

STAKEHOLDER ROLE OF FOREST DEPENDENT COMMUNITIES OF CROSS RIVER STATE (CRS) TO THE SUCCESS OF THE UN-REDD⁺ PROGRAMME IN NIGERIA

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ABSTRACT

Cross River State (CRS) is the pilot state for UN-REDD⁺ readiness status granted Nigeria. It has a land mass of 21,560 km² and is situated within the rainforest belt of the Niger Delta region. With a population of about 3million people, 70% are rural farmers. CRS forest covers a total land area of 7,610km² of which 72% (5,460km²) is National Park and State forest reserves and 28% (2,150km²) is community forests. The forests of CRS are managed in a three-tier arrangement where the Federal Government manages the Cross River National Park which constitutes 52.56% (4000km²) of the total forest area of the state, the state government manages the forest reserves and game reserves, while the local communities manage their community forests. This paper identified some cultural and socio-economic practices of the forest dependent communities of CRS that have direct impact (positive or negative) on the biodiversity conservation and sustainable forest management required for implementing REDD⁺. The positive practices included preservation of parts of their community forests as sacred groves for the worship of their traditional deities, conservation of specific species of plants and animals valued for medicine, ornamentals or food and prohibition of logging and hunting. The negative practices included lack of land use plans for their communities, shifting cultivation method of farming, deforestation of watersheds for farming, rapid population growth, unsustainable methods of harvesting non-timber forest products (NTFPs) e.g. felling *Irvingia gabonensis* tree to harvest the fruits, logging of mangrove trees for fuel wood since they burn readily even when freshly cut, and the use of chemicals like *Gamaline20* to kill fish thus destroying the aquatic biodiversity. It was recommended that the federal and state governments as well as non-governmental organizations (NGOs) should engage local communities and indigenous people in capacity building to develop land use plans, acquire the techniques of eco-agricultural methods of farming, develop renewable energy projects like solar energy, micro-hydro energy and wind energy, and above all acquire skills in alternative livelihood options such as snail, mushroom, grass-cutter and bee farming, as well as their involvement in the afforestation programme of government.

KEYWORDS: UN-REDD⁺, Stakeholder Role, Indigenous People, Forest Dependent Communities, CRS

INTRODUCTION

Cross River State is one of the 36 states of the Federal Republic of Nigeria. It is located in the South-South geopolitical zone of the country. Over 50% of Nigeria's remaining tropical high forest is found in this State.

The United Nations REDD⁺ Policy Board granted Nigeria a REDD⁺ readiness status at its 7th Policy Board meeting in October, 2011. Four million (US\$4 million) United States dollars in funding for Nigeria's National REDD⁺ Programme was approved (UN-REDD-News letter October, 2011). The REDD⁺ programme in Nigeria is innovative because it involves the Federal Government of Nigeria and only one state (Cross River State) as a pilot state, in the first instance.

Three pilot sites for the REDD⁺- programme in Cross River State have been identified as follows:

- (1) Mbe Mountains – Afi River Forest Reserve
- (2) Ekuri-Ikoi Essai-Okokori-Etara-Eyeyeng-Owai-Ukpon River; and
- (3) Mangrove Forest Reserve

Project Idea Notes (PIN) have been prepared for the first two pilot sites named above. Mbe Mountains located in Boki Local Government Area of Cross River State is surrounded by nine communities namely: Bamba, Kayang I, Kanyang 2, Wula 1, Wula 2, Bokalum, Abo Ogbagante, Abo Obisu and Abo Mkpang

Afi River Forest Reserve with the adjoining Afi Mountains Wildlife Sanctuary is also located largely in Boki Local Government Area with a section of it in Obudu Local Government Area. This complex of ecological features is surrounded by sixteen communities Olum, Buanchor, Katabang, Asuben, Kachi, Enyi, Ebok, Ebranta, Njua, Kakubok Irruan, Nkayia Irruan, Kakwagom Irruan, Bitiah Irruan, Okubuchi Irruan, Esikwe Irruan and Ndemechang Irruan. The next pilot site of Ekuri – Iko Esai – Okokori – Etara – Eyeyeng – Owai-Ukpon River is located in Akamkpa, Obubra and Etung Local Government Areas and is surrounded by 12 Communities namely: Old Ekuri, New Ekuri, Iko Esai, Owai, Okokori, Etara, Eyeyeng, Agoi Ekpo, Agoi Ibani, Iyamitet, Okumorotet and Edondon(Mason and Malhi 2010 a & b). The third pilot site which is the Mangrove project site is located in the coastal area of Cross River State along Calabar Municipal, Calabar South, Akpabuyo and Bakasi Local Government areas. A PIN document for this site is yet to be prepared.

