



NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: ESM 303

COURSE TITLE: ENVIRONMENTAL LAW AND POLICIES

MODULE ONE

Unit 1

Environmental Law

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1.0 INTRODUCTION

Environmental law was developed in response to the public perception that human health and the environment were inadequately protected. It is at this point that the Environment needs protection, and whether law is successful in protection of the environment will depend significantly upon the range of entities that it is able to protect.

It is imperative that Environmental law is a concept that will be discussed in this unit using various scholarlastic ideas in that direction and succinctly, students/readers will be abreast with the facts dealing with the topic.

And the Government participation by all tiers is inevitable if measures designed to protect the environment is to be effective. It is at this point that, law has a key role to play regardless of technological or scientific design or devices. The core objective of preservation, conservation and maintenance of purify environment can only be achieved only if the law can be mobilized to operate in partnership with science and technology.

2.0 OBJECTIVES

The main objective of this unit is:

- to discuss the concept of the environment and that at the end, students and readers alike should be able

- to ascribe meaning to the concept of environmental law both in Nigeria and other jurisdictions of the earth.
- to explain the differing concepts of the environment.

3.0 CONTENT

Environmental law in Nigeria is that branch of public law which contains rules and regulations which have as their object or effect the protection of the environment.

It is one of the youngest courses of study in most Nigerian institutions of higher learning where law is being offered as a course of study. Environmental law cannot be discussed globally without the concept of the environment. The definition and the concept of the environment is the main hub of this study and law comes in as a predictable attendant to protect the environment by way of regulating and regularizing it against abuse and ill-treatment by the human elements (who are the presenters and beneficiaries of the environment).

3.1 Definition of Environmental Law

Generally, the modus operandi for defining the environmental law depends largely on individual environmentalist who is saddled with responsibility of defining the subject matter. "At one extreme, it can mean pollution control law, at the other, Einstein would say that it is the law which belongs to everything that is not one. For most people an acceptable compromise has to be found

between these positions” (Andrew Waite et al 2001). Another attempt may mean ‘the law relating to the protection of public health and our natural and manmade surroundings. The Environment is where we all live in and the law is what we live in and by.’”

Environmental law is a complex and interlocking body of treaties, conventions, statutes, regulations, and common law that, very broadly, operate to regulate the interaction of humanity and the rest of the biophysical or natural environment, toward the purpose of reducing the impacts of human activity, both on the natural environment and on humanity itself.

Rodgers (ref) stated that environmental law cannot repeal the rain and the wind nor can it repeal the law of ecology. What it can do is to attempt to create order out of chaos as law cannot alter the environment.

In the views of Thoron and Beckwith (1997:2), it is the body of the laws to which the label environmental has been attached is concerned with protecting the natural resources of land, air and water, the three environmental media and the flora and fauna which inhabit them.

Environmental law draws from and is influenced by principles of environmentalism, including ecology, conservation, stewardship, responsibility and sustainability.

Environmental law is seen as the body of laws concerned with the protection of living things (human beings inclusive) from the harm that human activity may immediately or eventually cause to them or their species, either directly or to the media and the habits on which they depend. Environmental law covers the whole universe including not only human beings but also plants, animals, forests shrubs, refuse, bacteria/ diseases and insects (Ola C. S 1984:150-154).

3.2 The Concept of Environmental Law

The word concept means an abstract notion, a mental impression of an object, it could also be referred to the idea underlying a class of things or the general notion of that thing.

Generally in discussing the concept of environmental law, then an expository look at the word environment cannot be overemphasized. Literally, environment means that which surrounds so, in a sense, the environment is the whole physical universe. However, the Cambridge Encyclopedia defined the environment as the conditions and influences of the place in which an organism lives. The concept of environmental law refers to the integrated rules and Principles, i.e., legal norms, the purpose of which is to achieve environmental conservation

Naturally, in discussing the concept of environmental law our minds will be directed at what constitute the ideas, the policies and the juridical basis that gave prominence to the need to have and develop the word environmental law.

In the words of a former member of International Court of Justice (I.C.J), Honourable Prince Bola Ajibola he added credence to the opinion mentioned above that:

“It is the policy of the administration to vigorously pursue the protection of the Nigerian environment in order to preserve the quality of life of all citizens and conserve the resources for the benefit of future generations of Nigerians.”

The concept of environmental issue has taken a serious dimension worldwide and Nigeria is not an exception in the new horizon of not mere control, protection and management of environmental health problems but with legal policing. “The reason for this rapid paradigm shift in Nigeria in recent years may not be divorced from the dumping of harmful toxic waste materials in Koko in the Delta State (formerly part of Bendel State) in June, 1988 and the need to redefine our hitherto concept of the environment”.

In the 1970s, the environment was described as ‘an international issue and these have not spurred the Nigerian national government into action until the event of

widely published Koko saga in June 1988, "The Koko Toxic Waste Dump". This actually stands as a stimulant the Nigerian government waited for to spark off her action. Since 1988, national focus on the Nigerian environment and environmental programmes and policies cannot be over-emphasized.

This was supported by late Chief F.R.A Williams (SAN) when he stated that "prior to 1988, legal and administrative measures covered mainly protective and preventive measures relating to environmental sanitation and issue on public health; warning and emergency measures to reduce potential harm in case of natural disasters and context of Nigeria Law which whilst paying due regard to global movements and ideas as well as the increasing interest of the international community on the problems pertaining to the environment".

It was also categorically stated by Okorodudu - Fubara that "until the adoption of the National Environmental Policy on the Environment in 1989, Nigeria has no distinct and clearly articulated national policy goals for the Nation's environment" The Koko toxic experience, led Nigerian Military Government to promulgating the Federal Environmental Protection Agency Decree 1988 No 58. it was the first of its kind since Nigeria Independence in 1960 and in line with 1972 Stockholm Conference on Environment which Nigeria was a signatory.

The "Koko Toxic Waste Dump" gave credence to a nationally unified law/national policies and programme on the Environment which eventually led

to the promulgation of the two basic Decrees that is Federal Environmental Protection Agency Decree 1988 No 58. The Harmful Waste Special Criminal Provision Decree 1988, No 42;

To this extent Nigeria as a nation moved away from being a mere control and compensation of hazards, however included laws meant for monitoring, reduction and possible prevention of environmental pollution.

Furthermore, the environmental problems on the other hand have no exclusive terrain, but rather a universal global problem. After all, there is only one world environment and no nation can exist in isolation, hence, the environmental problems cut across socio-political, geographical and international boundaries.

4.0 CONCLUSION

It is pertinent to note that at the end of this unit learners should be able to know and briefly explain the term concept of the environment. And it has been able to codify statutes into a sustainable law for further protection, development and sustainability of our environment.

5.0 SUMMARY

In summary, learners have been able to learn the concept of environmental law, the views of some legal luminaries,

Then the advent of the Koko toxic waste yarn which serves as momentum and catalyst to the Federal Government of Nigeria to make a comprehensive national policy and statutes on the environmental abuse and led to the promulgation of some major decrees in that regard to fight the menace.

6.0 Tutor Marked Assignment (TMA)

1. Define the term environmental law with views of different scholars.
2. State the statutes enacted to promote or sustain our environment after the Koko Toxic waste saga.

7.0 REFERENCES/FURTHER READING

- Lawrence Atsegbua et al 2003: Environmental Law in Nigeria: Theory and Practice. Ababa Press Ltd, Lagos.
- David Wooley QC et al 2008: Environmental Law. Oxford University Press.
- Okorodudu – Fubara M. T. 1998: Law of Environmental Protection: materials and Text, Caltap Publication (Nigeria) Limited, Ibadan, Nigeria.
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Unit 2

Historical Background to Environmental Law in Nigeria

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1.0 INTRODUCTION

The historical background of every subject, especially topic relating to the environment cannot be ignored, as the law relating to the evolution of the subject matter will be the center of the discussion in this unit. Generally this will relate to the development of Environmental Law in Nigeria and other jurisdictions in the world. It is however, pertinent to know how the law for supporting our environment emerged internationally.

The role of the United Nation Organization, through its United Nations Environment (UNEFA) the impact of the regional organizations and the clinch of the decision of international conferences on environmental protections and sustenance of our natural environment through the effectiveness of the law.

2.0 OBJECTIVES

The main objective of this unit is for learners at the end of the unit to emphatically discuss the evolution of the subject matter the environmental law. From the colonial era down to the era of the Koko saga in Nigeria and also the role of the United Nations in fighting the menace of environmental degradation in the world over.

3.0 CONTENT

3.1 Historical Backgrounds to Environmental Law

The environment is a beautiful place to live in once treated in that regard, it is to this extent that the environment cannot be discussed without its evolution world over. The environment as beautiful as we have described it is faced with the twin pressure of population and development, and these environmental menaces however, results in its deterioration and diminution of the natural resources at a frighteningly state.

Day in, day out, our environments are been polluted with various unlawful disposals of waste, like the traditional pollutants, despite this the sprain of unimpeded effluents and secretion from hazardous industries has caused pollution of the environment and consequent human health hazards.

The world becoming a global village has really affected the environment and generally the populace are not really ready to take care of the environment in proportion with the world developments, with the spring of reckless industrial growth and this may lead to an over exploitation and destruction of natural resources to an extent such that disaster will be the order of the day as the environmental support system has been damaged beyond repair.

In the words of Dharmendra S. Sengar (2007) he stated that there is a need then to strike a balance between environment and the technological development so that we may have sustainable development. He added further that "Environmental pollution which has become a worldwide problem, many nations is giving it some required attentions. The United Nations Conference on Human Environment in 1972 was an initial major effort to diagnose the unsatisfactory state of global environment.

The efforts of the United Nations cannot be overemphasized, despite these efforts most of the nations of the world, has no national policy or laws to protect their environment, despite various threat posed by the environmental hazards.

Then the advent of the United Nations Conference tagged the Stockholm Declaration on the Human Environment 1972, which for the first time in the history of the world, presented a communiqué on a legal regime for environmental protection, which highlights the problems and recommends measures to make the system of regulatory environmental management more effective and proactive.

Nigeria as a nation was not an except to the slow development of the concept of environmental law, the nation has no single policy or law relating to the

protection of the environment and this has caused a whole lot of hazards to the environment and human in general.

This attitude however brought about the incident of the Koko Toxic waste that was dumped Koko in Delta State (then Bendel State) in 1988. This singular act that is detrimental to the nation brought the Federal Government of Nigeria into action towards promulgating environmental law and enforcement of international declaration on environmental laws.

Africa is not the only continent in the world that is affected by these multi various environmental problems, it is a global problem which the Stockholm Declaration on the Human Environment held by the United Nations Organization on the problems of Human Environment had addressed.

In response to this declaration, African nations adopted this report by organizing Lawyers Seminar on the development of environmental protection legislation in the Economic Commission for Africa Region (ECA) which critically discussed at the second meeting of the Technical Preparatory Committee of the WHOLE in Freetown, Sierra Leone in March 1981. This conference report was adopted by the 16th session of the Commission and 7th meeting of the conference of the Ministers which took place in Freetown in April 1981 by its Resolution 412 (xvi).

3.2 Pre - Koko Toxic Waste

It is imperative to reiterate that before the advent of the colonial era in Africa and Nigeria in particular, the people have a method of disposal of refuse and cleaning their environment, this is done through community efforts in cleaning and beautifying the environment and refuse are been dumped in the appropriate place created by the community at large.

