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GREEN ACCOUNTING – A TOOL TO QUANTIFY ENVIRONMENTAL SUSTAINABILITY

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Abstract

The term "green accounting" was coined by Peter Wood in 1980 to describe a new approach to sustainable development. This allows a country to measure its income, taking into account economic and natural resource depletion. "Green accounting" provided a helpful description of the impact of environmental factors on businesses. Green accounting, however, in physical measurements, has been evaluated by corporate influence; this is an important factor in comprehending the part played by the company enterprise, accounting sectors, natural resources, and offering data highlighting industrial waste, pollution, and depleted resources over the course of the 20th century. To combat the twin consequences of environmental degradation and pollution and climatic change, this is crucial.

Keywords: Green accounting, natural resources, environmental degradation or pollution, climatic change.

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PROLOGUE

Green accounting is a vital resource for understanding the preface played by industries and corporations. Industries by making accounts include natural resources and provide data highlighting industrial wastage, pollution, and resource depletion in the last 20th century. All the companies' main aim is profit making. They forget our precious natural resources, which are vital for present, future generation, and sustainable development. Climate change is one of the important issues that the world is facing today. Climate change is the variation in the earth's global climate over time; this variation may be due to dynamic processes on the earth and some of the external impacts on climatic change create diverse problems like soil erosion, melting glaciers, global warming, deforestation, loss of biodiversity, land degradation, and all kinds of pollution. Human influence on nature is one of the major causes of such problems like reckless use of resources and undue influence on nature in the name of development can be spotted as major causes of this climatic change. As a result, since the last few decades, the adverse environmental effects of economic development have become a public concern all over the world. Green accounting assists organisations in determining resource consumption and the cost of industry actions on the ecosystem. It is evident that the natural resources are depleted like cutting of forest, wastage of fossil fuel, soil erosion and wastage of water. These are our natural resources or green assets, but these assets are not shown in any accounts like while preparing a financial statement of income and expenditure accounts or any balance sheet of a company, utilisation of direct materials and direct labour, overheads, administrative, sales and distribution expenses as well as research and development expenses are factored but not green costs or green liabilities.

All natural assets are associated in the company's balance sheet under the head of assets and any fine or penalty has been paid by the company, which is shown on the liability side or included at the time of computation of national income, so we can get a new data

point, which may be called "original data". Through this data, we can discover that "at least the growth of our country is being done at the cost of destroying our environment." Depletion of natural resources is caused by several sorts of pollution: air, water, noise, soil, nuclear power plants etc. Through this pollution nowadays, there is a significant concern about climate change and global warming. Climate change is severe harm to our ecosystem and a drastic shift in condition.

LITERATURE SAMPLES

Green accounting in the sense of NNP and GDP was debated by Martin and Karl (1996). Here, the term "green NNP" refers conceptually to the broadest feasible measure of the nation's economic output, which includes net investments in non-traditional "produced means of production" as well. Green Accounting was debated by Prcee et al, in 2006. complementing traditional economic accounts (such as GDP measures) with data on environmentally significant stocks and flows (such as stocks of life-sustaining natural resources and pollutant flows), with the goal of providing a comprehensive measure of the environmental consequences of economic activity Clean water, lumber, fish habitat, medicinal components, and pollination of agricultural crops are only a few examples of the ecosystem goods and services mentioned by Graham Hawake (2013), which contribute to the benefits that flow to humans from the natural world. The importance of environmental accounting was underlined, and the concept of natural capital was introduced. Natural capital consists of a country's land, water, air, ecosystems, and living organisms, and it is used to measure and value the value of the environment and its assets and services. Increasing the standard of living, while keeping in mind resource use and environmental impact is the problem of sustainable development in poor nations, according to the opinion of Maniparna Syam Roy (2017). The increased awareness of environmental and social responsibility, as well as the efforts of individuals like Venkateswaran, Uma, and

Sundaramoorthy (2018), have contributed to the progressive introduction of environmental accounting in Indian businesses. Businesses, governments, public authorities, investors, unions, environmentalists, and others have shown a renewed focus on CSR and SEA in recent years.

