



## Community Participation in the Conservation of Natural Resources for Sustainable Development in Etche Ethnic Nationality, Rivers State

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### **Abstract**

*This study investigated the relevance of community participation in the conservation of natural resources for sustainable development in Etche Ethnic Nationality, Rivers State. The objectives of the study are to examine the input of community members in the formulation of policies, selection of natural environmental resources and to ascertain how community members are involved in the use of natural resources for sustainable development. Three research questions guided the study. The population consist of 1560 adult members drawn from three clans (Ulakwo-Umusuelem ,Ozuzu and Okehi) with a sample of 156 respondent constituting 10% chosen through proportionate stratified random sampling technique. A validated instrument of 18 item questionnaire titled Community Participation and Natural Resource Conservation Questionnaire (CPNRCQ) with a reliability coefficient of 0.86 index was used for data collection. Out of the number, a total of 150 duly completed copies of the questionnaires were retrieved and used for analysis with the use of statistical mean. The result shows that members of communities participated in formulating policies for the conservation of natural resources and are involved in the effective use of natural resources in their localities. Based on the findings, the study recommended that members of community should collaborate with government agencies as well as Non-governmental organizations (NGOs) to enact laws to strengthen the preservation and management of the good cultural heritage and natural resources conservation of communities for the sustainability of development of the people at the local communities especially in Etche Ethnic Nationality in Rivers State.*

**Key words:** Community, Conservation, Natural Resources, Participation, Sustainable Development.

### **Introduction**

Traditionally, the environment has been seen and regarded as a home of unlimited resources to be used for human consumption. This human-centered perception of the environment has exposed the resources over centuries to environmental destruction (Encyclopedia Britannica, 2008; Oduro-Mensah, 1992, in Mbalisi 2010). The blame on the above perception (human centered) was based on the fact that it led to development



models which address growth at the expense of environment and conservation of natural resources such as soil, land, forest and water which are basic needs for human survival. Environmental issues are diverse and their extent is so large that, they know no geographical boundaries, neither are they stopped by regions. Indigenous peoples world over are known to be the best custodians of nature and their innate knowledge in conservation and harmonious co-existence has being recognized in many places (Sembe 2004).

Meanwhile, any exclusion of community members from participating in planning and implementing programmes/activities within their territories is bound to pose serious consequences for human communities and ecological systems, (Ashton & Bryan, 2002). It is evident that some states and especially private corporations tend to fixate on maximizing short term profits rather than considering long term sustainability. Projects characterized by this type of mentality can leave the environment seriously degraded, traditional resources diminished or polluted and cause extensive health problem for local inhabitants, (Kimenling, 1990, virus, 1992, as cited in Ashton and Bryan, 2002). Rivers state is one of the 36 states in Nigeria, with a population of 5,185,400, according to 2006 census data. Port Harcourt, its capital city and is economically significant as the centre of Nigerian's oil industry. It is located in the Southern part of the country and one of the six states of the South-South geo-political zones of the country (Wikipedia 2016).

Rivers State is richly endowed with enormous natural resources such as oil and gas, forest and aquaculture. Hence, the utilization of these resources in the State highly devastated environment through unsustainable practices and exploitation of these natural endowments. The presences of some of these natural resources have negative impact on the environment. For example, Over 54 oil spills were recorded between January and May 2011 in Rivers and Bayelsa State (Amnesty International 2011 in Nzeneri, 2014). Thus, the incidents of oil spillages and gas flaring have cause serious damage on farmlands and streams in the states oil producing communities. This experiences most of the times, cripple the economic activities of the communities as well as the source of their livelihood. The state also experience population explosion/growth due to the presence of oil company workers. This factor further threatens the conservation of the natural resources since much pressure will be on resources to satisfy this population. In addition to the above un-conservative measures, the natural resources are placed with unsustainable practices by the indigenous people based on ignorance and the belief that the natural resources are inexhaustible.

In the traditional societies, it is evident that farmers adopts various farm practices such as slash and bush burning while preparing for cultivation with the use of fire wood as an alternative source of fuel. Nzeneri (2014) asserts that some animals and plant species remain threatened in the process of cultivation while some are at brick of extinction following the activities of hunters and traditional health attendants. These and many more are some of the unsustainable practices which affect the conservation of natural resources in various traditional societies.

