WILDLIFE BASED BUSINESS ACTIVITIES IN OGBE – IJAW MARKET OF DELTA STATE, NIGERIA

IJEOMAH, H.M. AND ORUH, E. K.

Department of Forestry and Wildlife Management, University of Port Harcourt, P.M.B.5323, Port Harcourt, Rivers State, Nigeria Corresponding author: henryjjeomah@yahoo.com

ABSTRACT

Wildlife based business activities in Ogbe Ijaw market of Delta State, Nigeria was studied with the aim of analyzing the nature of the business, parts of wildlife species sold, source of buyers for the products, means of procuring the products, channels for marketing the products, and risks involved in procuring wildlife products sold in the market. Data for the study were collected through Field survey, Observation, indepth interview and informal discussions with hunters, marketers and buyers of wildlife products. Data obtained were presented in form of tables. Among the abundant wildlife species sold in Ogbe Ijaw market are: Lesser African threadfin (Galeoides decadactylus), Dwarf Crocodile (Osteolamus tetrapis), Saltwater Crocodile (Crocodylus porosus), Giant Tortoise (Testudo graeca), Kob (Kobus kob), Duiker (Sylvicapia grimmia), Cane rat(Thryonomys swinderanus), Africa Grey Parrot (Psittacus erithacus), African fish eagle (Haliaeetus vocifer) and Mona Monkey (Cercopithecus mona) sold in different forms for various purposes. The bladder of the Lesser African threadfin (Galeoides decadactylus), after being processed is majorly exported to Hong Kong. The processed skin of different species of crocodile are sold to buyers from northern Nigeria, who utilise them in tannery for production of quality leather while the flesh and eggs of the species are sold for consumption. The African Grey Parrot (Psittacus erithacus)is bought for pet while the fresh slimy fluid from Snail (Archachatina marginata) is medicinally utilsed to ease delivery during pregnancy. The processed and dried skins of many wildlife species are used as ceremonial garbs during cultural events. There is no regulation on species, quantity and age of wild animals harvested as a hunter once caught ten individuals of different age classes of crocodile in a single hunting expedition. Wildlife based business is of immense economic benefit to the operators, however, business opportunities are yet to be maximized and harvesting of endangered species should be stopped.

Keywords: Wildlife business, Biodiversity utilization, Niger Delta

INTRODUCTION

Every environment provides business opportunities for the inhabitants therein. In agrarian environments most activities focus on agribusiness while water related businesses such as fishing and transportation by water are always embarked upon by inhabitants of river rine areas. The term, Wildlife encompasses the totality of species that are not domesticated, or wild animals that exist in their natural forms. Every area is endowed with various species of wildlife which are harnessed using methods compatible with the tradition of the inhabitants of the area. These resources could be aquatic or terrestrial species. The diversity and level of abundance of species in an area also varies per location. This sometime reflects in the number of species sold in wildlife markets therein. However, a species may be so abundant in an area that it could be hardly taken to the market for sale as almost every household in the locality can easily and freely harvest it from the wild.

An environment may have many markets where various food items are sold but in most cases has only a market or two specifically for sale of wildlife based resources. This shows the peculiarity of wild animals and the cultural importance attached to their

procurement, marketing and utilization. There is no community where at least a species of wildlife is not utilized. One of the commonest ways of utilizing wildlife species in Africa including Nigeria is for consumption or 'bushmeat'. Utilization of wildlife species is based on the knowledge of households concerning the species, accessibility of the desired species or ability of potential consumers to procure the species from markets. Many times people travel long distances in search of their desired species of wildlife for consumption, utilization for medicine, cultural purpose, or for business. Hunting of wild animals could either be for subsistence or commercial purposes. Subsistence hunting is common in most rural areas as fish and bushmeat are the major sources of protein therein. However, many hunters and fishermen embark on large scale harnessing of wildlife species for commercial purpose as there are hardly 'bag limit' or restrictions on the quantity to harness. Many researches have focused on Agricultural business activities which involves production, processing, marketing, preservation and storage of products from domesticated species of crops and animals. Less attention has been paid to wildlife business irrespective of its peculiar nature. Even the existing researches on wildlife business in most cases still focus on wildlife trafficking, bushmeat trade or fish marketing (Hutton and Dickson, 2000; Fa, 2000; Robinson and Bennett, 2000; Onu and Ijeomah, 2011; Eniang and Ijeomah, 2011; Lindsey et al., 2011), neglecting other activities that are basic components involved in legitimate wildlife business. This study therefore explores wildlife business activities carried out in Ogbe Ijaw market, the nature of the business, parts of wildlife species sold, means of procuring the products and risks involved in procuring the wildlife products sold in the market.