And in achieving this act, the communities were very conscious of their environment. And to this extent mutual rules, regulations, customs, norms, ethics and cultural aestheticism to manage their immediate environment where been formulated. These ways and means of tidying and avert pollution in their surroundings cut across hamlets, villages, towns and cities which formed the communities. The days for environmental sanitation are been fixed, this is still however in place in most communities especially the south west of the country.

However, most of the environmental pollutants in the present world were not on ground in those days, no industrialization as it is now, the population has tremendously on the increase, the pressure on the land, water and air space are too many no vehicle to emit into the atmosphere. Therefore, the ozone layers depletion, scourge of erosion, deforestation, toxic waste disposal/hazardous waste or/effusion were not known or at very insignificant stage unlike the

present world where the environmental problems are posing serious threat to the sustainability of the world (Dharmendra S. S 2007: 1-4)

In the era of the colonial masters there was no fantastic policy or law on environmental policy and programme. Most of the efforts of the colonial lands were geared towards Economic and Political interests, not in terms of maintenance of personal and public health. Although, the era was actually the beginning of formal policy/or programme and conceptual formulation by the colonial government to address some form of environmental pollution.

However, it may be observed that during colonial times as in the immediate post independence era in Nigeria, the perceived environmental problems actually for some form of control and management were principally in the area of domestic management. There was no regulated policy on forest conservation at the time which was capable of achieving suitable development, neither was there any legal mechanism in place to check the emerging environmental problems due largely to the economic activities of the colonial powers (Lawrence Atsegbua et al (2004: 1 - 6).

In the era of the colonial, there was no national environmental regulation aside the sanitary officers who were available in the urban areas and sub-urban but not in the rural areas.

Naturally it was not unusual that Nigeria government was not paying serious attention to the environmental problems but there were certain laws that were in place and used for the general protection of the environmental especially government formulations to check some form of environmental pollution, in the criminal code Cap 77 LFN 1990, there are provisions which sanction on the pains of punishment of malodorous of water in spring, stream well, tank reservoir, and the burial of corpses within a hundred yard of a dwelling place, the vitiation of the atmosphere so as to make it noxious to the health of persons.

The period between 1960 and 1988 marked the era of political-socio-economic factors which began to enhance the development of the concept of environmental law in this part of Africa. This period however witnessed the development of cocoa industries and many other cash crops, which created many problems in terms of pollution and attracted industrial waste management in variably, infected the environment with various kinds of pollutants.

However, the discovery of oil and subsequent oil boom in the early seventies depicts the state of unpreparedness of the government of the day for the environmental quandary which usually associated with industrial development (Ola C. S. 1984: 152 -4).

In response to the impact of industrialization on the environment, a new course of environmental law had to be charted. This brought about the enactment of some laws such as Factories Act, the Oil Pipeline Act, 1956, the oil in Navigable Waters Regulations 1968, Petroleum Act 1969, Petroleum (Drilling and Production), Regulations 1969, Petroleum Drilling and Production (Amendment) Regulations 1973, Petroleum refining Regulations 1974.

And (Okoye N. V. 1990: 64-65) said these laws and regulations to a greater extent depicts a sudden difference in the concept of environmental law from what it was colonial era.

Ogbuigwe A. E (1985: 20-2) posited that the protection of the citizens health, the balancing of his ecosystem, adequate management of natural resources, the problem of compensation of pollution victims, and socio-economic and political consideration actually accounted for this movement in the concept of environmental law.

The dumping of the toxic waste in June 1988 actually changed the perspective the government of the nation to the issue of the environment and naturally brought about more laws in line with the environment, and it is at this point that the government of Nigeria promulgated the Federal Environmental Act of 1988

3.3 The Post Koko Toxic Waste

In Nigeria, the “Koko incident” of 1988 rudely jolted the Nigerian government to the reality of toxic wastes when same were dumped at Koko port in the then Bendel State of Nigeria by some Italian business frauds with the active connivance of poverty stricken, ignorant and hungry villager, Sunday Nana for a miserable sum of N500.00 monthly. Prior to 1988, the government of Nigeria had no meaningful environmental policy. Thanks to the resourcefulness of the Italian businessmen and Sunday Nana, the Nigerian government in its usual fire-brigade approach to problems, came out with, the Harmful Waste Decree 42 of 1988. The incidence also facilitated the establishment of the Federal Environmental Protection Agency (FEPA) through Decrees 58 of 1988 and 59 as amended) of 1992. FEPA was then charged with the overall responsibility for environmental management and protection across the country. This was until 1999, when FEPA and other relevant Departments in other Ministries were merged to form the Federal Ministry of Environment, now Federal Ministry of Environment, Housing and Urban Development.

It became a prominent issue at the public and government levels in Nigeria. Worldwide, the environmental threats are noticeable in various forums such as acid rain, ozone layer depletion, global warming and other climatic modification, release of carbon dioxide in several tones, methane and chlorofluorocarbons into

the air may lead to imbalances of natural cycles result into warning of the earth, melted ice-caps, deserts and flooded cities. There are also tendencies for the atmosphere to run short of oxygen - the phytoplankton, a primary source of oxygen from the sea/ocean may be affected. The nitric oxide emissions may adversely deplete the protective ozone layer therefore expose man to the deadly ultraviolet rays as a result of the fact that the shield that cover the ozone layer is no more there.

It is not a mere saying that the adverse health hazards associated with exposure of human being to the unprotected work environment and other residential areas is highly noticed not only in Africa but it cut across the globe. In Nigeria for example Toxic Waste in Nigeria at Koko Village in Delta State, in 1988, the recent battery waste dumped at Lalupon - Ilegbon Area in Lagelu Local Government Area of Oyo State by Exide Battery Company that was reported killing the villagers and their animals, it occurred in February 2010.

However, the changes which the 1072 United Nation Conference on the Human Environment held at the Royal Opera House in Stockholm on June 5, 1972 served as stimulus to a lot of nations including the third world countries. Although the efforts of most of the third world did not emerge until towards the tail end of 1980s (Imevbore A. M. A et al 1991: 35).

Nigeria is a prominent signatory to a number of these multilateral treaties on environmental protections. In another word, Nigeria was among the 114 heads of governments represented at the historic conference held in the United Nations 1972 in Stockholm on the “Problems of the Human Environment” which properly addressed the general needs for greater environmental awareness and concern.

Subsequently, in Nairobi Kenya at a conference preceding the Stockholm Conference, Nigeria as a nation have been very prominent, this is the 10th anniversary of the Stockholm Conference which reiterated the participating nation’s commitment to the protection and enhancement of the quality of human environment.

Nigeria was party to the 1979 Rabat Conference of Ministers and Assembly of Heads of State of the O.A.U which corroborated the International Strategy for the Third Development Decade - the African Region. All these efforts are directed towards national awareness of the need to protect the Nigeria environment against environmental hazards.

Though Nigeria no doubt is signatory to a large number of international and sub regional treaties, she has not promulgated the constitutionally mandated laws at the national level to give legal effect to most of these international treaties in the country. (Okorodudu - Fubara 1998: 6-8).

It is pertinent to reemphasize that the scenario of generating and regeneration of our environment is still very fundamental to the present Democratic government and as such have made several moves towards formulation of new mechanisms for environmental protection and sustainable development in Nigeria and is coming into place with a new approach to environmentally regulations and enforcements". All Nigerians and friends of our country are enjoined to join us in this quest to keep our environment wholesome, safe and healthy" (Arch. (Mrs.) Halima Tayo Alao, Hon Minister of Environment, Housing and Urban Development, October 2007 12-14).

In a forum organized by the National Environmental Standards and Regulations Enforcement Agency (NESREA) between 22 - 23 October, 2007 in Abuja after its establishment on July 30, 2007 as a body corporate with perpetual succession and a common seal. It may sue and be sued in its corporate name. It is responsible for the enforcement of environmental standards, regulations, rules, laws, policies, guidelines and policies, such as the National Policy on the Environment, 1999 the Vice President of Nigeria Dr. Goodluck Ebele Jonathan represented the President Alhaji Umar Musa Yar'Adua GCFR stated that: the forum is very timely 'at a time when world attention is focused on the challenges of environmental protection, climate change and sustainable development". He also reiterated that at the global level, the United Nations and other multilateral organizations have,

through notable global forums, provided the milestones and benchmarks for new directions in formulating policies on the preservation of the integrity of the ecosystem and human well-being. They have also encouraged national governments to create institutions for the protection of the environment and human health.”

It is important to further reiterate that the merging of FEPA and other agencies to the Ministry of Environment has however created a vacuum in the effective enforcement of environmental laws, standards and regulations in the country. In addressing this, the Federal Government, created, by law, a new institutional mechanism, the National Environmental Standards and Regulations Enforcement Agency (NESREA).

NESREA is however charged with the responsibility of enforcing all the environmental laws, guidelines, policies, standards, and regulations in Nigeria. It also has responsibilities for enforcing compliance with the provisions of international agreements, protocols, conventions and treaties on the environments to which Nigeria is a signatory”.

The government on its part further reiterated its support to provide all the requisite institutional and structural support for NESREA to effectively and efficiently meet her mandate. It is our hope that the management and staff of NESREA will be single-minded about their obligation to ensure that our society

becomes innately environmentally conscious. Our desire is for an environment where all the necessary sustainable development principles are applied and enforced”.

Therefore, it is the responsibility of all and sundry to ensure a healthier, cleaner and safer environment for all guided by an abiding dedication to working committedly to secure our environment. (President Umar Musa Yar’ Adua: 2007 NESREA)

In this wise, Africa people and their government are very much conscious of the implications of abuse of their environment either by multinational corporations or themselves and have being taken serious measures to combat environmental menace ravaging the continent. The third world nations are aware of the hazardous implication to their environment, no wonder most of them are now adopting deliberate conceptional approach in formulating policies” which will lead to the procedures and other concrete actions required for lurching ‘third world’ into an era of social justice, self-reliance and sustainable development (in the 21st Century)” (Aina EOA and Adedipe N. O. 1991: 311).

4.0 CONCLUSION

In conclusion, Nigeria as a nation despite its slow motion policy on domestication of international conventions, which he is a signatory to, has done a lot after the Koko Toxic Saga to protect its environment, but however a lot still

need be done in area of oil pollution and environmental degradation and deforestation of our forests.

It is also important to note here that we need to re-orientate the populace on our attitude towards our environment.

5.0 SUMMARY

In this unit we have discussed to a large extent, the historical development of environmental law in Nigeria, the laws governing the environment of the country before the Koko toxic waste incident, the laws thereafter, it is to this extent that learners of this work should be able to critically analyse the eras.

6.0 TUTOR MARKED ASSIGNMENT

1. Briefly explain the historical background to the emergence of environmental law in Nigeria.
2. Identify laws governing environmental law in Nigeria after the Koko Toxic Waste incident of 1988.

7.0 REFERENCES/FURTHER READING

- Lawrence Atsegbua et al 2003: Environmental Law in Nigeria: Theory and Practice. Ababa Press Ltd, Lagos.
- Okorodudu - Fubara M. T. 1998: Law of Environmental Protection: materials and Text, Caltap Publication (Nigeria) Limited, Ibadan, Nigeria.

- National Environmental Standards and Regulations Enforcement Agency (NESREA): Report of the First National Stakeholders forum on the New Mechanism for Environmental Protection and Sustainable Development in Nigeria 22 - 23 October 2007, Abuja Nigeria.
- Aina EOA and Adedipe N.O (1991) Ed, The making of the Nigeria Environmental Policy (Ibadan, University Press p 311)
- Ola C. S. (1984): Town and Country Planning And Environmental Law in Nigeria, OUP, Jericho, Ibadan.

