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CONCEPTUAL FRAMEWORK OF ENVIRONMENTAL ACCOUNTING AND REPORTING: AN OVERVIEW

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ABSTRACT



In the 21st years we have a pressing need of defending our natural environment, because the natural environment is to blame for the survival of human beings. Due to ignorance of natural environment Problems such as Global heating fast changes in weather, glacier Meltdown, dirt erosion, land degradation, deforestation, and loss of biodiversity and contamination of all types such as water, air, marine, noise, lightweight etc. are routinely knowledge in the present century for which both evolved of developing territory may be held responsible. We know that there are restricted assets available for the use of all species of the soil and the enormous damage is cadged to the ecological due to the activities of the enterprise enterprises. In detail the industrial and enterprise undertakings are exactly or inexactly to blame for birth to the amazing incidence of the Bhopal chemical leak (1984), Tsunami in India (2004). So, the issue of environmental blame and the sustainable developed development has granted to the birth of a new branch of accounting, i.e. ecological Accounting and describing.

Ecological Accounting and describing endows associations to pathway their greenhouse gas (GHG) emissions and other ecological data against decrease targets, and facilitates ecological describing for both voluntary and legislated emissions describing designs. Environmental Accounting & Reporting expands the capabilities of both enterprise Financials and Enterprise One family of applications. The importance of environmental accounting& reporting is expanding because of expanding of environmental problems, economic, communal and technological expansion. Ecological accounting which is for sustainable development is required.



KEY WORDS: Environment, Accounting & Reporting, Objectives, History.

INTRODUCTION

Ecological accounting is a period with a kind of meanings. In numerous contexts, ecological accounting is taken to mean the identification and description of environment exact costs, such as liability charges or waste disposal charges. For the reasons of this investigation, a much more general delineation is utilized. "Environmental accounting" is more than accounting for ecological benefits and charges.

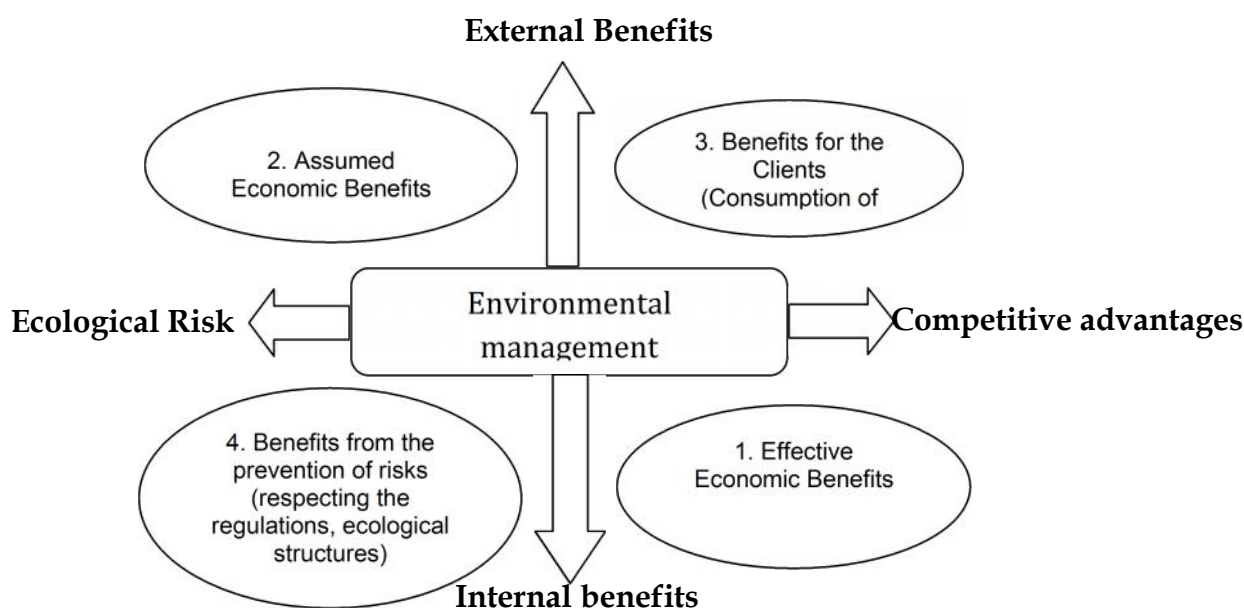
It is accounting for any charges and benefits that arise from changes to a firm's goods or methods, where the change also involves a change in ecological influences. As will be shown, advanced accounting for non-environmental costs and advantages input prices, consumer demand, etc. can lead to changes in decision-making that have ecological consequences.

