

Digital Payments

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Abstract: Green accounting is basically adoption of valuation of natural capital integration in planning for development. Incorporation green accounting into national economic accounts could provide a measure of sustainability; however, considerable advanced methods measurement and valuation are needed . There are of course , no substitutes for the life sustaining services of nature and the question of when and how to account for this fact is the source of many ongoing debates in green accounting. Green accounting is an accounting system that measures the currently unaccounted for economic losses that are experienced by renewable and nonrenewable resources in the environment. By incorporating these losses into all levels of accounting, all parts of the economic sectors can make informed decisions that support long term sustainable development and help strengthen human rights affected . Natural capital includes, first of all, the resources that we easily recognize and measure such as minerals and energy, forest timber, agricultural land ,fisheries and water. It also includes ecosystems producing services that are often 'invisible' to most people such air and water filtration ,flood protection ,carbon storage, pollination for crops ,and habitat for fisheries and wildlife. These values are not readily captured in markets , so we don't really know much they contribute to the economy and livelihoods. We often take these services for granted and don't know what it would cost if we lose them.

Keywords: green accounting, environment protection, Air pollution, Gross domestic product, economic benefits.

I. Introduction

Green accounting is considered to be an important tool for understanding the influential aspects of natural environment with respect to the economy. The data and information provided by environmental accounts are determined to be in relation to the involvement of natural resources in economic development and costs occurred due to pollution or resource degradation. The advantage of corporate environmental accounting initiative is identified as the ability to determine and create awareness regarding costs related to environment, which in turn helps in identifying the techniques for reducing and avoiding costs of such type. Due to this advantageous feature, the performance of the environment has also been improved.

The environmental costs that occur due to the financial outcomes of the firm's operation can be determined by means of a green accounting tool. Green accounting is using management tools to conduct in various purposes for example, improving environment performance, controlling costs, investing in cleaner technologies, developing greener processes, and performing related to product mix, product retention and product pricing.

II. Defining Environmental Accounting

The term "environmental accounting" is open to interpretation. In this guideline, environmental accounting is the identification, measurement and allocation of environmental costs, the integration of these environmental costs into business decisions, and the subsequent communication of the information to a company's stakeholders. Identification includes a broad examination of the impact of corporate products, services and activities on all corporate stakeholders. After companies identify the impacts on stakeholders as far as they can, they measure those impacts (costs and benefits) as precisely as possible in order to permit informed management decision-making. Measurements might be quantified in physical units or monetized equivalents. After their environmental impacts are identified and measured, companies develop reporting systems to inform internal and external decision makers. The amount and type of information needed for management decisions will differ substantially from that required for external financial disclosures and for annual environmental reports. Organizations use environmental accounting for several reasons, including the following:

*To help managers make decisions that will reduce or eliminate their environmental costs;

* To better track environmental costs that may have been previously obscured in overhead accounts or otherwise overlooked;

*To better understand the environmental costs and performance of processes and products for more accurate costing and pricing of products;

*To broaden and improve the investment analysis and appraisal process to include potential environmental impacts; and

* To support the development and operation of an overall environmental management system.

Stakeholders are those with an interest in the environmental effects, activities, products and services of an organization. Examples of stakeholders include bondholders, shareholders, managers, Board of Directors, customers, suppliers, regulators, policy makers, employees, consumers, and community and environmental groups.

III. Objectives

(1) Taking the total stock of assets or reserves related to environmental issue & changes therein.

(2) Estimation of the total expenditure protection or enhancement of environment.

(3) To identify that part of the gross domestic product which reflects the cost necessary to compensate for the negative impact of economic growth i.e. the so-called defensive expenditure to protect environment.

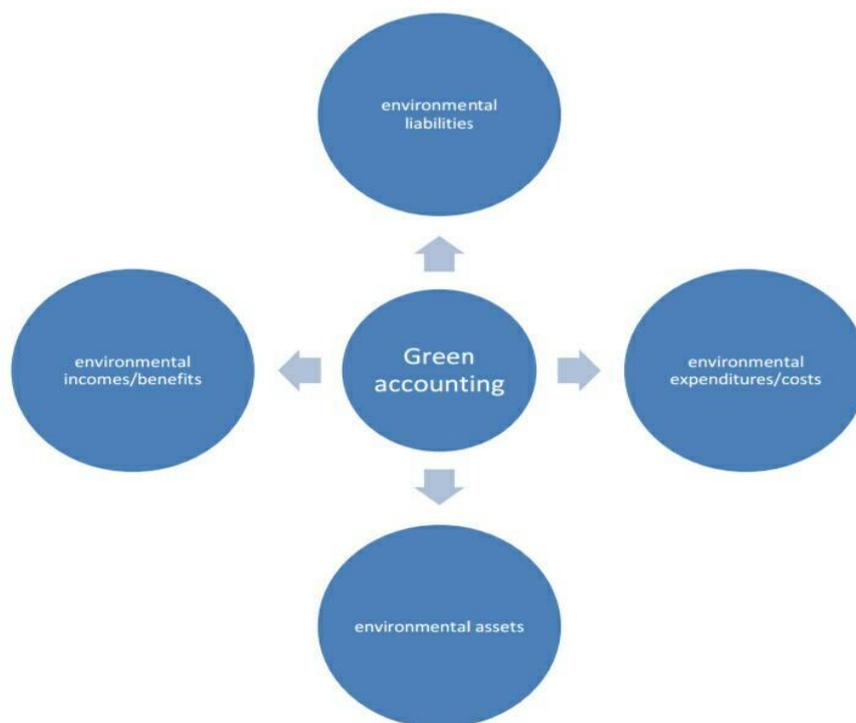
(4) Assessment of environmental costs & benefits