METHODOLOGY

The study was conducted in Ogbe Ijaw market in Warri Sought West Local Government Area of Delta State. Ogbe Ijaw is a popular bushmeat market in the entire Warri city. People from many parts of Nigeria patronize the market. Warri Sought West Local Government is a river rine environment in Delta State of Nigeria.

Information for the study were obtained through observation, In depth interview and Field survey. Ogbe Ijaw market was visited ten times in the rainy season and ten times during the dry season (within a period of five years) to ascertain the common wildlife products sold therein, parts of the species sold, the forms of the product sold, source of buyers and customers' purposes for buying wildlife products. Wildlife products observed in the market were recorded. Observation of a product for seven times during the visits confirms that the species or product is common in the market. Fishermen, hunters and Market women who have been dealing with wildlife products for a minimum period of ten years and as such are quite knowledgeable about the operations of the products and marketing channels were interviewed. Data obtained were presented in form of tables and plates.

RESULT AND DISCUSSION

Some Wildlife products sold in Ogbe Ijaw Market

Some of the wildlife resources sold in Ogbe Ijaw market are presented in Table 1. The bladders of Lesser African thread fin (Galeoides decadactylus) are sold depending on the sizes. The price ranges from 400 naira to 10,000 naira. Lesser African thread fin is commonly caught during the rainy season. The local fishermen send the extracted fish bladders to Warri from where they are exported to Hong Kong. They are sold after being properly sun dried. The market is already there because speed boat is commonly used in the area. Speed boat is faster than the local boat and the common means of transportation in Warri areas. An individual can have up to six speed boats. The price for one Lesser African threadfin (Galeoides decadactylus) ranges between 1500 and 20,000 naira. Thus, the rural fishermen after removing the bladder during sun drying, cut the fish into small units (cords) and sell

them for consumption as well as the bladder that are sold for boat making. The dried fish can be transported by local boat to Ogbe Ijaw market. The transportation to Ogbe Ijaw market can take a whole day or less depending on the village the fish are sourced from, and if the boat does not develop fault on the way. However, if the fish are fresh, they are normally transported through speed boat to ensure that they do not get spoilt before getting to Ogbe Ijaw mSarket. When speed boats are used the catches get to Ogbe Ijaw market between 2 and 4 hours depending on the distance of the fishing village from the market. Movement from Agge, Yokori and Amatu villages to Ogbe Ijaw takes between 2 and 4 hours on speed boat. The transportation fare for speed boat is higher than that of local boat.