According to the Author, Seakle KB Godschalk in its work "ecological Management" interprets: ecological accounting is an administration tool that integrates the financial significances of

environmental matters in the financial administration systems of associations to enhance most productive decision-making in order to encourage ecological and financial sustainability.

According to Bennett and James, It is complementary administration accountable approach to the economic accounting approach. Key submission fields for EA are assessment of annual ecological costs/ expenditures, merchandise charge, budgeting, buying into an appraisal, assessing charges and savings of environmental tasks, or setting quantified presentation targets, to title only a couple of. Environmental accounting provides a structure for coordinating data on the rank, use, and worth of natural assets and ecological assets including fisheries and plantation anecdotes, amidst other ones as well as expenditures on environmental defense and asset management.

The diagram presents the general scheme of the environmental accounting.



Environmental reporting is the communication of environmental performance information by an organization to its stakeholders.

Information on environmental performance includes among others:

- Impacts on the environment,
- Performance in managing those impacts, and
- Contribution to ecological and sustainable development.

Environmental reports can be considered a sort of small world where many crucial points in the relationship between a company and its stakeholders meet together.

There can be said to be three categories of environmental disclosures:

1. Involuntary disclosure-

the disclosure of information about a company's environmental activities without its permission and against its will.

Examples of involuntary disclosures are environmental campaigns, press and media exposes and court investigations.

2. Mandatory disclosure -

the disclosure of information about a company's environmental activities that is required by law.

3. Voluntary disclosure - the disclosure of information on a voluntary basis.

There are two types of voluntary disclosures:

1. Confidential and
2. Non-confidential.

Confidential voluntary disclosures are those required by banks, insurers, customers and joint venture partners that are not publicly available.

Nonconfidential voluntary environmental disclosures are

1. Strategic-Potential
2. Strategic benefits

Include improving the company image and building better relations with relevant stakeholder groups.

HISTORY OF THE DEVELOPMENT OF ENVIRONMENTAL ACCOUNTING

Environment accounting may be traced to the 'Rig Veda', According to Hindu Philosophy "sky is like a father, earth is like a mother, a space as their children". Thus, the Rig Veda ordains that environment is to be valued like parents and loved like children. The concept of environment accounting may be new for western accounting thinkers.

Mathews (1997), as well as Ienciu and Matis (2010), described the development of environmental accounting in four stages, as follows:

1970-1980: represents the beginning of the first researches in the area of environmental accounting, which had a more descriptive character.

1981-1994: there are debates regarding the role of accounting in the disclosure of information regarding environmental activities. During this period, the interest of researchers for this area increases; the managers and even accountants start to pay more attention to the issue of environmental accounting. The number of researchers of environmental accounting is also increasing at the expense of researches regarding social accounting.

1995-2001: the maturation of environmental accounting; environmental information is starting to be taken into consideration,

environmental audit is launched; environmental accounting, both theoretically and practically, is beginning to be widely discussed, especially in developed countries. The studies from this period are starting to grow, this period being named the "cornerstone" of environmental accounting. The researchers of this area are starting to pay increased attention to this field, the number of studies is beginning to grow considerably, and the environmental reports remain the main sub-field approached by researchers. These sub-fields starting to gain interest due to the implementation of standards regarding environmental management, standards that also include a part of audit or verification

2002-2010: guides regarding the reporting of environmental information and regulations about environmental accounting are issued. The number and quality of articles about environmental accounting continue to grow. The studies in this field are more numerous, more ample, and bring important contributions to the development of this research area

The conclusion that may be drawn is that researches in environmental accounting have grown considerably due to the importance that environmental issues started to have over entities and over society. New sub-fields of environmental accounting are developing, namely environmental audit and environmental management accounting.

