THE EFFECTIVENESS OF PARTICIPATORY PLANNING APPROACH IN BUILDING ENVIRONMENTAL RESILIENCE AND SUSTAINABLE RURAL COMMUNITIES

[1]AMATARI - BREFORD SINCLAIR AMATARI (PhD)
[1]Department of Geography, Isaac Jasper Boro College of Education, Sagbama,

[2]EZEKIEL OVUOKERIE GUNN (PhD)
[2]Department of Urban and Regional Planning, Niger Delta University,
Wilberforce Island, Bayelsa State, Nigeria
Corresponding Author **Email**: amabresly44@gmail.com

Abstract
The participatory planning approach gives premium to citizen participation in the planning, implementation and management of environmental concerns. However, this approach has daring challenges because of the traditional top-down planning approach which has been widely used. This paper aims at critically examining the adoption of participatory planning approach in environmental control programmes, with a key objective of identifying constraints to citizen's participation and making recommendations. The study area comprises ten selected communities in Southern Ijaw Local Government Area of Bayelsa State. Primary source of data was used by administering 250 questionnaires through the simple random sampling technique. The results of the analyses showed low level of participation. Likewise, 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 indicating that participation in environmental control significantly varied among individuals and communities. Results also showed significant relationship with socioeconomic characteristics and participation. 75% of respondents were unaware of extant environmental laws and the consequences of their harmful activities, while 21% are aware, but blamed income level, illiteracy and nature of subsistence occupation for engaging in such activities. Results also showed that 82% of respondents expressed readiness to participate in environmental decision-making processes. It is recommended that Government at all levels should seek citizens and stakeholders participation in the planning and implementation of environmental control programmes, and organize enlightenment programmes to educate the citizens on the importance of establishing balance between socio-economic development and environmental sustainability in rural communities.

Keywords: Effectiveness, Environmental Sustainability, Participatory Planning, Resilience and Rural Communities.

1.0 Introduction

Rural community dwellers oftentimes wake up in the morning and see policies, programmes and intervention schemes implemented in their communities, as decisions including environment legislations which affect them and their communities. These policies are continuously made at the top and have caused resentments and difficulties in achieving sustainable rural development. Replacing the traditional approach

of top-bottom and employing the contemporary participatory approach that gives premium to public participatory provides easy pathways to check environmental problems (Nabatchi, 2012). The author posited that a participatory approach to environmental decision-making in which all stakeholder groups, including the community dwellers are involved is an effective method in community development.

According to Leighninger (2012) participatory planning approach creates and fosters better citizens' participation, because it encourages education concerning government policies and programmes, and improves basic civil skills and dispositions. The author underscored that, a participatory approach is an important guide for community development interventions, as it reduces cost of development incurred through the top-down approach and enables people to reap benefits. Also, Woodcraft, Hackett and Caistor-Arendar (2011)noted that in this approach the people are directly involved in the decision-making process and take ownership of both the decision-making and development processes .Bezdek (2013) stated that engaging a participatory planning approach in the development of local environmental policies, programmes and intervention projects can give credence to the entire processes of community development, and is deemed to be crucial for sustainability and resilience building

Researchers such as Bezdek (2013), considered participatory planning approach as a veritable physical planning tool in addressing environmental problems and bringing about sustainable development in both urban and rural neighbourhoods. In Bayelsa State, the adoption of the participatory planning approach in the planning and implementation processes of environmental policies and programmes mostly fall at the lower levels of consultation and information giving; whereas, it is imperative to encourage significantly high level in the ladder of community participation. It is against this backdrop that this study is undertaken with the aim of critically examining the adoption of participatory planning approach in environmental control programmes in Bayelsa State, with key objectives to ascertain the role of participatory planning approach in building resilient and sustainable rural communities; identify the major constraints, and to make far-reaching recommendations.

1.1 The Concept of Participatory Planning

Participatory planning is a planning paradigm that emphases involving the entire community or stakeholders in the strategies and management process of urban planning or rural community-level planning processes (Rauschmayer & Risse, 2015). The participatory planning approach is an important guide for community development interventions. It aims at bottom-up, community-driven, needs-based approaches to development initiatives, and underscores partnerships, collaborations and shared ownership in order to instigate effective community participation through the participatory planning approach (Raymond, 2012).

