



## **Constraints of Architecture to Environmental Elements in Land Legislation in Nigeria for Sustainable Development**

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### ***Abstract***

This Study examine the Constraints of Architecture to Environmental Elements In Land Legislation In Nigeria For Sustainable Development. Data for the study were sounded from both the primary and secondary sources of data. In Nigeria, Land Use problems that result into land pollution and are accorded highest priority range from the many causes of deforestation, soil erosion and dumping or disposal of both industrial and domestic wastes that are hazardous or harmful and consequently render land unproductive or degrading and unsustainable. In Nigeria, Land Use problems that result into land pollution and are accorded highest priority range from the many causes of deforestation, soil erosion and dumping or disposal of both industrial and domestic wastes that are hazardous or harmful and consequently render land unproductive or degrading and unsustainable. An important resource on land which has been grossly abused and unsustainably used is our forests. Forests provide human beings with a wealth of benefits including contribution of about 19% of the energy supply of lower income countries through fuelwood resource, provision of resource base for agriculture, tourism, recreation, religion, culture, music, etc. Despite these functions/benefits our forests have been degraded through unsustainable logging, shifting agricultural practices, fuelwood gathering bush burning, overgrazing of land, Finally, there is the need for proper management of industrial waste which arises to a lesser extent from a number of advantages which result from such management, but mainly from several harmful effects which ill-managed industrial and domestic wastes occasion.

**Keywords:** Constraint, Architecture, Environment, Legislation, Land

## Introduction

The environment provides all life support systems with air, water and land as well as the materials for fulfilling all developmental aspirations of man. As in most other countries of the world, the Nigerian environment today presents a grim litany of woes. The unwise use of the natural environment due to ignorance, poverty, overpopulation and greed, amongst others, has led to the degradation of the environment. These negative impacts are referred to as environmental degradation, which implies “abuse of the environment” due to improper resources management. In Nigeria, the environmental problems are characterized by soil erosion, high population pressure and increasing congestion in urban centers, which are further compounded by unplanned growth, and increasing problems of domestic and industrial wastes disposal and pollution. Human related activities since 1980s, especially in the development projects of the oil and gas sector, have led to the acceleration in the loss of the topsoil and deforestation; loss of habitat, species and biodiversity; and degradation of wetlands (NEST, 1992). Environmental degradation has resulted in the deterioration of Nigeria’s urban and rural environmental quality, which is characterized by water shortages and floods that play a major role in the transmission of communicable diseases. These worsen the condition of the poor. Also, drought and desertification threaten food security and nation’s ecological integrity, and are drivers of population displacements (Nwafor, 2006). Nigerian population is more than 140 million with an average density of more than 120 persons per square kilometer. Although, this density may vary from one region to another, it is obvious that Nigeria is already

experiencing high population density. The interaction of these millions of Nigerians with their respective environment has left indelible mark on the landscape. The manifestation of these impacts includes urbanization, deforestation, desertification, overpopulation and all kinds of pollution. These impacts of man’s activities have both positive and negative effects on the natural environment.

This paper x-rays some of the resultant impacts of man’s interaction with his environment with a view to outlining their contributions to environmental problems and how far the environmental policies have been implemented to control the negative impact by man on the environment. Suggestions are made for re-designing the objectives and strategies of the Federal Environmental Protection Agency (FEPA).

Since, environmental problems have caused a lot of concern to both individuals and Governments, locally and internationally, the review will enable the concerned groups know how to tackle these problems in order to have a green environment. The study will also enable policy makers, project proponents, environmental authorities and other stakeholders to fully appreciate environmental concerns and give them due weight. It will also provide up-dates for policy makers regarding environmental problems, policies and policy implementation.

### Conceptual Clarification of Key Terms

#### Meaning of ‘Environment’

The word ‘environment’ is such an ambiguous term which is difficult both to identify and to restrict its scope, because it could be used to encompass anything from

the whole biosphere to the habitat of the smallest creature or organism.

In the broad sense, dictionary definitions of the term 'environment' range from "the totality of physical, economic, cultural, aesthetic, and social circumstances and factors which surround and affect the desirability and value of property or which also affects the quality of people's lives",<sup>6</sup> to "the conditions under which any person or thing lives or is developed; the subtotal of influences which modify and determine the development of life or character."<sup>7</sup> This is the broad meaning by which the concept 'environment' embraces everything within and around man that may have effect on or be affected by man; in other words, human environment as contrasted with physical environment. The broad meaning will subsume historical, cultural, technological, natural, economic, political factors, influences and milieus within the concept of environment.

