An Overview of Environmental Accounting and Reporting

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ABSTRACT

If we talk about Environment, it is being affected scarcely and quality of it is reducing day by day. In Production process, Industries use various types of natural resources like air, water, fuel etc. So they are responsible for environment pollution and degradation. Because of Water pollution, Air pollution, noise pollution, soil pollution, lives of human beings, animals as well as birds come in danger. Their lives come to a stake. Earlier these things were totally ignored by industrialists and today the results are in front of us. Now valuing the environment, they get aware about it and they have taken various legislations at international, national and local levels all over the globe.

Key words: environmental accounting.

Introduction:

We all celebrate International Earth Day on 22^{nd} April every every year. The founder of this day John McConnell has said, "Let every individual and institution now think and act as a responsible trustee of Earth, seeking choices in ecology, economics and ethics that will provide a sustainable future, eliminate pollution, poverty and violence, awaken the wonder of life and foster peaceful progress in the human adventure. Environmental Accounting arise from different context:

National income accounting is a macro-economic measure. Gross Domestic Product (GDP) is an example. The GDP is a measure of the flow of goods and services through the economy. It is often cited as a key measure of our society's economic well-being. The termenvironmental accounting may refer to this national economic context. For example, environmental accounting can use physical or monetary units to refer to the consumption of the nation's natural resources, both renewable and nonrenewable. In this context, environmental accounting has been termed "natural resources accounting."

Financial Accounting enables companies to prepare financial reports for use by investors, lenders, and others. Publicly held corporations, report information on their financial condition and performance through quarterly and annual reports, governed by rules set by the U.S. Securities and Exchange Commission (SEC) with input from industry's self-regulatory body, the Financial Accounting Standards Board (FASB). Generally Accepted Accounting Principles (GAAP) are the basis for this reporting. Environmental accounting in this context refers to the estimation and public reporting of environmental liabilities and financially material environmental costs.

Environmental Accounting

Norway was the first country to adopt in the world to prepare environmental accounts in the 1970s. What is environment accounting? The definition is very wide. Environmental accounting is the identification, measurement and allocation of environmental costs. In India, to adopt environmental accounting is voluntary exercise. Why organizations use this accounting? What are the objectives of this accounting? Environmental accounting aims to fulfill a lot of demand of different stakeholders. There are so many reasons or objectives which are as follows:

- To understand environmental cost and performance of processes and products for more accurate costing and pricing of products.
- To broaden and improve the investment analysis for environmental impacts.
- To help managers in making decisions that will reduce their environmental costs.
- To support the operation of an overall environmental management system.
- Environmental accounting helps to the discharge of the organization's accountability and to increase its environmental transparency.
- This helps an organization seeking to strategically tackle a new and emerging issue with its Stakeholders.
- Because of the ethical investment movement, ethical investors require the companies to be
 environmentally friendly. Therefore creating friendly image, companies may be successful in
 attracting fund from 'eco friendly' individuals and groups.

- Environmental accounting encourages the consumers to purchase the environmentally friendly products, i.e., green product.
- By making environmental disclosures, companies may show their commitments towards introduction and change and thus appear to be responsive to new factors.
- Environment unfriendly industries receive strong public emotion. There is a strong environmental lobby against these industries.
- Green reporting may be used to cope up with potentially negative public opinions.
- By cultivating the approach towards environmental accounting, companies can create their "green image".

Capitalization vs. expense

One important question when allocating costs is whether they should be recognized as assets or expenses. Indeed, whether environmental cost should be capitalized, expensed or treated as a prior adjustment can be very controversial and can have a significant impact on profits (CICA 1993). A cost represents economic resources that are controlled by an entity and whose cost (or fair value) at the time of acquisition could be objectively measured (Anthonyet 1999). An expense represents a "resource consumed by the entity's earning activities during the current period" (Anthony 1999). GAAP indicate that ifwe capitalize the expenditure, we must expect future economic benefits from the investment (Anthony et al 1999). The problem arises because some expenditure might provide future environmental benefits but not necessarily future economic benefits (Deegan 2002) and therefore, according to GAAP, should not be capitalized.

Different dimensions of Environmental Accounting

Environmental Accounting is to be accepted with various meanings and uses. This is very innovative concept so votaries put emphasis on three dimesions.



The National Income Accounting concept is also called as Natural Resource Accounting. It is a macroeconomic one. Its focus is on nation and it is for external use. The Financial Accounting concept is used to prepare the financial reports of the firm to disclose various aspects to its shareholders in the reports. What does environmental accounting do in this context? Environmental Accounting refers to the estimation and public reporting of environmental responsibilities and financially material environmental costs. The third concept which is Management accounting, the focus of it is on the firm and its internal functions. In this data is identified, collected and analyzed for internal uses because its prime purpose is to support management decisions.

Approaches of Environmental Accounting

Environmental accounting has adopted two approaches.

