



## **“EMERGING TRENDS IN COMMERCE - A CASE STUDY OF GREEN ACCOUNTING SYSTEM”**

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### **Abstract**

*The green accounting system is one of the emerging practices in the corporate sector under corporate sector practices as responsibility towards protection of environment and for long run sustainability in the country. In world, many countries adopted green accounting system irrespective of nature and size of the firms as primary responsibility towards environment and society. The green accounting system provides cost and benefits analysis towards environment. The green accounting system analyze the activities of the corporate sector towards environment sustainability it the nation. Thus, present paper described the different aspects of green accounting system practices in the world such as types systems, framework, methods off calculation, advantages, limitations and green accounting practices in India.*

### **Introduction**

Green accounting is considered as an accounting system that incorporates the environmental costs into the financial result of operation. It is a process of integrating the environmental costs and benefits into the national accounts for policy and decision making. Environmental accounting system defined as process of collecting, analyzing and reporting the all types environmental related business activities for the purpose of including in financial reports, policy making and decision making etc (Tüsiad, 2005:18). Green accounting is defined as quantitative assessment of cost and benefits of enterprises activities towards protection of environment(Ministry of Japan 2005). Green accounting understands and manages the potential quid pro quo between business and environmental goals. By consideration of environmental cost national accounts represents the comprehensive view of the true costs and benefits of economic activities in the nation. Green accounting system was introduced by the professor in economy names as “Peter Wood” in 1980. Green accounting is also popular with name of environmental accounting that records the damage incurred to the environments by business activities and consequently benefits derived by the business units. Thus, in the present study both green accounting and environmental accounting systems use interchangeably. The green accounting play significant role promotion of sustainable development (15.9) in the world by protection of nature from unfair business practices.

The scope of the green accounting can be explained from the both internal and external point of view. From the external point of view it records all investment activities of the business units towards environmental protection such as purchasing and utilization of eco-friendly equipments and devices, awareness camps etc. In contrast, from the internal point of view green accountings records both direct and indirect business activities damage the environment such as degradation and destruction of land, bio-diversity, water, depletion of non-renewable resources and deforestation etc.The green accounting comprises of the functions such as evaluation and disclosure of the environmental related financial, monetary and physical information, estimation of impact of external environmental changes(ECA), recording of natural resources information. The green accounting deals with sustainability accounting of recording environmental related physical and monetary information.

As per the 2022 Global Assessment report prepared by UN Committee of Experts on Environmental Economic Accounting (UNCEEA), In world, 92 countries implemented the SEEA, out these 92