Unit 3

Sources of Environmental Law in Nigeria

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1.0 INTRODUCTION

Generally, the coming into effect of laws is important in any society then the need for the sources of such laws. It is at this point that this unit is set to discuss the sources and scope of environmental law to Nigeria.

The nuptials of the two concepts that is, law and the environment cannot be overemphasized in the socio-economic development of any nation, then the need for the sources of this law to be discussed.

The scope of the law varies from one jurisdiction to another, and some other jurisdictions will also be looked at critically. The main sources of environmental law like the international treaties and convention cannot be ignored, it is also of main concern to discuss the role of the constitution of the FRN, the common law approach through the doctrine of negligence and nuisance.

2.0 OBJECTIVE

The main objective of this unit is to critically explain and analyse all the sources of the environmental law to Nigeria ranging from international treaties, the Constitution of the Federal Republic of Nigeria to case laws and statute laws just to mention a few. It is important to reiterate that learners at the end should be able to identify and discuss these sources and also discuss the scope of the area of law.

3.0 CONTENT

Sources of Environmental Law

It is pertinent to reiterate that before the advent of the 1988 Federal Environmental Protection Agency Act No. 58 of 1988, there was no concise law to protect the environment or referred to as the National Environmental Law.

More than most areas of the law, environmental laws are greatly influenced by policy choices and ideas drawn from other disciplines such as biology, chemistry, economics and engineering.

It is however important to reiterate that the content of environmental law for Nigeria is broad and extensive. It encompasses the problem of Land Use and soil conservation; Forestry - wildlife and protected natural area; water management, marine resources and coastal areas, sanitation and waste management, air quality, hazardous substances, working environment - occupational health and safety, major sources of pollution/pollutants includes water pollution, air pollution, auto mobile emission and noise pollution, land degradation and planning, matters of afforestation and deforestation and desertification among others. All these areas mentioned in a Federal setting like Nigeria, the Federal and State have the rights to enacts laws which seek to regulate and protect the environment either directly or indirectly. (Akintayo J. O. A 2006:394).

The sources of Nigerian Environmental law includes: the Constitution, Legislation, judicial precedents or Nigerian case law, the received English Law, customary Law, and Islamic Law. These are the general sources of the Nigerian Law and the ingredients of Nigeria legal system at a glance but in the present dispensation not all these sources are relevant to the concept of Environmental Law.

3.1 International Law

International law as one of the major sources of environmental Law, the need to protect the environment cannot be ignored in that regard. The United Nation Organization as an International organization meant to maintain the efficacy and efficiency of International law recognizes the sovereignty and individuality of each state among the committee of nations.

It is imperative to note that, each state have rights in the international arena as its citizens claim rights within the nooks and crannies of its territory. The states have exclusive jurisdictional control over its territory which includes territorial water, air and land territory, population and natural resources the rights over her territory cannot not be tempered with by any state regardless of its acclaimed power in the committee of nations.

It is to this extent that many conferences, conventions, treaties and protocols were initiated to protect the world environment largely. Initially, from the emergence of UN, the environment was not a major concern, except for world peace but some of its agencies are saddled with such responsibilities relating to the environment, and these are the Food and Agricultural Organizations (FAO) and the World Health Organization (WHO) (Malcolm R. 1994).

However, in 1962 the first book relating to the environment that is a book that gave a graphic perspective views of the indiscriminate use of pesticides “Silent Spring” written by Rachael Carson. The book undeniably dealt into the area known as ‘Environmental Revolution’ and laid a special foundation for the emergent of law otherwise known as “Environmental Law”. (Lawrence Atsegbua, 2003:11).

There have been a lot of global issues that has gingered the UN as a world organization to embark on various conferences, the ever increasing marine pollution, ground water contamination, eutrophication of lakes, dying forest and solid acidification and finally the global climate change, the greenhouse effect. These are one of the major incidents that led to the emergence of the UN Conference on the Human Environment, in Stockholm, in June 1972.

Significantly, the impact of the Stockholm Conference on the Human, Environment particularly, Principle 21, which stated that: “States have a responsibility to ensure that activities within their jurisdiction and control do not cause damage to the environment of other states or areas beyond the limits of national jurisdiction.

The principle equally admonished the States to develop their environment, their own jurisdiction in accordance with the tenet of International law even though there is need for them to compensate the victims of pollution and other environmental hazards caused by activities within their own jurisdiction or control of such states outside their own jurisdiction.

There are other international treaties, protocols and convention that are of paramount important to the environment aside the Stockholm Conference, these are the international and Regional efforts in combating the environmental menace:

1. **The Universal Declaration of Human Rights 1948;** Article 25 (i) stipulated that everyone has the right to a standard of living adequate for the health and well being of himself and of his family, including food, clothing, housing and medical care.
2. **Convention on the prevention of marine pollution by dumping of waste and other matters, 1972.** This treaty was not ratified by Nigeria until 18

April 1973. The treaty provides measures to prevent dumping of waste and other pollutants into the marine environment.

3. **International Convention for the prevention of pollution of the sea by oil 1954 (as amended in 1962 and 1969).** It was 22 April, 1968 that Nigeria assented to this treaty. The convention was aimed at preventing and curtailing the pollution of the sea. It prohibits the discharge of oil or oily mixture in the stated zones.
4. **Convention on the Continental Shelf 1958,** Nigeria acceded to this treaty on 28 May, 1971. The treaty recognizes and delimits the rights of states to explore and exploit the natural resources of the continental Shelf.
5. **The Convention on the High Sea 1958:** Nigeria acceded to the treaty on 30 September 1962. It is aimed at codifying rules of International Law relating to the high sea. "High Seas" according to Article 1, means "all parts of the sea that are not included in the territorial sea or in the internal water of a state".
6. **United Nations Conference on Desertification (UNCOD)** held in Nairobi, Kenya in August/September 1977 -- Desertification addressed as a worldwide problem for the first time and a Plan of Action to Combat Desertification (PACD) adopted. Nigeria is a signatory to this treaty.
7. **United Nations Conference on Environment and Development (UNCED)** held in Rio de Janeiro, Brazil in June 1992 – The Earth summit

and Agenda 21 call on the UN General Assembly to set up an inter-governmental committee to prepare for a legally binding instrument that addresses the problem of desertification.

8. **United Nations Convention to Combat Desertification UNCED** adopted in Paris, France in June 17, 1994 which has been earmarked as the world Day to Combat Desertification. This UNCED enters into force, 90 days after the 50th ratification is recovered.
9. **“Dumping of Nuclear and Industrial Wastes in Africa”** organized by the council of ministers of the organization of African Unity, 48th Ordinary session, meeting in Addis Ababa Ethiopia, may 19 – 23, 1988, DECLARES that the dumping of nuclear and industrial wastes in Africa is a crime against Africa and the African people etc.
10. **OAU Convention Banning Outright Import of All Forms of Toxic Wastes into Africa and controlling Trans -boundary Movement of such waste generated in Africa** –signed in Bamako, Mali on 30th January 1991. The main objective was to prevent the importation of all forms of toxic waste within Africa and the movement of toxic waste within Africa (Mokon R).
11. **Convention for cooperation in the Petroleum and Development of the Marine and Coast Environments of West and Central Africa** – which came to force on 5 August 1984 with the objective of protecting the marine environment of coastal zones and related internal waters falling within the

jurisdiction of the states of the West and Central African Region. This was ratified by Nigeria on the 5 August 1984.

12. Treaty Banning Nuclear Weapons Tests in the Atmosphere in Outer Space and Disarmament under strict international control, in accordance with U.N. objectives. This was ratified in December 1967.

13. African Charter on Human and People's Rights. This charter was signed and ratified by Nigeria on 31st August 1982 and 22 June 1983. However, it came into force in Africa on 21 August 1986.

14. Vienna Convention for the protection of the ozone layer 1985 which came into force on 10 August 1988. The main objective is to protect the ozone layer by taking precautionary measures to control global emissions of substances that deplete it. This was ratified by Nigeria on 1 January 1989.

15. International Conference on the Establishment of an International Fund for compensation for Oil Pollution Damages which came into force on 16 October 1978.

16. Rio Declaration on Environment and Development

All the above treaties and conventions are parts of the key sources of the concept of Environmental Law. In addition, out of about eighty five international environmental conventions that are applicable to the country, she has signed

and ratified less than half of the number just about thirty six and the rest, may be, the Federal government is yet to make up its mind to sign and ratify the decision or not. And the position of the constitution of the Federal Republic of Nigeria 1999 is very clear.

3.2 Constitution of the Federal Republic of Nigeria

This is the grundnorm of any nation and it plays a significant role as one of the sources of any law relating to people. The Constitution is the supreme law of a state. It directs the process of governance, specifies duties and functions of different arms of government portrays fundamental rights and obligations of citizens.

All other laws derive their relevance from it, any law inconsistent with provision of the constitution is void to the extent of its inconsistency (Jenwo Yalaju 2007: 35). A constitution is nothing but an institution of government made by the people, establishing the structure of a country, regulating the powers and functions of government, right and duties of the individual and providing remedies for unconstitutional Acts.

Naturally, there have been a whole lot of environmental menace that most environmentally conscious countries, have handled through legislative action; some countries have given these problems constitutional status for the state to

deal with, most of the third world countries have enacted laws to minimize the menace, Nigeria, South Africa, Mali, India, Chile just to mention a few.

As we have seen that Nigerian as a nation has paid leap service to the environment through the sustainable development programme, even in the 1979 Constitution which came after the Stockholm Conference of 1972, not until the events of the 1980s that paved way for the inclusion of the Environmental objectives in the constitutions. This clause is to be seen in section 20 of the 1999 Nigerian Constitution in consideration of the importance of the environment to human beings. And it states that:

“The state shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria.”

This is however the first time that the need to protect the environment would be specifically mentioned in the constitution (J. O. Akande, 2000: 61).

Other nations also deal with the issue of the environment in their constitution like Nigeria, in Ghana the 1992 constitution of the Republic of Ghana particularly chapter 6 deals with the Directive Principles of State Policy, as part of the social objectives of Ghana in its Article 36(7). It is important that with the provision of the Ghanaians constitutional provision is more broad and down to earth than the 1999 Constitution of Nigeria.

Moreover, S15 of the 1992 Mali Constitution provided that: person has a right to a healthy environment. The protection and defence of the environment and the promotion of the quality of life are a duty for all and the state. In a similar vein, S 46 of the 1992 constitution of the Democratic Republic of Congo (DRC) provides: Every citizen shall have the right to a satisfactory and sustainable healthy environment and shall have the duty to defend it.

In addition, Section 24 of the Constitution of the Republic of South Africa 1996 is more elaborate than the Malian and DRC clause.

It is imperative to note that the significance of ensuring environmental rights in national constitutions has been highlighted by Ogola (1995: 412 - 4) who stated that: The Constitution of a country constitutes the first and primary level in its hierarchy of norms. Constitutional provisions inter-alia, underline national priorities and hence determine the decision and nature of future legislative policies and executive actions. The elevation of environmental concerns to constitutional status in these countries has no doubt enhanced the priority to be accorded by Government on sound environmental management and sustainable development.

However, the inclusion of environmental clause into the CFRN 1999 can be said to be a milestone in the quest for the protection and sustainability of the Nigeria environment. Though, the clause in S20 of the constitution is far from meeting

the yearning and expectations of the environmentalists. This is as a result of the fact that the constitution has not given adequate recognition to the environmental rights and healthy environment as a fundamental right.

