

Volume 6, Number 1, 1997

ISSN 1115-2923

Transactions of the Nigerian Society for Biological Conservation.



The Nigerian Society for Biological Conservation

BIODIVERSITY CONSERVATION IN RURAL COMMUNITIES OF AKWA IBOM STATE: A LESSON FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Biodiversity conservation and sustainable development has been an intensely discussed issue in recent times. In this paper, bioresource conservation in two rural communities in Akwa Ibom State (Ikot Ukpong Iman and Ikot Umiang Ede) is discussed. Results from the study suggest the need for recognition and integration of indigenous knowledge in biodiversity conservation in order to ensure sustainable development.

Key Words: Biodiversity, sustainable development, conservation, taxonomy

INTRODUCTION

For the past ten years, the Nigerian Government has taken series of actions to reverse the increasing environmental degradation and loss of bio-resources. Specifically, in 1988 it endorsed the National Conservation Strategy and in 1989 it set up the Federal Environmental Protection Agency and the Natural Resources Conservation Council, and in 1991 promulgated the National Parks Decree. Prior to this period, the most significant conservation action was the establishment of forest and game reserves and forestry services to manage the reserves. The renewed efforts at conserving biological resources stem from the fear of the danger of irreversible loss of useful life forms due to the degradation of our bioresources and the environment.

The need to conserve the biological resources of a nation is particularly compelling. There exist interrelation between economic growth, utilization of bioresources and environmental protection. This interrelationship is encompassed in the phrase. "Sustainable development". It is type of development that meets the need of the present without compromising the derivable benefits of the future generations from the resources (Dixon *et al.*, 1986). The rural people and their indigenous knowledge of the bioresources are an important factor in biodiversity conservation. Ebin (1997) noted that before the advent of Western Education, traditional forest dwellers in Nigeria, as in other parts of the world, evolved indigenous environmental awareness and protection measures. These were expressed in the traditional government structure, protection of forests around watersheds and shrines, sanitation and discrete waste disposal. Okpara (1997) also confirms that the possession of indigenous knowledge has made it possible for the socio-cultural, economic and religious significance of many plants and animals (and hence the need for their conservation by systematic protection and, or planting or breeding) to be transferred from generation to generation.

However, this vital link in bioresource conservation has in recent times been neglected. Ekekwe (1997) pointed out that pre-colonial traditional conservation practices in terms of natural resources management and consumption are often neglected or disregarded. This is contributed to environmental degradation and biodiversity loss. The knowledge and skills developed by rural people in many millenia of adaptation to and manipulation of their land, flora and fauna therefore constitute an invaluable and largely untapped resource. In this paper, we examine the role of rural communities in biodiversity conservation based on studies conducted at Ikot Ukpong, Iman, and Ikot Umiang Ede - two rural communities in Akwa Ibom State.

THE STUDY AREA AND METHOD OF DATA COLLECTION

The study was conducted in Ikot Ukpong - Iman, and Ikot Umiang Ede Villages, both in Etinan Local Government Area of Akwa Ibom State and are in Nigeria's rainforest Zone. They lie between latitude 4^o32' and 5^o00' north and longitudes 7^o.50 and 8^o.00 east. The two villages are traversed by streams and lakes many of which share a common source.

The main field work was carried out from September 8 to 13, 1997. The rapid rural appraisal (RRA) technique was used for the interview proper. The data collected from group meetings and individual discussions were collated and analysed.

RESULTS AND DISCUSSION

Okali and Omubode (1995) have noted that conservation of biodiversity is mostly related to land use practices. In addition, however, the present study found that many aspects of biodiversity and its conservation may be found in people's indigenous taxonomies, found production practices, and religious taxonomies, food production practices, and religions. All these are reflected in their land use, utilization of water bodies and, forest resources exploitation.