PROBLEM DISCUSSED

First, corporate social responsibility was an environmental concern, then environmental accounting in the 1980s, with the word economist and Professor Peter Wood then being used as an otherwise green accounting, thus directly adding to environmental sustainability. It focuses on valuing environmental resources, which seem to have no market value, and includes these resources in our accounting system. The depletion of natural resources and costs are also taken into account when putting up an account. The treatment of defense spending with GDP is a huge concern because GDP actually increases because capital is spent on clearing pollution or repairing environmental harm.

At present, much of the organization's literature on earnings quality refers to cross-border and infinite environmental challenges. This is due to the fact that there are no provisions for decommissioning and cleanup in various environmental legislation and global accounting standards. The same applies to the provisions for contingent liabilities for operations relating to the company's past and present activities, resulting in inflation of local and international corporate earnings. Consequently, it is difficult to investigate the relationship between studies of accounting quality and environmental accounting studies. Evaluation of relationships between companies and the environment is a basic need for evaluating sustainability gaps. It is accepted that most economic growth activities have a negative influence on the environment. As a result, when corporations make a significant contribution to economic growth, the role of corporations in environmental degradation is also relatively high. It is often seen that such bodies always try to maximize profits. As a

result, business stakeholders are increasingly likely to be aware of the environmental impact of the business. Hence, the impact of green accounting on environmental sustainability is inevitable.

GREEN ACCOUNTING AND ENVIRONMENTAL SUSTAINABILITY

Global drive on Green Accounting

Green accounting, which has various purposes, one of which is to create sustainable development, to form compatible relationships with everyone in our world, and to ensure adequate environmental protection for natural and artificial resources. Environmental protection is used to realise the costs of protecting the green environment during normal business activities, to see the benefits of this type of activity and to provide the most reasonable quantification method (in monetary or physical unit terms) for maintaining communication based on results. Damage, mitigation, and disregard of effects on the environment, as well as regeneration following disasters and the eradication of these impacts, are all examples of environmental protection. While the bottom line is always the first priority for industries and corporations, they often overlook the need to protect the planet's natural resources for the sake of future generations and long-term progress. Green accounting will enable businesses to identify and use resources more efficiently, lowering the cost imposed on the environment by their industries' operations. Since the 1970s, researchers around the world have been working on eco-friendly programming for account design. The United Nations Environment Program (UNEP), the United Nations Statistics Division (UNSTAT), and the World Bank devoted most of their international energy in the 1980s to reaching an agreement on how to oversee the SNA (National Accounts System) in a way that improves environmental performance. In 1993, a draught named "A Handbook for Integrated Economic and Environmental Accounting" was published; it included a preliminary technique that could be evaluated and reformed. The most common name for this kind

of paperwork is the Integrated Economic and Environmental Accounting System (SEEA). SEEA was able to use the different accounting methods that were being used at the time for a single purpose.

In order to maintain the current quo of economic reasoning that disregards societal and environmental consequences, Green Accounting streamlines the accounting process. This brings environmental discussion down to the level of pure technology (instrumental thinking) and money concerns (e.g., to avoid lawsuits and fines). Green accounting accounts for how humans interact with nature. It is constrained by the obedience of rules and regulations and has a philosophy that excludes natural resources and any resources that cannot be assessed quantitatively with ease. Green expenses are masked by more conventional cost types. It takes EA findings all the way to the top, where they can influence change; for instance, Nike's executives might be concerned that the company's lackluster performance in the areas of environmental and social responsibility will be publicized to the press, the public, and the authorities. The use of "green accounts" is a means by which corporations can justify their environmental damage and evade penalties under the law.

The origins of Green Accounting can be traced back to 1992 in the United States, where it was developed in response to the worries of business owners who believed that industry managers would make decisions about their companies based on the advice of everyone but the experts, and thus miss out on the environmental and financial benefits of preventing pollution. To embrace green accounting methods, the international standard ISO 14000 has been in use since 1995.

