

Full Length Research

Legal and regulatory reforms of forest resources conservation in Edo South, Edo State, Nigeria

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This paper examined the legal and regulatory reforms of forest resources conservation in Edo South, Edo State, Nigeria. This is because most of the forest reserves have been seriously encroached in the area without strong recourse to the environmental consequences. The objectives for which this study was carried out are: To identify and assess forest resources in the study area, examine the relationship between law and forest resources in Edo South, Edo State laws on the use of forest resources and then determine deforestation and its environmental impacts. Data were therefore collected from both the primary and secondary sources of data collection to meet these objectives of study. The result shows that the laws enacted through legislation to protect forest resources are there but a number of factors like coordination problem, lack of comprehensive policies on environmental laws and issues, inadequate legal framework and lack of implementation of the forest Act of 1999 are some of the major reasons why people still encroach our forest lands. Recommendations are made on the need to update forest laws and the implementation carried out by relevant agencies of government to make sure that those who go against the laws are made to account for their actions. There is the need for forest monitoring teams to apprehend tree loggers for appropriate sanctions. The communities need to also be involved in the control and management of forest resources depletion. There is need for sustained management of forests, intensified reforestation and forest concession owners should be involved in forest regeneration. There should be equivalent replacement for every tree removed from the forest. Emphasis needs to be put in finding alternative sources of energy and sustainable farming practices adhered to.

Key words: Identify, Forest resources, Environmental consequences.

INTRODUCTION

A forest has been defined as a plant association predominantly of trees and other woody vegetation. In the fullest sense, a forest is an ecological complex, involving an intricate interrelationship of trees, shrubs, vines, other plants, animal life, soils, atmosphere and water. A forest forms an ecological system consisting of tree - dominated vegetative associations, covering the earth like a green blanket. The forests, not only produce innumerable material goods but also produce several environmental services, which are essential for life. Forests are the next most important resources of nature on earth, after air and

water. They essentially support life on earth by absorbing carbon dioxide and releasing oxygen, thereby maintaining a balance in the gaseous atmosphere and also in completion of hydrological cycle to cause rainfall. Even a thousand of years old book "Chandogya Upanishad" says that "water is the essence of earth and plants are the essence of water (Santosh, 2010).

In the past, there has arisen increasing concern about the rate of deforestation and the need to conserve the tropical forest frontiers of developing countries. Existing literature has asserted various factors to this trend in a wide range of ecological settings and under varying socio-economic and cultural practices to such an extent that it is difficult to pinpoint the salient causal factors that instigate deforestation in the developing countries of

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Africa, Latin America and Asia. While one school of thought holds that given the current rate of deforestation in many developing countries, the forest areas would be transformed into open lands, deserts and barren mountain watershed unless immediate caution is exercised (Osirike, 2011).

As far back as 1958, the forestry Act was already promulgated. The Act provides for the preservation of forests and the setting up of forest reserves. It is an offence punishable with up to 6 month's imprisonment, to cut down trees over 6ft in girth or to set fire to the forest except under special circumstances. Specifically, the National Agricultural policy of 1988 in which the forestry policy is subsumed, provides for: (a) Consolidation and expansion of the forest estate in Nigeria and its environment for sustained yield. (b) Regeneration of the forests at rates higher than exploitation. (c) Consolidation and protection of the environment *visa vise* forest, soil, water, flora and fauna and the protection of forest resources from fire, cattle grazing and illegal encroachment. (d) Development of the forestry industry through the harvesting and utilization of timber, its derivatives and the reduction of wastes.

Recent events around the world have made humans more conscious of the environment in which they live. Since the environment is not subject to human command, attention must focus on how to use the instrumentality of the law, a potent weapon of social control to regulate human activities that abuse the environment and unleash devastating consequences on the entire ecosystem (Akintayo and Akinbola, 2012). This paper is a research effort geared towards enhancing the quality of life through conservation of our forest resources from the prism of legal point of view and environmental law. The paper highlights constitutional provisions, statutory enactments and institutional framework for the protection of our forest resources been taken for granted. People are now more concerned about issues of the environment and the challenges of one form of environmental devastation or the other. Apart from human activities that have resulted into clearing virgin lands for one form of land use or the other, forest resources have been depleted for a number of reasons, especially for energy use. There is progressive realization of the need for caution in the attempt to re-order the way forest resources are been depleted. Hence, the focus of this paper is to look at the ways forest resources can be conserved through legal reforms.

