# **Climate Change**

# Building entrepreneurial capacities through forest management

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# **ABSTRACT**

Entrepreneurial capacity building is an integral part of the economic growth in a developing country particularly in Nigeria, where economic recession now takes a great toll. However, Nigerians have adopted a number of strategies in combating this menace in a view to sustaining National development. This paper therefore reviews forest management as `one of the adopted means by which self reliance can be built in order to alleviate this pressing economic stagnation.

Keywords: Entrepreneurship; forest management; building

#### 1. INTRODUCTION

Many researchers on the concept of Entrepreneurship have adduced a number of definitions. Hisrich and Peter (1995) defined entrepreneurship as the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, physical and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence.

According to Nwafor (2007) entrepreneurship is the willingness and ability of an individual to seek out investment opportunities in an environment and be able to establish and run an enterprise successfully based on the identified opportunities.

It includes creativity, innovation and risk taking as well as the ability to plan and manage projects in order to achieve objectives.

This supports everyone in day-to-day life at home and in society and it also provides a foundation for entrepreneurs establishing a social or commercial activity.

Entrepreneurship is attractive and rewarding due to the freedom and independence associated with it. It gives opportunity to utilize one's potential and brings self fulfillment and economic power. Entrepreneurs are their own bosses. They make decisions and choose whom to do business with and what work they will do.

They offer a great possibility of achieving significant rewards than working for someone else. An individual's perception of feasibility of entrepreneurship is related to an individual's perception of available resources e.g, knowledge, money, etc.

Nigerians have adopted various means of building their entrepreneurial capacities in the past and especially in the present era of economic meltdown in the country where everyone is struggling to be self-reliant and independent.

However, one of the major means by what Nigerians can build up their entrepreneurial capacities is through forest management.

#### 2. FORESTS

The forest is a fundamental and vital ecosystem that vary widely in their tree species composition (Suryanarayana et al. 2015), biological productivity as well their potential as sources of timber.

Nigerians as a country which is reputed for its high quality forest products has tropical vegetation composed of forest and savanna (Afunmilayo, 2016).

Nigeria has a land area of 983,213 km² and about one third of this was classified as forest. The Nigerian tropical forest estate covers a total area of 96,518 km² which represents only 27% of the total forest cover and approximately 10% of the total land area. The total area of plantations in Nigeria was estimated to be 2,160 km² while natural forests with varying decrease of disturbance appear to make 98% of the reserved forest area. The forest is enormously viewed as stands of merchantable trees rather than as an interdependent, high diversity ecosystem of potential multiple values (Panayotou and Ashton, 1992; Kasahun Kitila Hunde, 2015). This is actually attributable to reasons why various non timber forest products are undervalued than the timber resources (Mesike, 2016).

Non-timber forest products include honey, chewing stick, edible fruits, sponges, vegetables, gum, medicinal plants

# 3. IMPORTANT ATTRIBUTES OF OUR FORESTS

Forests and the resources they produce play a vital role in the development of Nigeria in all ramifications that is socially, economically, scientifically and even in the industrial sectors.

Traditional roles of forest include; the production of timbers and non-timber resources as well as producing water. Since the last two decades, the other uses and roles of forest have become significant. These include the use of forest as resources for education, recreation and roles of forest in conservation of biological diversity as well as in maintaining global climate, since forest are accepted globally as sinks and sources of CO<sub>2</sub> which is important in global warming. Forest is also important for erosion prevention, water shed protection, soil stability and fertility and habitat for animals. Forest equally provide insurance against drought and crop failure: providing an asset which can be liquidated during hard times, diversifying crop production as well as spreading harvest across the seasons (Longman and Jenik, 1987; FAO, 1997).

According to Kamugisha *et al.*, (1997) and Kaisha (1993) households use the forests in many ways: traditions and rituals e.g circumcision; subsistence e.g, wood fuel, watershed, building materials, vines and fibres, wild fruits and vegetables, pharmaceutical, thatching grass e.t.c; cash earning on a commercial scale e.g sophisticated form of illegal extraction of forest resources like timber that is poaching, Kailsha (1993) observed that forests are socially, economically and environmentally important especially tropical forest which serves as home to at least two thirds of the world's living organisms (some three million species). He said forest plays an important role in the economy of many countries but forest resources are at great risk because of severe exploitations. Furthermore, forests contribute to industrial development because, they are the sources of raw materials for urban and rural industries and are essential for agricultural productivity. Wood the major component of trees is a versatile material. It possesses many characteristics which make it useful as a raw material for the production of timber, veneer, plywood, particle board, furniture, pulp and paper.

Nigeria had at one time 1349 sawmills, 10 veneers and plywood mills, 4 particle board mills, 3 pulp and paper mills, 7 match splint factories and 6 wood and pole treatment plant (FAO 2005).

Forestry, through formal and informal forest industries, provides employment opportunities for skilled, semi-skilled and unskilled workers. These include; carpenters and manufacturers and marketers of timber products and non-timber forest products.

It also contributes to infrastructural development in the sense that most of the forest roads created by early loggers were subsequently used by farmers and villagers to evacuate their farm produce. Most of these forest roads eventually become highways in the country in the nearest future, for example, the Benin-ore highway was originally a forest road.

