

THE PLACE OF FOREST AND ECOTOURISM IN THE ECONOMIC DEVELOPMENT OF NIGERIA

FUNMILAYO, O.A (MRS)
DEPARTMENT OF GEOGRAPHY
ADEYEMI COLLEGE OF EDUCATION
ONDO, NIGERIA
olukemiolabode@yahoo.com

Abstract

The study examines the state of Nigeria forests; it identifies deforestation as a major threat to sustainable forest management. It also highlights the environmental roles of forest as well as the resources found there. It further examines how some of these ecological functions of forest resources can be harnessed and utilized to bring about improved economy. The study examines ecotourism as a means of boosting the economy of the nation and also suggest some conservation strategies like biodiversity protection through the establishment of forest reserves which will bring about sustainable forest management for economic development. Finally, the paper recommended that there should be development of the ecotourism industry as well as the preservation of bio-diversity by establishing more forest reserves where the exploitation of all forms of forest resources are prohibited.

Keywords: ecotourism, NTFPs, sustainability, economic development, forest management.

1. Introduction

Forests ecosystem management have received much attention in development and environmental issues within the last decades, due to their role in biodiversity conservation, climate change mitigation and livelihood support to natural resource dependent communities [1]. Nigeria lies within the tropical rain forest which is the largest biomass on the planet and home to the majority of animals and plant species. The biodiversity of forest ecosystems is rich in plants and animal species that sustain humanity. Forests and the goods and services they provide are essential for human well-being. It is quite unfortunate that a lot of these forests with all their vital resources are fast disappearing, shrinking alarmingly as a result of deforestation [2].

The tourism sector in Nigeria is rudimentary and not well explored due mainly to the high technical manpower requirement and neglect from successive governments over the years. Essentially, tourism can have profound impact on the society, economy and environment. On the global scale, tourism is recognized as one of the veritable weapons that can assist underdeveloped countries to achieve the 2015 anti-poverty Millennium Development Goals (MDGs). Tourism is the only service industry where there is a positive balance of trade flows from first world to third world countries [3].

Nigeria is endowed with huge natural resources which provide sustenance and foundation for her social and economic development. Unfortunately, these natural resources especially forests resources are misused due to ignorance, poverty, overpopulation and greed [4]. This has led to series of environmental degradation in the form of soil, air and water pollution, and the degradation of land and plantation vegetation.

2. Deforestation in Nigeria

Deforestation is the clearing of forested land either for agricultural purposes, for logging and for use as firewood without replacement [5]. Nigeria's total land area of 923,773km² is richly endowed with abundant and diverse resources both renewable and non-renewable [6]. It has a population of about 150,000,000 which is estimated to grow at about 2.5% per annum [7]. The mineral wealth of the country is vast and should enable it to establish a firm industrial base for rapid economic development but unfortunately these minerals are not adequately harnessed as a result of the oil exploration in the nation. The environment provides all life support systems in the air, water and on land as the materials for fulfilling all developmental aspirations. The mangrove and rainforest of the south and the savannahs and semi-arid ecosystems of the north are potentials for development yet; this important and valuable resource is not sustainably used or managed. The current pace of environmental change is prompted partly by poverty and a large population which continues to grow at an alarming proportion [8]. The Nigerian environment today is faced with many problems, arising from the impacts of human activities and natural phenomenon.

Nigeria has the highest rate of deforestation of primary forests between 2000 and 2005 [9]. Nigeria has lost 55.7% of its forest at an annual rate of 3.5% [10] and between 1990 and 2010, it has nearly lost half of her forest cover, decreasing from 17,234 to 9,041 hectares [11].

The world's natural forests are experiencing land use change due to both direct and indirect causes. The direct causes include fundamental human activities, occupation in the form of agriculture, which is the conversion of forested land for agricultural and cattle raising, and the need for increase in food production. Urbanization and industrialization as well as wood extraction in the form of commercial timber, electric poles, fuel wood and charcoal and forest fire among others. The indirect causes also include poverty, absence of good governance, unsustainable consumption pattern and lack of appreciation for the non-economic values of forests to mention but a few [5].

About 65% of Nigeria's population lives in the rural area [7] which shows that majority of them rely on fuel wood as source of energy mainly for cooking. The usage of wood for cooking is higher in rural areas of the country where more of the population is concentrated [12]. 90% of Nigerian population was said to rely on kerosene as the main source of energy for cooking but because it is expensive and often unavailable, 60% of them use fuel wood instead. This coupled with illegal logging activities accounted for the high rate of deforestation in the country. The rural dwellers also see forest as a source of income, hence, the forest continue to shrink.

The loss of forest leads to a decrease in the rate at which groundwater is replenished and can even cause a decrease in local rainfall. A drop in the water level may subsequently lead to the death of plants with shallow root systems, particularly young trees. This and other chain of events associated with forest degradation can have devastating impacts on both local and regional economy.