Area of study

Edo South is made up of seven local government areas. These are Oredo, Ovia North East, Ovia South West, Uhumwode, Orhionmwon, Egor and Ikposa Okha Local Government Areas. The study area lies within the geographic co-ordinates of Latitudes 6° 17' and 6° 26' N

of the Equator and Longitudes 5° 35' and 5° 41' E of the Greenwich Meridian (Ikhuoria, 1984). Figure 1 represents the map of Edo State with Edo South Senatorial District well demarcated. Edo South is known to have some forest reserves. These include: Obaretin, Ologbo, Ogba, Ekenwan, Ekiadolor, Gilli Gilli, Iguobazuwa, Okomu, Ohosu, Ebue, Ehor, Owan, Sapoba and Urhonigbe forest reserves. Table 1 shows the distribution and area covered in kilometers of these forest reserves. Okomu forest reserve is the largest and covers 1,238.02 sq.km. This is followed by Sapoba forest reserve with 492.10 sq.km. Other forest reserves are as represented in Table 1. Egor Local Government Area has no forest reserve. Today, most of these forest reserves have been encroached by farmers and communities for other land use purposes.

Aim and objectives of the study

The specific aim of this research paper is to examine the legal and regulatory reforms in forest resources conservation. The objectives for which the study is carried out are: To identify and assess forest resources in Edo South; examine the relationship between law and forest resources conservation; examine the Edo State laws on the use of forest resources; and determine deforestation and its environmental impacts.

METHODS

This study utilized both the primary and secondary sources of data. The primary data used include personal observation and interviewing technique on the field while the secondary sources of data used were mainly the library and the internet. The data required and their sources are: (a) Data on the relationship between law and forest resources. These data were sourced from the Ministry of Environment and Utility Services and Edo State House of Assembly. (b) Data on Edo State laws on the use of forest resources. These data were sourced from the Edo State House of Assembly and the library. (c) Data on the different forest resources locations in Edo South. These data were sourced from the Ministry of Environment and Utility Services and the internet. (d) Data on the impact of deforestation on our environment. These data were sourced from text books, internet and members of the general public. To achieve the stated objectives, data collected from the various sources were analyzed descriptively.

The law and forest resources conservation

According to Thornton and Beckwith (1997), the body of laws to which the label 'environmental' has been attached