In ecological terms, 'environment' has a more limited meaning which is essentially physical and biological. Environment in this sense encompasses an array of ecosystem. An ecosystem consists of both living (including man) and non-living components and their physical surrounding:- land, water, air etc. Thus this narrower meaning restricts the concept "environment" to the physical or natural environment, comprising God given natural resources, natural elements and natural environment whether or not modified by man. Such an approach is adopted by two principal environmental laws in Nigeria. Section 38 of the Federal Environmental Protection Agency Act<sup>8</sup> defines 'environment' to "include water, air, land and all plants and human beings or animals living therein and the inter-relationships which exist among these or any of them." Similarly, the Environmental Impact Assessment Decree of Nigeria defines the term 'environment' as including:-

1. land, water and air, including all layers of the atmosphere;
2. all organic and inorganic matter and living organisms and,
3. the interacting natural systems that include components referred to in paragraphs (a) and (b)

An indication of what the environment encompasses at an international level is given by the broad range of issues now addressed by international law; including conservation and sustainable use of natural resources and biodiversity; conservation of endangered and migratory species; prevention of deforestation and desertification; preservation of Antarctica and areas of outstanding natural heritage; protection of oceans, international water courses, the atmosphere, climate, and ozone layer from the effects of pollution; safeguarding human health and the quality of life. Inevitably, however, any definition of the environment will have the quality of meaning we want it to mean. Hence understandably, many international conventions avoid the problem of definition, however, no doubt, as Caldwell remarks 'it is a term that everyone understands and no one is able to define.'

### **Meaning of ‘Environmental Law’**

Environmental Law in Nigeria is a body of rules and regulations which have as their object or effect the protection of the environment from pollution and the wasteful depletion of natural resources and ensure sustainable development.

There is the proposition that environmental law has not been developed as a self-contained discipline, but has simply borrowed concepts from other areas of law. One result is undoubtedly a degree of incoherence but another is that the objective of the protection of the environment is not always served by the legal mechanisms available, because these other areas were not developed with the particularly problems of environmental protection in mind. For example, the private law concentrates on the protection of private interests and has difficulties when it comes to protecting common or public interests in the unowned environment. No damages are payable for harm to the environment as such, and only those with personal or property rights may bring an action (thus excluding animals, trees, rivers etc). No value is placed on the environment itself and environmental protection is simply an incidental by-product of the protection of other interests.

Public law does recognize the public interest, but difficulties arise out of a lack of acceptance of the idea that the environment has some independent status or value, as distinct from rights conferred on individuals and communities. Even the criminal law struggles with environmental ‘crimes’, since it has often been pointed out in the courts that many of the offences created are not criminal in the ‘true’ sense. This is more pronounced in the acceptance by the House of Lords in *Alphacell Ltd v. Woodward*<sup>14</sup> that water pollution offences are in the category of ‘acts which in the public interest are prohibited under a penalty’.

Further, the structure of the Judicial system (with its emphasis on adversarial and backward-looking two-party litigation and with its procedural rules which are not user-friendly to those wishing to bring environmental cases and which fail to give the public interest a separate voice) is not particularly well-suited to consideration of environmental disputes, because typically they have multiple causes; give rise to complex scientific arguments; involve a complex interplay between public, private and criminal law; and require the balancing of difficult political or policy questions.

Despite these current defects in mind, one would argue that environmental law has its own conceptual apparatus, in the sense that there is a set of principles and concepts which can be said to exist across the range of subjects covered in the definition of environment.<sup>16</sup> Although there is a valid debate about the extent to which these principles have gained universal acceptance as principles with meaningful legal effect, the process of establishing environmental law as an identifiable discipline has begun. Clearly these principles provide a theoretical context in which to view the detail of environmental law and thus it is important to stress that an environmental lawyer needs to understand the law in practice as well as the detailed rules in order to possess the tools required to carry out the task of solving particular problems properly.

One of the Characteristics of the law and policy of environmental protection is that it evolves, constantly reflecting the various values and priorities which we place upon different aspects of environmental issues. This mean that in recent years as environmental issues have gained in importance, we have seen a period of unprecedented rapid change. In a subject area such as this where activities have to be planned reasonably far in advance, it is always helpful to know what is likely to happen in the future as well as what is the law at the time. In this sense environmental law is forward-looking law.<sup>18</sup>

There is, perhaps, a growing realization that the different areas of law:- public law, private law etc, merely provide, in the environmental context, a set of different tools to achieve a specified objective, in this case the protection of the environment. For example, in relation to contaminated land it is clear that someone has to 'pay' for the contamination, either by cleaning it up, or by living with the consequences. There are essentially four possible options- the polluter could be made liable; the current owner or occupier could be liable; the state could pay (i.e. through some public clean-up mechanism), this really means that the public pays through some form of taxation; or finally, the loss could lie where it falls, meaning that the environment and the local community effectively 'pay'. For a policy-maker the issue is how to come up with a solution that is effective, efficient and fair, whilst the tools that are available include, but are not limited to, legal mechanisms.