In the Etche Ethnic Nationality, there exist some resources which are conserved in specified places in various communities. The natural resources found in these places constitutes the cultural heritage of the Etche people which are used by the people for different purposes. The



forest resources are a good example of conserved areas which are of significance importance to the people's socio-economic livelihood. The forest apart from its uses as a means for agricultural purposes, some forest are reserved for the conservation of wildlife to save some birds like parrot, the eagle and certain animal species like the bush pig, leopard, monkeys, antelopes etc in the local communities from extinction. These sacred places are kept as evil forest and can only be permitted for use by observing some traditional religious practices to cleanse any curse upon the people. A good example of conserved sites are those situated in Ihinguma in Odogwa of Ulakwo-Unusuelem clan, Ihieriribe in Obibi community located in Okehi clan and Amadioha-ozuzu in Ozuzu clan.

Apart from the forest reserve, there are important natural rivers, lake, stream and lagoon which are considered very sacred but quite economical to the people's socio-cultural survival. Notable rivers which are used for fishing and other economic activities are the Ogochie River, Otamiri River and the popular Imo River which boost the supply of different fishes and sea animals like python, crocodile, sea turtle etc to the people of Rivers and other neighboring states in the country. Meanwhile, in the traditional societies, different approach have been adopted in trying to conserve the natural resources and cultural heritage of the people in different areas. These traditional approaches and methods are done through sacred sanctions, taboos and cultural laws. In the practice of conserving the environmental resources among the people of Etche, the farming or cutting down of some trees in certain forest will attract the wrath of the deity. The practices concerned relate to trees, forests, wildlife and marine organisms.

The environmental wisdom and ethics expressed through these religious beliefs are very useful tools in natural resource management and utilization without endangering the use of these resources for younger generations. Apart from the traditional approaches, the government at various levels (federal, state and local) have also made efforts towards ensuring that natural resources conservation are maintained. Government has evolved policies and enactment of legislative instruments for environmental protection, planning, pollution, prevention and control. These policies according to Ojule (2016) are concerned with issues of pollution, global warming, ozone layer depletion, land degradation, biodiversity, deforestation, desertification, atmospheric contamination which are factors of environmental problems that poses great threat to both aquatic and terrestrial life and can lead to their extinction. The legislation includes National Environmental Standards and Regulations Enforcement Agency (NESREA) Act, Environmental Impact Assessment Act, Associated Gas re-injection Act, The Endangered Species Act, Sea Fisheries Act and others (Tuscany Academy 2014

### **Community Participation and Environmental Sustainability of Natural Resources**

The increasing rate of unsustainable practices to the environmental resources calls for the participation of the community members in the management and conservation of sustenance of these resources. According to the World Bank Participatory Sourcebook (2010), indigenous participatory approach in the sustenance of natural resources balances the social, environmental and economic objectives. It is based on broader valuation of the environment. It takes into account, the multiple values of environmental resources, and the social and economic needs of the local people who are the users of these resources. The choice of technologies is geared towards environmental sustainability over the long term. The sourcebook maintained that, when the local



commons share in design, benefits, costs and management responsibility of forest projects, they have incentives to co-operate in enforcing rules on which they have themselves agreed. It stressed that; participation is the only valuable way to conserve forest areas for sustainable development

The involvement of community members in any community development programme is a basic condition in the promotion of such programmes. This is the basis of citizen participation which is seen as the backbone to the development of any community (Akande 2016). When community members are involved in the planning and decision making process of projects or programmes in their domain, it will encourage their sense of ownership for members to take the pride in referring to such projects as theirs. The principle of citizen participation therefore assumes that the people are the most important factor and should take part in the identification of needs, planning, execution, utilization and evaluation of programmes or projects. The participation principle according to Akande (2016) is premised on the notion that there are many resources (human and materials) available in the communities that if well utilized can enhance sustainable development. Thus, the input of community members in the choice of development activities is very essential for the success of any programme or project at any time.