Table 1: List of observed wildlife products sold in Ogbe Ijaw Market

Table 1: List of observed wildlife products sold in Ogbe Ijaw Market			
Wildlife Species	Part of animal	Purpose of utilization	Source of buyers
	sold		
Lesser African threadfin	Flesh	Nutritional value	Exported to Hong
(Galeoides	Air Bladder	Produce speed boat	Kong
decadactylus)			
Dwarf Crocodile	Skin	Leather Production	Hausas, mainly
(Osteolamus tetrapis)	Flesh	Nutritional value	from Northern Nigeria
Saltwater Crocodile	Egg	Nutritional value	
(Crocodylus porosus)			
Giant Tortoise	Flesh	Nutritional value	Locals people from
(Testudo graeca)	Empty shell	Medicinal value	Delta State
Oyster	Flesh	Nutritional value	Local people from
(Ostrea edulis)	Shell	Walkways and Driveways	Delta State
		Rebuilding Oyster Beds	
		Anchor for boat	
Green crab	Flesh	Nutritional value	Local people from
(Carcinus maenas)	Shell	Medicinal value	Delta State
Kob	Flesh	Nutritional value	Local people from
(Kobus kob)	Skin	Ceremonial garbs	Delta State
(Hooks Noo)		Coromoniai garos	Deria State
Duiker			
(Sylvicapia grimmia)			
Cane rat	Flesh	Nutritional value	Local people from
(Thryonomys	Skin	Ceremonial garbs.	Delta State
swinderanus)		gures.	
Snail	Flesh	Nutritional value	Local people from
(Archachatina	Slimy fluid	Medicinal value	Delta State
marginata)	Shell	Medicinal value	
Africa Grey Parrot	Whole	As pet	Local people from
(Psittacus erithacus)	Feather	Ceremonials garbs	Delta State
(1 structus crimacus)	1 Cutilei	Ceremoniais garos	Betta State
Mona Monkey	Flesh	Nutritional value	Local people from
(Cercopithecus mona)	Skin	Ceremonial garbs	Delta state
(Cercopiinecus mona)	OKIII	Ceremoniai garos	Delta state
Mussel	Flesh	Nutritional value	Local people from
(Mytilus edulis)	Shell	Walkways and Driveways	Delta State
(mynns eanns)	SHEII	Rebuilding Oyster Beds	Della State
		Anchor for boat	
A frican fish angla	Head	Medicinal value	Local paople from
African fish eagle	Feather		Local people from
(Haliaeetus vocifer)	геашег	Ceremonial garbs	Delta State.

Skins of crocodile are sold to Hausa buyers from mainly Northern Nigeria, who use them for leather production (Table 1). The skins of Crocodiles and Alligators are the best source of leather. Ijeomah and Efenakpo (2011) gave a similar report. The meat from crocodile, cane rat, birds and antelopes (Table 1) are consumed in many areas as delicacies and are therefore highly demanded by consumers. It is a common occurrence to observe skinned crocodile being sold for consumption in Ogbe Ijaw market. These are individuals of crocodile that their skins have been removed and sold for leather production. Unfortunately, crocodile is an endangered species and hunting puts the species under increasing pressure. The transportation of wildlife product from rural river rine communities to Ogbe Ijaw market agrees with Bowen-Jones and Pendry (1999) and Fa *et al.* (2000) that in some places bushmeat is a relatively high-value luxury commodity that flows primarily from rural sources to urban areas.

The dried skin of Kob(Kobus kob), Duiker(Sylvicapia grimmia), Cane rat(Thryonomys swinderanus), Mona Monkey (Cercopithecus mona) and feather from the African fish eagle (Haliaeetus vocifer) are used as ceremonial garbs in different cultures. Niger Delta region has diversity of cultures and some cultural dressings require incorporation of specific wildlife products attain complete recognition in traditional ceremonies such as coronations. The African Grey Parrot (Psittacus erithacus) is commonly bought for pet and traditional medicine in many areas while the feather is used as a ceremonial garb. The pet trade is a very lucrative business and the African Grey parrot is among the most popular wildlife species utilized for pet world over. Ijeomah et al. (2011) reported that the pet trade is a major factor that has put the African Grey Parrot (Psittacus erithacus) on CITES red list. Irrespective of the ban on trade of African Grey Parrot it is still sold in Ogbe Ijaw market because of the demand and profit derived from the sales. The Giant Tortoise (Testudo graeca) and the Slimy fluid and Shell of the African giant snail (Archachatina marginata) are used for traditional medicinal purposes in Delta State.