### **Definition of 'Land'**

Land occupies a unique place in the development process of any individual or society. The supply of useable land is, however, limited.<sup>21</sup> No society therefore exists without a regulation of some kind peculiar to it to rationalize the mode of ownership and the use of land.

According to the well-established principle of law, *quicquid plantatur solo solo cedit*, land consists of the surface of the earth, the subsoil and the air space above it, as well as all things that are permanently attached to the soil. It also includes streams and ponds.

Statutory definitions of land in Nigeria include the following:- "Land includes land and everything attached to the earth and all chattels real." Further, "Land includes land of any tenure, buildings or parts of buildings (whether the division is horizontal, vertical, or made in any other way), and other corporeal hereditaments; also a rent and other incorporeal hereditaments, and an easement, right, privilege or benefit in, over or derived from land." Furthermore, the word "land", according to Justice Andrew Obaseki (retired Justice of the Supreme Court of Nigeria), "is a specie of property. Property has been defined to mean ownership or title and sometimes the res over which ownership may be exercised. The land comprised in the territory of each state of the Federation is the res over which the governor exercised ownership in trust in accordance with section 1 of the Land Use Act of 1978. It is an immovable property"

The rules relating to the distribution of land necessarily mirrors the underlying current of the society's ideology. In Nigeria's traditional setting, for instance, land was not viewed as a mere economic tool, rather it had religious and other social functions. Thus native rule was rightly

seen to depend upon the native land system. In the strict native rule and custom, land was believed to belong to the living, the dead and the unborn. Land, therefore had metaphysical content viewed, as it were, as an inherent part of social relations process between people, society and gods. The promulgation of the Land Use Decree 1978 was an exercise to redirect the general philosophies of pre-existing land tenure systems in our society through the application of a uniform statutory regulation of ownership and control of land rights and to stimulate easier access to land for greater economic development as well as promote national social cohesion.

### **Meaning of ‘Sustainable Land Use’**

Land supports other natural resources like forest that are vital for human survival. Human survival therefore depends largely on sustainable use of existing and remaining, available, renewable land resources. This means using them at rates within their capacity for renewal. The development of land use systems which meet the needs of present and future generations without causing environmental degradation remain one of the major challenges we are confronted with today. For sustainable development, such land use systems must have the capacity to prevent and control any form of gross abuse or unsustainable use of land resources. Hence sustainable land use implies activities that are ecologically sound, socio-culturally acceptable, economically viable as well as equitable in terms of access to land resources, benefits and decision-making process.

### **Definition of Land Pollution**

Section 38 of the Federal Environmental Protection Agency Act<sup>34</sup> defines ‘pollution’ as “man made or man-aided alteration of chemical, physical or biological quality of the environment to the extent that is detrimental to that environment or beyond acceptable limits.”

Essentially, land is said to be polluted when any waste or noxious substance or chemical is accumulated or deposited or dumped on the land in such a state or condition as to be injurious to the health of man, or animal or plant or vegetation or the aesthetic quality of the physical environment, or when any unlawful act or omission or thing is destructive to the surface of the land or which renders the land unproductive.

By land pollution is meant, the degradation of land by man through activities like dumping of harmful materials such as chemical inputs that are dangerous to vegetation and agricultural production. But the term also includes anything laid in land which automatically impairs its arableness, yield or cultivability, such as land mines, atomic bombs, and other similar devices. Apart from quarrying, mining of all sorts generally and inexorable causes damage to the environment on a large scale. It is a process which inevitably creates pits, ponds and mounds. It destroys the topsoil and renders land to become non-arable and agriculturally wasted and ruined.

Other forms of general land degradation include those resulting from oil spills, sludge and the more common occasion of oil change in mechanical garages where oil use and disposal is not effectively controlled.

### **Results and Discussions**

#### **ROLE OF ENVIRONMENTAL LAW IN REGULATING LAND USE AND PROTECTION OF THE ENVIRONMENT IN NIGERIA**

In order to examine the role of environmental law in regulating land use and environmental protection in Nigeria, this part of the paper seeks to:-

- identify land use problems in Nigeria that lead to land degradation; and
- examine key environmental legislations that aim at regulating land use in order to protect the environment from gross abuse.

#### **Land Use Problems and their impact on the environment**

In Nigeria, Land Use problems that result into land pollution and are accorded highest priority range from the many causes of deforestation, soil erosion and dumping or disposal of both industrial and domestic wastes that are hazardous or harmful and consequently render land unproductive or degrading and unsustainable.

An important resource on land which has been grossly abused and unsustainably used is our forests. Forests provide human beings with a wealth of benefits including contribution of about 19% of the energy supply of lower income countries through fuelwood resource, provision of resource base for agriculture, tourism, recreation, religion, culture, music, etc.