The stakeholders in Nigeria's REDD⁺ Programme include the Federal Government, Cross River State Government, Local Government Councils in which the project sites are located and Non-Governmental Organizations (NGOs) concerned with environment and are implementing projects within the pilot sites.

THE STUDY AREA

Geographical location of Cross River State

Cross River state is located within the tropical rain forest belt of Nigeria. It lies between latitude 4° 28' and 6° 55' North of the Equator and longitude 7° 50' and 9° 28' East of the Greenwich meridian. It shares common boundaries with the Republic of Cameroon in the East, Benue State in the North, Ebonyi and Abia States in the west, Akwa Ibom State in

the southwest and the Atlantic Ocean in the south. It has a total landmass of about 23,000km (Egbe 2009).

Vegetation zones and endemic animal species.

At least five distinct ecological Zones are represented in the state ranging from mangrove and swamp forests towards the coast, tropical rain forests further inland, and savanna woodlands in the northern parts of the state. The highlands of the Obudu Plateau offer montane type vegetation. Up the Obudu Plateau the climate is essentially temperate (Aya 2006).

This coupled with the favourable climate of tropical, humid, dry and wet seasons gives rise to rich agricultural lands thus encouraging both perennial and annual crop cultivation. Cross River State is home to the Cross River gorilla (*Gorilla gorilla diehli*), recognized as a distinct and critically endangered subspecies by the Primate Specialist Group (PSG) of the IUCN Species Survival Commission (SSC) in February 2000. It is considered the rarest and most endangered subspecies of gorilla. They are also the western-most gorillas in the world. With a total population estimated at approximately 250 individuals, the Cross River gorilla is rarer than the Mountain gorilla of the Virunga's in East Africa. The area also harbours drills (*Mandrillus leucophaeus*) and chimpanzees (*Pan troglodytes*) in addition to other primates (Oates 2011; Ogogo *et. al.*, 2009).

The forests of Cross River State constitute one of the 25 biodiversity hot spots in the world. They are extremely rich in flora and fauna many of which are endemic; has over 1,545 species of plants, from 523 genera in 98 families, 6 of these plants are new records in Nigeria and four (4) are new to science (Mamza 2008).

Geology

The State with its underlying crystalline basement rocks is rich in oil in its coastal regions and other identified mineral resources such as limestone, quartz, natural gas, clay, salt, tin, granite, basalt, lead, zinc, manganese, gypsum, barites, uranium, mica, etc., some of which are yet to be exploited.

Climate

Arising from its location, the state enjoys a tropical climate with the Obudu Plateau at an altitude of 1,595.79 metres above sea level enjoying a temperate climate. The state records heavy rainfall of between 2,500mm and 4,500 mm during the wet season (April - November). The dry season is for a duration of 3 to 5 months, and starts from December to March. Average daily temperature range is from 24°C to 25° C (National Park Action Plan, 1997, Microsoft 2009). There are basically two wind types that influence the Cross River State climate – the North-East trade winds (North Easterlies) which ushers in the Harmattan from November to March and the South-west Trade Winds (South-easterlies) that ushers in the rainy season.

The forest of Cross River State

The forest resource base of Cross River State which cuts across three ecozones (swamp forest in the south, tropical high forest in the south and central zones, and savannah woodland in the north) covers a large expanse of land. It is estimated that the State has the largest vestiges of the Tropical High Forest in the country. The forest and its resources remain an important pivot for the future economic development and environmental sustainability of this State. The conservation of these resources will contribute significantly to the economy of both rural areas and the state at large. Although the financial and economic benefits derived by communities and households from non-timber forest products are difficult to estimate, they contribute significantly to the livelihood of these rural dwellers. The forest provides - medicine, fuel wood, building materials, foods and source of employment and income to the rural communities. It also provides environmental services such as watershed protection, erosion control as well as contributing to the global community in terms of biodiversity and carbon sequestration representing 31 % of the remaining forest in Nigeria.