There have been a lot of judicial interpretations of section 20 of the Constitution. This was first made in the decided case between *Attorney General Lagos State vs. Attorney General of the Federation & Ors (2003). Kalgo JSC* in his concurring judgement on pages 177 to 179 noted inter alia that the main object of Section 20 is to protect the external surroundings of the people and ensure that they live in a safe and secure atmosphere free from any danger to their health or other conveniences. He opined further that the provisions of the section do not give the National Assembly the power to legislate on planning and development control over land in the states or local governments.

A new dimension to all states responsibility is by obliging the state to protect, improve and sustain the environment for the good of the society as a whole. The state is also obliged to direct its policy towards the control of marital resources of the community to observe the common good, the need to improve the human life by controlling the exploitation of natural resources and protection of environment. This lead to the inclusion of environmental matters in various constitutions of most countries of the world and in turn made the constitution one of the vital source of environmental law.

3.3 State Laws

Statutes or state laws mean the law made by the organ of government whose primary duty is to make law for the state. Laws made by this body (legislative arm) are known as statutes or legislation. Nigerian legislation consists of statutes and subsidiary legislations. However, it is imperative to note that Subsidiary legislation is the statutes made in the exercise of powers given by a statute. It could also be referred to as delegated legislations.

Moreover Nigeria statutes consist of ordinance, Acts, Laws, Decrees and Edicts. Ordinances are laws passed by the Nigeria Central Legislature before October 1, 1954 which ushered in a Federal Constitution into Nigeria (Obilade A. O 1998: 64). A statute enacted by the Federal Legislature (the National Assembly comprising of the Senate and the House of Representatives) is an "Act".

The statute made by the House of Assembly of a state is called "Law". However, in a military administration, an enactment or promulgation made by the Federal Military Government is known as a "Decree" and the one made by the Government or Military Administrator of a state is known as "Edict".

Note that all existing Federal Statutes in Nigeria up till 1990 have been consolidated in Laws of Federation of Nigeria (LFN) 1990. The collection of these decrees and Edicts are invaluable source of Nigerian Law (Sanni A. O. 1999: 126).

There have been a lot of statutes that were enacted before the 1988 Koko incident which are environmentally related, under the military and the civilian regimes and they include the Petroleum Act, the Oil Mineral Act, the Factories Act and the Criminal Code. Then following the Koko incident, more cognisant efforts has been made to tackle environmental problem through some specific legislations and they include, Harmful Waste (Special Criminal Provisions) Act 1988 and the Federal Environmental Protection Agency Act Cap 131 LFN 1990.

It is important to reiterate further other state laws used in combating the menace of environmental degradation and pollution:

1. The Oil in Navigable Waters Act 1968 – enacted as a result of the International Convention for Prevention of Pollution of the Sea in 1954, it is the most comprehensive legislation on oil pollution.
2. Oil Terminal Dues Act Cap 339 LFN 1990 – it provides for the discharge of oil at oil terminal.
3. The River Basin Development Act – it is provided for the supply of water.
4. Environmental Impact Assessment Act No 68 1992 – it is provided for projects that is likely to have an adverse impact on the environment to be subjected to environmental impact assessment.
5. Management of Solid and Harmful Waste Regulation – it regulates the collection, treatment and disposal of solid and hazardous waste from municipal and industrial sources.

6. Associated Gas Re-Injection Act Cap 26 LFN 1990
7. The Environmental Sanitation Edict No 4 of 1987 (Lagos State) No 4 of 1986 (Oyo State)
8. The Pollution, Prevention and Control (Miscellaneous Provision) Edict of Imo State, 1985

3.4 Case Laws

Naturally, the courts are saddled with the responsibilities of interpreting the state laws and international conventions once an issue to that extent has arisen. However, the role of case law in this respect is best appreciated where there is judicial activism and judicial precedent. It is also important to say that the law is what the court says it is.

The case law is a source of Environmental law in Nigeria and at the international terrain. In *Adediran vs. Interland Transport Ltd* (1986) 2 NWLR Pt 20 Pg 78, where the court held that the consent of an Attorney General is longer necessary for the competence of action in public nuisance.

Note that the riparian doctrine was also applied in Nigeria as it is a common law doctrine, a landowner has a right to the water which flows, across his land and his right to use the water should be reasonable. In *Braide vs. Adoki* (1931) 10 NLR 15

In *Isaiah v Shell Petroleum Company of Nigeria Limited (2001)*, a case decided on the basis of S239(1)(a) of the Constitution (Suspension and Modification Decree No 107 of 1993, the Supreme Court decision in this case laid to rest finally what position of the laws is with respect to jurisdiction in oil pollution by deciding that, the subject matter of the claim, which is oil spillage falls under the exclusive jurisdiction of the Federal High Court as provided for under the earlier mentioned section. The nature of proof of environmental claims is favourable obstacle which the claimant(s) must surmount before he can succeed. This nature of proof principle was well elucidated in the case of *Ogiale & 2 Ors vs. S.P.D.C. (1997)*.

It is important to note that the role of courts to interpret the law and the outcome of it – case law is best appreciated where there is judicial activism.

3.5 Common Law

Common law is the principle of law common to the whole of England while the doctrine of equity was evolved to mitigate the harshness of common law in order to do justice. However, all these laws were received into Nigeria in 1900.

The Law of Torts is the area of law under the common Law that mainly prescribes the control of environmental pollution. A tort is a civil wrong, which

entitles the injured party to claims damages for his loss or seek an injunction for the discontinuance or prevention of the wrong.

There are four torts specifically relevant to the control of environmental pollution, that is, Negligence, Nuisance, Trespass and Strict Liability.

1. Negligence

The tort of negligence can be defined broadly as the breach of a legal duty to take care, resulting in damage undesirable by the defendant, to the plaintiff (Winfield and Jolowicz, 1998: 66).

There are three main elements to the tort that the plaintiff must prove:

- a. A duty of care owed by the polluter to the plaintiff
- b. The polluter is in breach of that duty of care
- c. The breach has caused foreseeable damages to the Plaintiff

It is important that where the Plaintiff is able to prove his case successfully, the following remedies are available to him, damages and injunctions which may be mandatory or prohibitive.

2. Nuisance

A Nuisance is an inconvenience materially interfering with the ordinary comfort physically of human existence.

However, under environmental law, Nuisance occurs when the emission of noxious or offensive materials from the defendant's premises significantly impairs the use and enjoyment by another of his property or prejudicially affects his health, comfort or convenience. Nuisance may be public or private. The same conduct lead to committal of both.

The remedies available to the plaintiff in this regard are damages, an injunction to restrain further nuisance and abatement. Nuisance may be public or private.

The same conduct lead to committal of both.

a. Public Nuisance

A public or common nuisance can be described as an act which interferes with the enjoyment of a right which all members of the general public or a section of the public are entitled to, such as the right to fresh air, or travel on the highways.

Public nuisance is basically a crime.

It is pertinent to note that before 1979 and under Common Law, however, actions based on the public nuisance can only be instituted he consent of the Attorney General of the Federation or that of the State as the case may be. Any action filed contrary to this principle/rule will be struck out as incompetent. This was the decision in *Amos and Ors vs. Shell BP Petroleum Development Company of Nigeria Ltd. (1977) 6 Sc p9.*

Moreover, after the introduction of 1979 Constitution of Federal Republic of Nigeria particularly, the decision in *Adediran v Interland Transport Limited (1986) 2 NWLR pt 20, 78*. It is interesting to note that, the consent of the Attorney General is no longer required for the competence of action in Public nuisance.

b. Private Nuisance

This type of nuisance is important but private nuisance are not crimes, but give rise to an action for damages which may be brought by the person who has suffered loss. It was described as “unlawful interference with a person’s use or enjoyment of land and some right over or in connection with it (*Abiola vs. Ijeoma 1970) 2 ANLR 768*). The act of private nuisance include interference with an easement such as blocking up of a right to light enjoyed by the window of a house, acts of wrongfully allowing the escape of harmful things on to another person’s land. See also (*Tebite vs. Nigeria Marine & Trading Co. Ltd (1971) 1 U.L.R 432*).

3. Strict Liability

Liability is strict in those cases where the defendant is liable for damage caused by his act, irrespective of any fault on his part. The Rule in *Rylands vs. Fletcher (1986) LR Ex 265*. The decision in this case established strict liability tort. The principle states that polluter is liable, irrespective of wrongful intent of negligence and in the words of House of Lords states:

“We think that the rule of law is that the person who brings on his land, collects and keep there, anything, likely to do mischief if it ‘prima facie’ answerable for all the damage, which is the natural consequences of the escape”.

It is important that for a Plaintiff to be successful or to rely on the principle as decided in the above cases, he must prove that there was a non-natural use of land by the defendant, he must show that there was an escape of materials or objects from the defendant’s adjoining land to his property. Irrespective of the problems, the rule has no doubt been successfully applied in environmental law cases/litigations. Most particularly, those involving the oil sector, that is, oil spillages. (*Umudje vs. Shell-B.P Petroleum Development Co. of Nigeria Ltd* (1975) 11 S.C 155)

4. CONCLUSION

It is imperative to reiterate that sources of environmental law cannot be ignored in any discussion that is related to it. Legislation, International law and case law are very important sources of Environmental law.

5.0 SUMMARY

In summary this unit has discussed all the sources of environmental law in Nigeria ranging from international conventions and treaties, also to the constitution of states, statutes, case laws and lastly the common law approach to

the sources of law of environment. And the learners of this unit should be able to discuss the sources of environmental law in Nigeria.

6.0 TUTOR MARKED ASSIGNMENT

1. Explain with decided authorities the Nigerian approach to the rule of strict liability under common law as it relates to the environment in Nigeria.
2. Write full note on any two of the sources of environmental legislation discussed in this unit.

7.0 REFERENCES/FURTHER READING

- Obilade (1979): The Nigerian Legal System, Spectrum Books, Ibadan.
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- Kodilinye and Aluko (1999) The Nigerian Law of Torts, Spectrum Books, Ibadan.
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Unit 4

Legal Analysis of Environmental Problems

Contents

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1.0 INTRODUCTION

Naturally, with industrial development all over the world then huge and every now and then damage is done to the environment. The natural environment comprises of the sum total of all conditions and influences which affects the life and development of an organism, such as water, air, and land and inter - relationships which exist among and the elements of water, air and land and the human beings, creatures, plants, micro -organisms and property.

However, mankind is faced with the fact that the current rate of destruction might lead to a very bleak or even non-existent future for the earth and its inhabitant. The whole environment is been polluted because of human beings careless actions and the lack of a good attitude to maintain and sustain the environment we found ourselves.

It is important to continually reiterate that the purposes of protecting and improving the quality of the environment because increase in industry and in energy consumption were considered unavoidable for development.

However, preventing and abating environmental pollution, the standard for emission of discharge of environmental pollutant from the industries, operations processes should be through legal framework. The hazardous substance and its related polluting element will be taken care of by relevant Environmental law.

2.0 OBJECTIVE

It is imperative to note that the learners of this unit at the end should be able to explain the legal analysis of environmental problem, the development and environment will also be discussed and the also the effect of population of the development of the nation cannot be overemphasized. All this will be discussed in this unit.