Despite these functions/benefits our forests have been degraded through unsustainable logging, shifting agricultural practises, fuelwood gathering bush burning, overgrazing of land, etc.

For centuries, shifting cultivation and trans-human pastoralism systems allowed people to derive their livelihood in a sustainable manner from nature. When soil fertility declines or pasture vegetation disappears, people move to new land and allow natural regeneration of used land to its original state. The fallow period could be between 10-20 years. With increase in population, farming and pastoral land has become scarce and new forest lands have been opened up for both traditional and mechanised farming. An example can be found in Nigeria where forest reserves were dereserved for palm and rubber plantation development. By 1994, about 83,672 hectares of such area were de-reserved. Fallow periods have been shortened while in several communities repeated farming on the same piece of land is carried out using the same traditional system that are suitable only for shifting cultivation. The effect is non-restorable soil fertility, low crop yield and farmers' migration to marginal land into forests. Similarly, with diminishing pasture, livestock move to tropical forest areas considered unsuitable land for such practise.

Further, increasing dependence on wood for fuel and building materials when combined with population growth contribute to the increasing rate of forest and woodland destruction. In the 1980s, deforestation in Nigeria was estimated at 400,000 hectares per annum. About eleven

years ago, a Federal Government study showed that fuelwood is the source of energy for 80% of the rural population. With increasing cost of fossil fuel energy, it is likely that there will be increased dependence on fuelwood for energy supply. The increasing demand for fuelwood accelerated rate of woodland destruction, soil degradation, river siltation, desertification and general environmental degradation.<sup>42</sup>

Logging is another important cause of forest loss. Compared with shifting cultivation and plantation agriculture however, deforestation from logging impact is secondary. Farmers often engage in bush burning in logged areas thereby making sustained-yield forest management systems difficult. Loggers themselves do not carry out afforestation activities as required by law.

In Nigeria, bush burning is done for hunting of games, land clearing for agriculture, promotion of pasture for grazing, and other purposes. Often the fire gets out of control destroying large area of vegetation. The hazard of bush burning which includes soil erosion and desertification is of concern to agriculture particularly in the arid and semi-arid areas. Organic matter content of the soil is depleted and volatilisation of nitrogen is enhanced.

On the other hand, overgrazing of land is a result of cattle rearing practised mainly by the nomadic fulanis in Nigeria. This process or activity leads to soil exposure, soil water loss and ultimately erosion and desertification.

Furthermore, the acquisition of operational land area is usually the very first disruption that visits an oil community. The discovery of oil in an area inevitably means the destruction of the vegetal life of the area to enable the company set up its equipments and embarks on the harvesting of the oil resource. Infact once land is occupied for oil installations or operations, unintended changes in the environment may result namely:- loss of economic and forest trees, loss of farm land and topsoil, loss of flora and fauna, habitat destruction, loss of fishery and crop cultivation etc. Thus in the course of carrying on oil exploration, productions, and refining activities, the environment experiences what can be referred to as ecological disruption.

Moreover, the effects of mining activities may be environmental, economic or social. However, mining activities are of concern because of their tendency to pollute the environment as defined above with deleterious effects on both organic and inorganic matters including living organisms inhabiting the earth. Many health problems are associated with mining ranging from death, injuries, exposure to radiation as well as auditory and respiratory disorders. The problem is rendered more intractable because several of these diseases take a long time to manifest.

When solid minerals exploration and exploitation or mining activities commence on land, its existing condition and use are changed due to excavations and the operation of earth moving machinery. The green vegetation either disappears or gets covered in a crust of dust. The absence of trees and other vegetation renders the soil vulnerable to erosion. Sometimes it may be necessary for mining purposes to divert the course of a stream or river and this may result in its drying up. Some of the worst cases of damage to the landscape in this country are to be



found in parts of the Jos Plateau, Plateau State of Nigeria which, from an aerial view, look like a lunar landscape with pits, gullies and ravines. The landscape can also be damaged by tailing and dumping of waste from excavations.

Lastly, every industrial activity (from the thousands of industries in Nigeria) involves the input of raw materials through some mechanical processes and the result is the finished desired economic good and some unwanted byproducts or wastes. The wastes come in various forms as solid, liquid, or gas, and may be regarded as harmful, toxic, hazardous or radioactive. If such harmful or potentially harmful industrial wastes are dumped in surface dumpsites or in gulleys, valleys or drainage basins, leacheates from them (i.e liquids from dissolved solid wastes) percolate freely and are swept by rain flood into surface water (such as streams, lakes, rivers) and into burst water pipes and nearby underground water system. The result is extensive chemical pollution of water. Moreover, industrial effluents may flow directly into surface and ground water thereby again polluting the water. Of course, the ultimate principal victims of environmental pollution are man and animals.