The creation of Akwa Ibom State in 1987 left Cross River State with a total of seventeen forest reserves covering an area of 6191 km². The high rate of deforestation (about 10% between 1972 and 1991) caused the Federal government TO create the Cross River National Park among other Parks by the enactment of Decree No.36 of 1991 and as amended by Decree No.46 of 1999. This left the State with 14 forest reserves covering an area of 3056.79 km² (Mamza 2008).

The Cross River State Forestry Commission was therefore mandated to sustainably manage, develop and conserve the state forest resources in perpetuity for the benefit of all stakeholders through the application of sound policies and programmes. In order to actualize this mandate, the Commission through participatory approaches developed the Forest Sector Strategy, which was approved by the State Government in November 1994. The lynch-pin of the strategy is the participatory management by all stakeholders especially local communities (National Park Action Plan 1997)

The strategic document was developed by all stakeholders through a steering council and steering committee. Forestry Commission is currently working with 42 Forest Management Committees formed by communities for the management of their community forests.

Forestry Commission is desirous of planting all the degraded areas within the forest reserves as well as develop urban space and roadside planting. In order to provide planting stock for our plantations, 1,014,142 seedlings were raised to plant 2,535 ha in 2011. 200 km road was planted and three years roadside planting maintained. 22.8 ha of private forest was established at Ikom, Akpabuyo, Obudu and Ugep (CRSFC Activity Report 2011).

In 2008, a Stakeholder environment conference was held in Calabar, the state capital. The outcome of the conference was the placement of a moratorium on timber exploitation and the setting up of an anti-deforestation Taskforce among others.

Economy

Cross River State is mainly an agricultural state. About 70% of its people engage in subsistence agriculture. It is now common knowledge that the State's food quality and varieties is legendary.

The food quality ranks amongst the best African dishes with examples of delicacies such as: edikang ikong, afang, ekpang nkukwo, afia efere, beniseed soup, eruru soup, melon cakes, Snails, bushmeat, and plantain (Agbor 2008).

Traditional festivals relating to farming activities abound in the state. These festivals which are observed annually to celebrate the usually rich harvest season, offer occasions for the reunion of families, friends and well wishers from far and near. The festivals are usually spiced with alluring and captivating dances, which express the intrinsic values of the people.

Negative activities of forest dependent stakeholders that may hinder the success of UN-REDD⁺ in Cross River State

Deforestation through logging

There is a rapid rate of deforestation in the State. Forest cover in CRS went from 7,920 km² in 1991 to 6,406 km² in 2001 (12% decline) with a further 15% decline from 2000 to 2008. Overall deforestation rate in Nigeria is 3.5% per annum while in CRS it is estimated to be 2.2% per annum. One of the highest deforestation rates in the world (Macarthy *et al.*, 2010).

In the high forest zone, timber merchants who are desperate to make money cut down trees in disregard of the forest laws and regulations. They carry arms while on their illegal mission and are ready to kill any forest department official that confronts them. These trends do not support the government policy of maintaining 20 –25% of the land area under forest cover for the well-being of the national, regional and global environment.

Farming

There are several factors for decline in the forest resources. Man is the most important. About 70% of the rural inhabitants depend solely on farming for their livelihood. The clearing of land for farming accounts for over 80% of total forest area deforested every year. Majority of the farmers practice shifting cultivation whereby each farmer cultivates a plot of land for two to three years after which soil fertility is depleted and he moves to another plot to allow the previous plot to fallow and recuperate. During land preparation by the farmers, the trees are felled and burnt on site. As cultivated lands are depleted, farmers look to forested lands for fertile soils. The tendency is for farmers to encroach on forest reserves where soils are relatively more fertile. This means more deforestation and

depletion of forest resources (Agbor 2008).

Population Growth

Population growth also is an important factor of forest resources depletion in Nigeria, the population growth rate is put at about 3%, which is quite high, while the nation's population is estimated at over 140 million. The implication of this is that with the growth of the farming population more farm land would be required. This will put a correspondingly increased pressure on forest lands. This is because every new farmer in the community is entitled to a piece of land for farming. Under the customary land tenure systems prevailing in most parts of Nigeria, forest lands outside forest reserves are owned by communities (Approved National Forest Policy 2006).

