

Natural Resources Utilisation and Livelihood Strategies in Rural Communities: Implications for Poverty Reduction

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Abstract: Poverty is a consistent problem in most developing countries of the world especially in the rural areas. Food security has been found to be a crucial mediation for poverty reduction. The natural resources constitute the basis for the fulfilment of basic needs of the poor people in the rural areas. This study considers the role of natural resource utilisation as a poverty reduction strategy in the rural areas. The livelihood activities of the rural were identified; the available natural resources in the locality and the use to which these resources are put were equally determined. The study was carried out at Ife-central local government area of Osun state. A multistage sampling procedure was used to select 120 members of the Fadama user group in the area. The survey was conducted using structured questionnaire to collect information from the respondents. Statistics such as frequencies and percentages were used to describe the data. The study revealed that all the respondents are crop farmers, 44.17% of them are fisher-folks, 30% of them are hunters while 26.67% of them gather Non-Timber Forest Products (NTFP). All the respondents (100%) indicated that land, water and crop/plant resources are available in the area, 43.33% indicated palm tree and 30% indicated availability of wild animals and birds among other resources that were equally indicated by fewer respondents. The respondents' uses of the resources include the following; 100% indicated them as sources of food, home use, income and fuel. Equally, 99.17 and 95.83% indicated them sources of medicinal and animal feed, respectively. So also 80% indicated them as sources of food packing materials, while 75.83 and 70.83% indicated them as sources of produce preservation and ornamental materials, respectively. The respondents' livelihood activities basically depended on the natural resources. The respondents adequately recognised and are cognisant of the importance of the natural resources to their livelihood activities. The uses to which the resources are put have a direct bearing on people's basic needs, which has implication for their poverty status. The study recommended that poverty reduction programmes for rural populace must incorporate environmental management strategies to be meaningful. Environmental management programmes should involve the rural populace who are the principal stakeholder in the issue in order to make such management sustainable.

Key words: Natural resources management, livelihood activities, poverty reduction

INTRODUCTION

Poverty is a very serious problem to the current global progress given the fact that the developed nations equally feel the pain of poverty situations elsewhere and national and international entities have been making efforts at reducing the menace of the scourge. According to World Bank (1990), there is the need to reassess the failures and successes of both developing countries and donors in attacking poverty. In the 1990 report, World Bank reported that governments in developing countries could best make sustainable progress against poverty by following a twin-track strategy. The first element of the

strategy is a growth-oriented policy that uses the poor people's most abundant asset: labour. This strategy calls for the strengthening of relevant institutions, infrastructure and market incentives and, hence the distribution of information and adoption of technology. The second element is the provision of basic social services to the poor such as primary health care, education, nutrition and family planning services.

In Nigeria, Poverty has worsened during the 1980s and 1990s and 72% of the population are classified as poor, with more than 35% of the population living below the USD 1 poverty level. Real income and consumption per capita are as low as at independence 40 years ago. Per

capita income is estimated at about USD 310 in 2001, which is below the USD 370 obtained in 1985. Poverty is particularly widespread in rural areas, where 40% of the population lives below the poverty line (IFAD, 2001). The manifestation of poverty is usually in term of lack of basic needs such as food. According to World Bank (1993), at least 700 million people, in the World, do not have access to sufficient food for a healthy and productive life despite the existence of sufficient global food supplies to cover their minimum needs. Seeking to match the food supply with the demands of a fast growing world population is a huge task.

Regardless of the difficulties associated with achieving food security, there are lots of potentials in the capability of the poor in their bid to be food secure if their circumstances could be enabled. The building blocks of a pro-poor growth strategy begin with natural resources. These provide the base upon which the vast majority of the poor depend for their fragile existence, but over which they exercise little or no control (WRI, 2005). Given the fact that a great majority of the poor people in the world are concentrated in rural areas, they depend on fields, forests and water i.e. the bounty of ecosystems for their livelihood. These ecosystems provide a natural asset base that the rural poor can use to begin a process of wealth creation that will boost them beyond subsistence and into the mainstream of national economies provided the right circumstances are facilitated. Harvests from forests, fisheries and farm fields are the primary sources of rural income and a fallback when other sources of economic engagements fail. However, programmes to reduce poverty often fail to account for the important link between environment and the livelihoods of the rural poor (WRI, op cit). Hence, the full potential of ecosystems as a wealth-creating asset for the poor is yet to be tapped.

According to WRI (op cit), Environmental Income is the value derived, in cash or direct use, from ecosystem goods and services. This concept has two important income streams.

Wild income: Income from wild or uncultivated natural systems, such as forests, marine and inland fisheries, reefs, wetlands and grasslands. This includes commodities such as fish, timber and Non-Timber Forest Products (NTFP) such as fuel-wood, game, medicinal matters, fruits and other foods and materials for handicrafts or art.

Agricultural income: This refers to income from agro-ecosystems i.e. all agricultural lands such as croplands, pastures, or orchards. In the context of the poor,

agricultural income is mostly generated through small-scale agriculture, including commodity crops, home gardens and large and small livestock as well as income from aquaculture.