### **Key environmental legislations<sup>50</sup> on land use regulation and environmental protection**

The freedom to use and enjoy land in particular, and private property in general is guaranteed by our laws in Nigeria, but it is trite that the rights cannot be absolute. They have to be regulated in the interest of the generality of the populace and in the protection of the rights of others in society<sup>51</sup>. To minimise and control the above mentioned problems of land use and their negative impact on land resources, Nigerian government has put in place a number of legislative measures locally. One of the most important is the land Use Act, the objectives of which, among others, is to ensure that there is a sound land and environmental development and that the ecological and aesthetic values of the nation are preserved and enhanced.

Since the Land Use Act<sup>53</sup> deals primarily with the acquisition, use and enjoyment of land, in accomplishing these objectives, the activities of an individual, government or organisation either private or public, is likely to create environmental problems. For example, where permission was given for land to be used for mining purpose or for industrial purpose or for a town and country planning purpose or for any other commercial or public work or convenience, environmental problems are surely going to crop up in the and use enjoyment of any of these services or purposes.

Essentially, the Land Use Act is not strictly an Act for environmental protection<sup>54</sup>. However, environmental protection is one of those considerations which a holder of certificate of occupancy has to observe, though it is not explicitly provided for in any of the provisions of the Act. If the Act is read without such importation, the result is bound to be absurd and environmentally unsound.

The Urban and Regional Planning Decree (Act)<sup>56</sup> has some feeble provisions on environmental impact assessment which are in fact not integrated with the Environmental Impact Assessment Act. Other than that, the Planning Act does not explicitly require or articulate criteria for integrating environmental conservation into the planning process. Yet,

planning law ought to be able to establish regional land use frameworks geared towards total and holistic environmental conservation. Suffice it to say therefore that existing legislation will not assure adequate management and conservation of biodiversity in Nigeria. However, the Planning law has a firm hold on the environment through the issuance of development permits for any development that has to take place in the environment. It also has the powers to prepare physical development plans showing how every square inch of land in the country will be used.

Mining activities in Nigeria today are governed by the Minerals Act, the Minerals Regulation and Minerals (Safe Mining) Regulations made under it as well as amendments and modifications such as the Minerals Act (Amendment) Decree 29 of 1984. Sections 46-47 of the Act dwell on the problems of pollution:- associated with mining activities. They make provisions for the safe disposal of overburden and excessive tailing from mining operations, the primary focus being the protection of water and water sources. Sections 52-63, in particular, set out the procedure for obtaining a water licence and the obligations of a holder of a water licence. Likewise, the Safe Mining Regulations prescribed the obligations of a holder of a prospective licence, mining right or mining lease with regards to the protection of the landscape while Regulation 131 sets out the requirements for handling water which contains toxic or injurious chemicals discharged from the treatment of minerals.

The poor level of enforcement of the law and safety regulations, the increasing sophistication in the mining industry the world over and the increased level of environmental awareness have all combined to render the safety requirements in the existing laws rather obsolete and inadequate. The modern concept of the environment has now been expanded by the Federal Environmental Protection Agency Act beyond water quality and landscape as envisaged under the Minerals Act to include air quality and atmospheric protection, noise control or abatement and the discharge of hazardous substances into the environment. Consequently, persons engaged in solid minerals exploration and exploitation are now compelled to conform to a higher standards of environmental protection than that prescribed by the Minerals Act. In order to attain fully the objectives of the Federal Environmental Protection Agency Act, the Environmental Impact Assessment Decree confers specific powers on the Agency, now the Ministry of Environment, to facilitate its environmental assessment of projects and sets out the procedures and methods for conducting environmental impact assessment of projects for which they are statutorily required.

The Nigerian Forestry Act governs the forestry sector in the country. There are extensive powers under it and under some state laws to deal with indiscriminate deforestation for timber etc. certain specific land areas are constituted into forest reserves, activities within which is permissible only on licence. Penalties for violation include both fines and imprisonment.

There are no direct Federal provisions as such in respect of soil conservation. The Imo State Land and Water Resources Conservation (Erosion Prevention) Edict of 1986 addresses such problems as gully erosion, sheet erosion, quarrying, farming, bush burning, road design and construction procedures. It appears to be a solitary effort in the federation. Considering the

very grave problems of land and coastal erosion, the need for comprehensive national legislation to address the problem of soil conservation is quite clearly overdue.

In an attempt to sanitize the environment and to protect public health, the Sokoto State Public Health Edict No.5 of 1985 indicates and prohibits the following instances of land pollution under section 7 (f,I,k,o,op,q and t):- any accumulation or deposit of rubbish of any kind, any overcrowded premises dangerous to the health of the occupants, any dumping of industrial waste or building materials on a building site which may be injurious to health, any littered and neglected frontage or backyard of any building, and any carriage of refuse, sand gravel or noxious substance without covering such substance properly on the Highway.

