



NATURAL RESOURCE ACCOUNTING: A FRAMEWORK AND ITS LINKAGE WITH ECONOMIC DEVELOPMENT AND SUSTAINABILITY

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ABSTRACT:

Natural resource accounting NRA is a well accepted terminology. Today the companies and business organizations also use the resources which are natural as inputs and manufacturing procedure they are supposed to protect the natural resources by adopting such a techniques and practices that do not pollute and even harm the environment in any way. Apart from this, to protect the environment is also a corporate social responsibly of every business organization. Environment provides a lot of resources which companies use as their raw material and in return of this business organizations also have to keep in mind that how to protect environment NRA is based on the concept "measurement of a resource leads to its better management". This will help in framing and implementing various policies with regard to situations or circumstances that leads to environmental degradation directly or indirectly and guide us in a way to make use of our natural deposit in a better feasible way and it further leads to decreased harmful impact on natural habitat. Through this paper efforts are made to study the framework of natural resources accounting, types of natural resources, interrelationship in between the two factors that are environment and economy. This research paper too includes various laws which are implemented from time to time with regard to natural resource protection and preservation. It will cover various sustainable development Goals of natural resources accounting and NR A perspective.

KEYWORDS:

NATURAL, RESOURCE, ACCOUNTING, SUSTAINABILITY, BUSINESS, ENVIRONMENT.

OBJECTIVES

To identify what is required for the NRA disclosures

To acknowledge interrelationship between environment and the economy

To know about the regulatory framework with regard to NRA

To enlighten the future of management with sustainable accounting

To analyze the NRA disclosure practices by Indian companies

INTRODUCTION

Economic development over the years to a great extent has been a result of our continuous dependence on natural resources. Growth plays a vital role in creating livelihood options, but the fact is that without utilizing natural resources, growth is impossible. So, it is very important to use these resources in a sustainable way and this is only possible when companies and business organizations take initiatives by adopting such working practices that do not harm environment in any way. Even, natural resources play an essential role in economic sustainability of any nation. These resources are utilized in such a manner that coming generations can also take advantages of such resources. As resources are enormously in use, Due to the excessive use of natural resources, in the present scenario,

it gives rise to adverse impact on environment and gives birth to issues related to climate change. Moreover, global warming turned out to be a biggest concern worldwide.

Conventional accounting records data related to measurable economic activities. With a view to get rid of this deficiency and to consider the close interaction among the economic indices as well the components of resources which are natural, the concept - NRA has come into light. NRA is based on the concept "measurement of a resource leads to its better management". This will help in framing and implementing various policies with regard to situations or circumstances that leads to environmental degradation directly or indirectly and guide us in a way to make use of our natural deposit in a better feasible way and it further leads to decreased harmful impact on natural habitat.

As the terms environment accounting and natural resource accounting are replaceable, but NRA is a well accepted terminology. Since the companies and business organizations use the resources that are natural as inputs and the manufacturing procedure they are supposed to protect the natural resources by adopting such a techniques and practices that do not pollute and even harm the environment in any way. Apart from this, to protect the environment is also a corporate social responsibly of every business organization. Environment provides a lot of resources which companies use as their

raw material and in return of this business organizations also have to keep in mind that how to protect environment.

The definition of Natural resource accounting is as below –
In an accounting system which deals with the stocks and

changes in natural assets, that comprises of biota (which is produced or is wild), subsoil assets (which are proved reserves), land as well as water along with the ecosystems which are aquatic and terrestrial.

TYPES OF NATURAL RESOURCES:

THE BASIS IS ORIGIN	BIOLOGICAL RESOURCES	They are obtained from biosphere that are living and organic
	ABIOTIC RESOURCES	these resources are derived from non –living as well as inorganic substances
ON THE BASIS OF THEIR STAGE OF DEVELOPMENT	POTENTIAL RESOURCES	These resources are available in the area and might be utilized in the coming time
	ACTUAL RESOURCES	These are the resources whose quantity as well as quality is known and such resources are utilized in the current time period
	RESERVE RESOURCES	these are resources that are retained for economy's upcoming needs
	STOCK RESOURCES	These are the resources that are determined but such resources are not properly utilized due to unavailability of adequate technology
OTHERS	RENEWABLE RESOURCES	These are the resources that can be restocked naturally
	NON- RENEWABLE RESOURCES	The availability of resources which are fixed in quantity and further these resources cannot be regenerated

GUIDING VALUES OF NATURAL RESOURCE ACCOUNTING

Environment account must possess basic features of pertinence, reliability, and growth, expansion and practicality of the account. Firstly the account should have usefulness to the users along must aligned to their requirements. Reliability intends that at the time of describing the subject, the account would depict the desired information very adequately and effectively. Although the environmental accounts are well- grounded, pertinence and reliable, legitimacy is a different significant parameter to take into account while constituting NRA.

REVIEW OF LITERATURE

Institute of cost accounting of India review., (2021) suggested that There is an critical and demanding requirement to originate data on environmental assets (natural resources) along with its estimation in the terms of economics, in order to utilize data for proper formulation of policies and in this way it is easily possible to achieve the goal of sustainable development.