Poor rural families often make a living from a variety of income sources and subsistence activities which are directly based on nature; things like small-scale farming and livestock rearing, fishing, hunting and collecting of firewood, herbs, or other natural products. These may be sold for cash or used directly for food, heat, building materials, or a number of other households needs. This “environmental income” supplements other income sources such as wage labour and remittances from family members who have emigrated. The decline of natural systems through soil depletion, deforestation, over-exploitation and pollution represents a direct threat to nature-based income and contributes to increasing poverty.

This trend led to environmental concerns out of the potential reduction in economic, social and environmental benefits accruing to society as a result of degradation of the natural resource base. Land degradation may be due to natural hazards resulting from biological and/or physical conditions that act to predispose the resources to degradation; and direct causes resulting from unsustainable agricultural practices, deforestation and other forms of removal of natural vegetation, including over-grazing. In this context, a number of programmes have been put in place to address the multi-faceted problem of poverty especially through environmental resources management. According to ADF (2003), some of such programmes in Nigeria are:

- UNDP is funding a natural resources management project seeking to promote sustainable agricultural, environmental and rural development in the country.
- UNICEF is supporting a programme providing community based nutrition services.
- The European Union is funding the Delta Micro-Projects Programme seeking to promote social development in the Delta region.
- The Ford Foundation funded Micro Credit Programme in the country
- DFID is funding Jigawa Enhancement of Wetland Livelihoods
- USAID is also involved in the promoting the marketing of inputs and rural enhancement projects in the country and
- The World Bank is funding the Fadama projects in collaboration with the Federal, State and Local governments in the country.

The main thrust of NFDP-II, which is a follow-up on the project of the National Fadama Development Project I (NFDP-I), is to increase the incomes of all-inclusive fadama users on a sustainable basis namely, farmers, pastoralist, fisher-folks, hunter, gatherer and service providers, through empowering communities to take charge of their own development agenda and by reducing conflicts among users.

Given the foregoing, this study intends to assess the typical situation of the rural farmers in terms of their access to natural resources and how such are being used in their livelihood activities with the hope drawing out appropriate intervention strategies for poverty reduction programmes. Hence, the study to answer the following questions:

- What are the livelihood activities in which the respondents are involved?
- What are the natural resources available to the respondents for use?
- What are the purposes for which the resources are utilised?

Objectives of the study: The general objective of the study is to assess the livelihood strategies of the inhabitants of local communities in terms of their access to and utilisation of natural resources to meet their basic needs. The specific objectives of the study are to:

- Identify the livelihood activities in which the respondents are involved
- Identify the natural resources available to the respondents for use in their locality
- Ascertain the use to which the natural resources are put in their bid to meet basic needs

MATERIALS AND METHODS

The study was carried out in Ife-central local government area of Osun state. The choice of the study area was informed by the fact that it is one of the participating local governments in the Fadama II project and also by the fact that the area is largely agrarian with considerable natural resources. The sampling covered the 10 political wards in the local government purposively selecting members of the fadama user group. A systematic sampling technique was used to select 12 members from the list of members in each ward to a sample size of 120. A structured questionnaire was used for the survey while it was administered as interview schedule to circumvent literacy barriers. Data collected were analysed using descriptive statistics such as frequencies, percentages

and standard deviations. Chi-square analysis was used to draw inferences among the variables in the hypothesis of the study.

RESULTS AND DISCUSSION

Livelihood activities of the respondents: The respondents identified the livelihood activities in which they are involved and the result, as shown in Table 1, reveals that all of them (100%) are crop farmers, most (44.17%) of them are fish farmers, 30% of them are hunters and 26.67% of them gather Non-Timber Forest Products (NTFP). The multiple responses in the indication of livelihood strategies by the respondents suggest that they are mostly involved in more than one income-generating activity.

As it can be deduced, all the activities essentially depended on the availability of natural resources to be worthwhile. This supports the position of WRI (2005) that the natural resources provides the base on which the rural poor depended for their fragile existence; thereby concluding that the building block of a pro-poor strategy begins with such resources.

Available natural resources to the respondents for use: The respondents identified the natural resources available for use in their locality and the result, as given in Table 2, reveals that all (100%) of the respondents indicated that land, water and crop/plant are available. A substantial proportion of them (43.33%) indicated that palm tree is available while 30, 24.17, 29.17 and 24.17% of them indicated that games, fuel wood, honey and leaves, respectively are available. Lastly, a minor proportion of the respondents viz. 15.83, 5.83 and 14.17% indicated that fisheries, precious stone and oyster shell are available in the locality.

A conspicuous observation in the result was the fact that 44.17% of the respondents indicated fish farming as their livelihood activities while only 15.83% indicated availability of fisheries resources. This inconsistency was explained by the fact that the respondents acknowledged the diminishing fishery resources and that their rewards as fisher-folks have not been optimal. This is an instance of the poor people bearing the burden of the mutually degraded environment, for which the elites in the urban centres are actually more liable.

In the same vein, those who indicated the availability of the various components of the NTFPs are more than the 26.67% who indicated it as their livelihood activities. This means that not all those who acknowledged the availability of the resources exploit them for use.