Furthermore, about 90% of the energy used for domestic purposes in Nigeria is derived from fuelwood (FAO 2005). 80% of Nigerians in rural area rely on fuelwood as the major source of energy because other sources of energy are too costly and at times not readily available.

# 4. CHALLENGES FACING THE NIGERIAN FOREST

Nigeria is blessed with a large expanse of land and variable vegetations, but these important resources are not sustainably used or managed. Many rural dwellers in the past have treated our forest resources as if they were inexhaustible; though today it is a different story as poverty continues to force people to exploit the relics of the remaining forests.

The degradation, fragmentation and conversion of forest ecosystems worldwide is progressing rapidly (Abramovitz 1998). FAO (2005) estimates that 10.4 million of tropical forests were permanently destroyed each year, from 2000 to 2005. Among primary forests, annual deforestation rose to 6.26 million ha from 5.41 million ha in the same period with primary forest being replaced by less biodiverse plantations and secondary forests. In 1980s, demands for forest products in Nigeria especially timber became insatiably high as a result of increasing human population pressure and economic growth. This led to unregulated forest exploitation, resulting in degradation of the forest resources in the country (Ezebilo, 2004). The FAO (2005) estimates that Nigeria destroys about 600,000 ha of her natural forest every year through careless exploitation of fuel woods, logging, shifting cultivation and slash and burn agriculture. These human activities result in degradation and deforestation of forest and forest reserves. Population growth, intensive harvesting of forest for fuelwood and bush burning have also been important causes of forest depletions. The ongoing degradation of our forest has resulted in biodiversity loss, deforestation, decline in non-timber forest product and destabilization of rural communities.

# 5. THE NEED FOR SUSTAINABLE FOREST MANAGEMENT

According to Jordan et al. (1992), "Sustainable development" is a phrase popularized by Our Common Future in a report in 1987 from The United Nation Commission on The Environment and Development. This report defined sustainable development as economic activity that "meet the needs of the present without compromising the ability of future generations to meet their own needs". In as much as forests and forest products have played and are still playing an important role in the economic development of many tropical countries, sustainable forest management forms a vital component of sustainable development (Adedire, 2013; Mangala De Zoysa and Makoto Inoue, 2017).

Sustainable forest management could therefore be defined as "forest management that meets the needs of the present generation with compromising the ability of future generations to meet their needs". This definition seems straight forward, but the question of what needs top priority is the subject of much debate (Jordan *et al.* 1992).

Opinions range from timber for international exchange through extractive products for local community used to the maintenance of gene pools and biological diversity (Gale and Cordray, 1991).

# 6. POSSIBLE STRATEGIES IN FOREST MANAGEMENT FOR SUSTAINABLE DEVELOPMENT

In sustaining our diversified economy and building the entrepreneurial capacities, some strategies should be adopted in order to have a successful forest management.

These strategies are:-

- More Nigerian Entrepreneurs should be encouraged to participate in the establishment of Private Tree Plantations and Agro-forestry. Well meaning Nigerians at home and in diasporas should be encouraged by the government to establish forest plantations.
- Environmental education and awareness should be introduced and sustained for a longtime. Nigerian forests are for the
  benefit of everybody, there is therefore the need to sensitize our people especially in rural areas on the importance of the
  forest and the need to manage our forests effectively.
- Enhancing the proper management of wood plantations to provide wood for internal use.
- Wood exports should be banned and discouraged to avoid over-exploitation of our Nigeria forest.
- Nigerians government and law enforcement agencies should develop a tree protection act make, and enforce appropriate
  laws to manage forests and forest resources, these has always been problems with the enforcement of the laws in the past
  in Nigeria, most of the established laws are the broken. There is therefore a need to be awakened and make sure defaulters
  are sanctioned.
- Use of firewood and charcoal should be discouraged, government should work towards making electricity and other
  alternative sources of energy readily available at affordable at affordable costs in the country.
- Botanical gardens/arboreta should be established, seedlings of forest plants should be sold to farmers and entrepreneurs at subsidized rate. Planting of ornamental trees and trees of economic value should be planted. In order to reduce the amount of CO<sub>2</sub> in the environment, grasses should be planted around them.

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- By exploring the potentials of woody plants found in all environments, Nigerians can bring out the best in them.
- Research works should be carried out on forest management and should be made readily available to end-users and the society at large.

#### 7. CONCLUSION

It is pertinent to note that both timber and non-timber forest resources are important. Regardless of which one is the most important. It is clear that, with the present rate of deforestation, they are not sustainably managed.

#### RECOMMENDATIONS

From the various points raised through this review, it is therefore recommended that:

- developing countries should make concerted efforts to reduce the constantly-increasing rate of deforestation at all cost, so as to ensure sustainable forest management
- also there is a need to avoid forest degradation
- sustainable forest management is a key that can boost social economic status and generate financial returns, alleviate poverty, increase food security and provide job opportunities for people in a bid to enhance their entrepreneurial capacities and make them to be self-reliant and self-sufficient especially in a developing country like Nigeria.
- By exploring the potentials of woody plants found in all environments in order to bring out the best in them. Research works should be carried out on.

# Ethical approval

Not applicable.

#### Informed consent

Not applicable.

#### Conflicts of interests

The authors declare that there are no conflicts of interests.

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#### Data and materials availability

All data associated with this study are present in the paper.

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