Carol .A. Tilt. (2016) concluded that there is no particular framework and even no particular potential factors are found out that determine CSR and there is a need to find out certain variables and factors on the basis of which CSR Reports should be made.

Athambawa Haleem et al., (2021) It states that while considering environmental accounting, the importance should be given to having an effective environmental accounting process which is based on the cause and effect link. High grade identification as well as imposing the costs associated environment, the system is obligatory.

Ahmet Tanc et al., (2015) states that in the organizations, the managers have only a basic idea regarding the approaches and concepts of NRA but unfortunately, they are lacking because of unavailability of sufficient data and they don't even know that how this concept can be applicable in the working of their organization.

Nikita Choudhary et al., (2019) proposed that to aid the action taken by the Government (including both state and central) in order to protect our natural habitat. Organizations also have to respect and acknowledge these practices and provide support to the Government with a honest spirit.

Yi'ang Qi et al., (2021) depicts that the systematic disclosure of the information related to environmental accounting demands the effective participation of several parties. Due to the delayed beginning of environment data disclosure in various developing nations around the world, their practical expedition will be at starting point as there is no such proper theories that guide them. Hence, there is a need that they should learn from other developed countries.

Manuel Castelo Branco et al., (2009) proposed that concern for considering the environmental impact of business organizations has been growing from the past few decades. almost every enterprise tries to engage themselves in practices related to corporate social responsibility and now a days it is linked to various factors such a protection of environment, safety at workplace, customer relationships etc.

RESEARCH GAP

There are severe gaps in our knowledge regarding various factors that are needed to be taken into consideration while calculating natural resources of a nation and also there is a lack of awareness among business enterprises regarding the concept and practices related to natural resource accounting as the business organizations are unaware about the fact that they bring this concept in their organizations.

On reviewing the literature it comes into light that most of the studies related to NRA or environmental accounting are conducted in well developed countries and hardly a few studies are initiated in India. The present study will be of significant Endeavour in articulating how the implementation of natural resource accounting disclosure practices by business organizations helps in sustainable use of natural assets.

RESEARCH METHODOLOGY

The writing of the research paper required in-depth study of concepts like natural resources, various laws pertaining to natural resources, sustainable development, accounting concepts. For this purpose, review of various research papers was done. Secondary data was collected from research papers, books, newspapers, articles, various Indian companies and their financial statements are thoroughly reviewed. These companies are randomly selected as per the convenience.

FINDINGS

The study reveals the following aspects of natural resource accounting:

ACCOUNTING OF RESOURCES INCLUDING IN THE ECONOMY- THAT ESTABLISHES CONNECTION IN THE ECONOMY AND THE ENVIRONMENT

The certainty of accounting process and procedures of standard accounting such as to investigate the jump in economy will be unsuccessful, so to justify the expenses of environmental of development, impoverishment of natural capital assets or degradation. The example: when any nation make use of countries natural resources in terms of trimming down forests for the construction of industries, abstraction of mineral ores to encourage the growth and success of the industries, also in order to extremely nurturing their farmlands by excessive use of fertilizers and pesticides along with over usage of groundwater. Conventionally the economic activity which is measured will portray overall growth as well as increase in Gross Domestic Product. Here, the major issue is that whether

that growth and expansion is attained sustainably. Due to omission in result NRA defined as concept of toning the revenues/incomes along with the expenditure (that includes natural assets/resources utilized), a fundamental accounting concept is not met. The basic accounting principle of accrual concept where the expenditure or expenses whether paid /not paid are considered in accounting so as to calculate the gross income is also disregarded. Moreover, various other principles such as principle of conservatism and full disclosure are also not fulfilled. As a result of all this NRA is considered as a method of indicating the interrelatedness among the nature and the economy for encouraging sustainable production within the economy.

ENVIRONMENTAL STRATEGIES AND LEGISLATIONS

The government organization (MoEFCC) liable for the every affair connected with the protection of environment as well as climate change and additionally, in charge of planning, promotion, implementation and coordination of programmes and policies related to environment. The following are major laws for environment protection:

1. The environment protection act of 1986
2. The water act of 1974
3. The air act of 1981
4. National environment policy of 2006
5. Mines and minerals act of 1957
6. The coal mines act of 2015
7. The land acquisition act of 1984

NRA IN INDIA

The purpose or rather the beliefs regarding the profound interrelationship among the human beings and the nature are a segment of Indian culture since the centuries. As Indian people worship rivers, trees, the sun, the moon and also some animals shows the inherent apathy with regard to the relation amongst people's wellbeing and assets and components of natural habitat. But unfortunately from the past few years this has been disappeared and it is seen that no one pays attention and even cares for natural resources. But over the time, at the global level including India recognized that the natural resources are being exploited at a high level and it is found that it is very important to use natural resources sustainably. The government of India has develop a consistent obligation towards the protection of environment as a important component of their development plans, along with that a major attention has been given to interrelations among poverty and degradation of environment. Concern for environment and requirement for clean, healthy and positive environment has attain encouragement and incitement in India since 1970 at that time various laws in regard to environment protection were framed and implemented. The initial action took place in 1990s in India on NRA as a group of

working technical was set up with regard to NRA. The

Major reports of CSO (central statistics office) are:

S.NO	Name of the report	Carried out by
1.	NRA on the basis of pollution-air and water (in regard to AP and HP)	Delhi-Institute of economic growth
2.	NRA of the land as well as forest (MP and HP)	Indian institute of management of forest (Bhopal)
3.	Environmental accounting of the land and the forest (In reference Meghalaya)	University of North east hill (In regard to Shillong)
4.	Natural Resource accounting of the solid waste, air and water pollution, waste in forests (in reference to Goa)	The action by Delhi for the development and Integrated research

SUSTAINABLE DEVELOPMENT GOALS

In the 70th session of the United Nations General Assembly, they took the resolution headed, "Transforming our world the 2030 agenda" for the sustainable development which consists of various goals and related targets which will help manage and organize development methods and actions for the Greater achievement in the wellbeing of humans and nature, while it leaves none behind by 2030. In the proceedings of the meeting, Government declared its resolution for the 2030 agenda and its goals of sustainable development. The objectives are to formulate the policies, procedure and the agenda to remove poverty and to protect our planet, to regulate peace and to promote prosperity. The government organization Niti Aayog is entrusted with the coordination

and to oversee the implementation of this 2030 project in India. It involves various Union territories and states by linking them with the vision of fulfilment of the objectives and goals of 2030 agenda. The strategic documents are being prepared and carried on and advices to the departments of the institutions are being evaluated. Pursuit of the sustainable development goals would indicate that the number of sustainable development goals these are linked to the Natural Sources but major of them link directly to the sustainable growth of natural resources. In the year 2018, Niti Aayog published a report that indicated status of goals of achievement of sustainable development. The report outlines the achievement of these goals.

GOALS	REGARDING THE GOAL
GOAL 1 (the priority is zero poverty)	First goal is to remove poverty in each part of world and in every form
GOAL 2 (the focus is on zero hunger)	Hunger must bring out to end and attain food security along with upgraded nourishment value and encourage feasible agronomy
GOAL 3 (the priority is on better health along with well being)	Make sure everyone is living a happy life and well being at all the stages should be promoted
GOAL 4 (the focus is on quality education)	Make sure overall and unbiased education and encourage long lasting learning chances for everyone
GOAL 5 (the priority is on gender equality)	Accomplish egalitarianism and women's activism
GOAL 6 (the focus is on clean water and sanitation)	Make sure accessibility and justifiable handling and control of water and hygiene for everyone
GOAL 7 (the priority is on affordable and clean energy)	Make sure the availability of reasonable and authentic sustainable and modern energy for everyone
GOAL 8 (the focus is on decent work and economic growth)	Encourage economic development in the country along with employment opportunities and job for everyone
GOAL 9 (the priority is on industry, innovation and infrastructure)	Generate accommodating economic development, encourage sustainable industrialization along with encourage modernization
GOAL 10 (the focus is on reduced inequality)	trim down discrimination inside and between nations
GOAL 11 (the priority is on sustainable cities and communities)	construct settlement among cities and human beings, and to make it comprehensive, flexible and sustainable

GOAL 12 (the focus is on responsible consumption and production)	To make spending certain and sustainable along with manufacture patterns
GOAL 13 (the priority is on climate action)	Initiate critical steps to fight environment changes along with its consequences
GOAL 14 (the focus is on life below water)	To preserve and feasible make utilization of the oceans, the seas and oceanic resources for economic growth
GOAL 15 (the priority is on life on land)	To look after, renovate and encourage feasible utilization of earthly ecological community , feasibly control forests, fight erosion, and bring to an end ecological harm
GOAL 16 (the focus is on peace and justice)	Encourage non-violent with wide-ranging societies for sustainable growth, make available admittance to fairness for each and every one and make efficient, answerable and comprehensive institutions at levels
GOAL 17 (the priority is on partnership to achieve goal)	reinforce the methods of execution and rejuvenate the universal corporation for sustainable expansion

LIMITATIONS

The major objective and scope of the study is oriented to a limit as it is natural resource accounting is a new concept, not all companies are aware of it, so studying this topic to gain deep and profound knowledge can't be possible.

1. Global standards are not formalized globally to make comparisons.
2. This study covers only the Indian perspective not the specific sector or companies.
3. Another limitation of the study is that because of shortage of time all the companies are not included.

CONCLUSION AND SUGGESTIONS

1. The government must make it mandatory for every business organization whether it is public or private to show natural assets in monetary terms. So that the proper record regarding stock of environmental assets should be maintained from beginning of the financial year till the end of financial year along with changes in the stock.
2. NRA cells should be developed in each state and even if possible such cells should be set up in every district to regularly monitor the inflows and outflows of natural assets within the state, interstate and between countries.
3. As some business organizations are not that much aware about NRA, they just basically know the term NRA and don't know how to implement that concept in real business world. So, the Government should have to take initiative to create awareness regarding NRA.
4. There must be some online portals where data related to NRA should be easily available to all the interested parties.

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