Further, Section 17 of the Edict imposes a duty on every occupier or owner of any premises to keep free and clear drains, gutters or channels on the streets of all filth, rubbish and refuse of any description. Section 18 generally prohibits indiscriminate disposal of refuse into gutters, other such channels and the streets. The penalties provide for contravening these provisions are a fine of ₦100 or 3 months imprisonment.

The obvious shortcoming of this Edict is that it did not set up any body to designate proper refuse or waste disposal sites for the deposit of refuse or waste or for the treatment of the same. The penalty of fine provided here is also very paltry for any effective enforcement at least against corporate polluters.

Further, the provisions of Section 7 of the Edict did not clearly prohibit the depositing, storage or dumping of industrial, harmful or human wastes or faeces on land. It however clearly covered domestic and commercial wastes.

Furthermore, the provisions of the Edict of 1985 did not cover an important instance of land pollution namely, rendering aesthetic quality of land look poor. Infact the indiscriminate use of bill boards and posters everywhere there is space in our urban centres, advertising this product or that service, have been used to deface buildings that should be monuments, and even educational institutions. This has rendered the skyline of our major cities and towns aesthetically poor.

The Town and Country Planning Law (Cap. 130) Laws of Northern Nigeria, Vol. III of 1963) makes provisions for planning schemes with respect to lands, whether there are not buildings thereon, with the general object of controlling the development and use of land comprised in the area to which the scheme applies, of securing proper sanitary conditions, amenity and convenience, of preserving buildings or other objects of architectural, historic or artistic interest and places of natural interest or beauty, of protecting and extending the amenities and of conserving and developing of the resources of such area, and the coordination of roads and public services. This law has now been repealed by Section 79 (1) of the Sokoto State Edict No. 7 of 1995.

The Sokoto State Urban and Regional Planning Board Edict No. 7 1995 which repealed the Town and Country Planning Law, aims at controlling the carrying out of any building, engineering building or other operations in, on, over or under any state land, or the making of any environmental significant change in the use of any land or demolition of buildings, etc.

This Edict made some improvements on the repealed law in terms of contents and provisions for penalties for effective enforcement. For instance, under section 2, the meaning of development has been broadened slightly to cover engineering and mining operations specifically; development has also been categorized into commercial, industrial and institutional and each clearly defined in order to cope with modern need and challenges. Under section 3, the composition of the Board has been broadened to accommodate relevant professionals for efficient performance. Under section 58 the penalty for violating the Edict should not exceed a fine of ₦10,000 in the case of individuals and of ₦50,000 in case of corporate body. The control department is empowered to regulate the dimensions, appearance, display, siting and manner in which an advertisement bill board shall be fixed to land (Section 69 (1)).

However, the repealed Planning Law contained more elaborate provisions or approaches in the distribution of human pressure on the physical environment; improvement of aesthetic quality of the environment standard in buildings (Parts 2 and 3 of the repealed Law, regulations made thereunder and the first schedule).

One obvious shortcoming of all the above laws on land pollution is the apparent omission to control soil erosion and desertification. In terms of Nigeria's environmental problems, soil erosion and desertification are among issues being accorded highest priority. As land is rendered unproductive or totally destroyed by erosion or desertification, the people move on to new settlements and start the process all over. They have no alternative because it is a matter of survival for them. This is not sustainable development because sooner or later all the available land will be exhausted and the people or their children will become environmental refugees.

Apart from overgrazing, which aids erosion and desertification, lack of tree-planting culture coupled with deforestation due to uncontrolled timber lumbering aid the rapid southward advancement of the Sahara. Most soils have been rendered infertile by overcultivation and bush-burning, and the replacement of the essential minerals of the top soil takes place over very long periods.

Nigeria's coastal resources have been greatly damaged by erosion and this has had severe financial consequences. Erosion, like flood, sometimes affects property and means of livelihood, especially where the people in the area are mostly farmers.

Nigeria has lost about 351,000 square kilometres of its land to the desert, and the desert is advancing at a yearly rate of 0.6 kilometres. Desertification is the most important environmental problem for most Northern States of Nigeria. Entire settlements, and in some cases major access roads, were buried by sand dunes in some parts of the north quite recently. All these expose the need for urgent measure, in the protection of our environment.

## **DEFORESTATION.**

Land degradation also occurs due to the many causes of deforestation. The Forestry Law (Cap. 44) provides for the preservation and control of forest in Sokoto State. The Law makes

special provisions for the creation of forest reserves and protected forest. The procedure for constituting forest reserve has been set forth in the law. It also prohibits the illegal felling of timber, illegal installation or operation of sawmills.

