A GEOGRAPHICAL PERSPECTIVE OF RESOURCE MANAGEMENT AND ITS IMPLICATION FOR CONFLICT MANAGEMENT

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ABSTRACT

Most developing countries are endowed with abundant natural resources. Nature provides resources to human beings for their survival, which a resource manager needs to deepen their understanding on the definition of resource and its changing paradigm, dynamism and approaches in a specific social, cultural, and geographical ground. This paper aimed to arrange the fundamental concepts and knowledge about resource management. On the whole, resources were seen as natural gifts and this idea still remain valid till date. This work is based on exploratory review of the available published materials. It contains introduction, it talked of resource allocation and went on to classify resources, in the advancement of the field of resource management, and approaches to resource management. Conceptual arguments, the changing paradigm, evolving definition of resource, natural resource management and resource management, poverty and development linkages, and millennium development goals, the body of the text was concluded and followed by documents consulted.

Keywords: Environment, Geography, extraction and exploitation, and resource management

INTRODUCTION

The environment is the source of human livelihood that is either natural or man-made which takes shape through human skill, mind and power. Human beings through innate intelligence are able to sustain their continued existence through eking out the resources to meet their day-to-day needs. The needs that require to be satisfied are growing on daily basis and the question arises, on how and from where can human being sources and meets their resource needs bearing in mind that certain resource are flow while others are exhaustive in nature. The ever-increasing demand, with corresponding short in supply, relative to demand and the growing scarcity in extraction and exploitation, constitute a daily trend. These are issues which could determine the availability and utilization of resources. The process of living normal human life has continued to pile pressure in the surrounding environment and its carrying capacity. Another important aspect of resource management study is the level of skill and influence existing among the people and stakeholders that are directly involved in proper utilization and management of the resources. There is the issue of the diversity in affluence and welfare between and within countries that has increased. Still inherent in the development process, is that some groups are included and others are excluded. Therefore, processes of social inclusion and exclusion remain in the focus of development studies.

Therefore, the scope of resource management has to carry these issues and challenges for the better understanding and sustainability of future survival of human beings, and at the same time maintain the surrounding environment. According to Krishna Prasad Poudel (2012) there are two schools of thought; "one is oriented towards the people (human) centric contextual ground of discourse of 'resource' with a view towards the combination of opportunities provided by the nature as a resource base and the human demand, mind, skill, knowledge, culture, society and rules and regulations; and the second is concentrated on natural resources as a free gifted stocks and its management for regular exploitation". This paper therefore, aimed to arrange the fundamental concepts and knowledge about resource management. On the whole, resources were seen as natural gifts and this idea still remain valid

in the university curricula. Till date, University level resource management curriculum has been designed within the framework of natural resource management or can we say the management of free gifted stock of resources? In practice, the theoretical thrust of resource management is tilted towards both. It is often mixed with the social and the natural contextual ground. Poudel (2012) observed that the uni-directional natural resource management paradigm provides university graduates as well as resource managers no clear idea and they often are facing problems on identification of management issues and challenges; and are confusing to dig out the solutions. The philosophical maxim and thinking of conservative natural resource management have been changed and the emphases have been given more on the human or people centric viewpoints

Methodology

This work relied on review of widely published documents, reports, books, and website materials along with the experiential field studies and knowledge based on practical ground was used to bring discussion in this form. This work has a geographical perspective on the framework of people centric conceptual basis to explain the resource management to coalesce both nature and society. With this understanding, it will help resource manager to achieve sustainable development goals. The work has the following sub-heads: Introduction, conceptual argument, shifting paradigm, dynamism in the resource definition, natural resource management and resource management, and resource classification, evolution. The field of resource management, approaches, conclusion and followed by references.

