



## ABSTRACT

Environmental experts have posited that environmental sustainability largely depend on the citizens participation in efforts towards environmental control. This paper aim to analyse citizens participation in environmental control programmes, with key objective to identify factors affecting citizens participation in the study area. The study area comprises ten oil and gas bearing communities within the Nun River Oilfield in

# CITIZENS PARTICIPATION IN THE PREVENTION AND CONTROL OF ENVIRONMENTAL DEGRADATION IN SELECTED NUN RIVER OILFIELD COMMUNITIES, BAYELSA STATE

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## Introduction

The complex and dynamic changes confronting communities suggests that a more pragmatic approach to managing the changes is required, rather than the traditional top-down approach. According to Nabatchi (2012) mending the traditional approach of top-down and engaging the modern bottom-up (participatory) approach, which gives prominence to citizens participation in the management of environmental concerns will provide quick solution to the daring challenges or problems. The author further posited that this participatory approach to environmental management in which all the interest groups, including government, private sector, the civil society and the community dwellers provides effective and sustainable trend for the prevention and control of environmental degradation. Leighninger (2012) noted that the participatory approach creates and foster better citizens, because it



Bayelsa State. The study utilised mainly primary source of data collected through the survey method; a well structured questionnaire was administered on 390 respondents in all sampled communities selected through the simple random sampling technique. Data were both descriptively and statistically analysed. The results of the descriptive analyses showed low participation between communities. Similarly, results of an ANOVA test showed that F-ratio calculated 1527.552 was greater than tabulated value of 3.84, and P-value 0.000 was less than significant 0.05 suggesting low participation in environmental control significantly varied among individuals and communities. Results also showed significant relationship with socioeconomic characteristics: income and educational attainment and participation. 77% of respondents were unaware of relevant environmental laws and the consequences of their harmful anthropogenic activities, while 20% stated been aware, but blamed income level, illiteracy and nature of subsistence occupation for engaging in such activities. Results also showed that 80% of respondents were willing to participate in environmental control programmes. Hence, it is recommended that Government at all levels should seek citizens and stakeholders involvement in the formulation and implementation regimes of environmental control programmes, and organise awareness or enlightenment programmes to educate the citizens on the need to strike a balance between socioeconomic development and environmental sustainability.

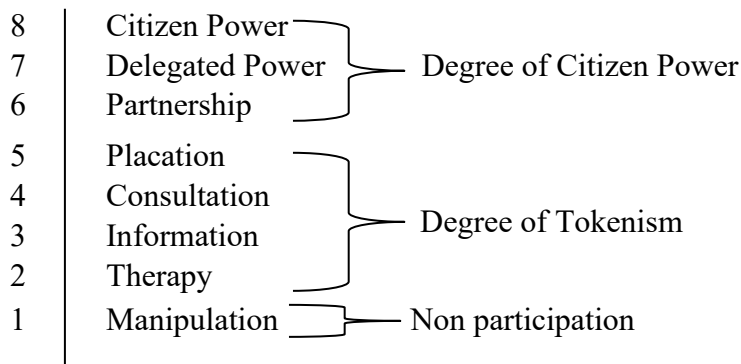
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encourages education about government and policies, and it improves basic civil skills and dispositions. Furthermore, according to the author it helps build healthy communities, because it raises awareness about problems and builds social capital; it creates better policy decisions and improve governance, because it generates more information, build consensus and increase support for (potentially unpopular) decisions; this is because citizen participation is encouraged. Dalton, (2008) defined citizen participation as the involvement of the broad mass of population in the choice, execution and evaluation of



programmes and projects that are designed to bring out significant upward movement in the quality of life of the people.

