ISBN: 978-93-91286-12-5

Wednesday, 27th October 2021

# VIRTUAL INTERNATIONAL CONFERENCE 2021

on

Make In India: Redefined In A Digital Era for Sustainable Development



Organised by the



## G R DAMODARAN ACADEMY OF MANAGEMENT

(Approved by the All India Council for Technical Education affiliated to the Bharathiar University and recognized by the UGC)
An ISO 9001: 2015 Certified Institution

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## VIRTUAL INTERNATIONAL CONFERENCE ON

### MAKE IN INDIA: REDEFINED IN A DIGITAL ERA FOR SUSTAINABLE DEVELOPMENT

WEDNESDAY, 27<sup>th</sup> OCTOBER 2021



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## GREEN ACCOUNTING FOR SUSTAINABLE DEVELOPMENT IN INDIA

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#### **ABSTRACT**

A change in the environment is a global problem which needs a global solution. Taking care of environment is a big challenge for all the countries. Green accounting system incorporates both economic and environmental information. This accounting method is considered as an important tool to understand the important role played by the corporate unit for environmental safety and welfare. It actually measures the potential or actual impact which is created by a company on an environment in terms of nominal or monetary basis. This paper is based on secondary data which is collected by published works, articles and journals. This paper aims to explore the need and issues in implementation of green accounting system in India for the development of sustainability.

**Key Words:** Natural resource Accounting, Green Accounting, Environmental Accounting, Ecological Accounting, Sustainability

#### INTRODUCTION

Environmental accounting is considered as a major thing for all developed and developing nations. To maintain sustainable development, all the nations are concerned about this. It was first introduced by Professor Peter Wood in the year 1980s. It deals with three factors that is planet, people and profit. For the need of sustainability and the safety of future generation environmental accounting is taking importance in the present scenario.

The term "Corporate Social Responsibility" is coined by Howard Bowens' book named as "Social Responsibilities of a Businessman (1953)" and Rachel Carsons' book "Silent Spring (1962)" focuses on the issue of environmental protection and sustainability.

#### RESEARCH DESIGN OF THE STUDY

The present paper is an attempt to appreciate the nuances of green accounting and to study the implication of usage of green accounting for environmental sustainability. This study is descriptive in nature. It has been done based on secondary data.

#### **OBJECTIVES OF THE STUDY**

The following objectives are reviewed in this study

- 1. To review the origin and necessitate of green accounting in India.
- 2. To explore the role of green accounting in sustainable development.
- 3. To examine the legal rules adopted in India for environmental sustainability.
- 4. To explain the various issues relating implementation of green accounting.

#### **REVIEW OF LITERATURE**

Alka Solanki (2016) carried out a research on 'A Study about Green Accounting: its Importance and Concept'. The main purpose of this paper is to study and analyze the available literature and reveals the opinion of various authors regarding importance and concept of green accounting. This paper

reveals the concept, need, advantages and limitations of green accounting for developing India. The author concludes that the green accounting concept is highly essential to enact laws and provisions in policy framework.

Ali Mustafa Magablih (2017) conducted a study on 'The Impact of Green Accounting for Reducing the Environmental Cost in Production Companies in Jordon'. This study is based on both primary and secondary data. 155 questionnaires were collected from financial managers of various production companies in Jordon. This study aims to explore the need for environmental cost accounting, methods of measurement, analysis of the elements of the environmental costs and statement of the role of the advanced methods of production in the presence of environmental costs. The author analysis potential causes of pollution through the six main phases in product life cycle.

Vandna (2018) entitled a study on 'Green Accounting' with the aim of explaining the concept of green accounting, various forms, scope, application terms and process of environmental accounting in India. The study is descriptive in nature. The author also explains the various methods of measuring environmental liabilities, capitalization of environmental expenditures and the legal framework adopted for green accounting in India and International level.

Dr. Varsha Agarwal and Kalpaja L (2018) carried out a research on 'A Study on the Importance of Green Accounting' with the aim of understands the need of green accounting to every organization and the role of corporate social responsibility (CSR) activities. Data are collected primary in nature for understanding people's perspectives towards green accounting. In this study the authors attempt to reveal the necessity of implementing green accounting in corporate level for environmental sustainability. Finally they conclude with the necessary initiatives which should be taken by the Government in policy making.

Mr. Manoj Yadav - Assistant Manager of Civil in L & T construction, published a paper (2018) based on available literature in green accounting, named as 'Green Accounting a Review Paper'. The main aim of the author is to examine the implication of green accounting in economics and environmental accounting practices in India. In this paper author explains the need of legal framework for green accounting practices.