Physical Approach

Monetary Approach

1 Physical Approach:

United Nations has suggested the physical approach. The united nations is the place where a complete guides to be prepared from available resources within a country according to its state and uses. For ex. We can classify by agriculture, desert, land etc. Here environmental operations are presented in a physical terms. Here no monetary value is assigned. The current balance of the resource and the additions and deductions form that resource. This approach is very important to get physical information about the resources which are able to prepare the environmental statistics as well as it is also considered the first step in monetary approach.

2 Monetary Approach:

Because of lot of complications in physical approach, the monetary approach is emerged. With the use of this approach, one can know the profit and loss associated with environmental operations. It gained a lot of interest. One can get an environmentally adjusted economic indicator (Hamid, 2002).

Types of environmental accounting

Internal Factors External Factors monetary environmental External monetary environmental management accounting (MEMA) accounting and reporting (EMEA) physical environmental External physical environmental management accounting (PEMA) accounting and reporting (EPEA) Monetary enviornmental regulatory Physical Environemntal Regulatory accounting and reporting accounting and reporting

Fig. 2.1: Detailed Description of Environmental Accounts

the implementation of environmental accounting system, there are two processes which are executed.

1 Representation of the environmental part of the process that is to be done by the identification of the environmental costs.

2 The allocation of the detected costs which requires accounting and book keeping knowledge. Both these activities are the main functions performed by Environmental Managerial Accounting (EMA). Now how a company defines an environmental cost depends on the company and its specific purposes and how the information will be used (Bouma 1998). Because the company has to be able to measure environmental issues. environmental costs must be uncovered and recognized. "The main problem of environmental accounting is that we lack a standard definition of environmental costs". -United Nations Divisions for sustainable Development

Legislation passed for **Environmental Accounting in India:**

In the last two decades, the concern about protection of environment and taking antipollution measures are increasing all over the world. With the object of coordination among the states and the various ministries environmental protection and anti-pollution measures, India also set up the Central ministry of Environment. Environmental clearance from

various government authorities has now taken the center stage. Necessary legislations have also been passed.

Types of environmental costs:

A list of environmental costs that could be considered the most important, and that should be recorded in separate accounts could be produced. This list is presented below:

- Atmospheric emissions waste.
- Energy consumption.
- Material usage.
- Oil and gas consumption.
- Packaging.
- Pollution control equipment/mitigation measures.
- Transportation costs.
- Waste.
- Water resource use.

In fact environmental costs include the cost of environmental measures and environmental losses where:

- Environmental measures are "steps taken by an entity or on its behalf by others to prevent, abate or remedy damage to the environment or to deal with the conservation of renewable and non-renewable resources." (CICA 1993)
- Environmental losses are "costs that have been incurred by an entity with respect to the environment for which there is no return

or benefit, for example, fines or penalties for non-compliance with environmental regulations, damages paid to others for environmental damage done, or assets of the entity that have to be written off because their costs cannot be recovered due to environmental concerns" (CICA 1993).

Functions and Roles of Environmental Accounting

The environmental accounting functions are divided into two parts i.e. internal and external functions.

- (1) Internal Functions:- As one step of a company's environmental information system, with the use of suitable decision-making internal function makes it possible to manage environmental conservation cost and analyze the cost of environmental conservation activities versus the benefit obtained, and promotes effective and efficient environmental conservation activities. It is desirable for environmental accounting to function as a business management tool for use by managers and related business units.
- (2) External Functions: By disclosing the quantitatively measured results of its environmental conservation activities, external functions allow a company to influence the decision-making of stakeholders. such consumers, business partners, investors, local residents, and administration. It is hoped that the publication of environmental accounting results will function both as a means for companies to fulfill their responsibility for accountability to stakeholders and, simultaneously, as a means for appropriate evaluation of environmental conservation activities.

Benefits of Environmental Accounting

- Assessment of environmental costs/ expenditures.
- Budgeting.
- In making various processes of business planning.
- Calculating costs and savings of environmental projects.
- Cleaner production and eco-design projects.
- Design and implementation of appropriate environmental management systems.
- Developments in environmental performance measures, evaluation, indicators and benchmarking.
- External disclosure of environmental expenditures, investments and liabilities.
- External environmental or sustainability reporting.

- Participation in strategy formulation.
- Hepls in identifying Product costing and pricing.
- Setting performance targets.

Environmental Accounting Audit

Environmental audits are intended to evaluate environmental performance and environmental position. In this way environment audit performs an analogous function to financial audits. An environmental audit report contains a statement of environmental performance and current environmental position, and may also aim to contain what needs to be done to sustain or environmnetal performance improve some position. Furthermore. organizations consider that an "environmental audit addresses only environmental matters, whereas some uses the term to mean an audit of health, safety and environmental matters. Although there is no universal definition auditing, as practiced by many leading companies, follows the same basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication (1989)Environmental Auditing "Environmental Accountin Audit is a management tool comprising a systematic, documented periodic and objective evaluation of how well environmental organization, management and equipment are performing. Environmental auditing is a management tool to objectively systematically evaluate environment management systems with the following objectives:

- Prevention and reduction of waste.
- Evaluating the compliance with regulatory requirements.
- Providing environmental information to the public.

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