Conceptual Argument

Our survival depends essentially on natural resources derived from the environment. These could be split into three main themes. An aspect relates the definitions of natural resources to the physical environment. For instance, they focused on biophysical processes of nature or the finiteness of stocks. A larger group of codes described natural resources as a dynamic concept, or even a social construct, dependent on its value in relation to human needs and wants. This view, namely, that "resources become" instead of that "resources are", was already elaborately

described in an industrious volume by E. W. Zimmermann in (1951). A more recent example of this view was provided by Cutter and Renwick (2004), when they argued that environmental cognition, "the mental process of making sense out of the environment that surrounds us", lies at the base of natural resources: "A resource does not exist without someone to use it. Resources are by their very nature human-centred. Different individuals or groups value resources differently". The largest group of codes described the intersection between these two views of natural resources, acknowledging both its provision by the natural environment and its value in relation to human activities. Andersen (2012), averred, that "natural resources exist independently of humans but are only identified as resources, and thus ascribed value, in relation to human activities". Our survival depends on lots of them as indispensable while the others are used to meet human wants. Today's world heavily depends on different natural resources to meet the demands of emergent industries. The common definition of natural resource finds acceptance naturally within environment that exists quite undisturbed by mankind or existing in a natural form. A natural resource is often set apart by amounts of biodiversity and geo-diversity existent in various ecosystems. The variety and quantity of uses of natural resources have increased at present to such an extent that was never found before in the history of mankind.

New requirements for various resources in modern society have increased the demand for them a thousand-fold and have woven them into combinations whose patterns are constantly changing. (Malla and Shrestha, 1983). Osawe (2016) noted that Resource war tries to explain the geopolitical implication of resource scarcity and the unresolved crisis, conflicts and war that the surge and demand for oil will become at this auspicious time of declining yield. Outside the boundary of natural resource definition, the dictionary meaning of resources is a concept employed to denote sources of human satisfaction and wealth or strength. Johnston, Gregory, and Smith (1986) stated that labour entrepreneurial skills, investment funds, fixed capital assets, technology and the cultural and physical attributes of an area may all be referred to as resources of a nation or region, company or household.

Berkes (2010) noted that the conventional notions of 'natural resources' and 'management' are problematic because of their history, and as such, they need to be reconceptualised. He suggests, that the term 'resource' carries a sense of 'free goods', with an idea of human centric use and co-m modification of nature. It can be revised to include the protection of ecosystem services for human well-being. Furthermore, he wrote that the conventional concepts of 'natural resources' and 'management' are problematic, if not obsolete, because of their history or the 'baggage' they carry. These two terms can be replaced or, perhaps more reasonably, be redefined in view of new perspectives and changing paradigms. Base on resilience thinking (resilience theory) which provides an entry point into the process of change, and is a recurring theme in the discussion of shifting perspectives in resource management. Hence, resilience can be used as the conceptual basis of such a redefinition.

Resource Allocation

Resource allocation is the spatial and temporal placing use of resource in a pattern that reflects the goals, priorities and aspirations of a community including their future generation in a source friendly approach. In resource management it is projected that such resource allocation pattern does not result in unnecessary detrimental effects in the biophysical and socioeconomic systems. Rather, it should allow resource allocation to be regulated by combination of and compromising in social, cultural, economic, ecological and institutional processes (Omara-Ojungu, 1992).

In the Western societies, George Perkins Marsh in Vermont, USA, has noticed this scenario as early as1864. He has mentioned that "Man is everywhere a disturbing agent. Wherever he plants his foot, the harmonies of nature are turned to discords. Man has subverted the balance of nature" (Marsh1864 reprinted 1964). However, in the developing countries, environmental deterioration is the order of the day because the ill management of resources has been realized after the late 1960s. Basically, this situation occurred due to post-colonial development in economic growth (Omara-Ojungu, 1992).

General Characteristic of Natural Resources

According to Osawe (2017) there are two categories of natural resources, namely, renewable and non-renewable. Non-renewable resources include the minerals, and rocks these are stock with a more or less finite initial endowment that are capable of being depleted over time. They can further be divided into four, namely (a) materials from which metal are extracted; (b) materials used for their intrinsic chemical or property value; (c) material of their distinct aggregate physical value such as gemstones or those used for building material and lastly (d) material used for generating energy (Harris and Skinner, 1982). It (a) and (d) is possible subject of depletion and caution must be exercised to achieving sustainable resource use. The second category, 'renewable' are called flow resources because the can be easily recharge within short and possible time. However, this category of resources can further be classified as those capable of being reduce d or removed by human activities or action and those that cannot. Examples in the two categories are; biological resources, atmosphere and the second category are tides. Most of these resources are highly mobile and this has rendered the management a difficult **t**ask. Natural resources can further be classified on the basis of origin, and may be divided into two namely; Biotic and Abiotic. Biotic resources are obtained from the biosphere, such as plants and their products, animals, birds and their products, fish, other marine organisms and mineral fuels such as coal and petroleum. On the other hand, Abiotic resources include non-living things. Examples include land, water, air and minerals including ores such as gold, iron, copper, silver etc. Considering their stage of development, natural resources may be referred to in the following ways: Potential Resources, Actual Resources, Reserve Resources, Stock Resources. With respect to renewability, natural resources can be categorized as follows; Renewable resources, Non-renewable resources, Inexhaustible natural resources, Exhaustible natural resources, Ubiquitous resources and Localized resources.

