

Promoting Community Resilience in Coastal Communities in Niger Delta

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Abstract

The impacts of development projects on coastal communities in Niger Delta are immense given their overall vulnerability in the face of cumulative environmental effects from human activities and natural events. These communities face the risk of exposure due to existing pollution from the surrounding industry and destruction associated with extreme weather events. Most time, they often lack basic assets to build up resilience. This paper is on what best practices to use that will increase pollution prevention, sustain water use and propose strategies for enhancing coastal community resilience. It looked at a survey carried out in two coastal communities in Niger Delta using biophysical and socio characteristics of the fishers and their perception to assess constraints faced in their livelihood; the present coping method employed by these fishers and proffer better coping approaches that will enhance resilience for the fishers.

Introduction

The Niger Delta region is situated at the apex of the Gulf of Guinea on the west coast of Africa. It is home to some 31 million people, occupies a total area of about 75,000 km² and makes up 7.5% of Nigeria's land mass (Doust, 1990, Haack et al., 2000). It is located in the Atlantic coast of Southern Nigeria and has the largest wetland in Africa with about 20,000sq/km (CLO, 2002; Anifowose, 2008; Chinweze and Abiola-Oloke, 2009). The coastal folks especially in Niger Delta are faced with socio-economic dysfunction associated with environmental effects of industrial projects and natural events. Increasingly, projects are being located on the coasts where transport advantages on water are more readily available for oil exploration and production. Fishing and coastal communities are competing with large multinationals for the very spaces where they have their homes and make their living. This problem in the face of development has been a serious topic of discussion over time in Nigeria, but successive governments in the country have not been bold enough to provide practical solutions. The problem has been compounded by the fast pace occurrences of these cumulative developments; difficulty of ordinary coastal folks to take part in government decision-making processes for siting industrial projects; poor enforcement of environmental law and growing unpredictable natural hazards and changes.

Most of the coastal dwellers no longer engage in active fishing or farming as a means of livelihood because of the degraded environment. In more recent years, the youth in these communities have resolved to self-help which has taken a more dangerous dimension. Initial youth restiveness was primarily aimed at seeking redress for over 56 years of neglect and deprivation. Now the youth form organized violent groups that take multinational companies workers as hostages; harass and threaten families of politicians, and bomb pipelines and communities (Ansa and Akinrotimi, 2018). Most people and the multinational company workers live in perpetual fear and some fleeing, which calls for urgent solution.

Resilience strategies are flexible, for it to be relevant, they should be sensitive to the community context where it will be adopted. To proffer solutions to the problems or enhancing community

resilience in coastal communities, it is important we highlight some of the challenges and existing coping strategies used by the coastal communities. A survey of biophysical attributes and perception was carried out to assess the coping strategies employed by fishers in two coastal communities in Niger Delta and constrains faced in their livelihood. From the survey, the present coping strategies of the fishers were known, better coping strategies that will enhance resilience for the fishers will be given and recommendation to the government on best interventions.

Materials and Methods

Ibeno and Onna are located in the south east of Nigeria with Coordinates: $4^{\circ}56'8''N$ $7^{\circ}59'6''E$ and $4^{\circ}53'9''N$ $7^{\circ}52'10''E$ respectively (Fig. 1). They are fishing communities along the coastal region in Niger Delta. Primary data was obtained using questionnaire on household survey and in-depth interviews and discussions with the fishermen. Secondary data were obtained through desktop review of available literatures. The household questionnaire comprised of many components on the demography of the fishers, the perception and opinion on constrains to their livelihood, impact of climate change, vulnerability, and coping strategies in face of development projects and natural events.

All data collected were analyzed using quantitative and descriptive methods and weighted mean score was used to make deductions which formed the basis for the research findings. All analysis was done using Statistical package for social sciences (SPSS).