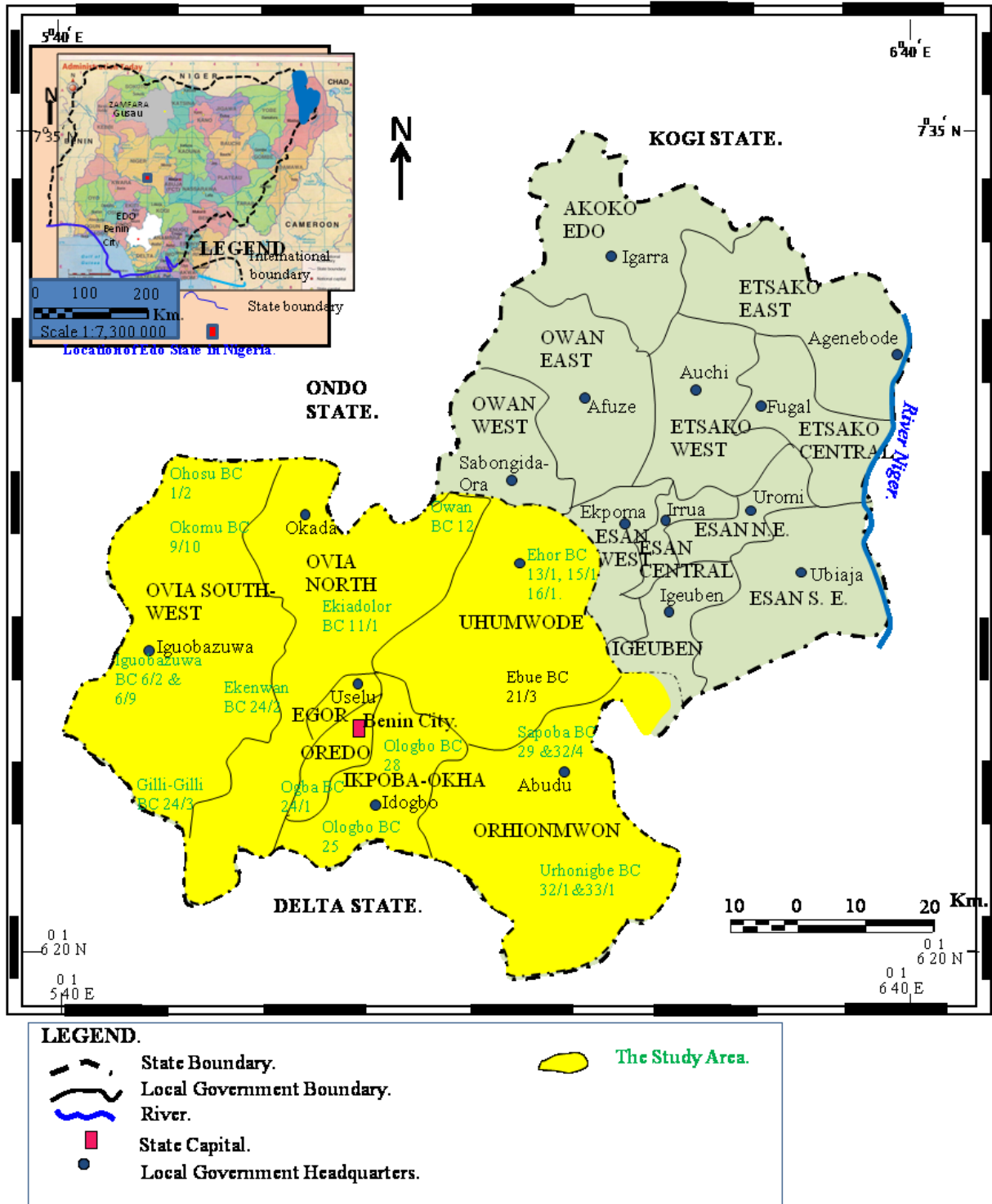


Figure 1. Location of forest reserves in Edo South. Source: Cartography studio, A. A. U. Ekpoma, 2016.

is concerned with protecting the natural resources of land, air and water and the Flora and Fauna which inhabit them. Elias (1956) described the law of a given community as “the body of rules regulating human conduct regarded as obligatory or binding by its members. This led Burnett Hall (1995) to define

environmental law as the body of law concerned with the protection of living things (including humans) from the harm that human activity may immediately or eventually cause to them or their species. Amokaye, (2004) captured the essence of the wide subject of environmental law when he described it as the legal

Table 1. Forest estates and area covered in Edo South.

Forest LGA	Estate forest resources	Edo South Sq Km
Ikpoba Okha	Obaretin BC 28	108.00
	Ologbo BC 25	194.25
Oredo	Ogba BC 24/1	5.17
	Total	357.42
	Ekenwan BC 24/2	106.11
Ovia South West	Gilli Gilli BC 24/3	362.60
	Iguobazuwa BC 6/2 & 6/9	269.60
	Okomu BC 9/10	1238.02
	Ohosu BC 1&2	471.38
	Total	2447.47
Ovia North East	Ekiadolor BC 11/1	255.17
	Owan BC 12	121.73
	Total	376.90
Orhionmwon	Owan BC 12	181.30
	Sapoba BC 29 & 32/4	492.10
	Urhonigbe BC 32/1 & 33/1	321.16
	Total	994.56
Uhumwode	Ebue BC 21/3	91.26
	Ehor BC 13/1, 15/1 & 16/1	295.83
	Total	387.59

Source: Field survey, 2017.

platform upon which the environment could be protected and natural resources conserved through the integrations of environmental considerations to developmental process.

The issue now is what is the relationship between law and forest resources conservation and its attendant socio-economic consequences? The answer to this question can be answered by looking at the functions of the law in regulating forest resources. Law however, is not the only instrument of social control in the society as there are others like public opinion, religion and custom. Law is unique, especially within the confines of our discussion in this paper because it is backed by sanctions. As an instrument of social control, law helps to maintain public order and suppress deviant behavior (Akintayo and Akinbola, 2012).

