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RURAL LIVELIHOODS AND RESOURCES EXTRACTION IN THE NIGER DELTA WETLANDS

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ABSTRACT

The broad objective of this paper is to determine the environmental changes arising from the wetland resources extraction impact upon the livelihoods of the inhabitants of the Niger Delta Communities. It also identifies local social structures and institutions that influences natural (non-oil) resource extraction/exploitation in the area. The data for the study were collected through Rapid Rural Appraisal, In-depth Interview of key informants and field observation. Three communities were selected from each state for study. They were: Ayadeghe, Ibeno and Nwaniba in Akwa Ibom State; Ine Efik, Esuk Mma Nsa Ekpo and Obu Eki in Cross River State and Okrika, Agulama and Aduaa in Rivers State. Results revealed that the common non-oil resources extracted from Niger Delta wetlands could be classified into three-timber/timber products, non-timber products and fish/wild animals. The common environmental changes, which have resulted from resource extraction, are silting of streams and drying up of creeks and ponds, depletion of the mangroves and longer periods of dry season. These environmental changes have reduced the quantity

of leaves and fruits as well as firewood, medicinal plants and games obtained from the wetlands. However, the rural have devised traditional methods to check excessive exploitation of the wetlands resources. These include Village Council, Youth Council/Age Grades and Women Groups, Cultural Groups such as Idiong and Ekpe in Ibibioland as well as gods and deities. Exception of the Cultural Groups all other local Institutions and structures are still very effective.

1.0 BACKGROUND

The Niger Delta Wetlands, located on the Atlantic Coast of Nigeria has the world third largest mangrove, the largest in Africa (NDES, 1997; Ikporukpo, 1998). Its mangrove swamp is a region of vast ecological diversity and rich natural resources which have been exploited for centuries for economic and social advancement. The traditional uses of the wetland's forest for gathering of a variety of products other than wood are together with fishing activities and small-scale farming, essential activities for the inhabitants of the Delta. Non-timber forest products (NTFP) are also derived from animal and plant resources in the Delta. These support many activities of the communities and other economic sectors in Nigeria.

Generally, the exploitation and utilization of the rich natural resources of the Niger Delta have generated considerable environmental, national and international concern. This is particularly so of the crude oil exploration, whose adverse environmental impact in the region have been well documented [Constitutional Right Project (CRP) 1999, Ikporukpo, 1998]. One obvious effect of the oil production activities in the region has been competition between the communities and oil companies for land, and subsequent reduction in cultivable land and other land based resources. Immediate fall out of this type of dislocation is pressure on other source(s) of livelihoods (e.g. gathering of forest products, sand excavation, etc.) in the region. The World Bank (1995) maintains that although some of the resource extraction activities do not directly destroy the productive resource,

there are known cases of these resources being exploited beyond a sustainable level. Collaborating this position, the CRP (1999) in its book *Land, Oil and Human Rights, Nigerian Delta Region* reports thus:

"The in the now devastated forests they used to pick the seeds of the *Ogbono tree*, the main ingredient of the very popular Nigerian dish, *Ogbono soup*, an agricultural product in high demand all over the country and for that reason, a highly valued source of income. They cannot do any of these now".

The complex nexus between environmental resource use and rural livelihoods calls for a deeper understanding of the impacts and changes that occur from resource exploitation. Again, each community has its social and institutional arrangements to regulate resource use. Thus, there is also the need for analysis of the social and institutional interactions with resources exploitation in the Niger Delta. These can make for informed policy decisions as well as intervention programmes on sustainable Niger Delta resource utilization. The objectives of the study, therefore are to:

- Identify the common resource extracted from the Delta wetlands and the impacts of the resource extraction/exploitation on the coastal (Delta) environment;
- Determine how the environmental changes arising from the resources extraction impact on the livelihoods of inhabitant of the Delta Communities and;
- Identify local social structures and institutions that influence natural (non-oil) resource extraction/exploitation in the Niger Delta.

2.0 UNDERLYING ASSUMPTIONS

In discussing the link between non-oil resource extraction and livelihoods in the Niger Delta, we make the following assumptions:

- Environmental change is predominantly human-induced
- Resource extraction from the Niger Delta Wetland should lead to environmental change. The environmental change arising from

resource extraction, in turn, impacts on the livelihoods of the inhabitants of the Delta communities. Here, livelihoods are considered as activities undertaken for sustenance. They include the totality of means by which people secure a living, have or acquire in one way or another, the requirements for survival and satisfaction of needs as defined by the people themselves in all aspects of their lives (Lubster, 1995).