Approaches Natural Resource Management

The models and approaches depend upon the contextual basis. At a broad level, resource management studies take the physical environments one basic departure point, the human attribute as the other and the controls on the interaction between the physical and human attributes. The physical attribute is discussed under the ecological approach, the controls under the economic and technological and the human attributes under the ethnological approach (Omara-Ojungu, 1992, Thakur, 2003;Mitchell, 2003).With a view to resource utilization, management and the adaptive practices, management entertained through the understanding of population as a demand side, natural resources as a supply side and\ physical, bio-physical, social, economic, cultural, rules, regulation and other external influences under the limiting factors. All these factors have to be integrated and follow a holistic approach of resource management (Poudel, 2001, 2003).

Changing Paradigm in Resource Management

Since the dawn of human civilization, resources were used and viewed and considered in broad spectrum of the man environmental interrelationship. In the early days of human history, man perceived nature to control human activities. Human activities were just to use the responses of whatsoever is provided by the environment. Nature's control over human action was strongly accepted. In the same way, extraction and utilization of resources was determined according to the nature's limitation. These are worthwhile and necessary actions that represent real or actual progress towards an ecologically sustainable economy (Freedman, 2018; Fakudu, 2014); They played a significant role in the development of environmental determinism movement.

Hunting, food gathering and early day's farming were the major sources of resource to survive. That was also defined as 'deterministic' or 'determinism 'relationship of man and environment. According to this dictum, the nature controls the human activities and (Harden, 2009) in providing a definition of environmental determinism on the relationship between humans and environment. Onal (2018) noted that throughout the history of science of

geography many ideas were generated to explain human-environment relationship. Among this environmental determinism has been one of the much-discussed ideas since its birth. Though some geographers defend the constructive and destructive power of man in human-environment interaction, some others asserted that the environment controls human activities (Tumertckin, 1990). This was the philosophical paradigm. Gradually, with time, man achieved accomplishment over the nature's law and control. Man gained the capability to modify the determinants of the nature. Poudel (2012) noted that early days of industrial revolution have given more emphasis on high yield production system, large quantities of mineral exploration and extraction of resource in a scale of abundance. At another stage, man thought on control over nature. This was the period perceived as 'possibilism' in man's environment relationship. Steadily, forest and its resources degraded and destroyed; similarly, a number of mines have been exhausted. However, the renewable resources were not renewed through period of extraction. The common thinking was that nature gives opportunity to human being but the nature's law to control the resources is still active.

The notion of infinite sources of natural resources has been changed to perceive depletion. A number of renewable resources require managing according to their restock time period. The harmony of man-environment interrelationship is accepted only after the proper management of resources provided by the nature. The interactive interrelationship between man and environment has been perceived for the sustainable future of human being.

Resource economist, Judith Rees (1990) has clarified the term 'resources' on the theoretical recording made available by Zimmermann as 'an aid or means of support to the human species. She went further to state that resources can only be evaluated through the values their users attribute them' (Rees, 1990). Resources are never inert but expand and contract in response to human wants and action. She further opined that the ideas on what constitutes resources have altered dramatically overtime, in response to growing knowledge, technical upgrading and cultural developments which have altered perceived needs' (Rees, 1990). Similarly, Omara-Ojungu (1992) stress on changing nature of material resources with

respect to time and knowledge of the society. He clarifies that a neutral material to one culture at one time may become a resource in the same culture at another time. He further stated that resource cannot be taken as physical object but shoes the functional relationship that exists "between people's wants, action, knowledge, attitudes, values, aspirations towards the worth of an environment". Therefore, within this theoretical background, resource and material are two different conditions. Firstly, nature provides material and secondly, that the human action, knowledge, skill, attitudes; values change the material to add value that satisfy human wants that is constantly dynamic. This dynamism in resources is not just in response to increased knowledge, improved arts, expanding science, but also to response to varying individual wants and social objectives. Consequently, resources are defined as means of achieving a given ends, i.e. individual wants and social objectives. That is, they derive their meaning from the ends they serve. This philosophical thread can be linked with the human civilization and changing definition of resources (Poudel 2012).