New Settlements

In addition population growth has impact on resource depletion as new settlements spring up to accommodate new families. Existing towns grow into major urban centers thereby swallowing up adjoining farm lands and farmers pushing back the forest boundaries to create new farm lands.

Infrastructural Development

In different parts of the country, forests are being destroyed to pave the way for establishment of industrial estates, housing estates, markets, airport, roads, telephone lines, power grid lines and commercial agricultural plantations and large scale farming.

Fuel Wood harvesting from Mangroves and Rainforests

There is widespread cutting of wood for fuel particularly in rural areas which depend on this source for up to 80% of total energy requirement annually. The annual consumption of wood in Nigeria is estimated to range between 80 and 88 million cubic metres of which 80% is consumed as fuel wood (Approved National Forest Policy 2006).

In the coastal areas, various species of mangrove trees (*Rhizophora mangle* and *Rhizophora racemosa*) are cut for timber and fuel wood. Mangroves are in hot demand for fuel wood because they burn very well even when freshly and are known locally as "Kerosene fire wood". In the forest and derived savanna zones of the state, a large volume of wood is harvested and sold as fuel wood. Women and children carry bundles of fuelwood from the villages to the nearby towns for sale. Traders go to the villages and buy large volumes of dried wood which they convey with Lorries and pick up vans to the urban centres for sale. Some of the trees are felled green and allowed to dry before being split into pieces and stacked for sale. This has hastened the advancement of the savanna southwards into the forest areas.

It is estimated that about 32 million cubic metres of fuel wood is consumed in the rural areas of Nigeria annually. The dependence of rural population (80% of the total populations) on fuelwood for their energy needs and the inefficient utilization of fuel wood have contributed to the serious resource depletion which is more noticeable in the

arid zone of the country (Approved National Forest policy 2006).

Invasive Nypa Palm (*Nypa fruticans*)

Nypa was introduced in the Niger Delta waters by man in the 1900, specifically Oron and Calabar. It has spread across the Niger Delta from Calabar to Warri. It thrives best in brackish water environment. Typically nypa palm forms pure stands, crowding out other native mangrove trees. The displacement of the “native” mangrove by nypa results in loss of species such as shellfish that normally encrust on mangrove aerial roots, loss of biodiversity, loss of breeding/nursery ground and loss of resources by human communities built around the swamps (Lebo 2008, Aya 2006).

Uncontrolled Forest Fires

Of all the factors causing environmental degradation and depletion of resources, none has as much destructive effects as uncontrolled forest fires. Large tracts of forested land are laid bare within minutes as a result of bush fires, resulting in destruction of unquantifiable volume of forest resources. In short, the devastation of the forest ecosystem by fire is more thorough than that of any other single factor of forest degradation. The wild fires emanate from the use of fire in clearing bush for farming and for hunting.

Grazing

As population increases, the number of livestock tends to follow a similar trend in order to meet the nation's protein requirement. The result is progressive reduction in vegetation cover and increase in resource depletion. This has become evident as nomadic herdsman bring their cattle from the northern states for grazing in Cross River State and other states in the southern part of Nigeria. In the process, they intentionally set fire to the forest during the dry season to stimulate green flush of grass.

Lack of Land use plans

Most forest communities in Cross River State do not have land use plans yet. Even in communities where such plans have been prepared in collaboration with NGOs, the plans are not implemented. This leads to indiscriminate use of forest land for various purposes resulting in fragmentation of the forest.

Unsustainable methods of NTFPs and fish harvesting

Some forest dwelling communities use unconventional methods in harvesting NTFPs. For instance, they could cut down a tall *Irvingia gabonensis* tree to harvest the fruits or cut down any tree to harvest *Gnetum africanum* that has climb high up the tree. Rivers and streams are poisoned with *Gamalin20* (a pesticide used to spray Cocoa trees) just to catch fish. In the process, every living thing in the water is killed, while the catch is unfit for human consumption. Yet they sell the fish to unsuspecting members of the public thereby causing severe health hazards. These unwholesome practices result in environmental degradation and rapid loss of biodiversity.