Table 1: Distribution of respondents according to their livelihood activities

Livelihood activities	Yes	No	Total
Crop farming	120(100.0)*	0(0.0)	120(100.0)
Fish farming	53(44.17)	67(55.83)	120(100.0)
Hunting	36(30.0)	84(70.0)	120(100.0)
NTFP gathering	32(26.67)	88(73.33)	120(100.0)

Source: Field survey(2003), * Figures in parentheses are percentages

Table 2: Distribution of respondents according to available resources for use

Natural resources available for use	Yes	No	Total	Ranking of the resources
Land	120(100.0)	0(0.0)	120(100.0)	1
Water	120(100.0)	0(0.0)	120(100.0)	2
Fisheries	19(15.83)	101(84.17)	120(100.0)	7
Games(wild animals/birds)	36(30.0)	84(70.0)	120(100.0)	4
Precious stone	7(5.83)	113(94.17)	120(100.0)	9
Fuel wood	29(24.17)	91(75.83)	120(100.0)	3
Honey	35(29.17)	85(70.83)	120(100.0)	6
Palm trees	52(43.33)	68(56.67)	120(100.0)	1
Leaves	29(24.17)	91(75.83)	120(100.0)	5
Crop/plant	120(100.0)	0(0.0)	120(100.0)	2
Oyster shell	17(14.17)	103(85.83)	120(100.0)	8

Source: Field survey (2003), * Figures in parentheses are percentages

Table 3: Distribution of respondents according to their uses of natural resources

Natural resources	Yes	No	Total
Human consumption	120(100.0)	0(0.0)	120(100.0)
Home use	120(100.0)	0(0.0)	120(100.0)
Income source	120(100.0)	0(0.0)	120(100.0)
Fuel	120(100.0)	0(0.0)	120(100.0)
Medicinal use	119(99.17)	1(0.83)	120(100.0)
Animal feed	115(95.83)	5(4.17)	120(100.0)
Food packing	96(80.0)	24(20.0)	120(100.0)
Agricultural produce preservation	91(75.83)	29(24.17)	120(100.0)
Ornamental use	85(70.83)	35(29.17)	120(100.0)

Source: Field survey (2003), * Figures in parentheses are percentages

Making the respondents rank the natural resources on the basis of their relevance to their livelihood was used to pursue the importance of the resources to them. They considered land and palm tree most important. Water and crop/plants were ranked next. Afterwards comes fuel wood, games, leaves, honey, fishery, oyster shell and precious stone. This revelation gave an insight to the extent of attachment of the people to these resources, which can be relied upon in the planning and execution of any poverty reduction strategy for the rural populace.

The uses to which the natural resources are put: The respondents were made to indicate uses to which they put the natural resources they exploited in their locality. The results, as revealed in Table 3, show that all (100%) of the respondents source their food, household materials and income source from these resources. Equally, 99.17% of them use the resources for medicinal purposes; 95.83% use them for animal feed, 80% use them for food packing, 75.83% use them for farm produce preservation while 70.83% use them for ornamental purposes.

It is noteworthy to state that majority of the respondents use the resources for these critical purposes that have direct bearing on their basic living. Despite the fact that the respondents' indication of available resources for use is not unanimous, their indications for the use to which they put the resources is almost unanimous. The implication of this is that regardless of the actual material being sought in the natural environment, the reason for which they are sought is similar – fulfilment of basic needs. This corroborates the statement that hunger is the most significant way in which poverty is manifested.

CONCLUSION

The findings of the study show that the livelihood activities of the respondents directly border on the natural environment. Given this revelation any effort made at conserving the natural resources would be a step towards consolidating the economic base of such people who depend on them. The environmental consciousness of the respondents was revealed by the fact that they adequately recognised the natural resources that are relevant for their livelihood in the environment; such cognisance is an indication of their appreciation of the resources for their living. This means that the concept of sustainable and participatory forest management is feasible through involvement of the major stakeholders i.e. farmers among other rural inhabitants.

The respondents' ranking of the relevance of the resources to their livelihood is a mere indication of the importance of those natural resources to their livelihood concerns and the importance of the resources to the ecosystem. Hence, any resource conservation/management to be carried out should be holistic in nature without recourse to such concerns so as not to strategise for the immediate at the expense of the future.

The identification of the uses to which the natural resources are put shows that they are used to fulfil basic needs of the people in the rural areas. The implication of this is that a programme on natural resources management is equally one on food security as well as poverty alleviation to the rural population.

RECOMMENDATION

Based on the findings of the study the following recommendations are made:

- Poverty alleviation/reduction programmes that are targeted at the rural populace should be made to incorporate natural resource management components in order to protect their source of basic needs.

- Natural resources management programmes should be made to adopt participatory management strategies in which the rural populace will be involved because of their dependence on the resources.
- Education/training on sustainable environment management strategies should be promoted among the rural populace in order to achieve a more enduring poverty reduction.
- Holistic ecosystem management can be used to achieve enduring poverty reduction among rural populace rather than encouraging intensive agricultural practices, which will merely caters for the immediate needs.

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