Participatory planning is designed to harness the deep knowledge and commitment of residents to positively and productively improve their communities (Fox and Stoett, 2016). Furthermore, the authors noted that whether positively or negatively, residents' interest on an issue indicates that a robust discussion is needed, and it is the planner's duty to help coordinate that discussion and help develop a public sense of ownership over the local planning process and the outcomes; noting that the custodians of good planning should rest on the citizens and/or communities.

According to Hodge and Greve (2017), there are different types of participation. They however, cautioned that not all approaches allow citizens to

actively and influentially shape decisions that affect their lives and environment. Also, the authors illustrated the different types of community participation as shown in Table 1.0.

Table 1.0: Types of Community Participation

Level of community control	Types of participation	Level of sustainability
High ↕ Low	**Self-Mobilization:** Affected communities start actions on issues without outside help. **Joint Decision-Making:** Affected communities and organisation make decisions together on an equal basis. **Functional Participation:** Affected communities are united to participate at a particular stag of action to fulfil a particular purpose. **Participation for Material Incentives:** Affected community participate in an activity only because they need the material benefits of doing so, e.g. money of infrastructural project. **Consultation:** Affected communities are asked about an activity by an organisation, but their views may or may not have any influence on it. **Information Giving:** People or affected community is simply informed that an activity will take place and have no say in activity design and implementation or management	High ↕ Low

Source: Hodge and Greve (2017)

According to Wilcox (1994) in Fox and Stoett (2016), every intervention programme needs reasonable level of community participation to succeed; and community participation in the planning and development process assures that success. The United Nations General Assembly (2018) recommended community participation at significantly high level on the ladder of participation, stressing that local people often know a lot more than outside organizations how an issue affects their individual lives and the environment. However, authors have also criticized the participatory planning approach.

1.2 Criticisms of Participatory Planning Approach

Maier (2001) and Badasyan and Alfen (2017) noted that the participatory planning approach has been criticized on the following grounds:

1. A participatory process takes longer time.
2. It may be difficult to assure that all the right people get to the table or are brought on board.
3. One determined individual can wreak the whole process if it is not handled well.
4. Education may be needed for community members and the organisation to work together
5. Members of the target population or community may not agree with the 'experts' about what is needed.

Nonetheless, the authors further noted that overcoming these challenges may increase the possibility of designing and carrying out an effective participatory planning with benefits to the community. Nabatchi (2012) posited that citizens' participation should be entrenched into the institutional framework of administrative agencies regardless of the challenges associated with inclusive environmental governance.

1.3 Benefits of the Participatory Planning Approach

Research reports have confirmed that participatory approach provides planners and decision-makers with necessary information for providing more and adequate enabling and institutional support. Badasyan and Alfen (2017) summarized the benefits of participatory planning approach to include:

1 It bring a broader range of people to the planning process, provides access to a broader range of ideas, and hence the process shall have more credibility in all segments of the community

2. It implies respect for everyone in the community, and hence sets a standard for community participation and empowerment organisation and the community at large may feel compelled to follow.

3. A participatory planning process builds trust both between the organisation and the community and among the individuals; thus, carries with it feelings of ownership, and builds a strong base for interventions in the community.

4 It can bring together and establish ties among community members who might normally have no connection, and transfer skills which last far beyond the planning process, and can help to improve the community over the long term

5 A participatory planning approach avoids pit falls caused by ignorance of the realities of the community or the target population. Also, it can provide an opportunity for often disenfranchised groups to be heard and show that they can as well contribute positively.

2.0 The Study Area

The research was conducted in Southern Ijaw Local Government Area of Bayelsa State, where a total of fifteen (15) communities were randomly selected. The communities 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. The studied communities are shown in the map of Southern Ijaw Local Government Area (see Figure 1).