It can be noted that human civilization altering the phases of hunting, gathering, agriculture and industry and increasingly the definition of resources are equally changing along the social and cultural trend. In as much as human beings continue to ascend to higher culture levels, culture will remain an increasingly important as the dynamic force in the creation of resources. This is certainly because human culture rests physically on reality at all times and it is the physical environment that evaluates both quantitative and qualitative view of the changing relationships of trends and forces not the static conditions.

Evolving Definition of Resource

The meaning of natural resources has continued to evolve over the years. Nevertheless, the nature of this change has been characterised by divergences in disciplinary conceptualizations of the meaning of resources. Different Schools of thought such as ecology, sociology and environmental science define natural resources from each of the disciplinary perspectives. From perspective of sociology and economics, natural resources are viewed from a humanistic and purely economic sense. Such definitions consider natural resources as material sources of

wealth such as timber, mineral deposits, or water that occur in a natural state. Such materialistic definitions also embrace an economic perspective. The history of resource use to date has been one of continuous discoveries, with an ever-widening definition of the resource base as follow:

1. Paleolithic man – perceived few resources –naturally available plants, animals, water, wood and stone.
2. The Neolithic man – primitive food gathering to primitive farming and subsequent introduction to some metal-based technologies.
3. Modern man – has different forms of activities and resources. The definition of resource may vary with time, and space. As repeating the above-mentioned sentence written by Omara-Ojungu (1992) 'neutral stuff' to one culture at one time may become a resource in the same culture at some other time.

Natural Resource Management, Resource Management, Poverty and Development Linkages

Natural resource management has been defined as a systematic, scientific and standard that forms a basis for *sustainable* management (conservation and use) and governance of natural resources such as land, *water, soil, plants and animals*, with a precise focus on how the management affects *the quality of life* for both present and future generations (also see *Sanginga, Ochola and Bekalo, 2010).* Scholars have widely documented those natural resources contribute significantly to development in variety of ways such as: an economic activity and source of growth; as a livelihood, a source of employment for people; and as a provider of environmental services capable of both good and bad outcomes (NEPAD, 2003; Comim *et al*., 2009; Khan, 2008; IAASTD, 2009; Chowdhury and Ahmed, 2010).

Natural Resource Management and the Millennium Development Goals

The year 2000, was a landmark for the United Nations (UN) when the eight (8) Millennium Development Goals (MDGs) were adopted, as the broad comprehensive and specific development goals the UN set for the world to achieve by 2015. They provide a framework for the entire international community to work together towards a common end – making sure

that human development reaches everyone, everywhere in the world. The MDGs were both global and local, that was customized by each country to suit their specific development needs and aspirations. There is a specific MDG focusing on environmental sustainability (MDG7) that advocates for the integration of the principles of sustainable development into country policies and programmes aimed to reverse the loss of environmental resources. MDG 7 was directly linked and was critical to the attainment of all other goals. It can be succinctly observed that sustainable management of natural resources can contributes to poverty alleviation, helps reduce diseases and child mortality, improves maternal health, and can contribute to gender equality and universal education. Non-sustainable use of natural resources, including land, water, forests and fisheries, can threaten individual livelihoods as well as local, national and international economies. The environment can play a significant role in contributing to development and human well-being. It can as well increase human vulnerability, causing human migration, insecurity and other health effects on the populace. This was what informs UNEP to observe that Environmental scarcity can foster cooperation, but can also contribute to tensions or conflicts (UNEP, 2007).