OBJECTIVES OF ENVIRONMENTAL ACCOUNTING & REPORTING

There are following objectives of environmental accounting and Reporting:

1. Segregating and collaboration all environment related flows and stocks of assets or resources.

2. Taking the total stock of assets or reserves related to environmental issues, and changes, there in.
3. Minimizing environmental impacts through improved product & process design.
4. Estimation of the total expenditure on protection or enhancement of environment.
5. Assessing changes of environment in terms of costs and benefits.
6. To identify that part of Gross Domestic Product this reflects the costs necessary to compensate for the negative impact of economic growth.
7. Reducing costs through resource cooperation & management.
8. Realizing organizational accountability and increasing environmental transparency.
9. Elaboration and measurement of indicators, relating to environmentally adjusted product and income.
10. Ensuring effective and efficient management of natural resources.
11. Aiding strategic decision process regarding continuing or abandoning a particular product or process.
12. Linking physical resource accounting with monetary accounting.

SCOPE OF ENVIRONMENTAL ACCOUNTING

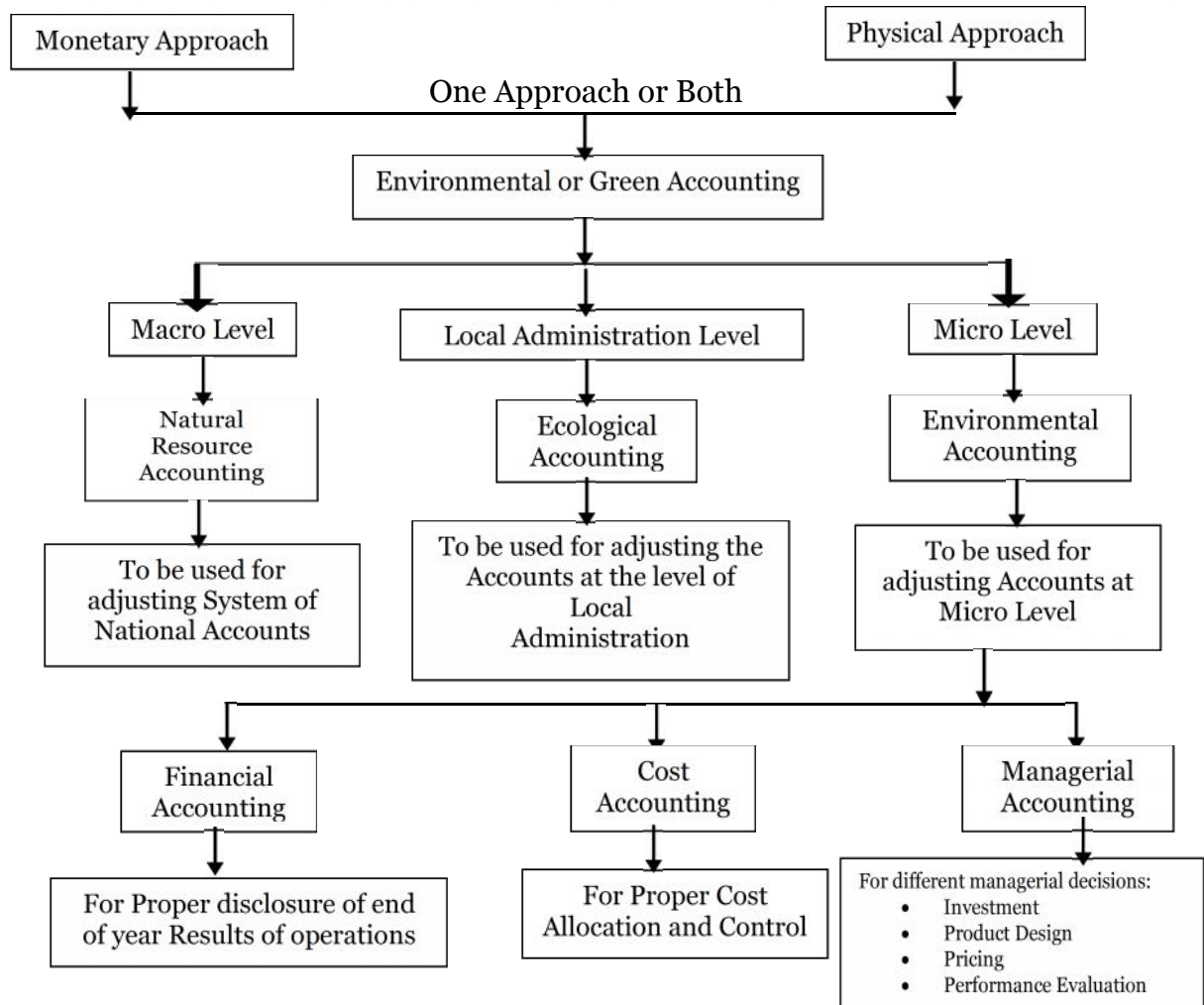
The scope of Environmental Accounting is very broad. It includes corporate level, national & international level. The following aspects are included in EA (Chauhan, 2005:721):