Ashton and Bryan (2002), is of the opinion that, lack of indigenous participation in planning and implementing development projects, within their territories have a number of serious consequences for human communities and ecological stems. Lund (2002) asserts that community participation is a means to efficient achievement of policy goals, performance or project success. The reason had been that, community member's act as utility maximizing individuals. According to them, the key to successful outcome of partnership with industry to, develop a natural resource on a community land is to establish a much greater level of community involvement/ input in setting project goals and in it design. Julio (2007) in supporting the view asserts that legislation can successfully be implemented if it is developed in cooperation with the stakeholders involved.

### **Statement of the Problem**

In our society, the depletion and degradation of the environment is alarming in recent times. This is because of man's ignorance and belief that the environmental resources are natural and inexhaustible. In Etche Ethnic nationality of Rivers State, it is observed that the practice in the uses of environmental resources are seemingly carried out in an unsustainable manner. The people in their occupation are engaged in slash and burn practices for cultivation purposes, use of firewood as a source of alternative energy, indiscriminate cutting of trees etc due to customs and traditional ways of life of the people, in their effort to satisfy their needs. This situation is devastating both to man and the environmental resources which pose a threat to human survival. Meanwhile, how are community members from Etche responding to the threat of these environmental challenges to maintain sustainability of biodiversity use of natural resource and conservation? This research is concerned with an investigation on how these resources could be conserved through community participation in communities in Etche Ethnic nationality in Rivers State.



### **Purpose of the Study**

The study is aimed at investigating the relevance of community participation in the conservation of natural resources in Etche Ethnic Nationality, Rivers State. The specific objectives are:

1. To examine the inputs of community members in the formulation and implementation of policies for the conservation of natural resources.
2. To find out how community members participate in the selection of natural resources to be conserved for environmental sustainability.
3. To ascertain how the community members participate in the uses of conserved natural resources in a sustainable manner in Etche, Rivers State.

### **Research Questions**

The study sought to find answers to the questions below:

1. In what ways do community members participate and make inputs in the formulation and implementation of policies that assist in the conservation of natural resources?
2. In what ways do community members participate in the selection of natural resources to be conserved for environmental sustainability?
3. In what ways do community members participate in the effective uses of conserved natural resources in a sustainable manner in Etche, Rivers State?

### **Methodology**

The descriptive survey research design was used for this study. This design is adopted in order to find out directly from respondents their views about their input in community participation in the conservation of natural resources. The population of this study is made up of 1560 Adult members from the three clans of Etche Ethnic nationality consisting of 435 from Ulakwo-Umusuelem, 526 from Ozuzu and 599 from Okehi clans. The sample is 156 which is 10% of the population that constituted the sample size. It was chosen through the proportionate stratified random sampling technique drawn from the three clans as follows 45 from Ulakwo, 55 from Ozuzu and 51 from Okehi respectively. A validated 18 item Questionnaire titled Community Participation and Natural Resource Conservation Questionnaire (CPNRCQ) with a calculated coefficient of 87 reliability index using the Pearson Product Moment Correlation (PPMC) statistics was used for data collection. It was a four point Likert scale with a continuum of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) – 1. The weighted mean of  $10/4 = 2.5$  was obtained. Weighted means scoring over 2.5 are accepted while those below 2.5 are rejected in answering the research questions. Out of the 156 questionnaires administered, a total of 150 duly completed number was used for the study.

### **Result Presentation**

**Research Question 1:** In what ways do community members participate and make inputs in the formulation and implementation of policies that assist in the conservation of natural resources?

**Table 1.** Mean score analysis showing community participation in the formulation and implementation of policies that assist in the conservation of natural resources

S/N	Statement	SA (4)	A (3)	D (2)	SD (1)	Total N= 150	Mean	Remark
1	Existing government Policies in protecting natural resources can work better when community people take part in prescribing sacred sanctions for defaulters	114 456	30 90	6 12	0	558	3.72	Positive
2	Most policies on natural resources conservation can be effective when community people take part in using local taboos to strengthen the formulation of these policies.	90 360	52 16	6 12	0 2	534	3.56	Positive
3	Community people can assist state and local governments in the formulation and implementation of policies by integrating cultural laws for the conservation of natural resources	108 432	27 81	9 18	6	537	3.58	Positive
4	Natural resources sustainability can be achieved when community people take part in activities like tree planting exercises	99 396	30 90	15 30	6 6	522	3.48	Positive
5	The making of laws and to regulate on natural resources can easily be enforced when community people are allowed to identify defaulters and punished them through their local ways.	90 360	54 16	6 12	0 2	534	3.56	Positive
6	Natural resources can still be conserved when community people are less concerned about their usefulness.	0	9 27	90 18	51 51	258	1.72	Negative
<b>Grand Mean (x)</b>						3.2		