3.0 CONTENT

3.1 Legal Analysis of Environmental Problems

It has been stated that every human being has been posited to have equal rights as it concerns the environment, however, world over the growing concerns about environmental problems in the upper atmosphere such as global warming and ozone depletion, here in Nigeria we are threatened in Nigeria by fundamental environmental challenges which include draught and desertification, coastal and land erosion, hazardous domestic garbage and industrial toxic waste, industrial and air pollution which has generated unpleasant social conditions, huge loss of life and means of livelihood” (Senator Grace F. Bent 2007:18 representing Adamawa State)”.

It is also important to further reiterate that the hazardous bilge waters and emissions from industries includes heavy metals, carbonic compounds, radioactive substances and such other dangerous chemicals which cause harm to

the health and environment of man, animals, trees and plants. Mortality and serious irreversible or incapacitating illness are the results of hazardous wastes” (Dhamendra S. Sengar 2007:9)

Furthermore, attempt to proffers solutions to the various biting problems that affecting the world’s both in the area of development and environmental pollution. The control and regulation of this range of problems is very essential. The basis and easiest way of achieving this goal is through efficacy of laws which provide the framework for such control and regulation.

The exertions by all countries all over the world have brought various conferences, treaties and agreement organized by the United Nations to come up with different environmental laws to twig the environmental pollutions. However, the nature of environmental problems in each state will definitely determines what nature of law to be enacted.

In the words of Yinka Omorogbe, he reiterated that the environment is the entirety of our society and life, as a result both poor and rich states make provisions for the control and regulations of their environment based on peculiarities of individual country’s environmental problems.

In this regard, the problems facing the enforcement are laws for controlling, protecting and sustaining the environment and they need to be critically considered with the aim of proffering solution to the indentified problems.

3.2 Development and Environment

The word development is an everyday aspect of life and largely related to the environment. However, the word development means “the carrying out of building, engineering, mining or other operations in, on, over or under land or the making of any material change in the use of buildings or other land” which must be in line with Town and Country Planning Act 1990 Section 55.

The industrialized nations had started their own development ever before the establishment of the third world nations. The main issue is that development cannot take effect outside environment.

Environment to this extent is tantamount with development and pollution of it. Consequently, the problems created by the advanced countries that are highly industrialized ahead of the developing nation have made their own development very remote and retarded. To address this issue, of disparity and conflict of these interests made United Nations Organization came up with the “Action Plan and the Declaration on the Human Environment”

Brundland Report advanced a common solution to the problem of how to develop and sustain without necessarily injuring the surrounding/environment. This is seen as constituting development that meets the need of the present without compromising the ability of future generations. It is also defined as a requirement that the use of resources today neither should nor reduce real income in the future”.

Hitherto, the energy use of the developing world is a fraction of that of the industrialized nations, sustainable development in the area of energy use therefore appears also to require either total stagnation in the developing countries or an altruistic reduction of energy use by the industrialized world so that increases by developing world can be absorbed.

To substantiate this fact, Hunt, Bobeff and Palmer posited that:

“No growth policies fashionable in some quarters and often in ones that enjoy comfortable living standard are not favoured by those who find it difficult to meet their basic needs. These world countries will want to develop and will not be easily persuaded to abandon their traditional means of achieving that goal. The rest of the world will have to help these countries to achieve their goals in a way that is consistent with the policy of sustainable development while this may prove to be a costly exercise for the richer countries, they may be prepared to bear

that cost in order to protect their environmental standards.”

Particularly in the past the inclinations and the realities of the international economy a major and clearly devastating environmental disaster would have to be glaringly imminent before such sacrifices could be made.”

3.3 Effects of Population on Development

- It could lead to environmental chasm
- It leads to very low life expectancy and increase in birth especially in the third world with almost 75% of the globe population.
- The thrust for the development on the part of poor nations will meant more pressure on the environmental resources which are almost at the verge of exhaustion.
- This may bring to pass the prediction of the United Nation’s that “The global population in the 2050 will somewhere between 7.3 billion and 10.7 billion” The difference between the high scenario and the low scenario is just one child per couple with the specie on that kind of demographic knife-edge, it pays for these couples to make their choice carefully.”
- It will put more stress on infrastructures that are meant to add value to the populace.

4.0 CONCLUSION

In conclusion the legal analysis of the environment problem cannot be ignored in that regard. However, the conflict between the development and environment are equally discussed with the impact of population growth on the environment. It is also imperative to note the development of the environment is important to for sustainable development of any nation.

5.0 SUMMARY

In summary, it is important to note that this unit has discussed the legal analysis of the environmental problem, and also the development of the environment and the impact of the population on the environment. Learners in that regard should be able to explain these points to a large extent.

6.0 TUTOR MARKED ASSIGNMENT

1. Explain the role of development and the environment.
2. Briefly highlights the effect of population on environmental development.

7.0 REFERENCES/FURTHER READING

- Lawrence Atsegbua et al 2003: Environmental Law in Nigeria: Theory and Practice. Ababa Press Ltd, Lagos.

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Unit 5

Social and Cultural views on the Environment

Contents

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1.0 INTRODUCTION

It is important to reiterate that the impact of political, social views on the environment cannot be overemphasized, and then the impact of Town and Country Planning on Environmental law, also the Socio-cultural effect, its non-compliance and enforcement constraints of environmental law in Nigeria.

The attitude of the populace to the environment cannot be ignored with a wave of hand, it is to this extent that these units will boarder on the political, social views of the people on the environment, also the effect of this attitude on Town and Country planning. In Lagos, for example the role of the people and the government towards the Lagos Megacity project.

2.0 OBJECTIVE

The main objective of this unit is for learners at the end, be able to discuss the political and social views of the populace on the environment, and also the social cultural impact, then the attitude towards the impact on Town and Country planning. However, not left out is the Non- Compliance and enforcement of the environmental laws, also the enforcement constraints.

3.0 CONTENT

3.1 Socio-Cultural Effect on Environmental Law

Environmental issues are perceived diversely by the ordinary man on the street both in developed and developing nations all over the world.

Naturally in developed nations every resident of this nations is concerned and see all environmental issues as personal, the awareness in that regard is very thick and people are ready without been coerced to the care of the environment.

Pertinently everyone in the advance nations, need not be told about the impact of plastic bags and aerosol sprays are ozone friendly and act of writing paper is labeled a recycling process or not and cosmetics may be advertised as being free of chemical pollutants. All these are regarded as biodegradable and everyone is conscious of endangered species and the 'green - house effect'

Nevertheless, in most developing countries especially in Africa, this are issues that are strange to us, not just as a result of the fact that the government is indifference or a lack of the basic education required to understand such principles, but because the man is less concern to what happens to the environment even though he will be directly affected. Another main fact is that the average man lacks luxury and cannot afford the time, effort and expertise that environmental concerns entail.

The rich amongst them has the same attitude, by degrading the environment by building on the main canal or drainage that serves the community because he is influential and rich, he could block the main source of water to the community to benefit himself.

The tepid attitude of an average man to his environment in the developing country is what is translated into efficacious laws at the intergovernmental level. This concern about immediate well being is particularly given expression to in strategic plan such as Lagos Plan of Action.

Although, the average man will fight tooth and neck to ensure the citing of the industries in their areas because of the advantages that such industries will bring in addition to the development that will accrue to the area. The 'I do not care' attitude is not good with environmental protection and sustainability.

Therefore, the governments at all levels, the Non-governmental Organization, Human Right Groups need to sensitise the people more and give more knowledge every time in all these especially the degradation of our environment, then change our attitude and plant a tree regularly, in order to see the risk in a polluted environment tend to influence government policies, decision - making in environmental awareness matters and the resultant growth in the law.

The Lagos State government has been in the forefront of protecting the environment even more than the Federal Government, it holds regular seminars and awareness on the impact of the environment on the populace, it keeps sensitizing the people, our people for lack of knowledge lacks a lot, this government is the only that has a recycling center and also waste to wealth center in the whole country and also has a proper refuse disposal and try as much as possible sensitise the people on the issue of cleanliness.

It is not all that easy to spread this gospel of environmental law awareness among the less or lesser levels of existence that lack the physical and psychological factors required for effective environmental knowledge. The awareness campaign is only easily possible amongst the more comfortable segments of the society and this group constitutes a small percentage of the population. With the present situation in Nigeria, the societies are more aware through various campaigns on why we need to protect and cherish our resources. It is now pertinent that survival of human being is dependent on preserving nature. As a result, at all times, we are in ideal position to make a great contribution to the health and sustainability of the earth. We must impact on the environment positively at every event as this will go a great length in helping our planet. Therefore, people must as a matter of fact act in a responsive and responsible manner in every aspect of doing business and try as much as

possible to include energy conservation, minimizing the consumption of natural resources, reducing waste and generally using earth -friendly products. Henceforth, the more we act responsibly, the greater the positive impact efforts will have on our environment (The Nation Daily Newspaper 2010: 5th February Vol. 2:29).

3.2 The Impact of Town and Country Planning

Environmental development controls and regulates the orderly planning and growth of any given country, city and town by emphasizing standards for all areas of planning.

The rule regulating town and country planning stipulates that there must be adequate light, well spacious environment, ventilation, recreation space for the children and elders, open space for social festivities, Country Health Centre and Estate or Community Market space. All these are important to any given city or town planning and also including residential, educational, industrial, commercial and agricultural areas are well and carefully zoned. This is to avoid conflict and avoid breach of peace and promote harmonious relationship.

Naturally, in improving urban design in Africa, it is essential that adequate standards of density, land use and utility services be established.

City or Town Planning control is inevitable solely aimed at checking nefarious activities of developers, landowners, land speculators and estate quacks from building their houses as they like at the detriment of the public interest. The main fact is that a development plan cannot work in the absence of planning regulations.

Lawrence Atsegbua et al states that in improving urban design in Africa, it is essential that adequate standard of density, land use and utility services be established, that sound planning principles and techniques and a mature philosophy of contemporary aesthetic considerations be developed and that those and other urban factors should be related to the over-all development plan by preparing three-dimensional plans and models of the neighbourhood. Urban design is a social art that has its purpose the proper arrangement of the physical facilities that form our urban environment.

It is an art and technique, which requires the freedom and enthusiasm of creative designers.

However, Oni C. S. posited that "Town planning is perhaps the oldest of the arts and the newest of the sciences. In modern practices before making plans, pictures and fine-looking models of how the future city will look - these has to be a careful diagnosis of everything that makes the term 'tick', that is, good road network, railways, industries, shops, houses, schools, health services and most

important, its local administration. Once this diagnosis is done, a cure for the various ailments and maladjustments of the city can be prescribed in terms of the ascertained needs of the people and place itself. The plan ought to grow out of the city naturally”.

In addition, a city is not an non-living object upon which any plan can be imposed - nor can it with impurity be hacked about or messed up by any kind of chaotic development that can be got away with as the case in most African countries especially Nigeria particularly cities or towns like Ibadan, Aba, Kaduna, Kano, Enugu etc.

It is important that before and after development approvals, architects, builders and contractors as well as developers must pay special attention to issues in this regard.

1. Building Line - nearness to roads or footpaths
2. Density Control - number of rooms to be built on a given land
3. Zoning - The type of buildings that could be created in a given area from a functional point of view, such as commercial, industrial, residential and recreational areas.
4. Orientation - sides to axis of the sun to catch prevailing breezes and cut off direct sunlight as much as possible.

5. Lighting - openings given, including the necessary air spaces to be observed.
6. Availability of amenities - kitchen, store, bathroom, toilets and drainage.
7. Facades - appearance from elevation and how harmonious the facades are in relation to other existing buildings.
8. Plot ratio - percentage of the land to be built on and percentage to be left undeveloped to provide open spaces and necessary greens.