Unsustainable methods of harvesting non-timber forest products (NTFPs) e.g. felling *Irvingia gabonensis* tree to harvest the fruits, logging of mangrove trees for fuel wood since they burn readily even when freshly cut, and the use of chemicals like Gamaline20 to kill fish thus destroying the aquatic biodiversity.

Positive practices of forest dependent stakeholders that may aid the success of UN-REDD⁺ in Cross River State

Forest groves

A number of forest dependent communities in Cross River State have the culture of preserving a section of their community forests as sacred groves, which they use for the worship of their traditional deities. These forest groves are usually protected by community mythology from any form of entry, abuse or use. They are in most cases referred to as evil forests to scare people from entering. As a result of this high level protection, forest groves are a unique cultural technique for the conservation of forest carbon and biodiversity.

Conservation of specific species of plants and animals

In Cross River State, most forest dependent communities have a culture of conserving certain species of plants and animals that have unique food, medicinal, ornamental and income value. For example *Brachystigia eurocoma* and *Irvingia gabonensis* (two large tropical trees) are usually allowed to stand in playgrounds where they provide shade for village square meetings and the seeds are used as soup thickeners and also sold to augment family income. Another indigenous tropical tree, *Allanblackia floribunda*, has both cultural and medicinal values. The Mbembe people of Obubra Local Government Area (LGA), Cross River State, use the fruit to represent the corpse of a deceased that had been interred on an earlier date before the burial ceremony is later held. The bark and roots of *Allanblackia* are very medicinal as they are used in treating fractures in traditional medicine. Also, certain cultures in Cross River State forbid the eating of some animal species which in turn promote biodiversity conservation. For example, in Cross River State, the Bisu people of Obanliku LGA, forbid the eating of Puff Adder (*Vipera berus*), the Bette of Obudu LGA forbid the eating of Roan antelope (*Hippotragus equines*), the Ofutop people in Ikom LGA forbid the eating of Scaly anteater or Pangolin (tree pangolin- *Manis tricuspis*, the giant pangolin- *Manis gigantea*, the long-tailed pangolin- *Manis tetradactyla*).

In most cultures in Cross River State, *Spondias mombin* (an indigenous tropical forest tree) is preserved specially for use as a live-stick and ornamental in constructing fences in schools and living homes, while, in medicine the bark and leaves are traditionally used in the treatment of malaria fever.

Also in some forest communities, where hunting and logging are still their main source of income, these two activities are usually put on hold whenever a chief dies until after his burial ceremony is performed. This waiting period is most often longer than a year. This practice invariably promotes forest and biodiversity conservation.

DISCUSSION

One of the key issues militating against the successful implementation of REDD⁺ in forest communities is poverty. Community people depend largely on the forest for their economic sustenance. Most of the meat they eat is from wildlife, while, the raw material for food seasoning and medicines is derived from fruits and other NTFPs. There is need to integrate community forest management into the wider programmes of sustainable land use, socio-economic development and poverty reduction initiatives.

Government should employ devolution of functions such that community people are allowed to implement their bye-laws which are usually more effective in protecting the forest resources. This would recognize the fact that communities have their unique ways of fishing out offenders and meting out appropriate punishment.

Cross River State already has a tradition in the aspect of benefit sharing for different stakeholders. In the days of logging through giving out of forest concessions, royalties were shared between forest communities and state government. With the new paradigm shift of the current state government of managing the forest for REDD⁺, payment of royalty has been replaced with payment of loyalty. It is expected that in implementing the REDD⁺ programme, this benefit sharing concept will be further expanded to include other stakeholders like local government councils and NGOs.

Since forest management generally brings about conflict between forest communities and government, the REDD⁺ programme should always involve all stakeholders in the stages of planning and implementation to eliminate possible conflicts.

The REDD⁺ programme should be adequately funded to build capacity of forest community members in alternative livelihoods. This will dissuade forest communities from reverting to their old habits of depending entirely on the forest as the main income source.

On the whole, transparency should be the watch word in policy making and implementation.