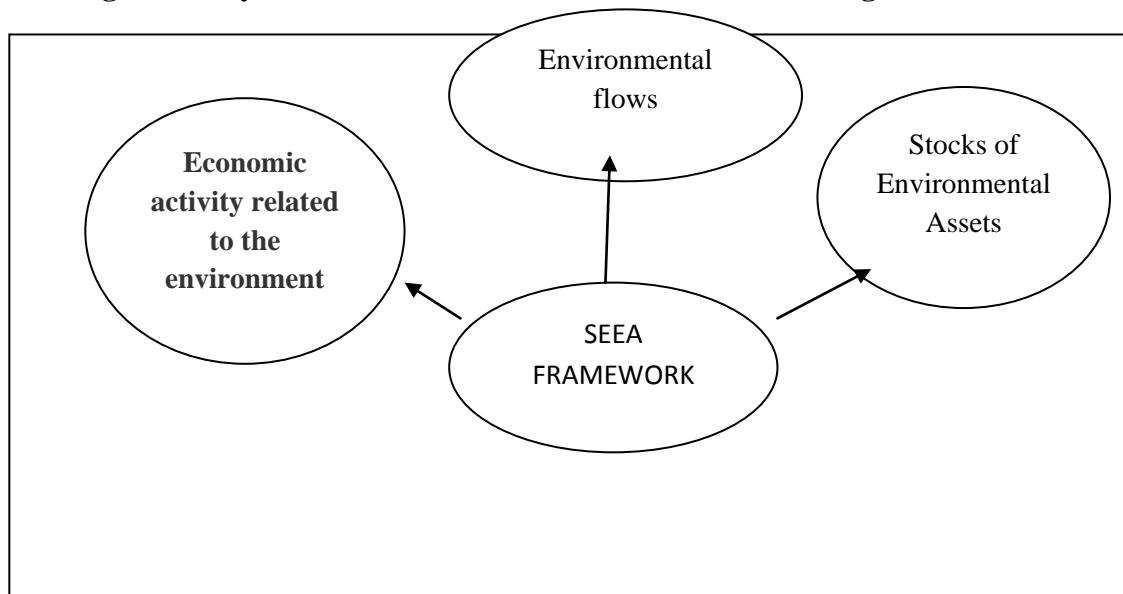


countries, 66 (72 per cent) publish at least one account on a regular basis indicates in stage III, 16 (17 per cent) publish their accounts on an ad-hoc basis indicates stage II while 10 countries (11 per cent) compile, but do not yet publish their accounts indicates stage I. In 2006 only 49 countries adopted green accounting but in 2022 it reached to 92 countries which indicate rising importance of green accounting in the country.

### System of Environmental Economic Accounting (SEEA)

The SEEA Central Framework is very popular and standard model for environmental accounting adopted by 41 countries in the world. It is considered as international statistical standard for measuring the environment and its relationship with the economy. The Central Framework covers measurement in the following three main areas:

**Figure 01: System of Environmental Economic Accounting Framework**



1. **Environmental flows.** It measures and records all natural inputs, products and residuals between the environment and the economy in terms of both in physical and monetary.
2. **Stocks of environmental assets.** It measures and records all stocks of natural assets, such as water or energy assets change in them over an accounting period due to economic activity and natural processes in terms of both in physical and monetary.
3. **Economic activity related to the environment.** It records the all monetary flows of business and with economic activities towards environmental protection, resource management and the production of 'environmental goods and services'.

### Types of Green Accounting

The green accounting is divided into four types such as Environmental Financial Accounting (EFA), Environmental Cost Accounting (ECA), Environmental Management Accounting (EMA) and Environmental Nation Accounting (EMA). In these four categories first three is relating to corporate sector where fourth one is associated with entire nation.

- **Environmental Financial Accounting (EFA):** EFA deals with recording and reporting of costs and benefits of environmental actions and strategies implemented by the firm towards



environmental sustainability in financial reports, which helps companies and externals for decisions making. This exhibits the impact of environmental accounting system on the financial position of the firms.

- **Environmental Cost Accounting (ECA):** ECA is an extension to the traditional cost accounting deals with organizational costs incurred towards avoidance or minimization of loss to environment as result of business operations. In general environmental is both internal and external where internal cost bear of the organization and external cost bear by the society. For the organization environmental costing comprises in the form of direct, indirect and contingent costs.
- **Environmental Management Accounting (EMA):** The EMA is defined as a process of identification, collection, forecasting, analysis and reporting of the energy flow information and other environmental cost activities to the management for decision making and planning purpose.
- **Environmental National Accounting (EMA):** It is extension to the standard national accounting system by integrating the interrelationship between the economies with environment at national level. It is also define as collection and processing of financial information regarding the costs for ecological challenges or opportunities for nations or countries.

**Green Accounting Calculation:** The green accounting used by the both corporate sectors and nations. They adopted different methods as per their objectives and functionality. They are discussed briefly here.

#### 1. Green GDP:

The **green gross domestic product** is an index of economic growth which is result of including environmental consequences into a country's conventional GDP. Green GDP monetizes the loss of biodiversity along with the accounts for costs caused by climate change.