The result from Table 1 show the weighted mean score obtained from the respondents on the importance of community participation in the formulation and implementation of policies towards the conservation of natural resources in Etche Ethnic Nationality of Rivers State. Items 1, 2,3,4,5, and 6 with weighted means of 3.72, 3.56, 3.58, 3.48, 3.56 and 1.72 respectively with the grand of 3.2 indicates that community





participation in Policy formulation and Implementation will make the policies more effective, enforceable and conservation of natural resources will be more achievable, This result shows that Etche community participate in the formulation and implementation of policies which assist in the conservation of natural resources.

**Research Question 2:** In what ways do community members participate in the selection of natural resources to be conserved for environmental sustainability?

**Table 2:** Mean score analysis showing community participation in the selection of natural resources to be conserved for environmental sustainability

S/N	Statement	SA (4)	A (3)	D (2)	SD (1)	Total N= 150	Mean	Remark
7	Community members are allowed in choosing natural sites for conservation to increase their commitment to conservation programmes	93 372	45 135	9 18	3 3	528	3.5	Positive
8	The idea of community members taking part in the choice of natural resources for conservation is to enable them become stakeholders in managing these resources	72 288	27 81	33 66	18 18	453	3.02	Positive
9	Community members taking part in the selection of natural resources for conservation will assist them to check over exploitation of environmental resources for effective use.	84 336	42 126	12 24	9 9	498	3.3	Positive
10	The involvement of Community members in the selection of natural resources will help to conserve species of the environment for younger generations	18 72	6 18	96 192	30 30	312	2.08	Negative
11	Community members' involvement in natural resources selection programme will help to account for adequate resource use in the society.	54 216	69 209	24 48	3 3	476	3.17	Positive
12	The success of natural resource management/conservation programme entails careful choice of community needs to create greater sense of ownership.	96 384	42 126	12 24	0	534	3.56	Positive
<b>Grand Mean (x)</b>						<b>3.1</b>		

The result from Table 2 shows the Mean score analysis on how community members participate in the selection of natural resources to be conserved within the



environment Items 7, 8,9,10,11, and 12 with weighted means of 3.5, 3.02, 3.3, 2.08, 3.17 and 3.56 respectively with the 3.1 grand mean indicates that community members participation in the selection of natural resources to be conserved within the environment will increase their commitment to conservation programme, make them feel as stakeholders, check over exploitation of natural resources, and encourage active participation of community members in conservation processes. All these indicate that Etche community participate in the selection of natural resources for conservation purposes help in the conservation of natural resources.

**Research Question 3:** In what ways do community members participate in the effective uses of conserved natural resources in a sustainable manner in Etche, Rivers State?

**Table 3:** Mean score analysis showing community participation in the effective uses of conserved natural resources in Etche, Rivers State

S/N	Statement	SA (4)	A (3)	D (2)	SD (1)	Total N= 150	Mean	Remark
13	Community members make use of local taboos to sanction individuals which help in the conservation of natural resources in a sustainable manner	105 420	33 99	12 24	0	543	3.62	Positive
14	Government interference in environmental resources management in sacred sites, lakes and rivers gives people right to use the resources in an unsustainable manner	15 60	9 27	105 210	21 21	318	2.12	Negative
15	Ceremonies and festival activities are used by Community members to enlighten the people on natural resource conservation which assist in checking over exploitation of the resources for sustainable use	96 384	30 90	15 30	9 9	513	3.42	Positive
16	The idea of community participation in natural resources conservation is based on the principle of partnership which help in promoting sustainable development	84 336	15 45	27 54	24 24	459	3.06	Positive
17	Participatory management / sustenance approach between government and community members enable the people to understand the best way to conserve natural resources	54 216	69 207	24 48	3 3	474	3.16	Positive