(i) The decrease (depletion) in natural resources due to their use in production & final demand and

(ii) The changes in environmental quality resulting from pollution & other impacts of production & consumption & other natural events on one hand, & the expenditure for environmental protection & enhancement of the environment on the other.

(5) Elaboration & measurement of indicators, relating to environmentally adjusted product & income which are disclosed by Environmentally Adjusted Net Domestic Product (EDP), i.e., Net Domestic Product minus Environmental costs.

(6) Analysis of EDP : It is to plan the use of resources by squeezing them & reducing waste to attain sustainable development.



Research methodology:-

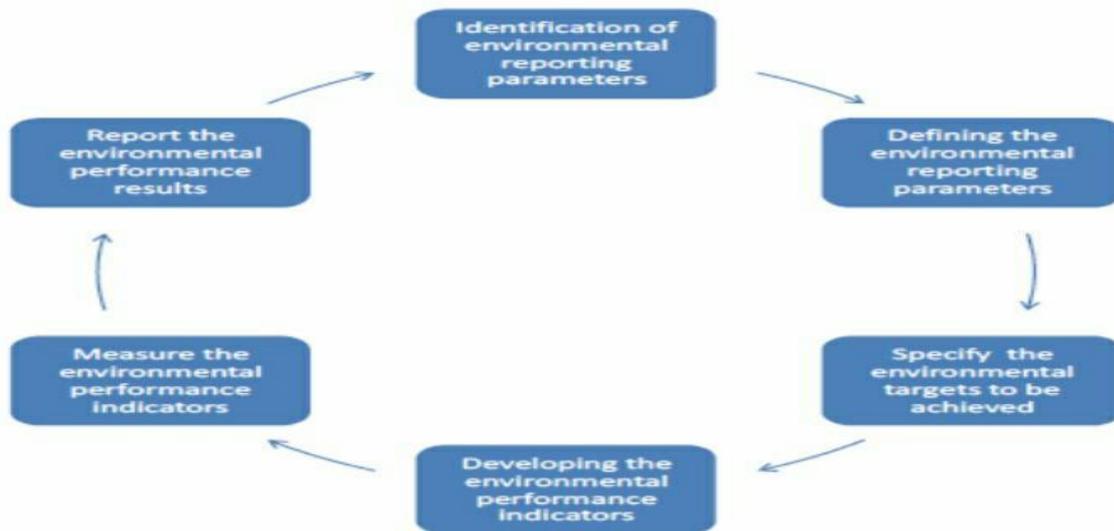
IV. Stages To Be Followed By The Corporate For Green Accounting In India:

The study developed a model which specifies six aspects to be covered in environmental accounting in order to measure the ultimate environmental performance of the organization. The aim of this model is to present a novel view of the different activities to be undertaken by organizations to facilitate environmental accounting and reporting. Identification of Environmental Reporting parameters This is the first stage in

environmental accounting process where in organizations identify their respective environmental reporting parameters such as environmental policy, health safety and environment, energy conservation, corporate sustainability/ environmental initiatives, sustainability reporting, waste management, water management, wind/renewable energy sources, environmental information system, environmental disclosure practices, environmental targets, environmental reporting indicators, environmental cost and benefits, environmental liabilities and environmental assets. Define the requiresental Reporting Parameters The second stage in the environmental accounting process requires the organization to clearly spell out the operational meaning of each parameter they identified and on the basis of which they wanted to measure the environmental performance in the long run. Specify the Environmental Targets to be achieved It is in this stage that the organization tries to formulate the environmental targets to be achieved both in short run and long run, say the short term environmental policy of the organization as well as the long term environmental policy.