Sources of Wildlife Products

Wildlife resources found in Ogbe Ijaw market are mainly sourced from the wild although few of these resources can be found in farms. Hunting, trapping, fishing and gathering are the major methods of sourcing these resources (depending on the species). Due to the fact that nearly all these species migrate within the coast and occur in the waters or riparian forests of several villages, the species found in Ogbe-Ijaw market in Delta State are sourced from different villages, some of which are Ozobo, Burutu, Kantu, Egwa, Yokiri and Aghoro, hence they vary. The species are harnessed by both primary and secondary group of harvesters. The primary harvesters are professionals, who specialize in harvesting these species (Table 1). Secondary harvesters harness wildlife species when they go in search of mangroves to serve as fuel wood. Wildlife resources are sourced by men, women, and children in the study area. In these villages from where wildlife products are supplied to Ogbe Ijaw market, harvesters move into the forest, river and sea to do the harvesting.

Species like Oyster can be harvested from mangrove species by carefully cutting the stem of the tree from the root and using either knife or cutlass to remove the Oyster. This agrees with the report of Ijeomah and Alagoa (in press). In the process of cutting down the tree, the Oyster might be damaged because they are attached to each other as new generations attach to existing shell (Plate 12). Species like periwinkle are gathered at the bank of the river side. Snail can as well be gathered from the wild. The fishing expedition embarked upon by fishermen entails traveling to several kilometers by boat to source for wild fish. Species like crab, shrimps and periwinkle require short distance of about 10 meters away from homes to harvest and with the use of canoe (Plate 13), while species like shark, crocodile, turtle and

other wild fishes require about 10 - 15 kilometer and with the use of Engine boat to source for them (Plate 14). The fishing equipment for harvesting these species varies. Fishermen use fishing pole, bait, and net to target a variety of fish, ranging from open ocean swimmer (fishes) to edible marine invertebrates (Shellfish). There are several types of Nets, depending on which is used, some can catch big animals while others are used to catch small animals (Orsay, 2011). Fishing expedition entails using nets cast from boats, and various traps "which work while their masters sleep". Nets are suspended by a system of floats and weights. They can be anchored to the sea floor or allowed to float at the surface. The netting is placed in such a way that it appears almost invisible to fish, and fish species therefore swim unknowingly right into it. Smaller nets are often used to catch sardines, salmon and cod, but can accidentally entangle and kill other animals, including sharks and sea turtle. This agrees with the report of Ijeomah and Efenakpo (2011) that many juvenile sized individuals of crocodile are killed through entanglement in fishing nets. Examples of such net as locally known are 'stroke 1, 2, 3,' for smaller animal while 'stroke 45, 90' for bigger animals. Subsistence hunters also trap, shoot with bows and firearms and spear their quarry. These hunting devices could also be used to eject rodents from their holes. Trapping and snaring may enable the animals to be caught alive so that slaughtering can be delayed until an appointed moment.

Forms of Processing embarked on in Ogbe Ijaw Market

The wildlife resources acquired by these harvesters are either eaten fresh or preserved by drying, salting and smoking for later consumption. Others (Wildlife species) can be cooked before they are removed from their shell and sold to the public. Small animals are often dried whole whereas larger one must be cut into strips to facilitate drying. When large animals are killed the reduction in weight of meat by smoking is an important consideration in relation to transportation of the catch to urban areas (Warri) for sold in Ogbe Ijaw. Under subsistence hunting condition, when labour is scarce the meat strips are usually too thick, which result in the drying being incomplete, thus decomposition takes place in the middle of the strip. Although more labour is required in the case of commercial hunting, losses are greatly reduced. The hunters, however, are very careful to avoid over drying the meat strips as that reduces the food value.

Smoking is also employed by the harvesters to reduce wastage due to decomposition. This is usually achieved by cutting meat into strips and exposing them on racks in smoke of a slow burning fire. The construction of a simple smoke house using locally made bricks greatly increases the efficiency of the smoking process and allows some control of temperature. A considerable improvement in the maintenance of the quality of meat is achieved by the addition of salt. Processing at night has advantages since it is cool and flies are inactive but the provision of adequate light may cause some problems.

Preparation of skins

To maintain wholesomeness for high market value, skins of animals like crocodile are suitably prepared by using knife to remove the skin in such a careful way as to prevent damages and blemishes. The skins are properly stored before being offered for sale.