3. Forest Roles in Economic Development

Development can be seen as a justifiable utilization of local resources for improved living condition of all and sundry in a community, state or nation. This means that development is for the people and it involves exploitation of natural resources [13]. The livelihood of more than half of economically active population in the developing world like Nigeria directly depends in whole or partly on the environment through agriculture as well as animal husbandry, hunting, fishing, forestry and foraging. This is the foundation of the Seventh Millennium Development Goal: to "ensure environmental sustainability" because environmental quality affects, and is affected by economic development [14]. A nation endowed with large and diverse forest resources has considerable potentials with respect to economic development. This is because such resources are abundantly available to be utilized. Therefore, development in Nigeria depends strongly on awareness and understanding of the extent and nature of the endowed forest resource as well as the method of exploitation.

Forests play fundamental roles in the basic functioning of the planet earth. They generally contribute actively to the world's environmental stability and are used as economic resources to produce subsistence and industrial products. They have both cultural and recreational values. Forests provide many ecological and social functions among which are:

1. It reduces the amount of rain water which runs down the slope thereby reducing siltation and increasing the amount which percolates deep down into the soil.
2. The forests and woodlands of the tropics are rich sources of edible and medicinal plants, shelter, fibers, bushmeat, honey and nuts are also gotten from the forests.
3. Provision of commercial products ranging from construction, timber, furniture, paper and firewood [15].
4. They prevent increase in green house effect that contributes to global warming by absorbing carbondioxide. They are climate regulators [16; 17].
5. Provision of field for scientific research and for tourism. They offer recreation for urban dwellers.
6. They are direct sources of energy or its raw materials like charcoal and fuel wood.
7. Sources of employment in the labour intensive industries such as sawmills, plymills, industrial and residential constructions and in furniture manufacturing.

4. Non-Timber Forest Products and Economic Development (NTFPs)

Non-timber forest products (NTFPs) are goods of biological origin other than timber derived from the forest or associated ecosystems, which are, consumed either directly as food, drugs or medicine or which contribute non-consumptive values to human welfare [18]. People worldwide depend on NTFPs for nutritional, medicinal and cultural purposes. NTFPs also serve as a source of income and safety nets in periods of shortages or poor harvests of main crops [19]. They also provide security to a lot of people in form of building materials, food and fuels. These non-timber forest resources include fuelwood and charcoal and wood used for tools, carving and other household purposes; they also include livestock fodder, gums, resins, honey, fruits, nuts, tubers, mushrooms, spices, fish, wild meat and other wild foods, plants and oils for pharmaceuticals and cosmetic products, as well as rattans and bamboos [20;21;22;23;1].

Since the early 1990s the role of NTFPs for sustainable forest use and poverty alleviation has received increased attention [24].The socio-economic importance and the value of NTFPs in the economics of tropical countries are now well recognized [25; 22]. In almost all tropical countries, the collection of NTFPs is a major economic activity [26; 27; 28; 29] and about 500 million people living in or near forests being depended upon them for meeting their livelihood needs [30].

5. Ecotourism in Nigeria

Tourism has direct, indirect and induced impacts on economic development [31] and the industry is one of the most crucial tradable sectors in the world. A subset of tourism is ecotourism. It is referred to as nature tourism that contributes to conservation, through generating funds for protected areas, creating employment opportunities for local communities and offering environmental education [32]. It is also seen as a type of tourism that involves travelling to relatively undisturbed natural areas with the objective of admiring, studying and enjoying the scenery and its wild plants and animals as well as any cultural features found there. This implies that for any successful ecotourism to take place there must be a reserved area where there are undomesticated and untamed wild animals and uncultivated wild plants. Ecotourism or wildlife based tourism is nature-based tourism that involves education on and interpretation of the natural environment. It is one of the types of tourism that can help to boost the tourism industry and enrich Nigeria economy if sustainably managed. Nigeria is known to have many ecotourism potentials, which unfortunately are yet to be harnessed for generating employment opportunities and foreign exchange. As at 1960, Nigeria had 1,129 forest reserves. These reserves have abundant flora and fauna like drill monkeys, elephants etc [33]. Various plant communities in the tropics support a wide range of wildlife which includes herbivores and carnivores such as monkeys, leopard, and cheetah etc [17]. Wildlife provides sources of protein and also fetches the rural dwellers cash from the sale of forest products. Game reserves in the northern part of the country are also areas crying for development. However the country still lacks facilities and efficient means to develop many sites for tourism [35].

Protected areas in Nigeria that can boost ecotourism are the national parks controlled and financed by the federal government and the game reserves controlled and financed by the state governments. Nigeria has 32 gazetted game reserves and 6 national parks [36]. There are other additional two national parks as confirmed by [37].

Wildlife is a national asset that is expected to contribute in one way or the other to the National economy; unfortunately, it remains largely underdeveloped in Nigeria. The country is not getting its fair share of the world ecotourism market due to the following reasons as put forward by [38].

