). In particular, the classification of environmental costs that serves the basis for TCA is used for classifying costs for environmental management accounting in many countries. The EPA has also launched the Environmental Management Accounting Research and Information Center (EMARIC), and in the future, the EPA's environmental accounting projects are planned to be transferred to the EMARIC. The EMARIC is hosted by the Tellus center (an Institute, conducts EMA policy assessments and planning studies in both the US and overseas), and has a web page that gathers a broad array of information on environmental management accounting from around the world.

8. Conclusion

Environmental accounting helps an organization in reducing costs, improving profitability through better decision-making and enhancing image by meeting social responsibilities. It is useful in actually quantifying/measuring environmental activities and performance of an organization. It helps in proving that the company is actually taking actions to protect and improve environment with tangible financial and other benefits. It is also beneficial to various interest groups like shareholders, lenders, employees and other stakeholders in making relevant investment and other decisions by assessing an enterprise's financial and environmental risks, and the impact of the company's environmental performance on its financial health. But in order to make environmental accounting successful, it is necessary that various accounting bodies should come up with some specific accounting standard or guideline on environmental issues. A separate accounting standard and/or modifications in the existing standards, therefore, are required to deal with specific accounting issues relating to environment.

Notes and References

1. Chouhan, M., "Concept of Environmental Accounting and Practice in India", The Chartered Accountant, November, 2005, pp- 720-726
2. Gupta, S. K. and Mehra A., Contemporary Issues in Accounting, Ludhiana, Kalyani Publishers, 2002
3. Gupta, V.K., "Environmental Accounting and Reporting- An Analysis of Indian Corporate Sector" (Available Website: http://www.wbiconpro.com/110-Gupta.pdf, 02/01/2013)
4. Kapoor, V., "Environment Accounting- Step towards saving the Earth", The Management Accountant, October, 2010, pp- 803-807
5. Mehenna, Y. and Vernon, P. D., "Environmental Accounting: An Essential Component of Business Strategy", Business Strategy and the Environment, 13, 2004, pp- 65-77
6. Qureshi, Z. N., Kulshrestha, D. and Tiwari, B. S., "Environmental Accounting and Reporting: An Essential Component of Business Strategy", Asian Journal of Research in Banking and Finance, Vol.2 Issue 4, April 2012, pp- 85-95
7. Sharma, V. K., "Environmental Accounting and Reporting in India: An Appraisal", Advancement in Management, Vol. 5(9) September, 2012, pp- 61-65
8. "US Environmental Protection Agency (EPA). Applying environmental accounting to electroplating operations: an in-depth analysis. Washington, DC: Office of Pollution Prevention and Toxics'. (Available as US EPA website: www.epa.gov/opptintr/acctg/resources.htm, 1997, 25.12.12).
9. United Nations Environment Program, Division of Technology, Industry and Economics, Cleaner Production key elements., UNEPTIE (available website: www.uneptie.org/pc/cp/understanding_cp/home.htm;1998, 21.10.12)
10. UNSD(2003): Handbook of National Accounting: Integrated Environmental and Economic Accounting- An Operational Manual International Conference Economic and Social Research Institute (available website: http://unstats.un.org/unsd/pubs/gesgrid.asp?mysearch=national+and+accounts, 22.10.12)
11. Zulkifli, N., "Social and Environmental Accounting Education and Sustainability: Educators' Perspective", Journal of Social Sciences 6(3), 2011, pp- 76-89