We also assume that:

- In order to check over-exploitation of environmental resources, and thus mitigate the adverse impacts on the environment and people's livelihoods, communities have a set of rules which guide the behaviour of its members towards the use of the resources. These systems of rules, decision making procedures and programmes (institutions) give rise to social practices, assign roles to participants and guide interactions among occupants of the relevant roles (Lebel, 2000). The roles played by these institutions could be in the form of creating limited entry regions to avoid ravages of unsustainable harvesting of living resources (JDGEC 1999). Although there are formal institutions, we are here concerned with informal institutions which co-exist with the formal. These consist of unwritten taboos, customs and traditions. Our assumption is premised on the fact that the weakness of formal institution particularly strongly in rural areas. And, David (1994, 1997) tends to support this position by maintaining that naturally informal constraints on behaviour are pervasive and important or "modern economies too!" Emerging evidence in core economic literature (World Bank, 1993; 1997; Stiglitz, 1998) also show that the role of institutions (both formal and informal) in promoting the growth in developing and emerging economies has sparked renewed interest in recent years.

3.1 DATA COLLECTION

The data used in the study were collected through Rapid Rural Appraisal (RRA), In-depth Interview (IDI) of key informants and field

observations. Three wetlands communities were randomly selected from three states of the Nigeria Delta for study (Table 1). Due to poor enforcement (Aron, 2000), informal institutions still persist.

Table 1: Wetlands Communities studied

S/N	STATE	COMMUNITY STUDIED
1	Akwa Ibom	Ayadeghe, Ibeno, Nwaniba
2	Cross River	Ine Efik, Enak, Nma Nna Ekpo, Obu Eki
3	Rivers	Okrika, Agulama, Adua

The first step in the data collection involved the RRA. This was followed by the IDI. The key informants, three (3) per community were selected based on the recommendations from a cross section of the people in the communities. Most of the key informants turned out to be individuals who themselves, have been involved in fifteen (15) years. Site visits were also made to ascertain the impacts of resource extraction on the environment of the Delta. The responses, discussions and findings are synthesized and presented under results and discussion.

3.0 RESULTS AND DISCUSSION

1.. Some common resources extracted from the Niger Delta Wetlands by community members

Timber/Timber products -uapaca (*uapaca guineensis*), obeche (*Tripcochiton sleroxylon*), *Allablankia floribunda*, *Poga Oleosa*, *Iroko (chlorophona excelsa)*, *Oxystigma mannii*, *Coelocaryon preussii*, *Mahogany (Khaya ivorensis)*, *Aningeria robusta*, *Mamma africana*, *Jomaluim letestui*, *umbrella tree (Musanga cercropiodes)*, *mansonina*, etc.

Non-timber products; chewing stick (*Garcinia mannii*, *Lasianthera africanum*, *Gentum africanum*, *Piper guineensis*, *Raphia hookeri*, *Raphia vinifera* *Sacoglottis gabonensis*, *Ancistrophyllum secundiflorum*, medicinal plants*

* These are of various types

Fish: Fish of all types including crabs, shrimbs

Wild Animals: Wild animals of all kinds, snails, etc.

The Niger Delta wetlands could well be described as a reservoir of biological resources. The wetlands is an important habitat for flora, fauna and marine resources of inestimable importance. Some of these resources are summarized above. Among these are timber products which are used for making furniture of various types, construction of building, canoes, etc. Several persons earn their livelihoods by exploiting the timber products of the wetlands. These include sawyers, saw millers, boat/canoe builders and fire wood gatherers. It should be noted that in Nigeria, most of the timber used in contraction work come from the natural forest while very small proportion of the timber demand is met from the government forest reserves. In fact, Government forest Reserves is a recent development in the country, particularly in the Niger Delta area, thus, the natural forest including the wetlands had been a major source of supply from time immemorial.

- 1 They were seen as those knowledgeable on the subject matter of the study. Most of the key
2. Resource extraction in the Delta Wetlands and forests for a period of not less than fifteen (15) years.

Besides timber and timber products, non-timber products and fish of various types are also obtained from the wetlands. Fuelwood - an important source of energy supply to both rural and urban households are extracted from the wetlands. Another very important product. The chewing stick (*Carcinia mannii*) is also a product from the wetlands. Chewing stick is used across Nigeria in place of tooth paste. Vegetables and medicinal plants obtained from the Niger Delta Wetlands are used and also traded along the width and breadth of Nigeria.