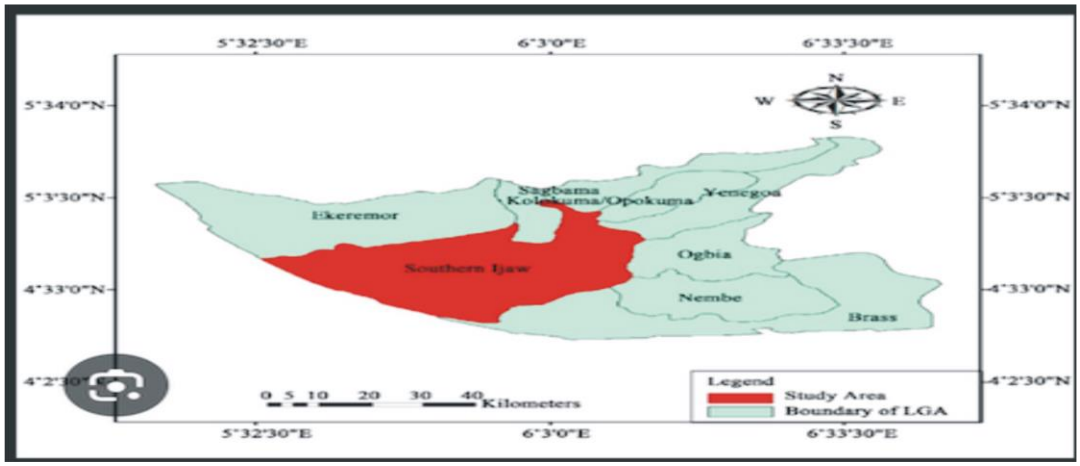

Figure 2. Southern Ijaw Local Government Area Showing Sampled Communities
Source: Office of the Surveyor-General, Yenagoa, Bayelsa State.

The sampled communities had a total population of 54,982 people. The geographical coordinate of the central point of the study area which is Oporoma is in latitude 4^0 48^1 17^{11} North and longitude $6^0 04^1 44^{11}$ 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^{o}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 crisis 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).

3.0 Materials and Methods

The study adopted the descriptive and explanatory research designs. The research utilized mainly primary data, which entailed the use of a 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 250, 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 250 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 250 structured questionnaires were administered to the sampled respondents, male or female household heads that were available as at the time of visit. The questionnaires were administered directly by hand to the respondents 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 decision- making process. The statistical package for the social sciences (SPSS) was used to conduct the ANOVA test.

4.0 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 250 questionnaires were administered, out of

which 240 representing 96% was retrieved and analyzed.

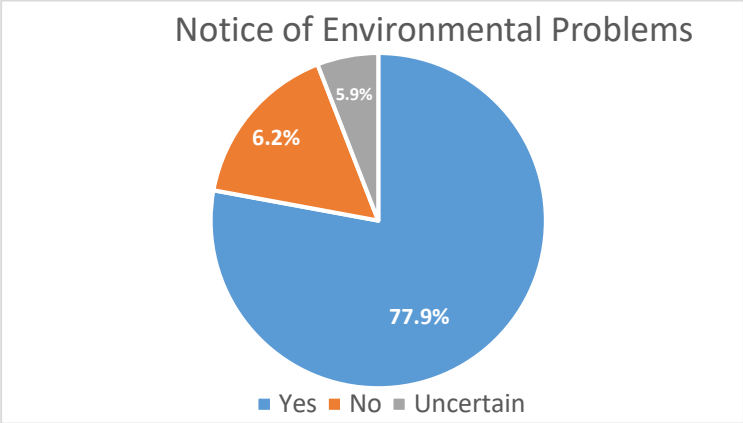

Figure 1: Environmental challenges observed
Source: Field Work (2024)

From the analysis of data figure 1 showed 77.9% of respondents stating that they have observed environmental challenges in their communities, 16.2% said they have not observed any environmental challenge, while 5.9% of respondents were undecided. Also, respondents identified various environmental challenges observed in their communities to include 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.