- (i) lack of international awareness on Nigeria's cultural and natural resources
- (ii) inadequate infrastructural facilities like lodging, catering, camping grounds, roads, and others.
- (iii) poor reception at points of entry
- (iv) lack of security
- (v) lack of political stability and continuity and so on

Wildlife-based tourism is an irreplaceable national heritage which can be harnessed for the transformation of the rural areas into model towns; through the provision of revenue and infrastructure for accelerated rural development. If national parks and other equivalent reserves are developed, they can help to transform rural areas into centres of attraction and generate revenue in foreign exchange. When forests are conserved, wildlife resources are also conserved and economy is improved

6. Sustainable Forest Management

Forest management is becoming a global issue as there is need to conserve our natural resources and the balance of nature from climate change which has become a new reality. Trees must be managed to meet their fullest potential. They are valuable source of resources for plants, animals and humans. Some people tend to take too much from the forest thereby reducing its chances for the future. Sustainability means that a resource is used in such a way that it continues to be available even for generations yet unborn. It is a general consensus that we must learn how to sustain our environmental resources including forest so that they continue to provide benefits for the people and other living things on our planet [13]. As an Ecosystem, the tropical forest constitutes Earth's largest single terrestrial reservoir of biodiversity. Many tropical forestry experts agree that it will be impossible to sustain tropical forests over the long term without the establishment and enforcement of appropriate government policies [39].

In advanced countries, most forests are managed but in developing countries like Nigeria, relatively few forests are formally managed [13]. Much timber production in Nigeria still comes from natural forest. The organized forest management is the Teak (*tectona grandis*) plantations in the South West which have been bastardized by the military administrators of these states in the 90s. Forest management comprises activities to serve the long-term protection of the environmental services of a forest notably its biological diversity, soil conservation, watershed regulation, and climatic regulation [13]. It also encompasses the biological basis for forest production. Sustainable forest management entails balancing today's needs with those of future generations. This implies a greater role of foresters in broader land-use decision-making as well as more participation of non-forestry interest groups in setting the objectives of forest management.

Traditional forest management systems in many forest areas have sustained the yields of many products over centuries, such as myths ("Igbo Oro"). Places that are reserved for religious purposes like sacred grooves are no more

what they used to be. Many of these areas are now under economic pressure and deforestation is increasing [13]. Therefore it is necessary to adopt activities such as planning and monitoring; site quality assessment; forest stocks and growth measurement; forest plan; preparation; road and infrastructure provision; soil and water management to prepare and improve the site; silviculture (the tending of woodland) to alter stock characteristics (tending, thinning out, felling regenerating, or planting trees, and fertilization; to result in stand of desired species, age and size composition); harvesting operations; yield control measures to keep output at sustained levels; and protection from pests, diseases, fine and extreme climatic events. For proper sustainable forest management to be achieved there is the need for proper harvesting methods ranging from removal of all trees, (clear cutting) to removal of selected mature trees (Selection cutting), and provision for reproduction, either naturally from seed trees or artificially by planting. The rate and frequency of any cutting should aim for sustained production over an indefinite period.

7. Conclusion

Today's world is facing an unprecedented environmental crisis of which deforestation is a typical example. The world is losing its forests at an alarming rate. All over the globe, many people now suffer from the destructive process that deprive them of the benefits from the natural resources on which they have always sustained their livelihood. Indeed, the forest is shrinking faster than we ever thought and considering the rate at which trees are chopped down without regeneration efforts, all the forests will disappear in a short distant time, hence the need for reforestation. To achieve the green economy and long-term sustainability, human society has to adapt to living within the constraints of the global life support capacity that ecosystems provide [40]. The environmental implication of losing the forest resources such as its potential influence on surface albedo, reduction of timber and firewood therefore calls for rapid action in order to conserve the forest. For every single tree cut, three trees should be planted in its replacement. Premium should be placed on ecotourism in Nigeria since it serves a dual purpose of conserving the forests as well as its wildlife found therein. This will invariably brings development to the source region and also increase the revenue generated as a result of constant patronage. There are prospects for increased revenue generation through tourism in Nigeria. Economically, tourism brings many benefits to both the government and private sector through the generation of foreign revenue, financial returns on investment, taxation on tourist and tourist products, as well as linkages to other local industries such as agriculture and fisheries.

8. Recommendation

It is recommended that Governments in Nigeria should implement and enforce integrated holistic policies to change unsustainable production and consumption patterns of tropical timber since it can be harvested without doing permanent damage to the diversity of life. Social, cultural and ecological values of forest should be fully integrated in the management of forests resources. Strict application of laws for the protection of forests in the country should be enforced. Pharmaceutical companies should work on processing of NTFPs medicinal plants to make it more available in a refined, less chemical and natural form. More awareness should be made about utilization of some NTFPs as food for their nutritional and medicinal values especially. Preservation of biodiversity by establishing more forest reserves, national parks and game reserves will be a good approach to help in preserving the natural plant communities from total disappearance. To boost ecotourism in Nigeria, there should be adequate publicity through mass media such as the radio, television, flyers, dailies and other avenues of getting information across to people even in the local languages and dialects, development of standard infrastructures like lodging, good roads, water and others. Adequate security should be put in place. Re-orientation of our value system to include the habit and culture of recreation and appreciation of nature. This will encourage domestic tourism among Nigerians.

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