Arnstein in 1969 defined citizen participation in terms of the amount of actual control the citizens have over policy decisions; the author further maintained that participation is divided into three categories; non-participation; tokenism and citizen power which is illustrated thus;



**Figure 1: Arnstein Ladder of citizen participation**

**Source: Robert 1970**

The author believes that without actual redistribution of power, citizens participation is an empty initiative and likely to fail. Therefore, it is imperative to encourage significantly high level on the ladder of participation. In Bayelsa State, citizen participation in government policies towards environmental protection is observed to falls within Arnstein's categories of non-participation and tokenism. Consequently, the need has heightened for a research that shall undertake an analytical assessment of citizen participation and identify the factors militating against it in the sampled communities, so that it's effective use as a viable tool for the prevention and control of environmental degradation can be harnessed by policy-makers at all levels of government.

### **The Concept of Citizen Participation**

The concept of citizen participation and its effectiveness came under public discourse in the 1980's. Richardson and Razicaque (2006) argued that its authenticity and effectiveness would vary with varying purposes being served and the styles of action deployed. According to Irvin (2004) citizen participation is the process by which individuals, families and or communities assume responsibility for their own welfare and develop the capacity to contribute to their own communities' development by being involved in the decision making process in determining goals and pursuing issues of importance. Thus, the authors see citizen participation as a mean to educate



citizens and to increase their competence; and asserted that it's a vehicle for influencing decision that affect the lives of citizens as well as an avenue for transferring political power. Furthermore, the authors posited that when an individual is allowed to participate in the decision that affects his life, he is encouraged to feel more committed and determined, and by so doing, his skills and abilities are developed to take further responsibilities.

In achieving effective citizen participation, certain roles and responsibilities are required from the relevant or critical stakeholders (Nabatchi, 2012). The author underscored that, on the part of the citizens, the expectation and responsibilities includes; a fair respectful and open process which allows all who are affected or interested to have equal opportunity to participate, clear, complete and straight forward information from the city or other presenters; to be involved early enough in the process to influence the outcome; to work hard at learning about the issues, listening to all perspectives, attempting to understand opposing viewpoints, trying to reach compromise on difficult issues, and to consider the "public good" perspective on all issues, follow-up to their movement by receiving information about the final decisions and why it was made; to be able to be part of the solution and to define a role in implementation as it appropriate.

### **Benefits of Citizen Participation**

Leighninger (2012) noted that citizen participation offers many instrumental benefits to citizens, communities and government to collectively determine the ideal developmental trajectory suitable for their environment. The benefits of citizen participation were also broadly outlined by Dietz (2008) to include, help build consensus for developmental initiatives, especially in the context of great demands, restricted resources and limited capacity, increase the efficiency of development in investment by drawing on local resources and skills and managing external inputs; increasing the effectiveness of development investments as it builds on local knowledge and understanding of problems leading to better tailored intentions; expand local capacities of people as they learn to manage and negotiate development activities; potentially increase coverage as local people assume responsibility for on-going sustainability and maximize the potential uses of intervention; improve targeting of development inputs through the involvement of all possible stakeholders in project design and monitoring; lead to a more inclusive initiatives as it improve the opportunity for women and other discriminated groups to be actively involved.



Nabatchi (2012) underscored the importance of citizen participation and asserted that it is no longer acceptable for those affected by development not to be involved. Alonge 1986 in Green (2007) noted that citizen participation is an effective and sustainable tools for the prevention and control of environmental degradation. The authors also averred that lack of citizen participation is a major constraint to the effectiveness of environmental control measures of government at all levels. As earlier stated it is against this backdrop that their paper is set out analyse citizen participation in environmental decision- making, environmental control and identify the factors militating against effective citizen participation in sampled communities.

### The Study Area

The study area has a total of fifteen (15) communities, which comprised of ten Nun River Oilfield Communities namely; Oporoma, Onyoma, Angiama, Luduon, Aguobiri, Bolou-Aguobiri, Agiama-gbene, Igeibiri, Obololi and Osokama and five Neighbouring Communities namely; Otuan, Oweikoroghe, Anyama, Ondewari and Ozezebiri in Southern Ijaw Local Government Area of Bayelsa State. Southern Ijaw Local Government Area has a total area of 2,68<sup>2</sup> kilometres with a population of 319,413 (National Population Commission, 2006). The studied communities are shown in the map of Southern Ijaw Local Government Area (see Figure 2).

