

## **Level Of Community Participation In The Conservation Of Natural Resources In Akamkpa Local Government Area, Southern Cross River State, Nigeria.**

Sam, Ime Edet<sup>1</sup>, Nnaji, Emeka Samuel<sup>2</sup>, Etefia, Titus E.<sup>3</sup>,

<sup>1,2,3</sup>*Department of Curriculum and Teaching, Faculty of Education, University of Calabar, Cross River State, Nigeria*

---

**Abstract:** *This study on the level of community participation in the conservation of natural resources in Akamkpa Local Government Area of Southern Cross River State, Nigeria is aimed at establishing the extent of community participation in natural resources conservation in the study area. The Ex-post facto research design was adopted. To achieve the purpose of this study, two null hypotheses were formulated and tested at 0.05 level of significance. The simple random sampling technique was adopted in selecting six communities while the multi-stage stratified random sampling technique and accidental sampling technique was used to select the two hundred and fifty (250) community members used for the study. A fifteen (15) items four points likert scale questionnaire was the instrument used for data collection. To test the hypotheses, Dependent t-test statistical analysis technique was used for data analysis. The results obtained from analysis of data revealed that, the level of participation significantly influences forest resources conservation. In the second hypothesis, the result also shows that community involvement has a significant influence on wildlife conservation. Based on these findings, it was recommended that awareness creation on environmental conservation should become integral part of community organizations.*

**Key words:***community participation, conservation and natural resources.*

---

### **I. Introduction**

Conservation practices all over the world are changing from the traditional management approach with emphasis on managing natural resources in a way that ensures greater flow to all stakeholders especially local community members. The shift in emphasis is informed by the fact that the local communities are inextricably tied to their cultural resources based whether used as a source of food, medicine, fuel or for maintaining ecological balance (Bisong, 2001). Thus, sustainable management of natural resources requires a more comprehensive approach which includes strengthening the organization and technical capabilities of rural communities, as well as engendering support for sustainable resources use from larger community group (Food and Agricultural Organization, FAO, 2005).

The rapid loss of natural resources in developing countries has become a subject of increasing international and National concern. This is reflected in the substantial increase in the interest accorded to environmental conservation by various Government, donors and conservation agencies. The level of interest in conservation as an environmental and development problem requires practical action (Flint, 1990). The justification for community participation in natural resources conservation as viewed by International Union for conservation of Nature (IUCN, 1990) provides that human culture must be based on a respect for nature and that the present generation have a social responsibility to conserved nature for the welfare of future generation. The view recognizes that mankind is part of nature and that all species have an inherent right to exist regardless of their materials value to humans.

In recent times, the developed communities in Africa have moved from “top-down’s” approach toward more participatory “bottom-up” approaches. The shift in paradigm has occurred in recognition of the fact that local cooperation, participation and management are crucial to achieving both short term development result and long term sustainability. Along the same line, the conservation community is beginning to appreciate the necessity of incorporating local participating in environmental conservation effort (Bamberger, 2006).

The development, community participation may be viewed as a process that serves as instrument of empowerment, building beneficiary capacity, increase effectiveness desire to share cost, improves efficiency relation to project (Paul,2005). To maximize the chances of sustainable conservation initiatives, rural communities need to be involved in both the concept and approach. This means that participation in decision-making process and in the evaluation, monitoring and management of resources and the environment is crucial. This inclusiveness is more likely to build a conservation ethics where people understand that their livelihood depends on health maintenance of the environment.

Many studies have shown community participation to be one of the critical empowerment of success in irrigation, livestock, water, forestry and agricultural project (Sharp, 2003). Community participation has become therefore, very important to Scholars, organizations and Nations. For instance, Ajake (1998) remarked that participation has been used to justify the extension of state forest control as well as the building of local capacity and self-reliance. It has been used to justify decision imposed by external agencies as well as describe the process of developing real power and decision-making.

Experience has shown that participation grows more out of practical than normative considerations. One of the most expensive forestry programmes with community participation is that operated by village forestry Associations in South Korea (Ahn, 1978; Eckholm, 1979) and the afforestation sub-project in Nepal (World Bank, 1975). Other experiences include community conservation in Tsavo West National Park, Kenya where the local communities are involved and have benefited from conservation of protected areas. A reforestation project in Senegal gained impressive results as Senegal forest service works in rural community and councils providing them with inputs, while the village councils contribute labour to plant trees. Income generated from the sales of wood was used by the council according to its own priorities (Uphoft, 1986).