The quantity and quality of materials used should be as such that will match with modern architectural designs.

Lagos as a megacity has been in the news in recent times over collapsed building which has been embarrassing to the government from the hands of the money sucking developers, who are out to make money by all means and don't care of its impact to the environment.

Conservation experts of the United Nations Food and Agriculture Organization (FAO) tend to discount recent theories of global changes as the main reason for land loss. Despite such natural disaster as the Sahel drought. They maintain that most damage is either man - made or due to human negligence

However, total rural population of the developing world, despite massive irrigation to cities is expected to grow by 900 million by turn of the century. At

the World Desertification Conference in Nairobi, Kenya, global land loss from manmade causes was already estimated to cover an area bigger than the entire Saharan Desert. More than 680 million people were said to be living on land which could no longer support permanent cultivation or was in danger

In Nigeria, where about 90% of the populations are farmers or nomadic herdsman, more than 20.6 million people live in the 15 percent of the country which is semi -arid. At least two - third of Kenya is classified as arid or semi - arid, yet land loss is continuing through new land clearing on fragile soils, bush fires and indiscriminate burning of trees and shrubs for charcoal.

3.3 Non Compliance and Enforcement of Environmental Law

Generally, our people like to abuse the law, by not respecting other people's right when it come to issues in general and the environment is not an exception in this area on the attitude of the populace on non compliance and enforcement of the law. It is important to note that Ignorance of law is not a benchmark for flouting or non-compliance to Environmental law.

The general cliché that ignorance of the law is not an excuse for non-compliance of the environmental regulation in the world over and the presence of blatant contravention of environmental laws in Nigeria and other third world countries

cannot be over emphasized. The problems associated with non-compliance and enforcement of environmental laws are as follows:

- a. Lack of environmental consciousness
- b. Lack of qualified workforce
- c. Corruption among the top hierarchy
- d. Misappropriation of Ecological fund
- e. Lack of Government interest /inadequacy
- f. Lack of database
- g. Poor funding of activities and operations
- h. Economic considerations
- i. Lack of maintenance culture and facilities
- j. Use of internal environmental audits
- k. Dearth of environmental pressure groups
- l. Weak enforcement of existing laws and regulations
- m. Lack of environmental know how and technology

- o. Lack of or inadequate state of the art in-situ instruments for rapid detection of the banned goods and products.

It is pertinent to note that all these are in no small measures affect implementation of environmental policies, programmes and regulations especially African countries which tend to slow the pace of awareness campaign to protect and sustain our environment.

3.4 Enforcement Constraints of Environmental Laws

It is generally the role of the government to make laws and set achievable standards in this regard to avoid unwholesome destruction of the earth and its resources, a bench mark which must be set and which will not exceed any enterprises or human activities likely to impact the environment negatively and must however comply with Standards and this can either target specific environmental medium such as water, air, land, or have the objective of protecting the human environment. As a result, environmental standards and regulations became important and integrated to avoid loopholes that can result in disastrous human consequences.

Nigeria has more than one hundred and twenty two Acts and additional subsidiary legislations dealing with environmental issues, for example, legislations on natural resources, petroleum, resources, mining/quarrying, maritime activities and industries (LEEP 2002). Many of these legislations which

were made in the 1940s, 1950s, and 1960s were not properly enforced during its hay-days, in addition to its inadequacy and now are outdated and obsolete. The penalties for non-compliance are minute allowance and a slap on the wrist for violators.

Environmental management in Nigeria is pivoted on the 1989 National Policy on the Environment as revised in 1999, 2007 and 2009 as well as a set of laws, regulations, guidelines and standards to ensure the conservation of natural resources and the protection of the environment and human health.

Importantly, there is no requirement or fixed basis for the size of the fine which could be based on the volume, toxicity, and damage or polluting history of the corporation.

However, it is pertinent to note that with the exception of Lagos State, pollution charge fund, all revenues from fines go to the Federal government revenues and not FEPA or a State Environmental Protection Agency (SEPA). The FEPA in 2007 metamorphosed into National Environmental Standards and Regulations Enforcement Agencies (NESREA), who however, takes the role of FEPA in its entirety.

4.0 CONCLUSION

In conclusion, it is important to reiterate that, the social and cultural view on the environment is important and the role of the urban planning on the environment cannot be overemphasized in that regard.

However, the enforcement procedure of laws relating to the environment cannot be ignored with impunity. And also the constraints of the enforcement procedures of the said laws.

5.0 SUMMARY

In summary, this unit has extensively discussed, the social cultural views to the environment, and learners are expected to critically discuss it, and also the enforcement procedures and the constraints attached to this, the role of the urban planning on the environment cannot be overemphasized.

6.0 TUTOR MARKED ASSIGNMENT

1. Identify some constraints hindering the enforcement of environmental laws and properly address the issues identified.
2. Explain the impact of the urban planning on the environment and its way forward.

7.0 REFERENCES/FURTHER READING

- Lawrence Atsegbua et al 2003: Environmental Law in Nigeria: Theory and Practice. Ababa Press Ltd, Lagos.
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Unit 6

Hazardous and Toxic Wastes in Africa

Contents

- 1.0 Introduction
- 2.0 Objective
- 3.0 Contents
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 - 3.2 Sources of Toxic Wastes
 - 3.3 Export of Toxic Wastes to Africa
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- 5.0 Summary
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1.0 INTRODUCTION

Hazardous wastes as the name connotes is a dangerous wastes that causes damage to human and aquatic life and generally the environmental world. The dilemma of hazardous wastes, dumping of toxic wastes to Africa became famous in 1988 as a result of Koko Toxic Dump, conservation legislation, now there are lots of hindrances affecting this legislation, its inadequacies and constraints in its enforcement and the proposed reforms.

2.0 OBJECTIVE

This unit is set to discuss the concept of toxic and hazardous wastes in Africa, also discuss the danger associated with it, the sources of such wastes would also be discussed, then the importation of the wastes to Africa by most foreign countries particularly its importation to Nigeria. The legislations that regulates this area of law, how effective they have been in the fight against the surge.

3.0 CONTENT

3.1 Hazardous Waste

The business of toxic waste is gigantic, satanic and dangerous and it belongs to the pedigree of what observers called Devil's Trinity, which includes hard drugs (cocaine for example) and arms. It is important to reiterate that the use of toxic and hazardous are used interchangeably but naturally they mean the same thing

and stands for the same concept. When it comes to matters of environmental pollution they are extension of one and another.

The word “toxic” simply means “poisonous” just as a toxin is a poison. By extension, a poison is an agent that chemically destroys life or health upon contact with or absorption by an organism. By implication, poisons are harmful to life and health and anything that is harmful is said to be hazardous.

Toxic is defined in the Basel Convention as having poisonous effects if breathed in, eaten or absorbed by the skin, including carcinogenicity i.e. cancer – producing.

In Nigeria under section 15 of the Harmful Wastes (Special Criminal Provisions etc.) Act, Cap. H1, Laws of the Federation of Nigeria (LFN) 2004, harmful wastes mean: Any injurious poisonous, toxic or noxious substance and, in particular, nuclear wastes emitting any radioactive substance ... as to subject a person to the risk of death, fatal injury or incurable impairment of physical or mental health.

“Waste” on the other hand means something which originally served a purpose, but is no longer useful, as for example, refuse. They are things left over or are superfluous as excess materials or by-products not required for use in the work at hand. In the context of the topic under discussion, wastes are derived from mechanical and chemical disintegration. In the industrial context, when

chemicals are produced, the residue forms wastes and these are more often than not toxic.

In the view of an environmentalist, Professor Dharmendra S. Sengar (an Indian) states that “industrial civilization has led to an explosive growth of industries including the hazardous ones. These companies and industries have not only exploited the natural resources to their maximum but the discharge of toxic effluents and emissions from hazardous industries have also polluted the surrounding environment. Thus, industrialization has resulted in a high degradation of the environment and caused enormous human health hazards”.

Naturally it is important to note that toxic wastes are hazardous because of their physical or chemical quality; it is even more so when they are in large quantities. Such wastes cause grave illnesses and contribute significantly to the destruction of life forms of all kinds.

3.2 Sources of Toxic Wastes

The sources of toxic waste can be categorically be found in two ways and they are human and natural sources, the damage caused by each of them cannot be quantified.

(a) Human Sources:

Naturally toxic wastes arise from businesses, refineries and industries. The volume of waste generated by industries is frightening because of its overall effects on the environment, and considering the fact that most of these toxic wastes are crude before disposal especially in a developing country like Nigeria where there is virtually little or no treatment and disposal regulations. The toxic waste generated by industries may be liquid, solid or gaseous depending on the products of such industries and the raw materials used in their manufacture.

Some of the industries, which generate toxic wastes, include the following:

- Chemical manufacturing plants that produce wastes types such as strong acids and bases, spent solvents and reactive wastes;
- Cleaning agents/cosmetic-manufacturing industry, which generates heavy metal dust, ignitable waste, flammable solvents, strong acids and bases.
- Printing industry which generates heavy metal solutions, wastes ink, solvents, spent electroplating wastes, ink sludge containing heavy metals;
- Furniture and wood manufacturing and refinishing plants produce ignitable wastes and spent solvents;
- Metal manufacturing industries produce place wastes containing heavy metals, strong acids and bases, cyanide wastes and sludge containing heavy metals;

- Leather products manufacturing plants produce benzene (a clear colourless, aromatic liquid extracted from coal tar and used as a solvent and intermediate in manufacturing organic chemicals) and wastes toluene (a colourless, flammable, mobile liquid hydrocarbon obtained from coal tar and petroleum, used in making explosives, dyes and as a solvent);
- Paper industry which produces print wastes containing heavy metals, ignitable solvents, strong acid and bases; and
- Vehicle manufacturing and maintenance shops which produce heavy metal wastes, ignitable wastes, used lead acid batteries and spent solvents.

It is imperative that the greatest culprit of toxic waste generation is the nuclear industry where the wastes generated are just as dangerous to handle as the nuclear products themselves. There are also some organic substances such as solvents and vapours, which are made up of such things as kerosene, petrol, tetrachloromethane etc. Pesticides, such as DDT are also toxic in nature and extremely dangerous when used improperly.

Nigeria as vulnerable as it is has no nuclear industry for now but her oil and gas industry is responsible for the generation of a very large volume of toxic wastes generation.

b. Natural Resources

The main apparent natural sources of toxic wastes include volcanoes which upon eruption, produce a lot of toxic gases and undesirable and damaging larvae, and, of course, food containing phytoxins which are highly poisonous when improperly processed or eaten raw.

3.3 Export of Toxic Wastes to Africa

The harmful effect of toxic wastes cannot be overemphasized. Toxic wastes are hazardous because when the chemical contents of the wastes react with the atmosphere, the wastes endanger health and impair the ecological system. Thus, for example, an industrial waste that is toxic could escape from its captivity and seep into the ground and from there to the streams and rivers causing death to marine life and persons.

Across the globe, the nuclear industry today has done more than its fair share of damage to life forms and the environment.

Export of toxic waste to Africa in particular became known in 1988. At Koko, a town in the old Bendel State (now Delta State) a devil-incarnate businessman called Gianfranco Rafaelli, was who dumped the toxic waste after approaching a 67-year-old Sunday Nana to acquire a "piece of land to dump what he claimed was raw materials for his industry". It was later discovered that Rafaelli was havening, at Koko, 8,000 drums of polychlorinated biphenyl sulphate (PCBS),

methyl melamine, dimethyl ethyl-acetate formaldehyde etc., which were the world's most hazardous waste.