The offences and penalties provided therein ranges from a fine of 50 pounds or 6 months imprisonment for offence in protected forests and for contravention of any regulation made under this law or the conditions of any licence or permit issued thereunder, to a fine of 100 pounds or to one year imprisonment or to both for acts prohibited in a forest reserve. Additional penalty include forfeiture of any forest produce, destruction of any farm or plantation, or confiscation of any farm, or cancellation of any licence or permit held under this Law.

Under the Forestry Law, the forestry regulation which further makes provisions for the protection and conservation of timber and protected trees have been made. It grants privileges to owners of protected trees, persons making canoes and the postal authority. The procedure for the issuance of permit is stated in the regulation.

The above Forestry Law is first antiquated due to the fact that it basically came into existence in 1933 under the colonial rule. Although there might have been a few amendments to the law, the main provisions have not been essentially altered. Second, the law is ineffective in terms of enforcement due to very paltry sum provided as penalty of fine thereby resulting into large scale deforestation activities such as bush burning, over-grazing of land, logging or timber exploitation, infrastructural developments, farming, population growth, urbanization and dereservation of forests for agricultural and other government projects. Third, the law is narrow in scope due to lack of provisions for grazing reserves and demarcation of grazing reserves areas, for licence or special permit to graze on forest reserves or protected forests. There is no provisions also prohibiting overgrazing of land in order to assess and control the environmental impact of nomadic pastoralism. Fourth, the law did not address the challenge of sustainable development properly in order to maintain a balance between forest conservation and causes of deforestation for institutional, industrial or agricultural developments and alarming the socio-economic implications of deforestation. These implications include loss in bio-diversity and generic resources, shortage of firewood and industrial timber, destruction of wildlife habitats, floods and erosion.

A further obvious shortcoming is lack of provisions for the establishment of any organ or body to formulate both short and long term policies on planned forestry protection, control and management including the whole range of forestry activities.

By virtue of the power of the Governor to make regulations under section 46 of the Forestry Law, the Sokoto State Legal Notice No. 7 of 1996, provides for the prohibition of wilful felling, trimming or lopping of trees without permission. The penalties prescribed for contravening the regulations are, for the first offence, a maximum fine of one thousand naira maximum and an order for planting three replacements to every tree felled to be nurtured up to maturity. For each subsequent offence, a maximum fine of three thousand naira and an order to plant three replacements to every tree felled to be nurtured up to maturity.

The above Regulation is at least an improvement on the existing Forestry Law in terms of penalty for effective enforcement.

In 1965, the Grazing Reserves Law came into effect with provisions for the establishment and control of grazing reserves. The law requires the Government to publish a notice of intention to create a grazing reserve in the state Gazette together with details of such reserve and appointing a reserve settlement officer. It empowers the Governor to constitute lands, in respect of which an inquiry has been made, as a Government grazing reserve. The Governor is empowered to de-reserve any grazing reserve by order. It enables the Governor to make regulations for Government grazing reserves. It further deals with the power of Local Government Council to constitute and manage grazing reserves.

It is sad to note that 31 years after it was formulated, no attempt has been made to update it in the light of today's challenges. One of such challenges is the fact that the environmental impact of nomadic pastoralism does not augur well for conservation practices. As the nomads move from one area to another, overgrazing usually occurs. Overgrazing is a major cause of soil erosion in this area. During this movement, the animals destroy the Vegetation as they trample on it. Further, the environmental problems associated with nomadic pastorism include pollution of water by the cattle, the wide spread of animal diseases and habitual bush burning to ensure the quick growth of Vegetation and plants for the consumption of their cattle.

The resultant consequence of the above problem is the frequent clashes between cattle herdsmen and crop farmers over a scarce and ever dwindling resource-land –and the clashes are taking a heavy toll on lives and property. The effect of these clashes is two-fold. First, national security is being threatened, moreso because of the infiltration of foreigners who are increasingly introducing sophisticated weapons of violence into the conflict. Second, food security is being imperiled through destruction of crops and livestock. No responsible government would therefore fail to recognise this twin threat.

Sadly enough, it is only 27 years after the coming into effect of the Grazing Reserves Law that Sokoto State Government enacted a regulation demarcating some areas in the state as grazing reserves. Thus the Sokoto State Legal Notice No. 14 of 1992 empowers the Commissioner for Agriculture and Natural Resources to take control and management of the thirteen grazing reserve areas created out of nine local governments with Gummi Local Government accommodating about five of such reserves. The 1992 order created a grand total of about 20,000 hectares within the state (Schedule).

The need for amendments of this latest Regulation passed by the Sokoto State Government cannot be over-emphasized due to the recent creations of Kebbi and Zamfara States as well as some local governments out of the Sokoto State. This is to ensure proper re-demarcation of such reserves for the present Sokoto State.