18	Local sanctions are used to discourage bush burning which actively engage members of community in the process natural resource conservation in a sustainable manner.	105	33	12	0	543	3.62	Positive
<b>Grand Mean (x)</b>							<b>3.2</b>	

Table 3 shows the weighted mean score obtained from the respondents on community participation in the sustainable uses of natural resources in Etche Ethnic Nationality, Rivers State. Items 13, 14,15,16,17, and 18 with weighted means of 3.62, 2.12, 3.42, 3.06, 3.16 and 3.62 respectively with the 3.2 grand mean indicates that Community participation in the effective use and management of the environment assist in the conservation of natural resources, check over exploitation of the resources, encourage partnership for conservation, encourage participatory management / sustenance and there can be no successful natural resource management/conservation programme without active participation of community people. All these indicate that community participate in the utilization and management of the environment that helps in the conservation of natural resources.

### Discussion of Findings

The research showed that policies on environmental resources conservation can only be effective when there is active participation of community people. It further asserts that such policies formulated cannot be enforced due to lack of community participation in them. However, the study also revealed that community people can assist the state in the formulation and implementation of policies on conservation of natural resources. It goes on to reveal that, natural resource conservation can be achieved if community people participate in the formulation and implementation of policies , because, it make the same easier and more enforceable. Julio (2007) in supporting the view asserts that legislation can successfully be implemented if it is developed in cooperation with the stakeholders involved. Also in support is Lund (2002) who asserts that local communities would be psychologically be more committed in making decision about engaging in activities that concern them from the beginning.

In the issue of selection of natural resources to be conserved in the environment, the study reveal that community participation in the selection of natural resources for conservation will increase their commitment to conservation programmes. The study also reveals that such an idea will make them stakeholders. In addition, it will help them to check the exploitation of the resources. The study further reveals that there is need for community participation in the selection of natural resources for conservation. It assets that, they should be involved in all the natural resources conservation programmes within their community. It concludes that, there can be no successful natural resources programme without active participation of community people. This is in line with Appel and Camozzi (1996) who stipulate that active participation is one of the communities based environmental action and thus must be a pivotal point in any environmental programmes developed for adults.



The study revealed that community participation in the use and management of the environment will significantly assist in the conservation of natural resources in a sustainable manner. The study also reveals that indigenous participation in the management of natural resources does not give communities right to use it in an unsustainable manner. Instead, it will assist them to check over exploitation of the resources. The study further revealed that, the idea of community participation in the natural resources conservation is based on the principle of partnership. It went further to reveal that the sustainability approach should stem from the indigenous people themselves. This is due to the fact that there can be no successful environmental resource sustainability programmes, without active participation of community people. Ashton and Bryan (2002) is of the opinion that, lack of indigenous participation in planning and implementing development projects, within their territories have a number of serious consequences for human communities and ecological stems.

### **Conclusion**

The road towards the conservation of natural resources is a great challenge. Community people are great stake holders in matters pertaining to the environment and its resources. They have a lot of knowledge, play important role in conversation and are seen as the custodians of the environment. Hence, the relevance of community participation in the conservation of natural resources cannot be over emphasized. For effective conservation of the natural resources therefore, indigenous people need to be provided with enabling conditions, technical skills to enhance their effective participation in the management of the environment and its resources in designing policies and programmes, taking active part in decision making and in addition to making use of their community knowledge. Community people need to be empowered educationally. There is need to put community people at the forefront of our effort in the conservation of natural resources. The failure to recognize this, would account for unrealistic programmes such that the development of both human and materials resources of the environment are bound to suffer greatly.

### **Recommendations**

Based on the finding of the study, the following recommendations are put forward:

1. The community members should be encouraged to collaborate with government and non-governmental organizations in the formulation of policies for the regulation of natural resources for effective conservation and utilization of environmental resources in a sustainable manner.
2. Community members should be encouraged in the selection and choice of natural resources to be conserved, so as to increase their commitment and partnership with other stake holders to bring about maximum use of environmental resources for the benefit of the local people.
3. Ceremonial activities and programmes to enlighten community members should be encouraged to assist in educating and checking of over exploitation of resources for good cultural heritage and effective utilization of natural resources for the sustainability of development and wellbeing of people at the local communities especially in Etche Ethnic Nationality of Rivers State.



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