Of the two types of accounting used by businesses, one is known as "financial accounting," which is focused on financial data and is subject to legal standards, laws, and guidelines, both domestic and international, and is intended for external users. Management accounting, on the other hand, is concerned with both monetary and empirical data. There are many interconnections between a

company's financial accounting and management accounting systems, despite the fact that information flows in parallel. When compared to "green reporting," "green accounting" can be considered as separate since it offers data in the form of accounts and enforces specific norms and special rules and constraints on the definition, format, analysis, and presentation of the information. The concept of "natural capital," a type of production capital that must be preserved in order to continue delivering ecosystem goods and services into the future, is the inspiration for green accounting. It can be applied to the provision of production and services to quantify the depletion or recovery of natural capital (the "stocks"). As will be shown, advanced accounting for non-environmental expenses and advantages, input rates, customer demand, etc. can lead to a shift in decision-making that has ecological consequences. This is what is meant by "green accounting," which goes beyond the traditional concept of environmental accounting to include all costs and benefits associated with the modification of a company's products and methods.

SCOPE OF GREEN ACCOUNTING

1. Environment Expenditure and Costs

Production costs, research and development expenditures that are always incurred prior to a product launch, and so on, are all expenses and costs related to environmental issues that are incurred for the purpose of assuring environmental protection. Capital expenditures, R&D costs, planning and administration fees, plant running expenses, corrective action costs, and production facility recovery costs are all examples of additional environmental expenditures.

2. Capitalization of Environmental Expenditures

The cost of environmental expenditures is justifiable if they enhance the useful life of the company, the useful life of the properties it owns, the useful life of the properties it prepares for sale, or the cost of upgrading or preparing the properties for sale. The

acquisition price is compared to these ongoing costs.

3. Environmental Liabilities

Environmental damages that occurred in the past as a result of the firm's negligence or actions are covered by the laws that require the corporation to compensate for them. In some cases, the firm may have to pay this kind of money to compensate a third party for the environmental harm that the company has created. These obligations could be quantitative or incalculable. The latter cannot be adequately assessed or projected in the company's balance statement.

4. Environmental Incomes / Benefits

Values in terms of both space and money can be assigned to it. It's everything a company gains from avoiding or lessening the negative effects on the environment, from taking steps to mitigate those effects, from removing those effects via its own efforts, and from putting things right after an industrial accident.

5. Environmental Assets

Because of environmental laws and the company's own volitional efforts, the company now has access to these resources. Pollution control bonds and other forms of environmental protection hardware fall under this category of man-made assets. All of these resources are either movable or immovable assets.

PROCESS OF GREEN ACCOUNTING

Green accounting entails the following steps: identifying the firm's environmental reporting parameters; defining those parameters; specifying environmental targets to be accomplished; developing environment performance indicators; measuring those outcomes; and ultimately reporting those results.

1. The first step in green accounting is for a company to determine what environmental reporting requirements it has to meet. During this process, the company establishes reporting parameters like environmental safety, public health,

environmental protection, environmental energy conservation, the horizons of corporate sustainability, waste management, and the use of renewable energy sources like wind, solar, and hydro power.

2. Step two involves determining the specifics of the company's external setting. In this step, the company decides how each metric will be used and how it will be measured over time.
3. The third phase of the process involves the establishment of long-term and intermediate-term environmental goals. The company makes sure that the short term and the long term are connected.
4. The fourth phase of green accounting entails the creation of environmental performance indicators such as environmental frameworks, health and safety provision standards, energy conservation measures, and waste management procedures to be implemented and adhered to by the company.
5. At stage five, indicators of environmental performance are measured. Depending on the type of indicator (e.g., environmental policy frameworks and waste management frameworks should both be measured quantitatively), these indicators can be either quantitative or qualitative.
6. In the sixth and final step of this accounting method, the firm's environmental performance results are combined with its financial performance results to show how the company's impact on the environment affects its financial success.