The effort of the Sokoto State Government in promulgating the Agricultural and Rural Development Authority Edict, 1985 is commendable. The deserving commendation is due to the establishment of the above Authority with a view to carry out forestry development involving modernization of nurseries and planting of trees; soil conservation and land use

planning involving the establishment of a land use planning unit to collect and process data, for long and short term land use planning; rural water supply programme, carrying out seeds and planting materials production programme involving the supply of foundation seed and the securing of disease free stocks for further multiplication, etc.

However, it did not provide for a unit to collect and process data for both short and long terms forestry protection, control and management planning.

The Sokoto State Forestry II Project Unit Edict No. 2 of 1987 aims at the unit carrying out comprehensive farm forestry extension services in the state, carrying out applied research in afforestation in nurseries, shelter belts, and agro-forestry, carrying out sand-dune fixation and soil conservation, etc. This effort is commendable in at least addressing the problem partly of deforestation.

## CONCLUSION

There is the need for an effective system of forest extension and public education, to ensure better awareness, appreciation and management of forests with regards to the multiple roles and values of trees, forest, forest land, and wildlife.

It is recommended that the education of pastoralists should be strengthened and efforts made to encourage them to settle in the specified grazing reserve areas within a given state and to adopt modern animal husbandry practices.

Finally, there is the need for proper management of industrial waste which arises to a lesser extent from a number of advantages which result from such management, but mainly from several harmful effects which ill-managed industrial and domestic wastes occasion.

## References

- See Ladan, M. T., Report on the Review of Sokoto State of Nigeria's Environmental Laws and regulations (1997), All States Publishing Co., Abuja, Pp. 14-15.
- Sections 43-44 and 46 of the Constitution of the Federal Republic of Nigeria, 1999.
- The Land Use Act (of 1978) Cap. 202 Laws of the Federation of Nigeria, 1990, is the law that regulates the acquisition, use and disposal of land.
- See Ladan, M. T., Status of Environmental Law in Nigeria:- Implementation, Teaching and Research. A paper presented at a Symposium for Environmental Law Senior Lecturers/Professors from African Universities. Organised by the UNEP, Nairobi, Kenya. Between 29 September and 2 October, 2004, at Merica Hotel, Nakuru, Kenya, Pp. 1-30.
- Birnie and Boyle, International Law and the Environment, 2nd, Oxford University Press, Oxford, (2002) at P. 3.
- Blacks Law Dictionary, 5th (1979), p. 479.
- Oxford English Dictionary definition quoted in Perspectives in Law and Justice (ed.) Umezulike and Nweze (1996), Fourth Dimension Publishers, Enugu, Nigeria, at P. 240.
- FEPA Act Cap. 131 laws of the Federation of Nigeria 1990 (as amended) by Decree No. 59. Of 1992.
- I.A. Decree No. 86 of 1992, Section 63 (1).
- Caldwell, International Environmental law and Policy (1980), 1st, Durharm, N.C. p. 170.
- See the combined effect of the inventory of relevant national legal and administrative frameworks on the environment in Nigeria, in Ladan M. T., supra notes 1 and 4.
- Such as criminal law, constitutional law, law of contract, tort, equity and property law or public and private law generally.
- See Ladan T., supra note 4.
- (1972) AC 824.
- See Niki Tobi, 'Judicial Enforcement of Environmental Laws in Nigeria', in Ladan M. T., Law, Human Rights and the Administration of Justice in Nigeria, (2001), A.B.U. Press, Zaria, Nigeria, at Pp. 261-287.

See generally, Simpson and Fagbohun (ed.) 1998:- Environmental Law and Policy, Law Centre, Faculty of Law, Lagos State University, Lagos, Nigeria, at Pp. 86-202.

Bernie and Boyle, supra note 5 at pp. 5-8.

See generally, jomo M.A. and Adewale O. (ed) Environmental Law and Sustainable Development in Nigeria, (1994):- Nigerian Institute of Advanced Legal Studies, Lagos and The British Council, Pp. 11-48 and 67-112.

Ladan M. T., "Human Rights and Environmental Protection", in, Text for Human Rights Teaching in Schools (1999), Constitutional Rights Project, Lagos, Obilade A. O. and Nwankwo, C. (ed.) at Pp. 102-7:- Where the author discussed both legal and non-legal environmental solutions.

See UN Environment Programme (UNEP) Nairobi, Kenya (2002):- Africa Environment Outlook Reporting Project, Information brief on Land, Pp. 1-2

The Land Use Act in Nigeria, supra note 3, an example.

Olawoye C.O:- Title to Land in Nigeria (1974); University of Lagos/Evans Bros; London, p. 9.

Section 3 of the Interpretation Act.