Transportation

After harvesting and processing of wildlife resources, watercraft such as a barge, boat, ship or sailboat are used to convey the products over water bodies, such as a sea, canal or river (water transportation) in order to get these resources to Ogbe-Ijaw market. Most of the watercraft used for transportation has an engine using a slightly refined type of petroleum called 'bunker fuel', while some smaller craft use internal combustion engines to drive one or more propellers, or an inboard water jet as applicable in the case of jet boats. The distance traveled varies from village to village and also depending on the type of water craft used for the journey. The most commonly used water craft are the Big boat (local boat) and the Speed boat also called passport (45,75,90). The distances travelled from these different villages varies and ranges from about 50kilometers to 300kilometers.

Factors that determine the Quantity / Frequency of Catch

The major factors that affect quantity and frequency of catches include climatic conditions, tidal waves, and aquatic weeds. Changes of environmental condition of water bodies and riparian environments can affect population of aquatic wildlife species. The flooding experienced between August and October in many parts of Nigeria including the Niger Delta due to climate change drove out many wildlife species from their forest habitats. It therefore became very easy under the flooded situation to catch them because they were frequently observed searching for safe places to inhabit, whereas there were limited 'safe places' (non flooded areas) then in Warri environment. Some of these changes in environmental conditions are directly caused by human activities. For example, illegal disposal of toxic substances such as oil into the sea can have disastrous effects on wildlife resources. Large animals can become entangled in discarded waste or fishing gear, reducing their ability to feed and produce offspring which can sometimes result in death. Wildlife can also become injured as a result of a natural event like a bushfire. The presence of too many aquatic weed like water hyacinth also disturbs the frequency of catch as these water hyacinth get caught up in the net leaving little or no space for fishes to get trapped.

Distribution channel

Marketing practices for wildlife resources vary widely according to different systems of wildlife exploitation, ranging from subsistence hunting for bushmeat to large-scale commercial harvesting of wildlife products in order to supply urban and luxury markets. Although referred to as subsistence hunting, the exploitation of wildlife by village hunters in the forested areas is often partly on commercial bases (Nelson, 2005).

In Ogbe - Ijaw market wildlife resources are sold by whole sellers within and outside Ogbe - Ijaw market. The wholesale buyers transport bulk of the species to their different customers. The retailer sells the species in various sizes with their respective prices. After buying, the retailers display these products to the final consumers and supply to those who consume it in restaurants and homes, often far from the market. The supply chain of wildlife resources in Ogbe-Ijaw market is mainly from harvesters to consumers through the marketers. In some cases the fishermen or hunters who are the harvesters will sell directly to consumers as shown in Figure 1. Based on the fact that majority of the inhabitants of the area are involved in fishing, many embark on fishing expedition purposely for consumption and sometimes use the catches to exchange for others goods (trade by barter) from neighbours.



Figure 1: The marketing channel of wildlife resources in Ogbe Ijaw market

Some hunters and fishermen have permanent marketers of their catches. Once catches are made the products are supplied to the partners for marketing based on already established relationship. In many cases the hunters and fishermen send their catches (and the worth of the products in naira) through other boats going to Ogbe Ijaw market and remain in the villages in order to safe cost and risk of travelling frequently on water. In some cases the wildlife marketers are the financers of the hunting and fishing expedition. In that case they provide money for buying both the fishing boat and the nets under the agreement that the hunter/fisherman will be supplying all the catches to them until the money spent on procurement of the gears is completed. This is a strategy to ensure sustainable supply of products to the marketers and a way of creating employment for unemployed youths. Even when the debt for buying the boats and gears is completely paid the supply of product for marketing still continues for mutual benefit under new agreements. Bowen-Jones *et al.*(2003) obtained similar result that hunting and the sale of wildlife product represent an important survival strategy for significant numbers of people in rural forest areas of West and Central Africa.