The need for communities to invest in natural resources conservation and to reduce the effect of environmental degradation is indisputable in Nigeria and particularly in Akamkpa Local Government Area of Cross River State, Nigeria. The people in the study area are highly dependent on forest ecosystem for its diverse and abundant Natural Wildlife, Land, food and water resources. The importance of these resources has cursed indigenous people to diverse way of managing them sustainably. But evidence has shown that the activities of the rural people are not given consideration. In research and Government policies and decisions on the management of natural resources neglects their activities in the study area.

### **Statement of the problem**

Rapid degradation of natural resources globally, nationally and locally has continued to be a subject of concern and uncertainty among scholars. For instance, the rate of forest destruction has accelerated, significantly since the turn of the century. This is most critical in the tropics where over 2.5 million people depend on forest resources for a variety of services (Park, 2002; Sharma, 2004; Tyani, 2007).

Cunningham and Cunningham (2004) report that an estimated 12.5 million Km of tropical forest lands were covered with closed canopy forest a century ago, and 9.2 million ha or 0.6 percent of the remaining forest is cleared each year. However, the rate of forest lost at the global level is not significantly different from the current trend in Nigeria and Cross River State. Nwoboshi(1987) reported that forest clearance in Nigeria is put at an average of 400,000 ha per annum, while afforestation has only 32, 000 ha annually.

The cumulative effect of these is that the country has lost 50 million of forest in less than 100 years. Ajake (2008) observed that in Cross River State, between 2000 and 2005, about 20,000 ha of reserved areas were converted to agricultural plantation. Natural resources conservation may be facilitated by the application of the existing knowledge of rural communities on the sustainable use and management of forest, wildlife and water resources. This knowledge can be supplemented by research initiative to fill crucial gaps in understanding the system linkages.

In recent decades, it has been recognized that conservation regimes have failed to manage resources in a sustainable way because of their rigidity and have deprived local communities of the motivation to use and manage resources in a sustainable way. This may be attributed to the non-recognition and participation of indigenous communities whose livelihood depends on such resources, and are the custodians of the natural landscapes.

### **Literature Review**

The review of Literature is on the following sub-variables:

- A. Community participation in forest resources conservation
- B. Community participation in Wildlife conservation

#### **A. Community participation in forest resources conservation**

Bhaff, (2004) community participation is a process and not simply the sharing of social and economic benefits. This simply means that participation of local community in natural resources management is the integration of local people to mobilize themselves to make decisions, manage their resources and control the activities that affect their lives. Community participation in forest resources conservation means that opportunity has been given to rural people to participate, have full access to information on policy, issues and development plans, freedom that permits the discussion of issues by all stakeholders whereby the views of the local people are considered.

Usang (2006) argue that the local people have been over looked completely in the local community which are supposed to be involved in resource management through the process of gradually handling of

harvesting and management activities of their natural resources. Government focus or role in natural resources management should be directed on the evaluation of the initiatives of local people; state and the institution involved in the promotion of extension services that is of immense benefits to the community and the future posterity. Furthermore, he categorize three different ways in which communities can participate in forest management such as community base management, collaborative management and non-governmental organizations (NGOs) collaboration with government institutions to ensure management of forest resources, as well as sustainable forest development. Among the NGOs that assist in resources planning and implementing of forestry programmes are: Nigerian Environmental Study Action Team (NEST), Nigerian Conservation Foundation (NCF), Nigerian Field Society (NFS), Coalition for Environment (CFE) and Worldwide Fund for Nature (WWF).

Inyang-Abia (1992) view that ecological crises have serious adverse effect on health, social, economic and developmental consequences for everybody. Action against environmental problems should therefore, involve everybody, that means individuals and their families, local hamlets and villages, all local communities constitute different levels and authorities that should be involved in the action against ecological problems. He outlined several incentives that can boost forest management such as tax incentives, provision of farm inputs, access to forest resources, community development, and increase in royalty to communities and employment opportunities. Such incentives will stimulate community members' involvement in the conservation of resources.

Ndukew (2000) is of the view that the essence of forest products management in Cross River State is to ensure sustainable development. Forest products management relates to guarding and shielding our forest resources. The forest is threatened by man through many activities. Forest management involves the planned use of forest resources on a local, national and worldwide scale using all planning, foresight and cooperation that one can muster. Forest management may also encompass the careful use of land, air, water, plant and animal resources. Therefore, community participation brings about conservation of our economic, human, animal, aquatic and other forest resources leading to a sound, healthy and sustainable environment in the future because protection emphasizes preservation, maintenance culture, sustainable utilization and enablement of natural environment.