V. Developing The Environmental Performance

Indicators In this stage, organizations need to think about the indicators of their environmental performance such as environmental policy framework, health and safety standards to be followed, energy conservation practices to be followed, waste management programmed to be undertaken, water management policies etc. Measure the Environmental Performance Indicators Here, organizations try to measure the actual environmental performance in terms of the predetermined standard performance indicators. Measurement may be either qualitative or quantitative in nature. For instance, indicators such as environmental policy framework need to be qualitatively measured while; waste management programmes are to be measured quantitatively. Report the Environmental Performance Results In the last stage, organizations integrate their environmental performance with that of financial performance, so as to give the environmental impact on the financial performance.



VI. 6. Legal Framework For Environmental Accounting In India

While industrial licensing has been abolished for all practical purposes, environmental clearance from various Government authorities has now taken the center stage.

With increasing global concern over the protection of the environment, India too has set up a Union Ministry of Environment with the object of coordinating among the states and the various ministries, the environmental protection and anti-pollution measures. Necessary legislation has also been passed.

The various laws relevant to environmental protection are as under:

(a) Directly related to environment protection:

- Water (Prevention and Control of Pollution) Act, 1974.
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- The Air (Prevention and Control of Pollution) Act, 1981.
- The Forest (Conservation) Act, 1980.

- The Environment (Protection) Act, 1986.
- (b) Indirectly related to environment protection:
 - Constitutional provision (Article 51A).
 - The Factories Act, 1948.
 - Hazardous Waste (Management & Handling) Rules, 1989.
 - Public Liability Insurance Act, 1991.
 - Motor Vehicle Act, 1991.
 - Indian Fisheries Act, 1987.
 - Merchant of shipping Act, 1958.
 - Indian Port Act.
 - Indian Penal Code.
 - The National Environment Tribunal Act, 1995.

VII. Forms Of Environmental Accounting

(1) Environmental Management Accounting (EMA): Management accounting with a particular focus on material and energy flow information and environmental cost information. This type of accounting can be further classified in the following sub-systems:

(a) Segment Environmental Accounting: This is 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 Accounting: This is an internal environmental accounting tool to support PDCA for sustainable environmental management activities.

(c) Corporate Environmental Accounting: This is a tool to inform the public of relevant information compiled in accordance with the Environmental Accounting. It should be called as Corporate Environmental 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): It is the Financial Accounting with a particular focus on reporting environmental liability costs and other significant environmental costs.

(3) Environmental National Accounting (ENA): It is a National Level Accounting with a particular focus on natural resources stocks and flows, environmental costs and externality costs, etc.

VIII. The Need For Environmental Accounting At

CORPORATE LEVEL

It helps to know whether: corporation has been discharging its responsibilities towards environment or not. 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 and 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% 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 awareness.
- (f) Control over operational and material efficiency gains driven by the competition global market.
- (g) Control over increase in costs for raw materials, waste management and potential liability.

IX. Scope Of Environmental Accounting

The scope of Environmental Accounting (EA) is very wide; it includes corporate, national and international levels. Here, the emphasis is given on the corporate level accounting. The following aspects are included in EA:

- (1) From internal point of view, investments are 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 losses to the environment either occur directly or indirectly due to business operation /activities. It mainly includes:
 - (a) Degradation and destruction like soil erosion, loss of biodiversity, air pollution, water pollution, noise pollution, problem of solid waste, coastal and marine pollution.
 - (b) Depletion of non-renewable natural resources i.e., loss emerged due to over exploitation of non-renewable 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, approximate idea can be given or other measurement of loss like quantity of non-renewable natural resources used, how much sq. meter area deforested and total area used for business purpose including residential quarters area 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.

X. Limitation Of Environmental Accounting

EA suffers from various serious limitations as follows: -

- (1) There is no standard accounting method.
- (2) Comparison between two firms or countries is not possible if method of accounting is different, which is quite obvious.
- (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 organization even large and well-managed ones do not adequately track the use 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 help of it, is not easy.
- (7) EA cannot work independently. It should be integrated with the financial accounting which is not easy.
- (8) EA must 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 regulation prevail in that country either directly or indirectly related to environmental aspects.

XI. Conclusion

Environmental accounting and reporting practices are in the nascent stage in India. Even though Indian corporates comply with the rules and regulations with regard to environmental protection, till now no clear cut policies are framed and formulated at the National, State or even at the company level, for ensuring the level of compliance to environmental norms. This study was intended to find out the major environmental parameters reported by Indian Corporates as part of their Environmental reporting practice. The study also focused on the extent to which Corporates practice, voluntary environmental reporting with regard to the environmental parameters identified.

12. Appendices

EA= Environment accounting

EDP = Environmental adjusted net domestic product

EMA= Environmental management accounting

PDCA=Plan-do-check-adjust

EA= Environmental financial accounting

ENA= Environmental national accounting

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