Benefits of Wildlife Based Businesses in Ogbe Ijaw Market Provision of Food

Majority of wildlife species in Table 1 are used as food. Consumption of wildlife species is the major source of proteins and minerals for most inhabitants of rural Nigerians including river rine areas. These species are available at various seasons of the year. Thus, guarantees supply and survival of their products for food. This agrees with Vantomme *et al.* (2004) that when supplies of vertebrate species and fish decline in rainy season, people rely more on caterpillars, available insects and invertebrates, which therefore play an important role either as safety nets for people in years of environmental stress or as regular sources of food and income.

Utilized as Medicine

Wildlife resources as popular ingredients of traditional medicines and are observed frequently sold in Ogbe Ijaw market. Different species of wildlife can be used in the treatment of several illnesses (Table 1). The haemolymph in snail is used to restore fertility, virility, relieve labour pain in pregnancy and delivery. This agrees the report of Ogogo (2008). It also reduces high blood pressure. The consumption of crab helps in the production, maintenance of new cells and prevention of anemia especially during Infancy. Magic powder made from crab shell is used to stop bleeding to death. The head of a processed crocodile is used in making concoction which serves as protection against spiritual attack.

Cultural relevance of Wildlife Resources

Dishes prepared from wildlife resources give the cultural identity to many tribes. Wildlife resources have significant cultural value in traditional ceremonies; hence the marketing of these products are ways of providing materials for cultural events. Some wildlife products like the processed head of an Eagle and feathers are used during coronations and for installation of kings and exceptional leaders including powerful warriors. The wing bone of an eagle is used in the manufacturing of whistle blown during ceremonies.

Source of Employment opportunity/Poverty alleviation

Various activities involved in wildlife business provide employment to a wide range of persons most of whom are males. Some of the middlemen are young males, adults and children whose major source of income is from fishing, gathering of Crabs and Oysters. Wildlife based business provides jobs for the youths that are involved in all stages of the product marketing: Harvesting, loading, processing, making of nets, construction of boats, tanning of leather and transportation of products. It is a major source of income to the rural women of Niger Delta. Similarly in Buruku community of Buruku Local government Area in

Benue State, many youths (males) are involved in water based transportation. The Katsina Ala river that passes through the community is a hindrance to motorists travelling from Taraba State to Makurdi. The youth therefore move vehicles together with persons across the water using a barge. The cost of crossing a commercial vehicle is 700 naira while that of private operators is 1000 naira. Relatively, this route is significantly shorter in distance than other motorable routes to and fro Markudi from Taraba. The relative short distance makes many vehicles to ply the route, thus have created business opportunities for the inhabitants of Buruku to the extent that over 50 barges presently carry vehicles across the river (Personal observation). Crossing of River Benue with barge in Ibbi area of Taraba State has also created employment opportunities for the inhabitants with as much as 3000 naira and 1000 naira collected for carrying one and three vehicles respectively at a time.

Many communities and villages in Niger Delta still rely heavily on wildlife products for life's necessities (housing, food, fuel). Crayfish is used as fuel for drying other fish species. The free availability of wildlife products has long been a sustainable buffer against poverty in forest communities.

Sources of Foreign Exchange

In the local market skin of some wildlife resources such as crocodile and bladder of African threadfin are exported overseas. Depending on the size huge amount of money is being earned which are sources of foreign exchange.