**2. Environmental Domestic Product:** It is redefined formulae of NDP such as **EDP = Net Exports + C + NA<sub>pec</sub> + (NA<sub>np.ec</sub> - NA<sub>np.n</sub>)** where

**EDP** = Environmental Domestic Product,

**C** = Final Consumption,

**NA<sub>pec</sub>** = Net Accumulation of Produced Economic Assets,

**NA<sub>np.ec</sub>** = Net Accumulation of Non-produced Economic Assets,

**NA<sub>np.n</sub>** = Net Accumulation of Non-produced Natural Assets.

#### Significance of Green Accounting

- The green accounting system provides the information to the company, government and society on the aspects of the different business activities showing negative impact on the environment and strategies implementing by the corporate to minimize them.
- It enhance the awareness to the corporate sector to know the negative impact of their operations on the environment and need of actions should be taken
- Green accounting helps in understanding the corporate sector strategies towards long run sustainable development.
- It will reduce the damage to the environment and helps in optimum utilization of natural resources in best way for society.
- The green accounting system helps in prevention of unnecessary damages to the environment and their impact on the company, public and globe in the long run.



- Green accounting system indicates transparency and responsibility of corporate sector towards protection of environment and society.
- It helps in protection of waters, land, air and other natural resources from the unnecessary damaging factors.
- It promotes the system of collection, testing and reporting of the environmental activities
- The green accounting system helps in protection of nature and world from natural disaster such as global warming, floods, earthquakes etc.

### **Challenges in Green Accounting:**

1. Green accounting system is still in beginning stage, thus it is suffering with non-availability of a standard and well structure framework which gives inaccurate result
2. The lack of unified green accounting system causing difficulty in inter-firm and country comparison to evaluation of best performance makers in environmental protection
3. It is difficult to measure the cost and benefits of the environment in green accounting.
4. The green accounting only organizational cost is included and societal cost is excluded which affects the environment directly and organization indirectly
5. The cost of installation of green accounting system is very high initially.

### **Green Accounting In India**

The first step towards introduction of green accounting took place in 2011 by forming a committee to look over the concept and possibility to implement the green accounting in India. The committee headed by Patho Dasgupta submitted its reports in 2013. Thus, in India green accounting was introduced by Patho Dasgupta in the form of report named “Green National Accounts in India 2013” and proposed a framework of green accounting similar with SEEA framework. In India Green audit responsibility of National Assessment and Accreditation Council.

### **Environmental Accounting Practices in India**

1. In 1991, first announcement on green accounting was made.
2. The Ministry of Environment and Forests proposed that “Every company should Report of its Board of Directors, particulars of steps taken or proposed to be taken towards the adoption of clean technologies for towards environmental protection
3. The Union Ministry of Environment and Forests has issued various instructions in to prepare environment statements.
4. It is mandatory in the country to get an environmental clearance for all new projects that concerns both the Union Ministry of Environment and Forests and the respective State Government department of environment. There are various guidelines in this regard and all such projects are expected to obtain environmental and antipollution clearance before they are actually set up. It can be observed through their accounts that mainly the following set of information is disclosed.
  - Machines or tools used for pollution control
  - Strategies towards energy conservation
  - Optimum utilization of resources.
  - wastage management strategies
  - Actions for improving product qualityIn this environment statement, the concerned industry is required to provide information on:
  - Water and raw material consumption.



- Pollution generated
- Impact of pollution control measures on conservation of natural resources.
- Nature of hazardous and solid wastes produced and disposal practices adopted
- environmental protection measurements
- Reporting system of environmental accounting

## Conclusion

The green accounting system is one of the emerging practices in the corporate sector under corporate sector practices as responsibility towards protection of environment and for long run sustainability in the country. In world, many countries adopted green accounting system irrespective of nature and size of the firms as primary responsibility towards environment and society. The green accounting system provides cost and benefits analysis towards environment. The green accounting system analyze the activities of the corporate sector towards environment sustainability it the nation. The green accounting is also helps to achieve the sustainable development goals timely and accurately. The green accounting system helps in analyzing the impact of corporate operation and economic activities in damaging the environmental system in the country. This papers concludes that green accounting system helps the corporate sector, society and nation towards achievement its long term goals without damaging the present environmental assets.

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