Anukwa (2002) maintain that sustainable forest would be a goal unaccomplished without the development of forest management plans for target communities. He stressed that the essence of the plan was to ensure effective and rational use of timber and non-timber forest resources in Cross River State.

Oden (1993) argue that the aim of the forestry sector is to ensure sustainable use of forest resources. The need to curb the destructive and unwise exploitation of the forest to extinction will be to the best interest of the rural people and other stakeholders indeed the environment. Anijah-Obi (2001) holds that lack of participation in management of forest products have resulted in low productivity, shrinking of rain-forest and agricultural production and shortage of arable land. With deforestation there is less rainfall, and in place of oxygen, there is building of gases composed of 84% carbon dioxide, 18% mythanese and 14% chlorofluorocarbon (CFCs). The removal of tropical forest disturbs the process that regulates the World's climate through absorbing carbon dioxide and release of water to the atmosphere through evaporation. This result in global warming which could cause the earth's temperature to increase up to 55% over the next 60 years.

## **B. Community participation in Wildlife conservation**

A wildlife resource is a major source of food. Hunting of wildlife to meet people's demand for protein is rarely sustainable in most areas where population densities are less than 2 persons 1km<sup>2</sup>. Trade routes are poorly established and human population growth rates are low (International Fund for Animal Welfare, IFAN, 1996). The increasing consumption of food in Africa however is driven by markets with large, rapidly growing population of consumers and is considered by experts to be unsustainable. The commercialization of environmental resources in recent time is quite threatening to the survival of numerous health and economic value and well-being of the environment and generations unborn.

The Bush meat Crisis Task Force (BCTF) is a consortium of conservation organizations and professionals working throughout Africa and dedicated to the conservation of wildlife populations threatened by illegal commercial hunting of wildlife for sale as meat. Its primary goal is to promote collaborative decision-making, facilitate engagements of African partners and stakeholders in addressing the bush meat issue. More interesting is the mission of the International Fund for Animals Welfare (IFAN) formed to improve the welfare of wild and domestic animals throughout the world by reducing commercial exploitation of animals, protecting wildlife habitats, and even assisting animals in distress.

Etefia (2007) opines that National Parks have become the most widely used category of protected areas in developing countries including Akamkpa Local Government Area. However, Conservation with Development (CWD) has emerged as the theme of the new strategy for protected area management approach to the conservation of wildlife and ecosystem.

Ashley (1995) asserted that wildlife conservation projects and programmes should follow a common approach to generating economic benefits for the people who live in wildlife areas. In combination with other forms of local participation in wildlife management, benefits have tended to be provided by returning a proportion of the resources earned by the state from wildlife back to them through indirect benefit sharing arrangement and grassroots development activities. This includes mainly the provision of social infrastructures such as schools, water supplies and health facilities.

Caldecott (1990) studied the Okwango division of the Cross River State National Park, and found in a research paper on wildlife benefits and community conservation in Africa. He upheld that community oriented approaches to wildlife conservation usually have a strong economic benefit from the participation and encouraged wildlife conservation; and at the same time improves community welfare. He further holds that distribution of benefits is necessary but itself may not be a sufficient condition for communities to engage in wildlife conservation. According to Emerton (1990), holds that, whether or not communities have economic incentives to conserve wildlife and whether or not they are economically better off in the presence of wildlife, goes far beyond ensuring that a proportion of wildlife revenues core returns to them as broad development.

In a study carried out by Norto-Griffiths and Southey (1995) on wildlife tourism to Kenya, it was discovered that direct income from wildlife tourism contributes about 5% of Kenya's GDP. It also accounts for just over a tenth of national wage employment and over a third of total annual foreign exchange earnings. Gross income from tourism was worth about US \$420 million. In 1989 of which approximately 50% of US \$210 million could be attributed to wildlife. This produced a net return of 21% or US \$27 million to the Kenyan economy.

In a related study, Borrow and Berger (1996) observed that Kenya's wildlife services revenue policy uses wildlife development as a mechanism to distribute some of the revenues earned from protected areas to local community. Between 1995, over US \$1.25 million was allocated to community related activities in protected area buffer zones including water, education, health, livestock and enterprise development as well as the provision of famine relief. Such revenue sharing mechanisms currently operate in thirty three districts of the country.

Elsewhere in South Africa's Pilansbery National park, Davies (1993) recorded effort to integrate community development with wildlife conservation. He noted that an attempt to compensate people with loss of residence, grazing land and access to wildlife resources ceased the fencing of a large area as a National Park. To encourage them to support wildlife conservation a range of benefit sharing a management were set in place by the Park authorities through the formation of a community development of local enterprises such as vegetable growing and clothing manufacturing, the establishment, use of local contractors and infrastructural development.