Ecological implication of Wildlife Business

Despite growing concern over the conservation of these species, wildlife resources have been sometimes unsustainably harvested by human populations for subsistence use and trade over thousands of years. Though habitat loss is often emphasized as the cause of wildlife extinction, commercial harvesting of wild species has well been implicated as a potential cause of wildlife extinction. The scale of commercial hunting to supply large, rapidly growing urban populations with meat, skin, feather, medicinal materials, souvenirs and raw materials is now exceeding levels that can be tolerated by most large-bodied, slow reproducing forest animals. These current levels of exploitation will result in the progressive depletion and local extinction of many species from hunted forests. For example a total of 10 individuals of crocodile (juvenile and mature) were caught in a hunting expedition by one local hunter that supplies products to marketers in Ogbe - Ijaw market. If only one individual could catch 10 individuals of crocodile in a hunting expedition it then implies that the existence of most species therein will be seriously threatened. This is because most households in the environment are professional hunters/fishermen who rely on harvesting of wildlife resources for survival. They therefore embark on daily hunting of wildlife resources. Previous works (Auzel and Wilkie, 2000; Fimbel et al., 2000) classified hunters involved in similar frequency of hunting as local professionals. The conservation status of the salt water crocodile is seriously threatened in the Niger Delta environment due to its indiscriminate hunting. However, illegal hunting of this crocodile still persists and the prevailing 'no form of local protection' of the species will definitely cause its dramatic decline and biodiversity loss.

Constraints to the use of Wildlife Products

Wildlife product marketing is affected by the demand for the product, the nature of the product (including permissibility), the level of technology (processing, transport etc.) and cost of marketing. Although there may be a demand for the product, the processing or transportation costs may be too high resulting in prices which negatively affect demand. Thus, it is possible to increase the value of wildlife products by investing in more advanced or reduced cost of processing and transportation. Since by their nature most wild populations are located far from urban centers, wildlife product marketing is affected by distance, by poor infrastructure and by small producers who are usually widely dispersed.

Risks involved in Wildlife Based Businesses in Ogbe Ijaw Market

The range of risks involved in wildlife businesses are many and varies. There are many risks involved in harvesting of wildlife resources from water. One can hardly predict the outcome of deep sea fishing or fishing that is beyond normal limits. The velocity of the wind and the tidal wave especially at night when fishermen and hunters go for harvesting makes the expedition quite risky. The possibility of the boat getting lost or capsiding, and visibility problems are among the challenges. The tools for harvesting can also get lost in the sea during fishing expedition.

CONCLUSION

Fishing, Hunting and trapping within the coast may not be the easiest way to make a living or the best way to become rich but many inhabitants of communities in Warri South Local Government Areas being river rine environment prefer embarking on wildlife based businesses due to the nature of their environment and based on the fact that they are very conversant with the activities involved. The pleasure of being self employed and the joy of living and working on the coastline and in the wild gives the operators satisfaction. The practice of traditional business and the fact that their products are utilised in other sectors of the economy makes them to feel relevant in the society. Some of the business opportunities are not maximized. Many rural women who catch Lesser African thread fin (Galeoides decadactylus) sell them without processing the fish bladder. Processing of the fish bladder for marketing is not tedious and is done using local technology. Since the fish species is readily (not on the red list) available especially during rainy season, and the demand for processed fish bladder of Lesser African thread fin (Galeoides decadactylus) is high, the rural women in various villages in Warri Sought Local Government Area could be encouraged to be increasing their profit margin by processing the fish bladder for sell.

REFERENCES

- Auzel, P. and Wilkie, D.S. (2000) Wildlife use in Northern Congo: Hunting in a commercial logging concession. In *Hunting for Sustainability in Tropical Forests* (eds J.G.Robinson and E.L. Bennett), pp. 413-426. Columbia University Press, New York.
- Bowen-Jones, E. and Pendry, S. (1999): The threat to primates and other mammals from the wild meat trade in Africa, and how this threat could be diminished. *Oryx*, 33, 233–246.
- Bowen-Jones, E.; Brown, D. and Robinson, E. (2002). Assessment of the Solution-orientated research needed to promote a more sustainable Bushmeat Trade in Central and West Africa. DEFRA (*ex*-DETR) Wildlife and Countryside Directorate, ODI
- Bowen-Jones, E., Brown, D. and Robinson, E. (2003). Economic commodity or Environmental crisis? An interdisciplinary approach to analysing the bushmeat trade in Central and West Africa. Area, 35, 390–402.