Successive Nigerian constitutions since independent have not paid much attention to environmental protection through forestation. Even the 1979 Nigerian constitution which was expressed to be designed to take care of the country for 100 years failed in this regard. The explanation for this is not far fetch. As rightly observed by Burnett Hall (1995), it was not until the early 1980s that public concern for the protection of the environment came to the fore. Section 17(2) of the 1979 constitution provided inter alia as part of the social objectives of the Nigerian State that in furtherance of the social order, exploitation of human or natural resources in any form whatsoever for reasons other than the good of the community shall be prevented (Akintayo and Akinbola,

2012).

This explains why the draftsmen of the 1999 constitution found it compelling to borrow the environmental clause of the 1995 draft constitution which was prepared by the Constitutional Conference of 1994 - 1995, despite the fact that the complete package was rejected. This clause is to be found in section 20 of the 1999 Nigerian constitution which provides as follows: The State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria.

As part of the method of conserving forest resources in Edo South, the following laws have been made and amended by the Edo State House of Assembly: The role of middlemen in forest exploitation is prohibited. Allocation of forest concessions shall be made by the appropriate authority. Farming in reserved forest is prohibited but a person may with the approval of the Director of Forestry, farm only in areas previously farmed on but not successfully regenerated reserved areas. De-reservation of the forest for commercial purposes is prohibited. Every contractor granted forest concession shall observe girth limits in tree felling and shall faithfully fell and observe the felling cycle in reserves. It shall be an offence for any person to set fire in any bush indiscriminately without first demarcating and clearing the area required to be burnt. Any person who contravenes any of the provisions of this part as listed above shall be liable to a fine of N50,000 = (fifty thousand naira) only or one year imprisonment.

Others include the fact that it shall be an offence for any person who forges or fraudulently uses, aids or abets any person to forge or fraudulently use any hammering sheet, identity card or any other document used in connection with forest resources or alters, remove, destroys, defaces any such document shall be liable to five years imprisonment.

Notwithstanding, the provisions of any other laws, the police officers of the Ministry of Agriculture and Natural Resources (Forestry Department), officers of local government areas, any authorized person or persons shall have powers to arrest offenders under the law. The law went further to state that any person who contravenes the provisions of the law shall be arraigned before the Magistrate Court or Area Customary Court.

Section 13 of the 1999 constitution enjoins all organs of government and all authorities and persons exercising legislative, executive and judicial powers to conform to, observe and apply the provisions of chapter 11 of the constitution, a duty albeit a non constitutional duty, is imposed on the legislative and executive arms of government at all levels to make legislation and regulations respectively for the protection of the Nigerian environment. It is submitted that though the provisions of chapter 11 of the constitution cannot be used as a cause of action against an organ of government, they can rightly be employed as a defense or shield by the state especially the federal government (Akintayo and Akinbola, 2012).

From the forgoing, it is apparent that both the federal government and the state government are obliged to take steps to ensure the progressive realization of the lofty objectives of chapter II of the constitution, within the respective scope of their legislative competence. This obligation becomes important in view of the deleterious effect of the failure or neglect to take appropriate steps in matters affecting the environment. Hence the state legislature has made concerted efforts at different point in time to make laws for the protection and reservation of forest resources in Edo State.

However, a number of factors continue to constrain the achievements of these goals and laws of our forest resources conservation. These factors as revealed by this study are: Coordination problems, lack of comprehensive policies on environmental laws and issues, inadequate legal framework and lack of implementation of the forest Act of 1999. Others are inadequate budget allocation and investment. Poor maintenance of biological diversity and limited local participation, inadequate mainstreaming of environmental and climate change issues into other sector policies and programmes and slow implementation of the National policy on environment to reduce conflict related to land use.

Despite all these laws and others not listed here that have been enacted by the government through legislation, many people, communities and corporate

organizations have had the need to encroach most of the forest areas. The causes and the resultant effects for which, are not far fetch. Either for one or more of the following reasons:

Logging whether legal or illegal is the major cause of global deforestation. The farmers play a big role, but it is modern industries that cut down the largest number of trees (Akpofure, 2009). The logging industry is fuelled by the need for disposable products. Another side effect created by loggers is the roads that they build to access the forests. These roads make an easy way for many people to try to manipulate the forest resources as revealed by this study. Firewood collection is another major way through which our forest resources are depleted. The majority of the rural population and a large number of people living in small towns and cities in Edo South, the only available energy or fuel is wood which is burned to cook, bake and to provide heat during the wet season. Land clearance for agriculture and resettlement of people brought from densely populated regions are major factors contributing to continued loss of forest. Thousands of hectares of forest land are opened up each year as new settlers cultivate land to grow food.