N. Anil kumar et al. conducted a descriptive research on 'A Study on Green Accounting and Its Practices in India'. This study aims to provide the accurate quantitative information on volumes and economic effects to people and identify that the part of Gross Domestic Product. In additional to that the authors analyze and assess the environmental cost and benefits of this accounting.

#### Need of Green Accounting in Sustainable Development:

Bio diversity is foundation of ecosystem of the earth. India occupies 2.4% of the world's area and is host to 7% of the global biodiversity, accounting for 8% of the world's mammals, 13 birds, 6 reptiles, 4% amphibians, 12 fish and 6% of flowering plants (Manoj Yadav 2018).

Without environmental accountability the organization will not succeed in a profitable manner. For increasing harmful effect of environment pollution, the more importance is credited not only to financial aspects but also in the social and environmental aspects. In recent generation the organizations not only view the accounting but also it should also focus on responsibility and sustainable development in their strategies and operations. Environmental sustainability denotes the potential longevity of vital human ecological support system, forestry, industry, system of agriculture, fisheries. It also includes the increasing pressure by human communities, their consumption patterns and their impact on various system etc., Based on the foregoing, all the organization not only focuses on increasing the profit but also it should take the necessary steps for the negative impact of the operating which is carried out and it is demanded to product the environment with sustainability.

There are being developed a large number of indicators by all the countries for assisting the sustainable development. The changes in the quality of environment resulting from pollution and other impact of production, consumption and natural events have to identified and rectified The main objectives of Green Accounting are

- 1. Segregation and Elaboration of all environmental resources.
- 2. Linkage of physical resource accounts with monetary environmental accounts.
- 3. Assessment of environmental costs and benefits.
- 4. Accounting for the maintenance of tangible wealth
- 5. Elaboration and measurement of indicators of environmentally adjusted product and income.

#### **Types of Green Accounting System**

Green accounting system is a new challenge of accounting system. Currently it functions as an auxiliary sub-system to the traditional accounting system. To overcome the environmental challenge which is already going on in the society, changes in accounting system based on environment resulted from the necessity to modify the System of National Accounts (SNS) in world wide.

- 1. Environment Management Accounting (EMA)
- 2. Environmental Financial Accounting (EFA)
- 3. Environmental National Accounting (ENA)

#### Green Accounting in India

Every nation has the responsibility to protect the environment and also promote the economic development. In India through the new companies Act 2013 it became mandatory for all the concerns to follow the green accounting as CSR activities for the survival of environment.

For that purpose companies are classified into three types the companies which is having a net worth of INR 500 crore, the companies having net profit of INR 5 crore or the companies having turnover of INR 1000 crore. A concern which falls in these categories must spend at least 2% of its average net profit of the last three years on CSR activities.

The Government of India established the NITI Aayog to attain the sustainable development goals. Most of the countries are still unaware of green accounting, in India there is some initiative steps taken by the government as well as by the companies. But until now there is no clear idea about the planning, practices and strategies should followed for the environmental sustainability.

#### Legal Rules related to Green Accounting for Sustainable development

Sustainable development is development that meets the needs of the present without comprising the ability of future generation1. Green accounting system measures the sustainable income level that can be secured without decreasing the stock of natural assets. With the effect of waste management and cost analysis the green accounting is played a vital role in each and every organization. In India Chief Ministry of Environment with the objective of increasing concern with the production of environment and taking anti-pollution measures. A part from this Environment Improvement Trust (EIT) has been working for environmental and forest protection since 1998. A group of volunteers works with the goal of Green and Clean India concept.

#### Act related to Environment:

- 1. The Factory Act, 1948
- 2. Merchant of Shipping Act, 1958
- 3. Water (Prevention and Control of Pollution) Act, 1974
- 4. Water (Prevention and Control of Pollution) Cess Act, 1977

- 5. The Forest (Conservation) Act, 1980
- 6. The Air (Prevention and Control of Pollution) Act, 1981
- 7. The Environment (Production) Act, 1986
- 8. Indian Fisheries Act 1987
- 9. Hazardous Waste (Management and Handling) Rules, 1989
- 10. Motor Vehicle Act, 1991
- 11. Public Liability Insurance Act, 1991
- 12. The National Environment Tribunal Act, 1995
- 13. Water Biomedical Waste (Management and Handling) Rules, 1998
- 14. Municipal Solid Wastes (Management and Handling) Rules, 2000
- 15. Ozone Depleting Substances (Regulation and Control) Rules 2000
- 16. Noise Pollution (Regulation and Control) Amendment Rules 2002
- 17. Biological Diversity Act 2002.