- Eniang, E.A. and Ijeomah, H.M. 2011. Clandestine bushmeat trade in Cross River State, Nigeria: Implications on herp diversity and the environment. *Global Approaches to Extension*, 7 (2):1-9. Nigeria.
- Fa, J.E. (2000) Hunted animals in Bioko Island, West Africa: Sustainability and future. In *Hunting for Sustainability in Tropical Forests* (eds J.G.Robinson and E.L. Bennett), pp. 168-198. Columbia University Press, New York.
- Fa, J.E., Garcia Yuste, J.E. and Castelo, R. (2000) Bushmeat markets on Bioko Island as a measure of hunting pressure. *Conservation Biology*, 14, 1602–1613.
- Fimbel, C., Curran, B. & Usongo, L. (2000) Enhancing the sustainability of duiker hunting through community participation and controlled access in the Lobéké region of southeastern Cameroon. In *Hunting for Sustainability in Tropical Forests* (eds J.G.Robinson and E.L.Bennett), pp. 356-374. Columbia University Press, New York.
- Hutton, J. & Dickson, B. (2000) *Endangered Species: Threatened Convention: The Past, Present and Future of CITES* (eds J.Hutton and B. Dickson). Earthscan, London.
- Ijeomah, H.M., Edet, D.I. and Pudie, A. (2011): Utilization of Wildlife Species As Pets. In: Popoola, L., Ogunsanwo, K. and Idumah, F. (eds.) Forestry in the Context of the Millenium Development Goals. Proceedings of the 34th Annual Conference of the Forestry Association of Nigeria held in Osogbo , 05 10 December, 2011. Proceedings of the 34th Annual Conference of the Forestry Association of Nigeria held in Osogbo , 05 10 December, 2011, Pp.454 465
- Ijeomah, H.M., Omokhua, G.E. and Ogbara, D. (2011): Implications of Fish Blasting on Biodiversity of the Niger Delta Region in Nigeria. In: PoPoola, L., Ogunsanwo, K. and Idumah, F. (eds.) Forestry in the Context of the Millenium Development Goals. Proceedings of the 34th Annual Conference of the Forestry Association of Nigeria held in Osogbo , 05 10 December, 2011.Proceedings of the 34th Annual Conference of the Forestry Association of Nigera held in Osogbo , 05 10 December, 2011, Pp.515 526.
- Ijeomah H.M. and Efenakpo O. D.2011. Analysis of Nile crocodile (*Crocodylus nilotica,laurenti*) hunting in selected communities around fresh water salt water transitional areas of Rivers State, Nigeria. *Tropical Agricultural Research and Extension*, 14 (4): 80 84.
- Lindsey ,P. A., S. S. Roman ACH, S. Matema, C. Matema, I. Mupamhadzi and J. Muvengwi (2011): Dynamics and underlying causes of illegal bushmeat trade in Zimbabwe *Oryx*, 45(1), 84–95 http://journals.cambridge.org
- Nelson M. (2005). Subsistence fisheries harvest. Assessment and Traditional ecological knowledge. Lower Alaska Pennisula. *Social and Economic barriers to subsistence harvesting* 18(6):125-130.
- Ogogo, A. U. (2008). *Wildlife Management in Nigeria*, (2nd edition). Median Communications Calabar, Cross River State. 280pp.
- Onu, M.E. and Ijeomah, H. M. 2010. Assessment of Bushmeat trade in Ikwerre Local Government Area of Rivers State: A case Study of Omagwa Bushmeat market. *International Journal of Agriculture and Rural Development*, 13(2): 281 286.
- Orsay, B (2010). The comparison of catch efficiency of monofilament gill nets difficult color and different hanging ratio on seasonal variations 8:224-237.
- Robinson, J.G. and Bennett, E.L. (2000) Carrying capacity limits to sustainable hunting in tropical forests. In *Hunting for Sustainability in Tropical Forests* (eds J.G.Robinson and E.L.Bennett), pp. 13-30. Columbia University Press, New York.
- Vantomme, P. Gohler, N. Deckere-ziangba, F. (2004). Edible insects and other invertebrates in Australia.future prospects. http://www.foa.org/docrep/013/11380e/11380e01