Destruction of hydrological cycle is also one of the major problems that can result because of deforestation. Changes in forest cover alter catchment water balance and stream flows. The effect of destruction of forest cover on catchment water balance and runoff dynamics depends on the climate, topography, soils and the type of forest. Water quality yield is also affected by tree harvesting. Flooding seems to increase as a result of broad scale deforestation in catchment zones. Indiscriminate tree felling in hilly areas reduces the ability of soil to absorb water thereby inducing high volume of run-off. Oguntala and Oguntoyinbo, (1982) attributed Ogunpa flood disaster that occurred in Ibadan in 1981 to the destruction of forest along banks of river Ogunpa.

Fire is a major tool used in clearing the forest for shifting and permanent agriculture and for developing pastures. Fire is a good servant but has a poor master. Fire used responsibly can be a valuable tool in agricultural and forest management but if abused, it can be a significant cause of deforestation as revealed by this study. Based on the data available from 188 countries representing 65% of the global forest areas, an average of 19.8 million hectares or one percent of all forests were reported to be significantly affected each year by forest fire (Anon, 2010). The situation is even worst in Edo South as a visit to any of the forests listed in Table 1 today cannot boast of the original size it was from inception.

Corruption and political cause are also most of the reasons why our forest resources have been under threat. Forest crime and corruption is one of the main causes of deforestation in the world forests in many

countries. Illegal forest practices may include the approval of illegal contracts with private enterprises by forestry officers, illegal sale of harvesting permits, under declaration of volumes cut in public forest, under pricing of wood in concession, harvesting of protected trees by commercial corporations, smuggling of forest products across borders and allowing illegal logging and the processing of forest raw materials without license (Contrenas-Hermosilla, 2000; 2001).

Economic cause hinged on the relationship between development and deforestation is complex and dynamic (Mather, 1991; Sands, 2005; Humphrey, 2006). One point of view is that development will increase land productivity and thereby reduce the need to clear forests to meet food and other requirements. Another is that development will reduce further capital and incentive to expand and clear more forests. In Edo South, richer farmers are better able to finance deforestation while poor farmers cannot afford to clear much forest. Land offering higher rents encourage quicker deforestation in Edo South. Also, this study reveals that deforestation is affected mainly by the uneven distribution of wealth. Shifting cultivators at forest frontiers are among the poorest and most marginalized sections of the population. They own no land and have little capital. Consequently, they have no option but to clear the virgin forest. Deforestation including clearing for agricultural activities is often the only option available for the livelihoods of farmers living in forested areas.

Others are cattle grazing, construction in the form of roads and housing, to make more land available for housing and urbanization, to create ingredients that are highly prized consumer items, such as oil from palm trees, harvest timber to create commercial items like furniture and paper. Also, land rights, land tenure, undervaluing the forests, overpopulation, poverty, urbanization, industrialization, infrastructure, mining, charcoal production and inequitable land distribution and resources are among the reasons for deforestation in Edo South.

Impacts of deforestation on the environmental

The end result of deforestation variously have negative implications on the environment and consequently on the quality of human and animal life. This paper is however silent on the positive side of deforestation and dwell more on the negative aspect of deforestation. One of the main consequences of deforestation is the loss of biodiversity. The most obvious effect is loss of plant and animal species. Deforestation is causing a loss of biological diversity on an unprecedented scale. Although tropical forests only cover 6% of the earth's land surface, they happen to contain between 70% and 90% of the entire World's species (Akpofure, 2009). Today over 30% of the World's pharmaceutical products are derived from

tropical plants. And so, by contributing to the extinction of multiple species of plants and animals, we might be destroying the cure for human diseases plaguing the World today.

Soil erosion is another main area where Deforestation has impacted on our environment. Due to human activities, soil and water are rarely inadequate supply to maximize agricultural production. When land is deforested, the soil anchorage provided by trees and other plants is lost and soil is eroded by agents of denudation (Brennan, 2010). In desert prone areas, the loss of vegetation cover increases evaporation and soil erosion and may cause deforested land to gradually degenerate to a desert. As most of the nutrients in forested land are stored in the plants, the deforested area becomes nutrient poor. Soil erosion and reduced fertility constitute a clear threat to food production. In general, vegetation removal accelerates run off and increases soil erosion, diminishing land productivity and aggravates flooding.