It is dawn on us that Africa has been turned into the World's dumping ground for the deadly hazardous wastes. This attracted a lot criticism and condemnation from all nooks and crannies.

We cannot forget in a hurry that a ship called Kian Sea carried 2,000,000 tonnes of Philadelphia Ash from Panama to Guinea-Bissau in West Africa. Benin Republic was reported to "have a contract on January 12, 1988, with a British company affiliated to South Africa to dump about five million tonnes of waste yearly. Benin Republic was expected to receive a ridiculous fee of \$2.50 per ton from Sesio Gibraltar, the company behind the deal, despite the fact that in the developed world, more than \$5,000 would have been charged per ton of waste". This writer is not in any way subscribing to such negotiation, of any amount

In the words of Dr. Layeni Adeyemo an expert on occupational and environmental health and a Director at the Lagos State Ministry of Health, she stated that Nigeria is now among the leading dumping grounds in the world for high-tech waste from developed countries.

In a paper she delivered at the Post e-Waste Stakeholders' summit, organised by the Lagos State Environmental Protection Agency (LASEPA) in July 2011 at its

premises in Alausa Ikeja, Lagos State, Adeyemo said an estimated 50 million tonnes of e-waste were produced globally every yearly.

She categorised e-waste into three, namely: house appliance such as refrigerators and washing machines; telecoms appliances such as computer and Mobile Phones and consumer equipment like disused television sets.

She stated that over 80 per cent of the world's high-tech waste ends up in landfills in Asia and Africa, Nigeria is emerging as one of the top dumping grounds for toxic, chemical and electronic waste from the developed world.

After toxic waste was dumped in Koko, the United Nations Environment Programme, UNEP, set up a centre to be handling waste, especially hazardous waste, at the University of Ibadan, Nigeria, which is headed by Professor Oladele Osibanjo and Dr. Evans Aina's Federal Environmental Protection Agency, FEPA. The former "was part of the team involved in the decontamination process of Koko town.

However, it is remarkable to note that this incident provided the momentum needed to promulgate the Federal Environmental Protection Agency Decree which was promulgated in the same year (1988). The first legislative reaction to the Koko Toxic waste incident was the Harmful Wastes (Special Criminal Provisions) Act 1988 now Cap 165 Law of the Federation of Nigeria 1990 as

revised in 2004. This is majorly to prohibits the dumping of harmful waste in any form into any territorial waters or Exclusive Economic Zone of Nigeria or its inland waterways. The first State in Nigeria to follow suit with similar provisions appeared in the Lagos State Environmental Pollution Control Edict, 1989.

The FEPA Act has since its enactment has been amended twice 1999 and 2007 when the nomenclature was entirely changed and the scope of its function widened. It is known as the National Environmental Standards and Regulations Enforcement Agency (NESREA) and was established in November 2006. The NESREA Act was signed into Law by President Umar Musa Yar'Adua GCFR and this has been published in the Federal Republic of Nigeria Official Gazette No 92 Vol. 94 of 31st July, 2007 By the NESREA Act, the FEPA Act Cap F No10 LFN 2004 has been replaced.

4.0 CONCLUSION

In conclusion it is important to note that the dumping of toxic wastes in Africa has been devastating to the populace, and this is been done through the efforts of some impoverish fellows, the likes of Nana in Koko town of Delta States. It is a share grace how Africa sustained herself the last several decades in the light of multivarious environmental hazards which she faced.

5.0 SUMMARY

In summary, in this unit we have been able to discuss, the concept of toxic wastes and we have emphasized how dangerous they are to human health in particular and the environment in general.

Learners of this unit should be able to give a critical insight into the concept, talk about its sources and also the effect of the export of the substances into Africa and Nigeria in particular.

6.0 TUTOR MARKED ASSIGNMENT

1. With thorough analysis define the concept of toxic and hazardous wastes and give the sources of the concept.
2. Explains the concept of exportation of toxic wastes to Africa and Nigeria as a signatory to the Brussels Convention.

7.0 REFERENCES/FURTHER READING

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MODULE TWO

Unit 1

Conservation

Contents

1.0 Introduction

2.0 Objective

3.0 Contents

3.1 Definition of Conservation

3.2 History of Conservation

3.3 The Concepts of Conservation

3.4 Importance of Conservation

3.5 Laws and Policies Guiding Conservation

4.0 Conclusion

5.0 Summary

6.0 Tutor Marked Assignment

7.0 References/Further Reading

0.0 INTRODUCTION

The idea behind conservation cannot be overemphasized, as it is peculiar to the founding of the earth itself, the application of the principle in its present parlance is relatively new. In the previous year's conservation required many connotation, to some it simply means, the protection of wildlife, to others, it means the sustained production of useful materials from the resources of the earth. Full details of these definitions shall be considered as we progress in this unit.

1.0 OBJECTIVE

This unit will discuss the general concept of conservation, form the definition of the term, to its concept, we will also discuss the history of the concept, then its importance to the environment and the populace at large. It is important to also note that laws and policies guiding conservation will also be discussed. And learners at the end should be able to discuss extensively, conservation as it relates to the environment.

2.0 CONTENT

2.1 Definition of Conservation

The word conservation means different things to different people, the word conservation (ethics) means is an ethic of resource use, allocation, and protection. Its primary focus is upon maintaining the health of the natural world: its, fisheries, habitats, and biological diversity. Secondary focus is on materials

conservation and energy conservation, which are seen as important to protect the natural world. While conservation biology is the scientific study of the nature and status of Earth's biodiversity with the aim of protecting species, their habitats, and ecosystems from excessive rates of extinction. It is an interdisciplinary subject drawing on sciences, economics, and the practice of natural resource management.

Hornby A. S. (1984:309) defined the concept as the protection of Natural environment and the official protection of buildings that have historical or aesthetic importance and the act of preventing something from being lost, wasted, damaged or destroyed.

Conservation involves practices that perpetuate the resources of the Earth on which human beings depend and that maintain the diversity of living organisms that share the planet. These activities include the protection and restoration of endangered species, the careful use or rejecting of scarce mineral resources, the national use of energy resources, and the sustainable use of soils and living resources. (Fubara 1998:21).

The most generally acceptable definition presented in 1980 in world conservation strategy by the International Union for Conservation of nature and Natural Resources, is that of “the management of human use of the biosphere so that it

may yield the greatest sustainable benefit while maintaining its potential to meet the needs and aspirations of future generations.”

It is important to note that naturally, the idea behind conservation is to conserve habitat in terrestrial ecoregions and stop deforestation , to protect sea life from extinction due to overfishing is another commonly stated goal of conservation ensuring that "some will be available for our children" to continue a way of life.

We will reiterate that this idea brought up the establishment of most non-governmental organisation in the direction of conservation of our environment and a lot for us to leave legacies to generation yet unborn. The most important now is the issues include the depletion of atmospheric ozone by the action of chlorofluorocarbon (CFC) the green house effect and the destruction of the tropical rainforests.

3.2 History of Conservation

It is important to note the history of conservation dates back to the earlier times with the preservation of medicines it is crystal clear, that, in the pre-historical era, it was on record that people did modify their natural environment. Early hunting and gathering cultures contributed to extinction of some animals species, although this seems to have been more of an exception than a general practice. For the most part, early man lived in an equable balance with the

natural environment, if for no other reason than necessary. If they have done much damage, people could not have survived.

In addition, for more than 10,000 years, agriculture has been practiced and urban civilization has been in existence since 6,000 years.

However, in the period of Middle Age, some animals species were protected or conserved by religion taboos, fear of religion sanctions prevented the extinction of forest grooves and sacred mountains. The method of applying organic fertilizer to maintain soil fertility is found among many primitive people and has had a long history in Western agriculture.

This age equally show evidence of the creation of game reserves and parks to protect wild life and natural resources alike. In addition, they were hunting specifically preserves for the use of royalty, this in turn served a conservation function.

It is worth mentioning, the agricultural landscapes of Western Europe, China and Japan which was a reflection of a great skill in the pre-industrial era in the conservation of soil resources. One cannot forget easily the irrigated Nile Valley and Volcanic soils in the tropical South East Asian which has kept functioning and productive over a thousand years.

However, in the 19th and 20th century the civilization brought by the Europeans colonizers led to soil erosion and destruction of natural vegetation and wildlife in the colonized countries such as America, Australia, India and Africa.

The 19th century culminated into severe environmental deprecations in many countries. For example, in Australia livestock were allowed to increase in population to levels far beyond what the natural forage could support. As a result, many animals during droughts, the system of over foraging destroyed the land to such a degree that they have not yet recovered. In the Southern part of Africa, many types of wildlife were hunted to extinction while majority of the larger mammals reduced to small size that could hardly sustain their survival.

Conservation in the Millennium (21st Century) Okorodudu – Fubara posited that ‘it could have been predicted that the modern conservation movement would have its beginnings not in the settled hands of the old-world but in those areas of the New World, where, within the memory of a single generation, there had been extreme changes in the landscape and in the abundance of wildlife. The response to the destruction of natural resources in those areas necessitated the establishment and development of conservation movement.

The national parks which is meant for preservation of wild nature and to the provision of outdoor recreation space, have developed unprecedentedly and side

by side national – forest systems, preserved for the multiple use of wild-land resources have become firmly established.

The conservation of wild life becomes a cause of national interest which led to establishment of different nature resources and wild land resources which in some cases exceeding their primitive numbers.

Conservation oriented management of forest lands, which developed more from its origin in Europe than from practices in the United State and become more widely acceptable all over the world.

The management of wild animals in extensive wilderness areas of Africa, India and Soviet Union made major studies which possesses usual wildlife resources and retain a large areas of wild land. From the above analysis, the concept of conservation and its management cannot be studied in isolation of its historical growth.

And finally most countries of the world by 1992 most of the countries of the world had become committed to the principles of conservation

3.3 Concept of Conservation

1. Natural Resources

It is important that the need for natural resources under conservation cannot be ignored with a wave of hand. Natural resources especially the ones found in commercial quantity and quality were regarded as sources of most useful

commodities worldwide. These raw materials are found in the environments that were used or capable of being used by people for various purposes: minerals and fuels, forest and grazing resources, wildlife, fisheries/acquirable animals and the likes. The concept could mean all of these or more.

It is important that the concept of natural resources due to changes and researches has been widened to mean that entire natural environment.

Note finally that the atmosphere, oceans, deserts and Polar Regions have all become valuable resources that must be properly managed with care and sincerity of purpose to provide for the future.

2. The need for Human (Primary/secondary need)

Generally the main human race's primary desires and natural resources necessities for life include energy in the form of organic foods that are digestible, are capable of being assimilated and contain adequate amounts of proteins, fats, vitamins, carbohydrate and minerals. Water with low content of dissolved salts and free from toxic or injurious substances, air that contain an adequate quantity of oxygen by no harmful materials, and an external sources of energy for heating and cooling, as well as various materials from which clothing and shelter can be fashioned to provide warmth in cold weather and coolness during excessively hot weather.

Naturally, the need of people all over the world, are almost the same as the world is turning to a global village and these needs are secondary in nature. It is however important to reiterate these needs further. These no doubt include those materials or energy sources needed to maintain an urban civilization.

3. Agricultural and Urban development

The needs of man was sufficient in the early times and where proportionate with what was available the desire for more was virtually absent, but as the population soon increased tremendously then the people soon outnumbered the capacity of the original existing natural environment to supply them primary needs.