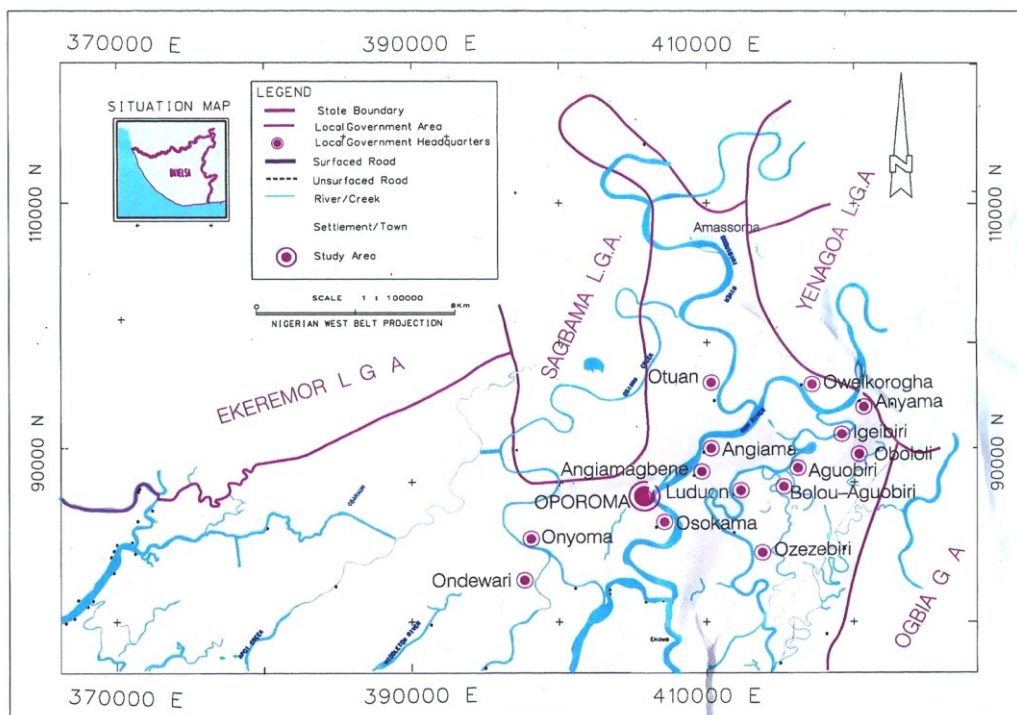






Figure 2. Southern Ijaw Local Government Area Showing the Studied Communities

Source: Office of the Surveyor-General, Yenagoa, Bayelsa State.

The sampled communities had a total population of 54,982 people as at 2019. The geographical coordinate of the central point of the study area which is Oporoma is in latitude  $4^{\circ} 48' 17''$  North and longitude  $6^{\circ} 04' 44''$  East. The Geology is made up from top to bottom with Benin, Agbade and Akata formations (Shell Petroleum Development Company of Nigeria Limited, 1998). The area lies in the wet equatorial climate region of the Niger Delta. It is typically a humid tropical climate characterised by high rainfall and high temperature (Gobo, 1998). The area experiences both dry and wet seasons. The temperature of the area ranges between 23 and  $32^{\circ}\text{C}$  with little monthly variations. The vegetation cover of the study area and that of the Bayelsa State is typical of the fresh water areas characterised by grasses and trees. The surface soil of the area shows moderate suitability for crop production.

The area is rich in natural resources which include oil and gas, with oil wells in most communities and pipelines criss-crossing the area. The major economic activity of the area is agriculture including fishing, farming, forestry, lumbering, hunting, gathering of wild forest products and tapping of palm wine and brewing of local gin are the primary economic activities in the area (Allison-Oguru, Zuofa & Berepubo, 1999).