LAND-USE PRACTICES

Throughout the area, community land ownership is weakening. Family land and inheritance are generally observed. But without exception, women have no right to land. Farming is the predominant economic activity. Crop farming is the most common. Mixed cropping involving yam, cassava, maize, pepper and vegetable is common. Land preparation including forest clearance and tilling is both male and female task. The major soil fertility conservation method is fallowing. In essence, communities in the study area practise the bush fallow/planned rotation system typical of Nigeria's forest zone. The bush is cleared and the trash burnt. The land is cultivated with light implements such as hoes, cutlass, etc. Crops are sown, tended and weeded before harvesting. The people maintained that the fallow periods used to be as long as seven years but increased demand for more food has forced many individuals to go back to cultivate their plots within three to four years. A good proportion of household needs are met by supplementing the conventional foods with products collected from non-wild, non-timber products that yield foods. Hence, plants yielding such supplements are protected when they are encountered during farming. Even more important than the mere knowledge of wild plant is that people, especially women, are well informed of their seasons, quality and locations. In this way, they make greater contribution in conserving wild plants of culinary value. Some people also collect wild plants such as chewing sticks and medicinal plants. In this way, they play a special role in keeping communal memories alive of plants that might have become uncommon.

UTILIZATION OF WATER BODIES

Many streams which provide the main source of drinking water for the villages are regarded as sacred, and the surrounding forest lands are protected. Taboos associated with such sites include prohibition of cultivation, cutting of trees and any form of development of the forest lands along the river bank; restrictions of access to the streams on certain days and to persons in certain conditions. Laundering or even fishing in some of these streams is prohibited. These taboos seek to prevent defilement of the resource. They ensure that the villages' main source of drinking water is not polluted and the stock of fish is not depleted. Also, the streams are protected as watersheds, to ensure they do not dry up from siltation. Although the protection of the forests around the streams is based on religious and cultural beliefs, it is a clear case of river corridor management and is not different from the protective forest reserves that could be established under government administration to preserve the headwaters of major rivers.

CONSERVATION OF FOREST RESOURCES

In the past, small patches of forest were set aside as sacred lands strictly protected by customary laws. Such areas still exist in the two villages, and were set aside for the burial of members of the families that owned such groves. Discussion with the people revealed that there had been other groves for the burial of traditional religious worshippers, those who died of accidents and mysterious illnesses, and Christians. These categories of groves are no more as they have been cleared for farming purposes.

The basis for declaring a patch of forest as sacred varies and several categories of groves exist. More commonly, the patch of forest in which the royals of a particular family were buried would be protected because of respect for the dead and the belief that ancestral spirits lived in that forest. Entry into such forest as hitherto strictly prohibited and was allowed to a limited class of people within the community (for example, members of the royal family, and village elders for the burial of their members). The village head or the family head authorizes entry after pouring libation and offering sacrifices.

Obviously, the establishment and protection of sacred forests was primarily based on cultural and religious beliefs, but many of these have either intentionally or inadvertently protected natural ecosystems and promoted conservation of biological resources. For example, in these forests are found such non-timber products like *Lasienthera africanum* (editan), *Piper guinense* (odusa), *Gnetum africanum* (afang), *Gongronema latifolium* (utasi) and timber products such as *Allanblackia floribunda* (Udia ebiong), *Omphalocarpium procerum* (etinsak), *Sacoglottis gabonensis* (edat), *Homalium letestini* (oton idim), *Cyclicodiscus gabonensis* (nyaan) and *Uapaca grumensis* (mkpenek).

LESSONS FOR SUSTAINABLE DEVELOPMENT

Sustainable development has been described as the sensible use of bioresources to meet the need of the present without jeopardizing the chances of future generations from all benefiting from the resources. Biodiversity conservation measures in Ikot Ukpong-Iman, and Ikot Umiang Ede, to a large extent can contribute to sustainable development. Many ethnic practices augur well for an improved environment; they promote conservation of vegetation, which promotes biodiversity and ecological balance.

The effective management of the flora and fauna in the two villages can be attributed to (1) a strong adherence to traditional village organizations (with its chain of command and distribution of duties); (2) a high level of respect for traditional law; (3) increased understanding of the local ecology and conditions, incorporating this understanding into local land, use, water utilization and conservation practices. An examination of the communities' bioresources conservation issues draw lessons that can help to improve the design of policies for renewable resource management. It points to the recognition of indigenous knowledge and the use of such knowledge in biodiversity conservation programmes. Baseline research on indigenous knowledge, technologies, and practices is therefore a priority for sustainable biodiversity conservation.

Many past conservation strategies and approaches have failed to effectively address rural communities' values, priorities, and practices. Thus, new strategies are urgently needed which should (1) respect and incorporate rural communities' values, knowledge stems and priorities; (2) involve local people in the management and use of biological resources; (3) control or reverse the loss of biodiversity in most communities; and (4) treat biodiversity conservation and economic development as integral aspects of the process of sustainable development.

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