INDIAN COMPOSITION

It is well-known that shifts in the economy are directly related to shifts in every business, and it is also important to note that environmental and climatic shifts can affect a country's gross domestic product. Moreover, as people become more environmentally conscious, there is a growing demand for accurate and relevant company information. Adjusting the National Accounts System (SNA) to account for natural

asset stock is necessary for green accounting, which measures the amount of sustainable income that may be secured without depleting natural asset inventories. The availability of SNA facilitates the use of capital by the total costs and benefits of all forms of energy including electricity, fuel, gas, lubricants, and traditional and unconventional energy production processes (it can be mineral water, air, fuel, or other resources) have been used to highlight the significance of energy conservation in refineries and industrialization around the world.

Numerous natural disasters, such as hurricanes and acid rain, as well as global warming and other difficulties, necessitate development in India to address environmental concerns. The goal is to get businesses to think about how their operations contribute to global issues like population growth, infrastructure development, and poverty, as well as how their own consumption habits, including the purchase, consumption, and storage of agricultural products, contribute to global warming. A developing nation like India faces two environmental challenges, and the country must strike a balance between economic and environmental development in order to safeguard the health of its citizens and the planet. Incorporating principles of social responsibility into corporate practices has been shown to have positive effects on the environment, society, and the bottom line.

Before the Companies Act of 2013 was passed, green accounting was already widely used in India. The state government's environmental approval has taken centre stage while the industrial licensing process has been eliminated for actual actions. Every Indian has a responsibility to safeguard the country's forests, lakes, rivers, and animals in accordance with Article 51A of the Constitution's directive principles of state policy. Laws such as the Environment Protection Act of 1986, the Motor Vehicle Act of 1991, the Public Liability Insurance Act of 1991, the Indian Penal Code of 1860, the Indian Fisheries Act of 1987, the Atomic Energy Act of 1962, the Radiation Protection Rules of 1971, and the Chemical

Weapons Convention A all provide additional support for this fundamental duty. Furthermore, both the state and federal ministries of environment and forests offer directions to ongoing projects and new ones to receive environmental and anti-pollution permits prior to the start of business.

The expected practices, however, are very different from the actual ones. Only a select few Indian businesses truly provide complete and accurate data about the country's environmental situation. Despite the growing body of knowledge about environmentally responsible bookkeeping, annual reports from most companies continue to fall short. Green accounting isn't widely accepted because of its environmental focus. Rather than seeing it as a social good, businesses see it as a burden on their bottom line. It has also come to light that most Indian businesses provide environmental disclosures of a descriptive rather than a monetary kind. That is to say, natural capital deterioration is not factored into calculations of business earnings. However, the call for today is to quantify the monitoring and assessment of water consumption and the consumption of non-renewable energy sources like coal, petroleum, carbon, and natural gas. Managing and valuing water and nonrenewable energy sources requires increased dialogue and business activity. The usage of renewable energy sources, such as solar and wind, should also be accounted for and reported on in detail, in addition to water resources and conventional energy sources. There needs to be better support for combining renewable and nonrenewable energy sources in company portfolios. Swachh Bharat Abhiyan, also known as the "Clean India" campaign and the "Green India" project, was launched four years ago, but since then, doubt has arisen. Of all businesses, only 39% have set aside money to address health, safety, and environmental concerns. The vast majority of Indian businesses have donated to environmental causes. That's why nowadays, CSR (Corporate Social Responsibility) strategies are more important than philanthropy for any firm to implement. Non-governmental organisations

(NGOs) may be subjected to stringent and detailed reporting requirements for this reason.

CONCLUSION

The field of environmental accounting is just beginning to gain ground around the world. Most commercial enterprises adhere to the laws and regulations set forth by the state. Educating the public about environmental protection measures and sustainable environmental development is crucial for ensuring that future generations can reap the benefits of present efforts. Environmental regulations, such as measures to prevent pollution and research into new ways to acquire environmentally friendly items, are becoming increasingly important as the rate of global warming continues to accelerate. Adopting and adhering to well-defined environmental regulations is essential for ensuring the long-term health of the economy.

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