### **Materials and Methods**

The study adopted the descriptive and explanatory research designs. The research utilized mainly primary data, which entailed the use of a well structured and validated questionnaire and direct physical observation. The research included all ten (10) oil bearing communities covered by SPDC operations and five (5) neighbouring non oil bearing communities, totalling fifteen communities in Southern Ijaw Local Government Area (SILGA) of Bayelsa State.

The total population of Nun River Oilfield Communities and Neighbouring Communities' was 103, 608 (NPC, 2006). The sample size for the study was 398, which was determined adequate for the study using the Taro Yamane formula for determining sample size from a given population (Kpolovie, 2011). The multi-stage sampling technique was adopted for the study. Firstly, the respective sampled communities constituted 15 clusters, from which the 398 samples were drawn. Secondly, the proportionate sampling technique was



adopted to determine the number of samples to be drawn from each community based on its population size. Thirdly, having determined the respective sample size for each community, the systematic sampling technique at every four housing interval was used to identified the respondents for the study.

A set of 398 structured questionnaires was administered to the sampled 398 respondents, male or female household head that were available as at the time of visit. The questionnaire was administered directly by hand to the respondent to fill and return. This measure was adopted to improve the number of retrieved questionnaire. The obtained data from the administered questionnaire were analysed using descriptive statistics (percentages, means and graphical illustrations) and analysis of variance (ANOVA), which was adopted to test the hypothesis, which states that the socioeconomic characteristics of respondents significantly relates to degree of participation in environmental control. The statistical package for the social sciences (SPSS) was used to conduct the ANOVA test.

### Results and Discussion

This section focuses on presentation of results and discussion of findings which enlightens the audience on how the result is presented to achieve the objective of the study. As earlier stated a total of 398 questionnaires were administered, out of which 340 representing 68% was retrieved and analysed.

**Table 1: Notice of Environmental Problems**

S/N	Factors considered	No. of respondent	Percentage (%)
1	Yes	265	77.9%
2	No	55	16.2%
3	uncertain	20	5.9%
<b>Total</b>		340	100

Source: (Field Work 2023)

The table showed that 77.9% asserted that they have noticed environmental problems in their communities, 16.2% said they haven't noticed any environmental problem, while 5.9% of respondents were undecided. Respondents also highlighted various environmental problems noticed in their communities which included; indiscriminate waste dumping, mainly in the



waterways, loss of bio-diversities, indiscriminate logging, water/air pollution, soil/shoreline erosion, flooding as well as hyacinth invasion etc.

**Table 2: Consequences of Identified Environmental Problems**

S/N	Factors considered	No.of respondents	Percentage (%)
1	Outbreak of disease	90	26.5
2	Loss of occupation	57	16.8
3	Increase social vices	41	12.1
4	Shortage of water	38	11.1
5	Shortage of food	103	30.3
6	Extinction of wild life	11	3.2
		340	100

Source: (Field Work 2023)

As shown in table 26.5% identified outbreak of diseases as a major consequence of the environmental problems, 16.8% identified loss of occupation, 12.1% identified increase in social vice. The table also showed that 11.1% of respondent identified shortage of water, 30.3% identified for shortage, while 3.2% of respondents identified loss of wild live as major consequences of environmental problems in the communities.

**Table 3: Awareness of Government Environmental Regulations**

S/N	Factors considered	No. of respondents	Percentage (%)
1	Aware	69	20.3%
2	Not aware	264	77.6%
3	Undecided	7	2.1%
<b>Total</b>		340	100

Source: (Field Work 2023)

The table showed that 20.3% of respondents said they were aware of government environmental laws and regulations, 77.6% noted not been aware, while 2.1% declined to supply any information. It is pertinent to also note that respondent expressed neglect by government agencies in processes culminating into the establishment of environmental laws and regulations.