The natural resource management stress on sustainability and this can be traced back to an early attempt to understand the ecological nature of American rangelands in the late 19th century, and the resource conservation movement of that time. This analysis coalesced in the 20th century with recognition that preservationist conservation strategies had not been effective in halting the decline of natural resources. This resulted in an integrated approach that was implemented recognizing the intertwined social, cultural, economic and political aspects of resource management. This was translated to a holistic, even globally accepted an all-encompassing and culminating in the Brundtland Commission that champion's advocacy of sustainable development. Today, the most active areas of natural resource management are Wildlife management often associated with Eco-tourism and Rangeland (pastures) management.

Resource management

Resource management is concerned with allocation and distribution of resources and biophysical and socioeconomic milieu in which resources are or ought to be developed. Such resource allocation patterns do not result in unnecessary harmful effects in the biophysical and socioeconomic systems. Omara-Ojungu(1992) advocates that resource allocation should therefore influence the production, consumption and distribution of resources in a direction consistent with the local, regional or national development objectives. This, to him would involves controls on the amount, quantity, timing, availability and the general direction of resource development. Resource management strategies are designed to promote exploitation, enhancement and restoration of resources. On the other hand, O'Riordan (1971 cited in Omaro-Ojungu, 1992) resource management 'may be defined as a process of decision-making whereby resources are allocated over space and time according to the needs, aspirations, and desires of man within the framework of his legal and administrative framework'. When resources are deployed in accordance with the needs, aspiration of the people within the areas of resource location, it impacts positively in their livelihoods.

Resources management examines strategies and technologies for resource development in order to sustain economic growth without hampering the environment. To Mitchell (1989) 'resource development represents the actual exploitation or use of resource during the transformation of neutral stuff into a commodity or service to serve human needs and aspirations. The issues of management are closely related with the conservation of the existing resource available. However, Omara-Ojungu (1992) observes that resource conservation and resource management have substantial differences. The term conservation retains an implicit streak or undertone of 'no use'(preservation), thus causing the misunderstanding that conservation advocates no growth. In contrast, resource management is a more comprehensive and positive term. In the latest literature the term conservation is slightly using in liberal tone and is also deviated from the preservation in practice (Berket, 2010). The issues of management are closely related with the conservation of existing

resources. Malla (1998) is of the views that: "it is to be reiterated that conservation relate to the utilization of resources in a way that guarantees their benefit for all. The purpose of conservation has elements of sustainability that is to enable not only ourselves today, but also our grandsons and great-g-grandsons to have same in future.
So we should take proper inventory of the resource available and keep them well protected and use them skillfully, judiciously and carefully. Human beings who are born to die after living a short while on this earth does not possess any right whatsoever to destroy ruthlessly the resources which are meant for human welfare forever."In a resource management context, the term is reserved for substances, organisms and properties of the physical environment i.e. natural resources. Human beings in their respective environment assess natural systems, in terms of resources for those elements to which they have the know-how and technology to make use of and which provide desired goods and services to them. Those natural resources that fail to meet the quality of these set criteria have no accepted value.

CONCLUSION

We can conclude by the assertion that environmental cognition, "the mental process of making sense out of the environment that surrounds us", lies at the base of natural resources: "A resource does not exist without someone to use it. Resources are by their very nature human-centred. Different individuals or groups value resources differently". The largest group of codes described the intersection between these two views of natural resources, acknowledging both its provision by the natural environment and its value in relation to human activities. The way and degree of understanding resources by the local people and availability of natural stuffs (stock) over the specific geographical territory are two different aspects to integrate by a resource manager. A resource manager has to carry responsibilities of understanding people, resource and the limiting factors of space within an interactive framework. Efforts to sustainably manage natural resources and increase pliability of livelihoods to threats and crises will contribute to sustainable development in developing countries. All these efforts will rely

on the management capacity of institutions and on co-ordination and governance mechanisms established to develop and implement judicial, legal and regulatory frameworks.

The importance of establishing policies and policy instruments that facilitates the involvement of the social, economic and environmental sectors and institutions in planning development and in preparing an agenda of institutional strengthening and capacity building resident at regional, national and local levels will be effective. Partnerships for building regional and national systems for natural resources management and adapting to climate change: The policy and institutional dimensions of natural resources management should focus on building regional and nationwide systems that are able to equitably sustain and multiply the benefits of good practices of natural resources management and resilience building in the interest of all members.

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