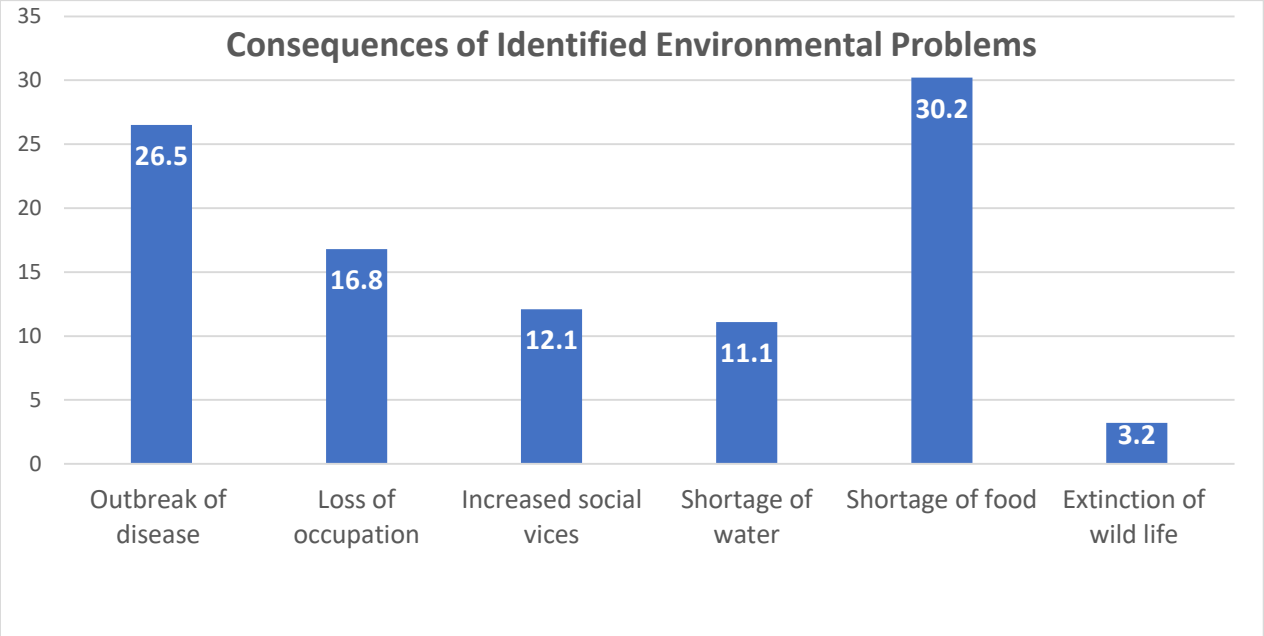

Figure 2:Consequences of Identified Environmental Problems
Source: Field Work (2024)

Figure 2 reveals that 26.5% of respondents identified outbreak of diseases as a major consequence of the environmental challenges observed, 16.8% identified loss of occupation, and 12.1% identified increase in social vices. The figure also showed 11.1% of respondents identifying shortage of water, 30.2% identified food shortage; while 3.2% of respondents identified loss of wild live as major consequences of environmental challenges in the communities.

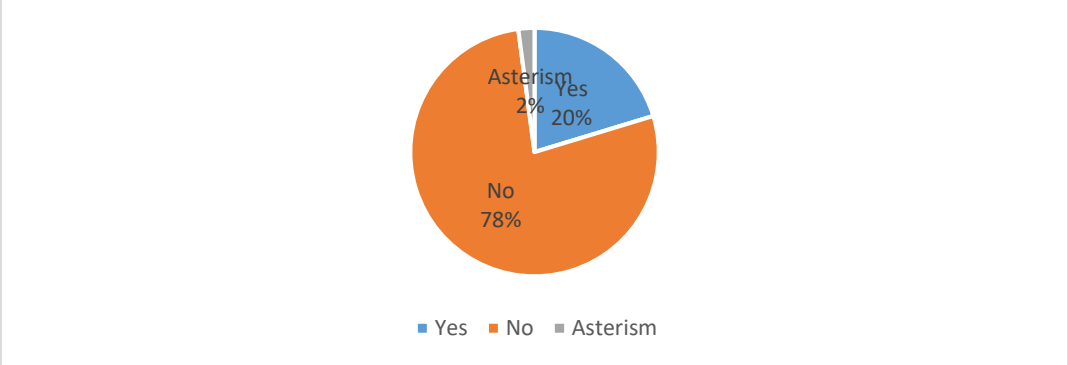

Figure 3: Awareness of Government Environmental Regulations
Source: Field Work (2024)

Figure 3 shows that 20% of respondents affirmed awareness of government environmental laws and regulations, 78% stated not been aware, while 2% declined to supply any information. It is pertinent to also note that respondents expressed neglect by government agencies in processes culminating into the establishment of environmental laws and regulations. Abbott

(1996) averred that environmental regulations are unlikely to succeed if the citizens are not involved in the planning and implementation regimes. The author further noted that the success of conservation efforts demands the full participation of community dwellers; not only that this participatory planning approach will motivate the people, but it will also make it possible for local technologies and techniques to be harnessed and included in the environmental decision-making process.