**Table 4: Willingness to Participate in Environmental Control Processes**

S/N	Factors considered	No. of respondents	Percentage (%)
1	Yes	272	80.0%
2	No	57	16.8%
3	Asterism	11	3.2%
		340	100%

Source: (Field Work 2023)

The table showed respondents willingness to participate in environmental control process, if called upon by decision/policy makers. As shown 80.0% expressed their willingness to participate, only 16.8% expressed unwillingness, while 3.2% were indifferent of the question.

**Table 5: Constraints to citizen participation**

S/N	Factors That Hinders Citizen Participation	No. Respondents	%
1	Lack of public awareness hinders citizen participation	38	11.2
2	Absence of regulatory agencies	37	10.9
3	Low income level	50	14.7
4	Lack of confidence on government/ policies and programmes	50	14.7
5	Illiteracy	97	28.5
6	Non-involvement of citizens	68	20.0
	<b>TOTAL</b>	<b>340</b>	<b>100</b>

Source: (Field Work 2023)

As shown in the table 11.2% identified lack of public awareness as a major constraint to citizen participation in environmental decision-making, 10.9% said it was absence of relevant regulatory agencies, 14.7% said it was low income level i.e. poverty, another 14.7% noted lack of confidence on government. The table also showed that 28.5% noted illiteracy and 20.0% of the respondents identified non-involvement of citizens in decision-making process that culminated into the enactment and subsequent implementation of environmental laws and regulations.

Undoubtedly, the above results have raised a fundamental question “how do policy-makers harmonize citizen participation into its efforts towards



environmental control for the attainment of sustainable rural development in Bayelsa State”.

### **Conclusions**

The question of whether respondents have noticed any environmental problem in their communities was answered unanimously in the affirmative with a resound 78% of respondents; suggesting that environmental problem abound in sample communities. The research has shown that respondents are to a large extent aware of the consequences associated thereto. There was an observation enthusiasm to answer the question on whether respondents were aware of the existence of extant environmental laws and regulations, about 77% of respondents expressed ignorance of such environmental laws and regulations. This leaves much to be desired as the sustainability of the environment and the success of environmental laws and regulations depends largely on the active participation of the citizens. This calls for a more comprehensive environmental education or campaign in sampled communities.

Similarly, on whether respondents were involved in processes leading to enactment or establishment of environmental control statutes, over 85% stated that they were not involved. The question on the willingness of participate in programmes towards environmental control was also answered unanimously in the affirmative with a resounding 80% indicating their willingness to participate, a small percentage expressed indifference, while 16.8% said they weren't willing to participate. It is important to note that they attributed their unwillingness to the insensitivity of government towards their plight as individual and community.

Irvin (2004) noted that there can be no genuine participation without partnership, delegated power and effective citizen control over a range of issue affecting their lives. Thus, Nabatchi, (2012) posited that citizens' participation should be entrenched into the institutional framework of administrative agencies regardless of the challenges of inclusive governance.

### **Recommendations**

Consequent upon the finding and conclusion made thereafter, we recommend that government should undertake a comprehensive evaluation of all extant environmental laws and regulations with a view to harmonizing effective citizens participation in the processes leading to the enactment of such laws and regulations.



Government should view environmental sustainability as community responsibility and as such assess the various local cultural practices and value systems that have fostered environmental control, and harness and encourage such practices. Environmental education be enshrined in the nation's schools curriculum throughout the formal and non-formal education system; undertake comprehensive environmental education programmes and awareness campaigns to provide rural people with relevant and adequate information on the need to sustain the environment.

Conclusively, the local government being the closest tier of government to the rural dwellers be strengthened to optimal capacity and provided with required professional staff. This will enhance them to analyse environmental policies and to document impacts for decision makers; collate data based on the environment which will help in effective and sound environmental planning and management in rural settlements; and also to be able to design and undertake programmes that shall make the citizens aware of the need for a cleaner environment, while doing various anthropogenic activities.

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