### **Purpose of the study**

The main purpose of the study was to examine the level of community participation in the conservation of natural resources in Akamkpa Local Government Area, Southern Cross River State, Nigeria.

### **Hypotheses**

1. The level of community participation does not significantly influence forest resources conservation.
2. Community involvement does not significantly influence wildlife conservation

## **II. Methodology**

A sample of two hundred and fifty (250) community members from 20 years and above was selected for the study. Six (6) communities in Akamkpa Local Government Area which include Awi, Mbarakom, Aningeje, Ojo, Uyanga and Netim were used for the study. The Ex-post facto research design was adopted because the researcher will not have any control in the manipulation of the independent variable since it has already occurred.

### **Instrumentation**

A ten item questionnaire called level of community participation in the conservation of natural resources questionnaire (LCPCNRQ) was used in data collection. The instrument was designed in two sections, "A" and "B" section. "A" consisted of the respondents' personal data while "B" consisted of ten items on issues that relate to the variables under discussion. Test experts in the faculty of Education, University of Calabar validated the instrument. A test-retest reliability estimate was calculated using 20 members in a community who were not part of the study sample and the reliability coefficient of 0.86 was obtained. With a high estimate the instrument was considered valid for the study. The data collected for this study was analyzed using the dependent t-test analysis of the influence of community participation and community involvement on the conservation of natural resources.

N=250

Variables	x	y	N	D	D <sup>2</sup>	t-cal
Level of participation	958		250			
Forest resources conservation		297		656	91688	2.18

Significance of 0.05 level, df=249, crit. Val. 1.97\*

From the result of the data analysis presented in the table above, revealed that the t-calculated value of 1.97 at 0.05 level of significance with 249 degree of freedom. With this finding the null hypothesis was rejected while the alternate was upheld and retained which implies that the level of community participation significantly influences forest resource conservation.

N=250

Variables	x	y	N	D	D <sup>2</sup>	t-cal
Community involvement	729					
Wildlife conservation		321	250	324	26056	6.92

Significance of 0.05 level, df=249, crit. Value 1.97\*

The result above shows that the calculated t-value of 6.92 is greater than critical t-value of 1.97 at 0.05 level of significance with 249 degree of freedom. Consequently, the null (Ho) hypothesis was rejected while the alternate hypothesis was retained. This implies that community involvement has a significant influence on wildlife conservation.

### III. Discussion of findings

The result of these findings reveals that community participation significantly influences forest resource management. The result of the study support the assertion of Bhaff (2004) which maintain that, the participation of local community in natural resources management is the integration of local people to mobilize themselves to make decisions, manage their resources and control the activities that affect their lives. Usang (2006) argue that the local people have been over looked completely in the local community which are supposed to be involved in resource management through the process of gradually handling of harvesting and management activities of their natural resources. Through their inclusion in the management of resources, environmental resources will be safe guarded.

The result in hypothesis two reveals that, there is a significant influence between community involvement and wildlife resource conservation in the study area. The result of this study agrees with the findings of Emerton (1999) which holds that, whether or not communities have economic incentives to conserve wildlife and whether or not they are economically better off in the presence of wildlife, goes far beyond ensuring that a proportion of wildlife revenues core returns to them as broad development. Caldecott (1990) also hold that community oriented approaches to wildlife conservation usually have a strong economic benefit from the participation and encouraged wildlife conservation; and at the same time improves community welfare. He further holds that distribution of benefits is necessary but itself may not be a sufficient condition for communities to engage in wildlife conservation.

### IV. Conclusion and Recommendation

Community participation and involvement in the management and conservation of natural resources are vital instruments in environmental resources management. The rate at which forest and wildlife resources are gradually going into extinction calls for a more proactive measures to be taken to curb this ugly trend of resources destruction. The involvement of community members in the conservation of resources becomes the best alternative. Based on the findings the following recommendations is inherent in this study:

1. Community members should be involved in planning and conservation of natural resources.
2. Empowerment programmes to provide alternative means of livelihood to be made available for the local people to reduce over dependence on environmental resources.
3. Government should create incentives to boost resource conservation and management.