1. From Internal point of view investment made by the business 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 indirectly due to business operation/activities. It mainly includes:
 - ☆ Degradation and destruction like soil erosion, loss of bio diversity, air pollution, water pollution, noise pollution, problem of solid waste, coastal & marine pollution.
 - ☆ Depletion of nonrenewable natural resources i.e. loss emerged due to over exploitation of nonrenewable natural resources like minerals, water, gas, etc

☆ 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.

APPROACHES AND CLASSIFICATION OF ENVIRONMENTAL ACCOUNTING



FORMS OF ENVIRONMENTAL ACCOUNTING

There are four form of environmental accounting. These are;

- a) Environmental Financial Accounting (EFA).
- b) Environmental Cost Accounting (ECA)
- c) Environmental Management Accounting (EMA)&
- d) Environmental Nation Accounting (ENA).

EFA, ECA, and EMA are related to corporate (business) accounting.

1.Environmental Management Accounting (EMA):

EMA is amply defined to be the identification, assemblage, analysis and use of two kinds of information for internal decision making (UN, 2001:7-10):

*Personal data on the use, flows and destinies of energy, water and materials (including trashes) and

*Monetary data on environment-related costs, profits and savings.

Management accounting with a particular aim on material and power flow data and environmental cost data. This type of accounting can be further classified in the following subsystems:

A) Segment Environmental Accounting: This is an internal ecological accounting device to choose an investment undertaking, or a task, associated with ecological conservation from amidst all methods of procedures, and to assess the ecological consequences for a certain period.

B) Eco Balance Environmental Accounting: This is an interior ecological accounting tool

to support for sustainable ecological administration activities.

C) Business ecological Accounting: This is a device to inform the public of applicable information compiled in agreement with the Environmental Accounting. It should be called as Corporate ecological Reporting. For this reason the cost and the effect (in amount and monetary worth) of its environmental conservation undertakings are used

2. Environmental Financial Accounting (EFA):

Financial Accounting with a specific focuses on reporting environmental liability costs and other important environmental charges. EFA, data about financial event assembles, investigates, records and accounts. Data of EFA make up usually environmental cost. Ecological data of business are shown in financial statements by means of EFA economic Accounting with a specific aim on describing ecological liability charges and other significant environmental charges (Chauhan, 2005:721). Ecological accounting, financial accounting, estimation procedures is requested carefully (Gray & Bebbington & Walters, 1993:7).

3. Environmental Cost Accounting (ECA):

A sophisticated step of development of environmental accounting is development of ecological cost accounting (ECA). Cost accounting is characterized as the use of the accounting record to directly consider the charges to products and methods. In this approach, charges are accounted for by their specific determinants. Ecological costs accounting directly locations a cost on every ecological facet, and

determines the cost of all kinds of the associated action. Environmental activities include contamination prevention, ecological conceive and ecological administration. Past advances on ecological impacts were found mostly on ecological cleanup charges and past product disposal (Yakhou&Dorweiler, 2004:68).

Ecological costs comprise both interior and external costs and relate to all costs appeared in relative to environmental impairment and defense. Environmental Defense costs encompass costs for prevention, disposal, designing, command, moving actions and impairment repair that can happen at companies and sway authorities or persons (United Nations, 2001:11).

The IFAC (2005) categorized environment-related charges into four kinds as follows, asserting that this categorization is founded on broadly accepted worldwide perform and best perform (IFAC, 2005:12-13):

1. Environmental activity type costs such as waste prevention and control.
2. Costs that represent traditional accounting such as labour and materials.
3. Environmental domain type costs such as land, air or water. and
4. Costs which reflect data visibility in the accounting records such as hidden and obvious costs.

4. Environmental National Accounting (ENA):

National Level Accounting with a particular focus on natural resources stocks & flows, environmental costs & externality costs etc.