FAO Forest Policy Brief (2009) gave a set of practical criteria for enhancing stakeholder participation in National Forest Programmes (NFP):

- strengthening the capacity of government and non-governmental partners to undertake participatory and inclusive planning;
- devolving key roles of central government to local stakeholders;
- strengthening linkages with other sectors and agencies with a view to increasing recognition and financial support to the forest sector;
- strengthening the voice of marginalized, forest dependent interest groups; harmonising and aligning international development assistance for the forest sector with government programmes and systems;

- institutionalising participation in the planning, implementation, monitoring and evaluation of nfps.

From the experience of past projects, community people in Cross River State (CRS) generally take complete ownership of any project that they are involved in from the early stages of the project cycle (planning). Typical examples abound in the various community forest projects implemented through DFID funding from 1999 to 2002 (Aya 2002, 2001).

Devolution of the role of federal or state government to community level has worked effectively in the CRS community forestry projects (DFID funded) model, where forest management committees (fmc) were formed at community level and empowered to formulate and implement certain policies on their own.

To encourage linkages visitors to the state, whether national or international, are allowed direct access to visit the communities to establish lasting rapport that enhances development.

On strengthening the voice of the marginalized, community women are involved in all aspects of the development process. For instance, women from Ekuri Initiative have been sponsored to attend very important strategy meetings abroad such as one held in Germany in 2009.

To institutionalize full participation, community people are involved in strategy planning meetings at the state, national and international levels. In CRS, the experience of Ekuri initiative is a case in point, where community people, male and female, have even been sponsored to international workshops on forest management issues. For example, community people were involved in the data collection and analysis, and later participated in the Greenhouse Gas (GHG) Quantification training that held at the national level in Abuja, among others.

CONCLUSION

The vision of achieving sustainable use of our natural resources cannot be attained through isolation of the local communities from the management of the protected areas (IUCN, 1994). Unless there is a fair access and control of natural resources by the local people without discrimination based on gender, class, ethnicity, age or other variables, the goal of achieving a sustainable use of our natural resources would be a mirage. Adopting a participatory approach in the management of our protected areas will therefore empower the local communities and local users, recognize their rights and responsibilities, and also ensure their means to sustainable livelihood and human development. A fair and safe tenure system for land and local resources will also increase the social stability and local user incentives and ability to participate in management decisions effectively (Jacob and Ogogo 2011).

RECOMMENDATIONS

Stakeholder Roles and Responsibilities:

The following roles and responsibilities should be assigned to the various stakeholders in the forest arena in support of REDD⁺.

(i) The state government through the State Forestry Commission should be responsible for: providing Advisory services to all stakeholders who are involved in the REDD+ programme, Undertake policy Formulation and Legislation on State forestry issues, carry out Manpower Development and Training including Research and Development. The state government should also carry out Monitoring and Evaluation, Coordination and Review as well as Natural Resources Assessment Accounting and Auditing. Her role should include Establishment and Management of model Forest Reserves, Public Awareness Creation and enlightenment and Enforcement of the State Forestry law. The Commission should be responsible for consolidation of New and Existing Forest Reserves, Management of the Forest Estate in collaboration with the Local Government, NGOs, Communities, and civil society, Training of Personnel, Inventory of Resources, Awareness Creation and Public Enlightenment, Enforcement of Forestry Laws and Regulations, Monitoring and Evaluation, Establishment of Plantations, Demonstration and Pilot Projects, Provision of extension services and Input service delivery.

(ii) Local Government Authority should be responsible for: Local Land-Use Planning and Ecosystem Planning to ensure Sustainable Management of the Forest Resources, Forest Protection, Community Mobilization and Enforcement of forestry laws/Bye-laws, Monitoring and Evaluation, Coordination and review, Establishment of Demonstration Plots, Community Awareness Campaigns. Establishment of woodlots, roadside and amenity plantings

(iii) Community level roles should be: Formation of Forest Management Committees (FMCs) and relevant User Groups and Awareness Creation among members, Participation in the management and protection of Forest Estates and non-reserved forest areas.

(iv) It is also recommended that the federal and state governments as well as non-governmental organizations (NGOs) should engage local communities and indigenous people in capacity building to develop land use plans, acquire the techniques of monitoring the implementation of forest policies and programmes, eco-agricultural methods of farming, develop renewable energy projects like solar energy, micro-hydro energy and wind energy, and above all acquire skills in alternative livelihood options such as snail, mushroom, grass-cutter and bee farming, as well as their involvement in the afforestation programme of government.

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