Figure 4 showed respondents readiness to participate in environmental decision-making process, if called upon by decision/policy makers. As shown, 80.0% expressed their readiness to participate; only 16.8% expressed unwillingness, while 3.2% were indifferent to the question.

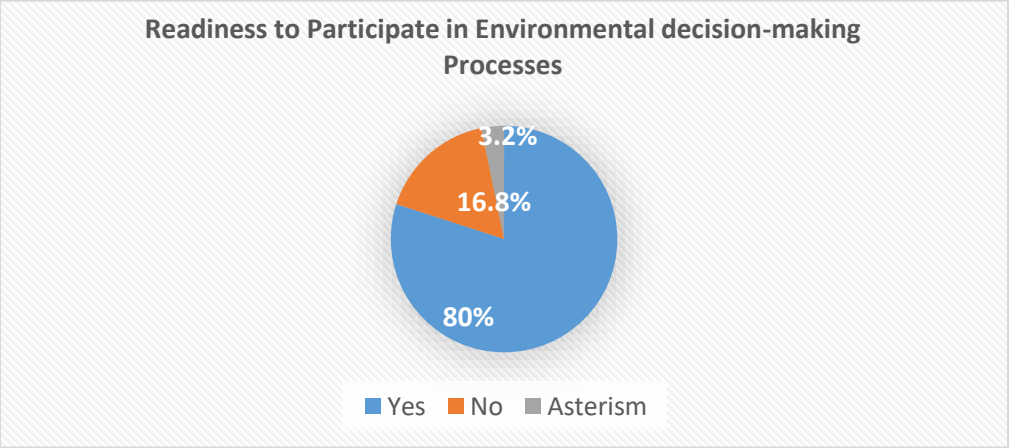

Figure 4: Readiness to Participate in Environmental Decision-making Process Source: Field Work (2024)

Table 2: Constraints to participation in environmental decision-making

S/N	Factors affecting Participation	No. Respondents	%
1	Lack of public awareness hinders citizen participation	30	12.5
2	Absence of regulatory agencies and enforcement	25	10.4
3	Low income level	27	11.3
4	Lack of confidence on government/ policies and programmes	40	16.7
5	Illiteracy	65	27.1
6	Non-involvement of citizens	53	22.0
	TOTAL	**240**	**100**

Source: Field Work (2024)

As shown in the table 12.5% identified lack of public awareness as a major constraint to citizen participation in environmental decision-making, 10.4% was absence of relevant regulatory agencies and enforcement, 11.3% said it was low income level i.e. poverty, another 16.7% noted lack of confidence on government. The table also shows that 27.1% noted illiteracy and 22.0% of the respondents identified non-involvement of citizens in decision-making process that culminated into the enactment and subsequent implementation of environmental laws, regulations and intervention programmes and projects.

The outcome of this research has raised a fundamental question, "how do policy-makers deploy participatory planning approach into efforts aimed at building environmental resilience and sustainable rural communities in Bayelsa State".

5.0 Recommendations

Based on the finding, we recommend that government should seek citizens and stakeholders participation; assess the various local cultural practices and value systems that have fostered environmental control and harness or encourage such practices.

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 formulation and implementation processes of such laws and regulations.

Lastly, environmental education is enshrined in the nation's schools curriculum throughout the formal and non-formal education system; undertake comprehensive environmental education programmes and enlightenment campaigns to provide rural people with relevant and adequate information on the need to sustain the environment.

6.0 Conclusions

The question of whether respondents have observed environmental challenges in their communities were answered unanimously in the affirmative with a resounding 78% of respondents; suggesting that environmental challenges abound in sample communities. Results also showed that respondents are to a large extent aware of the consequences associated thereto. There was an observed 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 in the planning process. This calls for a more comprehensive environmental education or enlightenment campaigns in sampled communities.

Similarly, on whether respondents were involved in processes leading to establishment of environmental control statutes, over 85% stated that they were not involved. The question on the readiness to participate in environmental decision-making was also answered unanimously in the affirmative with a resounding 80% indicating their readiness to participate, a small percentage expressed indifference, while 16.8% said they weren't ready to participate. It is important to note that they attributed their unwillingness to the insensitivity of government towards their plight as individual and community.Fox & Stoett (2016) averred that there can be no genuine participation without partnership, delegated power and effective citizen control over a range of issues affecting their lives and environment.

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