#### Goals of Sustainable Development

The collection of 17 global goals which is used for sustainable development is set by the United Nations General Assembly in 2015 for the year 2030 is considered as an important role. The following aspects are mainly considered in sustainable development goal. No Poverty, Zero Hunger, Good Health and Well – being, Clean Water and Sanitation, Gender Equality, Quality Education, Decent Work and Economic Growth, Industry, Affordable and Clean Energy, Reducing Inequality, Sustainable Cities and Communities, Industry, Innovation and Infrastructure, Responsible Consumption and Production, Climate Action, Life Below Water, Life on Land, Peace, Justice and Strong Institutions and Partnerships for the Goals.



Source: https://en.wikipedia.org/wiki/Sustainable development

#### Role of Green Accounting in measuring Economic Development

The economic growth of a nation is identified based on many indicators including GDP. When the GDP concept was developed between the year of 1930 and 1960, the environmental resources were considered as a free gift of nature and it did not have any market price. GDP measures the value of output produced within a country over a certain period of time, if there any depreciation measurement the man made capital only accounted, it may not consider the exhaustion of natural capital such as water, land, forest and the negative effects of health and welfare like pollution. It may give the way to many flaws of GDP calculation. So there is a necessity to improve the GDP and maintain environmental sustainability of every nation. In green accounting the relationship between the GDP and the environmental resources has highly reviewed and the gap between these two is identified and rectified by accounting that resources.

#### Issues in Implementation of Green Accounting

While assigning the value to these resources there is big challenge has to be faced by all the countries and all the industries. Because of there is no uniformity in landscape and also the operations of the industries. Evaluating the natural resources may vary to one country to another based on their environmental condition, operation of business and usage of natural resources. Various types of research process have to be followed in this topic. While comparing the usage of green accounting it may be good in the sense of conceptual work but practically it has a number of difficulties.

Environmental accounting involves the assessment and disclosure of environmental-related financial information. It includes physical and monetary information actually involved in particular environment. Resources may be classified as renewable and non-renewable. While using these resources the industry has to calculate the internal and external cost categories. As well as the industry must calculate the internal and external benefits such as saving from new technologies resulting in lower pollution, substitute raw material, new markets and inventions etc., which could be giving benefit to society as well as industries and it should be monetarily measured. An industry has to account the cost of avoiding the damage in environment instead of making remedial activities which deals with the raw material of air, water, land and energy.

#### **FINDINGS**

Converting qualitative data into quantitative one is very large and long process so based on these result drawing conclusion is not easy. Until now there is no authorized format is introduced by any of the country. Even though Indian corporate 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. There are several challenges of Green accounting and reporting such a Green accounting method, social values in applicable assumptions, economic value and lack of reliable industrial data. Green accounting involves estimation of environmental expenditures/cost, capitalization of those environmental expenditures and identification of environmental liabilities and measurement of environmental liabilities.

#### **SUGGESTIONS**

Numerous valuation techniques are needed for assigning the market price to the environmental resources. To find the safe limits of eco degradation the exact and careful assessment should followed by every concern. The concern must reveal its environmental accounting information in the annual report and corporate brochure. There is a need for more environment legislations, norms and bureaus. Charted accountants suggested that all the concerns should follow the green accounting. There is a need to create awareness regarding environmental accounting and reporting to business

groups and the general public. For maintain environmental expenditures a separate account should be opened. It will help to measure and report environmental expenditure and environmental performance of each company as well as the whole sector. Corporate institutions must create an accounting standard for green accounting and reporting practice. Reporting should be made compulsory for all manufacturing industries. Environmental related costs, liabilities and expenditure should be determined by the proper accounting methods.

#### CONCLUSION

Environmental accounting has played a key role all over the Globe but in India it is in preliminary stage. Though there is a lot of criticism in the implementation of green accounting there is necessity to save the environmental resources and maintain the sustainability. India has many adverse factors like overpopulation, natural calamities, pollution, exhausting the natural resources, deforestation and many environmental hazards. For safe environment it is essential to enact laws and make provisions to implement the environmental accounting. Regarding its importance the proper awareness should be given by the government for the industries as well as individuals. While making policies the government should consider the changes in traditional accounting nature.

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