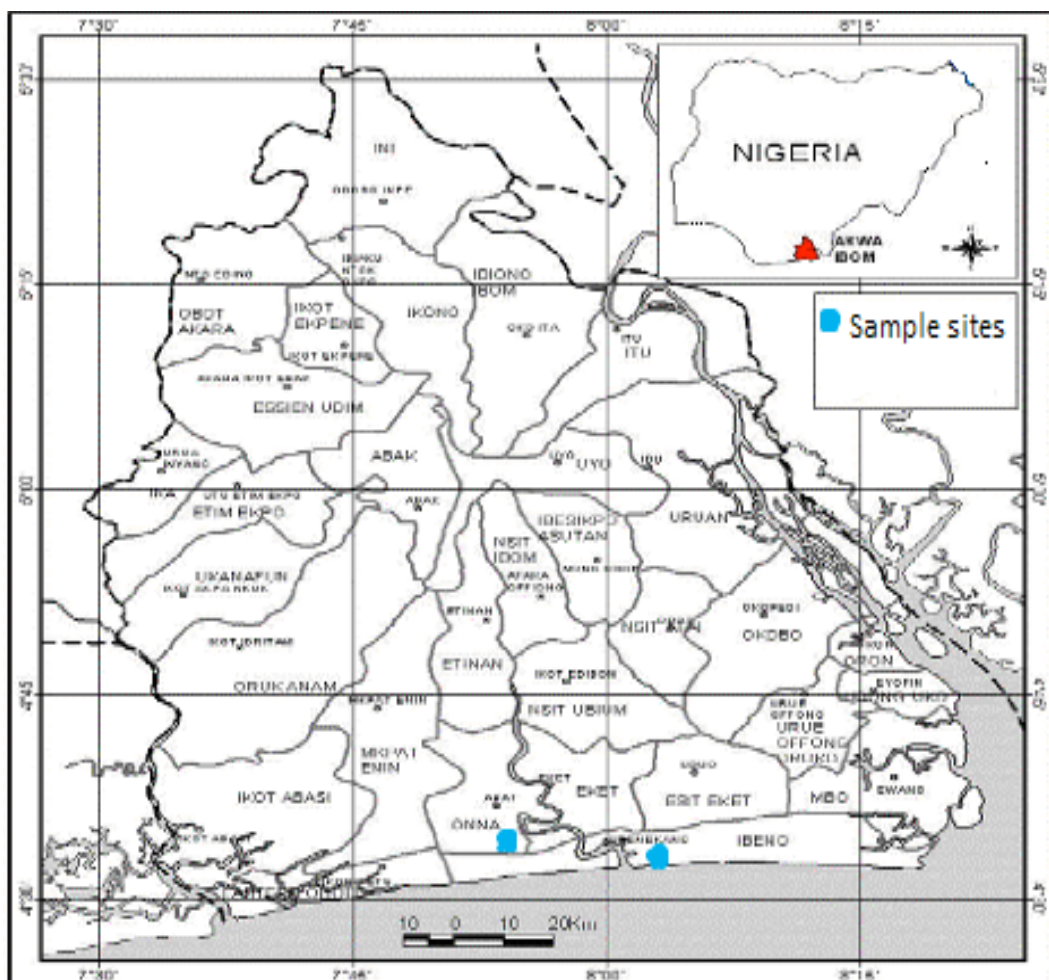


Figure 1. Map of sampling sites

Result and Discussion

Demographic characteristics

Gender, age, marital status, family type, family size, level of education, primary occupation, secondary occupation, housing type and weekly income were the demographic and socio-economic variables obtained (Table 1). All respondents were men which showed that women do not fish as a source of livelihood in these communities. Respondent distribution by age showed that over 90% and 85% of the respondents in Onna and Ibeno LGAs respectively were in their active working age of 20-59 years while most of them have extended family and large family size. The people from Ibeno were mostly fishers while those in Onna were able to diversify their occupation. Most of respondent are relatively poor with income value (Nigerian Naira) of less than #5000.00 which is equivalent to US\$15.00 weekly.

Perception on oil development and natural changes

People in Niger Delta remains poor and under developed, lacking all forms of social amenities and infrastructure, such as electricity, medical facilities, roads, decent shelter etc. Lack of fishing boats, fishing in distant locations and high cost of fishing equipment were the major hindrances enumerated by the fishers in these communities. They stated that low level of education, lack of money and little or no access to information that will help them; and neglect by the government were constraints (Table 2). Their problems have been compounded by bad weather, structural damage from storms and overflowing banks. These fishing communities face similar problems and hindrances to their livelihood.

Table 1. Demographic characteristics of Ibeno and Onna

Descriptions		Ibeno (%)	Onna (%)
Age	20-39	25	40
	40-59	60	50
	>60	15	10
Gender	Male	100	100
	Female	0	0
Marital status	Single	25	20
	Married	70	70
	Widowed	5	10
Family type	Nuclear	20	30
	Extended	80	70
Family Size	1-6	10	25
	7-12	75	55
	>13	15	20
Education	Non formal	20	25
	Primary	70	45
	Secondary	10	30
Occupation	Trading	0	20
	Fishing	100	30
	Farming	0	50
Housing Type	Mud house	25	0
	Mud/galvanized	50	60
	Cement/galvanized	25	40
Weekly income(#)			
(US\$1.00 = #360.000)	1000.00-2500.00	75	40
	2600.00-5000.00	15	50
	>5000.00	10	10

Most of the respondents stated that they changed their occupation as a coping strategy because of degradation of natural habitat. Others diversified their means of livelihood to include hunting, farming and trading or migrate to the city for office jobs. Those that are fishing had to fish early, use better fishing gear or travel further distance to get fish (Table 2).

Most fishers complained that the oil companies explore oil and natural gas with no respect to their health, the quality of the environment and their livelihood. In addition to incessant oil spills and gas flaring, high-pressured pipelines are laid on the earth surface and at close proximity to their homes. These result in environmental hazards, air pollution and rivers and creeks with seafood, fish and other resources contaminated. The fishers are vulnerable to environmental threats as they are often dependent on their immediate environment for survival. Environmental degradation most times negatively impact on the peoples' right to survival and property.