Table 2: Environmental changes from Resource Extraction in the Niger Delta

Environment Changes Silting of Streams and drying up of creeks and ponds Depletion of the mangroves Longer period of dry season
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Table 3: Impacts of Environmental Change on Rural Livelihoods in the Niger Delta

Livelihood Mean	Increase	Decrease	No Impact
Farming		✓	
Fishing		✓	
Gathering of Leaves (Vegetables, Fruits, etc)		✓	
Firewood		✓	
Medicinal plants		✓	
Hunting of games		✓	

A combination of field observation and interview of key informants confirm that actually, many years of extracting natural resources from the Niger Delta wetlands have brought about some negative changes. These changes include silting of streams and drying up of creeks, and lakes. Mangrove resources are also said to be depleted while longer periods of dry season are said to have occurred of recent. All these impact adversely on the means of livelihoods of the inhabitants of adjoining communities. Generally, there have been a decrease in such livelihood activities as fishing, gathering of leaves (vegetable), fruit, fuelwood, medicinal plants and the number of games hunter are able to get per hunting expedition. Farming seems to be the only activity which is not affected by the pressure of natural (non-oil) resources extraction. Although the position is that there is no impact on farming, decrease in the means of livelihood should make people to intensify farming activities in order to sustain themselves and families. It should be expected that further depletion of natural resources would encourage intense cultivation of available land including marginal land. For now the problem is not quite obvious, but may be a course for concern in future.

3 Local Institution and Structures influencing Natural Resources Extraction in the Niger Delta.

Several Institutions exist in the Niger Delta Communities, which are used to regulate the use of environmental resources (Table 4). These institutions are made functional by such local structures as the village councils, youth councils, age grades and women groups.

The village councils are recent arrangement but traditional groups which have always exist with the people also exert strong influence. The traditional rules are culturally embedded arrangements. They are supported by beliefs, norms and values, or a "sense of community" For instance, it is a taboo to consume monkeys in Itam, Akwa Ibom State and in particular, certain monkeys by pregnant women in Ekong Anaku, Cross River State. Traditional Institutions also regulate the cutting of trees and gathering of fuel woods at certain location (bush) in Rivers State. All these measures while ensuring the regeneration of species in the first instance, assist in preserving important specie of plants and animals. However, while these institutions are useful the present level of enforcement of some, are rather weak. Byelaws by the village councils, youth councils/age grades and women group are still strong. Of recent, youth group in the Niger Delta have been very restive. Thus, their rules are respected for fear of severe sanctions

Table 4: Local Institutions influencing Natural Resource Extraction in the Nigeria Delta.

Structure	Institutions	Effectiveness
Village Councils	Make bye-laws to regulate use of wetlands resources	Strong
Youth Council/Age Grades and Women Groups	Assist in formulating and enforcing rules	Strong
Cultural/Traditional Group (a) Idiong and Ekpe in Ibibio and Annang ethnic groups of Akwa Ibom State	(1) Forbids consumption of certain animals/monkeys in Itam (2) Use young palm fronds (eyei) to ward off people from extracting from designated wetlands (3) Enforces sanctions on offenders	Weak
(b) Ebia in Obu Eki Community, and Ekong Anaku in Akamkpa, in Cross River State	Off-season hunting rules; forbids fishing in certain length of streams or rivers. Taboos against consumption of certain animals by pregnant women (e.g. pangolin)	Very strong
(c) Agulama-agula Oru-alebo, Aduaa-Odon in Rivers State (These are gods/deities)	Forbids cutting of trees from designated areas of forest. Offenders are visited with mysterious illness and misfortunes	Very strong

4.0 CONCLUSION

Evidence from the study show that wetlands communities of Niger Delta depend to a large extent on the wetlands of natural resources for their livelihood. However, continuous exploitation of the resources have some adverse impacts on the environment and subsequently livelihood activities. Indigenous traditional groups as well as village, youth and women councils are found to play important role in regulating the extraction of resources in the wetlands. Nonetheless, the level of enforcement of some of these institutions are rather weak. This has some implications for sustainable livelihood in the area. Given weak and inconsistent public institutional arrangements in Nigeria, traditional institutions is expected to fill in the gap in preserving the natural resources of the Niger Delta wetlands. It is therefore necessary that indigenous methods which are employed in regulating resource use be recognise and integrated into national institutions.

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