One of the most serious negative consequences of Deforestation is increased temperature. The earth has an atmosphere which contains a variety of gases, all in a delicate balance to ensure life on earth. Most of these gases in the earth's atmosphere are carbon dioxide, methane, chlorofluorocarbons, nitrous oxide and ozone. These gases especially carbon dioxide help to moderate heat loss to outer space. These green house gases allow solar heat into the system but discourage their escape. This will lead to increase in temperature on the surface of the earth, rise in sea level and other cycles in nature that directly affect life on earth. Deforestation is one of the main factors that can lead to increase in the amount of carbon dioxide on the earth surface. The only way to help moderate the level of carbon dioxide in the atmosphere is through forestation.

Other impacts of deforestation on the environment are the quality of life, loss of plant and animal species, loss of tourism industry, ozone layer depletion, disruption of hydrological cycle, soil compaction which has affected soil aeration, reduction in air filled porosity of the soil, plant productivity, tree growth and increased environmental pollution.

SUMMARY, RECOMMENDATIONS AND CONCLUSION

Forest degradation involves clearance of, or partial damage to, the existing forest cover. As indicated, there are multiple explanations for forest degradation in Edo South and effective management demands a range of responses. The Food and Agriculture Organisation (FAO) in 2016 called for the review of the forestry laws in Nigeria to provide maximum punishment for people who indiscriminately cut down trees. Its representative in Nigeria Mrs. Louise Setshwaelo advised that maximum

penalties will discourage deforestation and reduce the effects of climate change on the environment. This assertion has collaborated most of the forest laws we have today that are quite outdated even when there is continued degradation. The rapid rate of population growth and the high demand for cultivable lands in Edo South reveal the necessity for promoting family planning and contraception in the population. This is because population increase has resulted into high demand for land and the encroachment of forest reserves in the study area as revealed by this study. Development cannot be sustained in a deteriorating environment and the environment cannot be protected when economic growth does not take into account the cost of environmental destruction. The continued degradation of the forests means that sustainable development is under threat in Edo South and Nigeria in general. And so, it is recommended that:

Some of the provisions in the law need to be updated and appropriate implementation carried out by relevant agencies of government to make sure that those who go against the laws are made to account for their actions. There is the need for forest monitoring teams to apprehend tree loggers for appropriate sanctions, though the rural people make out living from forestry especially in terms of forestry products such as logs and firewood. Also, forest resources should be used in a sustainable manner. This means that the present generation should use trees without jeopardizing the needs of future generation. The communities need to also be involved in the control and management of forest resources depletion. This is because, unless we are monitoring how much deforestation is going on, we might not be able to control it or carry out proper regeneration of the forests. There is need for sustained yield management of forests, intensified reforestation and forest concession owners should be involved in forest regeneration. There should be equivalent replacement for every tree removed from the forest. Forest based industries should strictly conform to guidelines on environmental protection.

Emphasis needs to be put on finding alternative sources of energy, sustainable farming practices.

In conclusion, it is noted that The 1999 Nigerian Constitution has been altered three times between July 2010 and April 2011 (Akintayo and Akinbola, 2012). Regrettably, a democratically elected legislature did not consider it necessary to upgrade the environment clause to the level of a justifiable right. Some constitutional aspects of environmental law must be addressed. Access to court by victims of environmental degradation and public-spirited individuals to enforce stationary duties of government agencies established to safeguard the environment, must be secured. This entails that the courts must be willing to ease the requirements of locus standing for the development of this branch of the law. It

is hoped that the current 8th National Assembly will look at the environmental clause of the 1999 constitution in their current bid to amend the constitution.

The forests are essential for healthy environment. Trees stabilize the forest soil, improve soil fertility, reduce wind velocity, protect watershed and reduce the amount of carbon released into the atmosphere. When forests are exploited beyond their capacity to regenerate, vicious cycle of environmental degradation will set in. The activities of forest industry in the areas of tree harvesting, transportation, wood conversion and processing have some negative impacts on the environment. These negative impacts include: destruction of forest cover, loss of biodiversity, ecological imbalance, soil compaction, soil erosion, flooding, desertification, drought and disruption of hydrological cycle.

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