An advanced step of development of environmental accounting is development of environmental cost accounting (ECA). Cost accounting is defined as use of the accounting record to directly assess costs to products and processes. In this approach, costs are accounted for by their specific causes. Environmental cost accounting directly places a cost on every environmental aspect, and determines the cost of all types of related action. Environmental actions include pollution prevention, environmental design and environmental management. Past approaches on environmental impacts were based mainly on environmental cleanup costs and past product disposal (Yakhou&Dorweiler, 2004:68).

NEED OF ENVIRONMENTAL ACCOUNTING AT CORPORATE LEVEL

It helps to know whether corporation has been discharging its responsibilities towards environment or not. Basically, a company has to fulfill following environmental responsibilities.

- a) Meeting regulatory requirements or exceeding that expectation.
- b) Cleaning up pollution that already exists and properly disposing of the hazardous material.
- c) Disclosing to the investors both potential & current, the amount and nature of the preventative measures taken by the management (disclosure required if the estimated liability is greater than a certain percent say 10 per cent of the company's net worth).
- d) Operating in a way that those environmental damages do not occur.

- e) Promoting a company having wide environmental attitude.
 - f) Control over operational & material efficiency gains driven by the competitive global market.
 - g) Control over increases in costs for raw materials, waste management and potential liability
- 9. It is furthermore helpful considering pricing policy decision making since this accounting scheme provision data regarding particular casts which are usually obscured by the administration, a large-scale lacuna on the part of administration.
 - 10. Ecological accounting not only recognized or recognizes environmental associated costs but furthermore endeavors decrease those which in turn help every grade of the association.
 - 11. It supplies results in more unquestionable costing or charge of goods and more eco-friendly processes.

ADVANTAGE OF ENVIRONMENTAL ACCOUNTING AND REPORTING

The association that opts to reveal ecological issues in their statements gets diverse advantages as given underneath:

1. It improves likeness of the merchandise or business which directs to improvement in sales and ultimately profitability.
2. Likely competitive advantages as customers may favour environmentally amicable goods and services.
3. Better scrounging access from the shareholders/bankers/creditors.
4. Improvement in the wellbeing safety of the employees which will help increasing productivity.
5. Smaller work turnover ratio, thereby decreasing employing charges.
6. Enhanced likeness with in the eyes of stake holders because the association will get the exceptional rank.
7. Build up believe and confidence inside the community.
8. An advanced environmental presentation which may have a affirmative impact on human health and enterprise achievement.

LIMITATIONS AND OBSTACLES

Though environmental accounting is being attempted by many countries, the concept is not without some limitations and obstacles.

The major Obstacles & Limitation of environmental accounting and reporting are as follows:

1. Environmental accountings have no economic value.
2. The method of estimating the social value of environmental goods and services are imperfect, often misleading and construers.
3. Estimated values for environmental goods quantified or qualified in terms which have no fixed conversion into money.
4. On account of unrecorded environmental costs and difficulty in extracting and separating environmental cost the industry data is virally unreliable.
5. Social value placed on environmental goods and services are changing so

fast that the estimates are likely to be obsolete before they are available for use.

6. Lack of accounting standards for environmental accounting
7. Inapplicable assumption.
8. Environmental accounting is not a legal obligation in most of the cases in India.
9. Lack of reliable industry data.
10. Estimated values for environmental goods quantified or qualified in terms which have no fixed conversion into money.

CONCLUSION

Environmental Accounting is in preliminary stage in India. These are the following practices of environmental accounting & reporting:

1. The environment Ministry has issued instruction has in this regard to prepare environment statement. It can be observed through their accounts that mainly the following types of information are given:
What types of devices installed for pollution control?
 - a) Steps taken for energy conservation.
 - b) Steps taken for raw material production conservation.
 - c) Step taken for waste water and production process waste.
 - d) Step taken for improvement of quality of product and services, process of production etc.

Very few corporations give adequate information regarding environmental issue. If as per requirement of applicable law they have to prepare and submit any information relevant to environment they do so.

2. A study was conducted among executives of different industries which revealed that corporate world is fully aware of the requirements of environmental reporting. They are also aware of environmental issue. The corporate executives have also expressed their views in favors of environment reporting by the industries. Despite their awareness and consent over environmental reporting industries is it very poor. It is so inadequate that very little information is found in the annual report.

It was also revealed that most of the companies disclose the environment information in descriptive manner rather than to financial type i.e. no account is made for the degradation of natural capital when calculating corporate profits.

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