In addition to environmental degradation, the Niger Delta is a place of major confrontation between the people and the government security forces, resulting in extra-judicial executions, arbitrary detentions, and forceful eviction. Thus the people have the feeling of being suppressed and shortchanged by the government that is supposed to come to their aid in building up their resilience through infrastructure and capacity development. Therefore, the perceived hope (resilience) the victims of environmental degradations have against oil multinational and government for offenses committed by them is to sabotage or targeted protest at oil company activities; incidents of hostage taking; closures or bombing of flow stations; and harassment of oil workers or general public (Ansa and Akinrotimi 2018).

Table 2. Perception of fishers on constraints, development and natural changes on their livelihood

Questions	Ibena			Onna		
	Sum	Mean	Decision	Sum	Mean	Decision
Lack of fishing boat	33	2.70	Agree	53	2.65	Agree
Fishing in distant location	37	2.85	Agree	41	2.05	Agree
High cost of fishing equipment	40	3.00	Agree	60	3.00	Agree
Lack of money	38	2.90	Agree	60	2.90	Agree
Low education	30	2.50	Agree	52	2.50	Agree
Poor access to climate information	24	2.15	Agree	54	2.15	Agree
Impact of climate change	30	2.50	Agree	49	2.50	Agree
Structural damage from storms	28	2.40	Agree	46	2.40	Agree
Neglect by government	28	2.40	Agree	51	2.40	Agree
High cost of transportation	30	2.50	Agree	60	2.50	Agree
Blockage of canal	29	2.45	Agree	36	2.45	Disagree
Overflowing banks	31	2.55	Agree	30	2.55	Disagree
Prevalence of sickness	23	2.10	Agree	57	2.15	Agree
Lack of landing site	31	2.55	Agree	49	2.55	Agree
Lack of basic infrastructures	39	2.90	Agree	60	3.00	Agree
Degradation of water and land	40	3.00	Agree	58	2.95	Agree

Way forward

Resilience is the ability to recover and at the same time to enhance the capacities of the community or organization to better withstand future stresses (Rodin and Garris, 2012). While there is no standard approach to enhance resilience in coastal communities; resilience constantly evolves as new information becomes available and needs become clearer. For the communities to build resilience, it

requires cooperation among the people, developers, government and non-governmental organizations in pollution prevention, infrastructural development and exchange of relevant information.

Several laws and policies in Nigeria have been taken in pollution prevention at the national levels. In addition, Nigeria is a signatory to several international environmental and human rights instruments aimed at promoting fundamental human rights and securing quality of life including a healthy environment for the Nigerian people. The law has clearly designated ministry of environment or agencies of government with the power to enforce environmental laws and standards. However, enforcement of these laws in Niger Delta has been a problem. More so, most private litigations on non-compliance of environmental standards by developers and government's inaction in the implementation of environmental laws are faced with a lot of hiccups. The conventional courts have failed to effectively apply the provision of the law in environmental matters, for want of 'personal injury' when non-compliance of environmental standards is brought by individuals or NGOs' (Nmadu, 2013). That means that you have to prove to the court that you are specifically and personally affected by the problem. For a cleaner and safer Niger Delta environment for all generations, our environmental statutes should be amended to encourage private litigation actions to remedy public environmental wrongs. These Communities are often unaware of these environmental laws and Nigerian constitutions. Knowledge of the law and legal steps is essential if communities are to take full advantage of their environmental rights. NGOs and organized civil societies in the region should intensify their effort in making the laws and procedures easier to understand and readily accessible. This can be done through organizing awareness programmes, using the local media and translating them into the indigenous language.

The government should be made accountable to the people they govern and release funding for putting identified basic infrastructure in place. These infrastructures are part of the assets identified in sustainable livelihood framework (DFID 1999). Access to basic amenities and adaptive capacity of livelihood strategies has been used in determining vulnerability (Vincent and Cull, 2010). The more they have access to these livelihood assets the better they will be in coping with the present situation.

The coastal dwellers are often not part of the processes of environmental regulation by the government. Collective decision making about priorities and project siting should be taken. The communities should play a part in influencing the conditions that affect their lives. Assigning some roles to the local representatives and traditional heads from this region should be encouraged.

A head-on attack on the problem of Niger Delta is through disarmament and rehabilitation. African values need to be reawakened to accommodate current issues surrounding the conflicts in the region. This can be achieved through a systematic process of physical and educational activities to build up the capacity of all Niger Delta youth so that they can participate in the economic development of the region.

Conclusion

Oil pollution and environmental degradation associated with exploitation and production of petroleum resources has a great impact on the bio-physical environment, human health and safety, and socio-economic environments in the Niger Delta. This impact has been compounded by unsustainable operations of the oil companies and the ineffective enforcement of environmental laws and policies by government. Thus there is need for the government and oil companies to adopt environmentally friendly approach that will minimize the associated environmental pollution. For

resilience of the coastal communities to be enhanced; there is a need to put the basic structures in place to protect the environment, with responsive government and access to laws and regulatory related information.

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