### References

- [1]. Ajake, A.O. (1978). Women in forest resources use and management in Akamkpa Local Government Area. Unpublished M.sc Thesis, Faculty of social sciences, University of Calabar, Nigeria.
- [2]. Ajake, A.O. (2008). Exploitation and management of forest resources in Cross River State. Unpublished Ph.D Thesis, University of Nigeria, Nsukka.
- [3]. Anija-Obi, F.N. (2001). Fundamentals of Environmental Education and Management. Calabar: University of Calabar press, Calabar-Nigeria.
- [4]. Anukwa, F. (2002). No going back on forest management practice. Cross River State community forest news, 1 (3) 20-22.
- [5]. Ahn, H.W. (1978). Village forestry in Korea. Paper presented at the 8<sup>th</sup> World forestry congress, Jakarta, October 16-28.
- [6]. Ashley, C. (1995). Wildlife use for Economic gain. The potential for wildlife to contribute to development in Namibia. Windock Directorate of Environmental Affairs Research Discussion paper, 12; 18-125.
- [7]. Bamberger, M. (2006). The role of community participation in development planning and project management, New York; the World Bank.
- [8]. Barrow, E.k& Berger, D. (1996). The role of the African wildlife foundation. Nairobi.
- [9]. Bhaff, S. (2004). Conservation through community Enterprise. In Ogar, D.A (Ed.) community forestry and forest stakeholders' participation in sustainable forest management (12-36). Calabar forest Association of Nigeria.
- [10]. Caldcott, J.O. (1990). Cross River National Park, Okwango division; plan for development the part and its support zone Godalming; WWF-UK.
- [11]. Cunningham, W.P. & Cunningham, M.A (2004). Principles of Environmental science: inquiry and application (2<sup>nd</sup>. Ed.) New York: McGraw-Hill.
- [12]. Davies, M.W. (1993). Community and private forest division. Nepal: Department of forestry.
- [13]. Eckholm, E. (1979). Planning for the future: Forestry for human needs: Washington World Watch institute World Bank paper 26:21-29.
- [14]. Emerton, L. (1999). Community conservation Research in Africa: Principles and Comparative practice: Manchester, institute for Development policy and management.
- [15]. Etefia, T.E. (2007) Tourism Development and Private sector in Cross River State. University of Calabar, Calabar. B.Ed research project. Unpublished.
- [16]. Food and Agriculture Organization (2005). Forestry Extension Methods. Food and Agriculture Organization of the United Nation's Forestry paper presentation, 80:146-155.
- [17]. Flint, M.E.S. (1990). IFAP and non-wood products. Paper presented at the FOEIODA conference on sustainable strategies for saving tropical forests, London, May 19, 1990.
- [18]. International Fund for Animals Welfare, IFAN (1969). Conservation practices: conserving Nature for the future. American Government publication. White House, Washington DC, U.S.A.
- [19]. Inyang-Abia, M.E. (1992). Foundation of Environmental Education in M.E. Inyang-Abia and G.U. Umoren (Eds), curriculum development and Evaluation in Environmental Education (16-35) Lagos: Macmillian.
- [20]. Ndukwe, O.U (2000). Elements of Nigerian Environmental Law. Calabar: University of Calabar press.
- [21]. Norto-Griffiths, M. & Southey, L. (1995). Man and Nature. Cambridge; Harvard University press.
- [22]. Nwoboshi, L.C. (1987). Regeneration success of Natural Management Enriches planting and plantations of Nature species in West Africa. In F. Mergen and J.R. Vincent (Eds), Natural management of tropical moist forest (92-136) Connecticut; Yale University press.
- [23]. Oden, S.O. (1993). Managing Natural Resources in forest. Community News, 3:32-38.
- [24]. Paul, S. (2005). Community Participation in Development Projects. The World Bank Experience- Readings in Community Participation. Washington, D.C.
- [25]. Park, C.C. (2002). Tropical Rainforest. London Routledge.
- [26]. Sharma, M.P. (2004). Managing the world's forests: looking for Balance between conservation and Development: IOWA: Kendeu/Hunt.
- [27]. Sharp, R. (2003). Where three Worlds Meet: Annual Report 2001-2002. London ILEB.
- [28]. Tyani, M. (2007). Society and sustainable management of Natural Ecosystems. Proceedings of International Conferences on forest Society and sustainable Development, Casablanca, Morocco, March 19-21, 2007.
- [29]. Uphoff, N. (1986). Local Institutional Development: an analytical source book with cases. West Harford: Kumarian press.
- [30]. Using, N.M. (2006). Influence of Traditional Beliefs on conservation of Natural Resources in Cross River Central. University of Calabar, Calabar. Unpublished M.Ed thesis.
- [31]. World Bank (1975). Rural development Sector policy paper. Washington, D.C: World Bank