As a result, the first set of secondary needs developed – farming tools and later, domestic animals to help use the tools more effectively and, for the latter, the food supplies necessary to sustain and keep them alive. And this lead to the need of varieties of fertilizers to ascertain the agricultural food production

However, the need for more non-living natural materials/resources along with the rapid development of agricultural lands and settled villages was inevitable at this instance.

Nevertheless, human wants tend to multiply as the greater leisure of civilize life enables part of the problem of just to survive but equally to sustaining the environment for the generation unborn.

4. Industrial and Technological growth

As the world is tuning into a global village, the demand for industrial and technological growth is one of the most widely needed of all, and this has actually snowballed. In the present dispensation there are more concentration on the resource that are scarcely consumed in the previous centuries and are largely consumed such as berylliums for rockets, uranium for nuclear fuel, natural gas, coal, and petroleum.

The need for other resources is the result of the desire to live in greater numbers and at a standard of living considerably higher than that previously enjoyed.

It is imperative to note that, with the growing human population, with an expanding technology that becomes ever more demanding, and with the growing demands for material goods, the pressure on the earth's natural resources increases steadily. Whether or not available quantities of these resources are sufficient to meet humanity's growing wants and needs is uncertain" (Okorodudu Wabara 1998: 24).

3.4 Importance of Conservation

The importance of conservation to the mankind or to human survival cannot be overemphasized. Generally, it is imperative to note that the human life depends upon the proper functioning of the biosphere – the relatively narrow zone of air,

water, soil and rock in which all life on earth depends. The ultimate purpose of conservation is to protect the biosphere in a healthy operating condition.

However, plants and animals generates nutrients are not left out of this cycle that requires to be conserved and which helps to maintain the fertilities of soil, many of the elements that contributes to the proper functioning of the biosphere have not yet been identified. Then the attitude to preserve and care for the environment is unavoidable

1. Prevention Pollution

Conservation prevents pollution of nature: There are many examples of the serious effect of pollutants in air, water or soil on human health and survival which conservation would have prevented. For instance the dumping of toxic wastes in Koko, Delta State and Ilogbon – Iyana Offa, Ibadan, Oyo State, Nigeria which claimed many lives. And the dumping of Mercury containing wastes into the rivers in Japan caused death of many people.

2. Economic Importance

The economic importance of conservation may be rarely appreciated. However, the floating plants of the ocean, the microscopic phytoplankton, are of little direct economic importance to human beings, for instance, their elimination from the food chain would quickly destroy the world's marine fisheries that constitute a major source of human diet and the world's source of Oxygen supply.

3. Aesthetic and Recreational Value

It is pertinent to note that the wild nature is one of the sources of aesthetic pleasure and the use of wild lands and wild-animals resources for recreational enjoyment cannot be ignored with impunity. These values have long been recognized as among the more important values of conservation.

The much exciting traditional and even modern sports that is associated with nature like fishing, hunting, boating, swimming, boat racing, sunbathing, skiing and picnicking which are grouped amid the outdoor based recreational activities are in tune with the continued existence of natural or near-natural environment as the sites for these activities.

The recreation value or importance of aesthetic of nature in terms of the psychological or sociological importance became very imperative because they vary from one culture to another, evidence indicates that, as personal affluence and the freedom from the sheer struggle for survival increases, the demand for outdoor recreation and outdoor space also increased.

4. Scientific Value

This is one of the vital areas of importance of conservation, it has a great scientific value. This is as a result of the fact that relatively little is known about the past, present and possible future of the biosphere, natural outdoor

laboratories including areas of undisturbed nature, must be maintained in order to conduct the studies needed to acquire knowledge.

However, this has brought the conservation biology to attention, then the need for so many fields of plants and animals with undiscovered scientific values. This is because each wild plants and animals contains a storehouse of genetic and biochemical information, the loss of single specie might cause the loss of information that could ultimately have great value for mankind's welfare and survival.

3.5 Laws and Policies Guiding Conservation

It is imperative to note that no nation can survive in isolation, laws and policies are essential part of survival of any nation. The present states of the world have shifted to the states of sustainable development. The world conferences on environmental development have severally drummed the sustainability of national programmes plans that surpass the current generation and forward looking to the next generations unborn.

Law and policy have made great impact towards holistic objective of nature sustainability through concept of conservation.

There have been a lot of laws and policies from the federal level to the state level, this is however important in all areas of the human endeavour like water, land and finally air resources just to mention a few.

It is important that the misuse of land can have harmful impact on the environment and co-existence of man. Before the promulgation of Land Use Decree, 1978 by the Obasanjo Military Regime, ownership of freehold or customary land imposed no corresponding obligations on the quality of development.

One stunning aspect of the Land Use Decree is the conservation and protectionist policy. For instance, control over the manner in which land is used would if efficiently implemented reduce incidents of slum housing, under utilization or unproductive use of agricultural lands and wanton assault on or destruction of the natural resources of the land.

There are other specific laws and national policies which complement the objective of Land Use Decree. And that the performance of the agricultural sector is critical to conservation of land resources. The main objective of land resources policy is outlined under the National Agricultural Policy, 1988, is to rehabilitate areas of the country that are affected by draught, desert encroachment, soil erosion and flood; to prevent the spread of these natural disasters to other areas through effective protection measures”.

Several attempts have been made to control the problems of deforestation and desertification which is one of the main problems of our environment through the enactment of appropriate legislation. These problems are caused mainly by the haphazard spread of agriculture, commercial timber felling, and wood cutting for fuel to serve the energy needs of the people both in urban and rural areas, game related, bush burning, accidental, and deliberate bush burning. For example, the Ondo State Government enacted the control of Bush Burning Edict 1989, Edict No. 4 purposely to protect the State and its people from the adverse effects of indiscriminate decisive response to one of the major causes of forest depletion in Nigeria.

Other international treaties that Nigeria ratified besides the laws it enacted are the Convention on International Trade in Endangered Wild Species of Fauna and Flora which aimed at ensuring through international cooperation, the protection of certain species of wild animals and plants against over exploitation through trade. However, in 1977, Nigeria and Cameroun with Niger Republic ratified an agreement in the Joint Regulation of Fauna and Flora on the lake Chad Basin.

The promulgation of the Endangered Species (Control of International Trade and Traffic) Decree 1985 not only gives municipal effect to the related international treaties provisions but equally significant. It expressly prohibits the hunting,

capture of, or trading in any of the ninety one animal species as specified in scheduled 1 and 2 of the Decree.

There are also legislations in other to protect the water of the nation and these are

- The River Basin Development Authorities Decree, 1987 which repealed an earlier statute, the River Basin Development Authorities Decree 1976. The Law establishes eleven River Basin Development Authorities in the country. The statute specified the following requirements in each of the authorities' specific region of operation.

And each states as well as the Federal government promulgated a lot of laws to avert the surge of water pollution.

- The oil in Navigable Waters Decree, 1968, prohibits the discharge of oil into designated sea areas and made provision for penalties for the specified offences. It gives municipal effect to the international convention for the prevention of pollution of the sea by oil, 1954, which Nigeria acceded to on April 22, 1968. The minister of Petroleum is mandated to full charge by the degree.
- The Petroleum (Drilling and Production) Regulations 1969 which provides that a licensee or lessee shall take practicable precautions to avoid pollutions of inland water systems as well as territorial water of Nigeria or the high seas by oil, mud or other fluid or substances capable of causing harm or destruction to fresh water or marine life. If such pollution through

spillage occurs, the licensee or lessee must take prompt steps to control and if possible prevent it. This is in line with s26 of Petroleum Decree 1969.

- The Harmful Waste (Special Criminal Provisions etc) Decree, 1988, which was enacted by the Federal government in swift reaction to the illegal dumping of hazardous wastes from abroad in certain parts of the country, prohibits the dumping of harmful waste in any form into any territorial water or Exclusive Economic Zone of Nigeria or its inland waterway.
- Lagos State government made a provision similar to the above when it enacted Lagos State Environmental Pollution Control Edict, 1989, that “No person or group of persons shall dump or burry or cause or allow to be buried or dumped in any water within the state any toxic or hazardous substance or harmful wastes”. This was repealed by Lagos State Environmental Protection Agency Edict No. 9, 1997.

These are laws and policies in relation to the protection and conservation of the air we breathe, for a clean air situation to be attained. The National Policy on the Environment 1989 and 2007 has enumerated the following strategies.

- a. Designating and Mapping of National Air Control Zones (ACZ)
- b. Declaring air quality objectives for each designated Air Control Zones
- c. Establishing ambient air quality standards and monitoring stations at each designated zones.

- d. Provision of standards for factories and other activities which emit pollutants into the air
- e. Licensing and registering of all major industrial air polluters and monitoring their compliance with laid down standards.
- f. Provision of guidelines for abatement of air pollution.
- g. Prescribing stringent standards for the level of emission from automobile exhausts and energy generating plants and stations.

4.0 CONCLUSION

Conservation is an inevitable aspect of our daily life and it is pertinent to protect our environment to the fullest and make judicious use of it for generation yet to come. It is imperative that conservation through the efforts of various non-governmental organisations has done a lot in preserving our environments.

5.0 SUMMARY

In summary, this unit has been able to discuss conservation in all its area as it relates to the human existence. It is of paramount concern that learners should be able to discuss conservation from its definition, to the historical development of the concept. And also the concept, its importance to the human race and finally the laws and policies guiding its sustenance.

6.0 TUTOR MARKED ASSIGNMENT

1. Offer some scholastic definition to the concept conservation and relates its importance to the human race.
2. Discuss fully the efforts of both international organization and Nigeria government towards sustaining our natural resources.

7.0 REFERENCES/FURTHER READING

- Grove, R.H. (1997) *Ecology, Climate and Empire: Colonialism and Global Environmental History 1400-1940* Cambridge: Whitehorse Press.
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Unit 2

Waste and Waste Management

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1.0 INTRODUCTION

Waste generation is a part and parcel of our daily life, as it is reiterated that only the dead do not generate waste, it is considered that every human being is expected to generate waste. The management of this waste is imperative in order to avoid some level of environmental pollution. It is also pertinent that waste is a natural consequence of life in both human and ecosystems and industries. As human consumption increases, so does waste.

The thinking of government and many others in this direction of waste has changed radically

2.0 OBJECTIVE

The main objective of this unit is to generally discuss the conception of waste and waste management. It is important that the sources of laws regulating this concept will also be discussed. However, it is imperative that the efforts of some state government in management of waste cannot be ignored with a wave of hand, Lagos State in particular.

3.0 CONTENT

3.1 Waste

Waste has been defined by various environmental experts, it is defined in the Oxford Advanced Learners Dictionary' 4th Edition as something that is not or no longer useful and is to be thrown away, or disposed of.

It was also defined by M. Purdue, as any act or omission which results in a change in the land for better or for worse example conversion of arable land into a timber plantation.

Then, the World Health Organisation (W.H.O) defines the concept as something which the owner no longer wants at a given place and time and which has no current or perceived market value.

The United Kingdom Environmental Protection Act of 1990 defines waste as:

- a. Any substance which constitute a scrap material, an effluent or other unwanted surplus substance arising from the application of any process.
- b. Or any substance or article, which needs to be disposed of, as being broken, worn out, contaminated or otherwise spoiled.

However, the Lagos State Environmental Sanitation Edict of 1985 No12 attempts a definition similar to that of the United Kingdom.

Sources of Wastes

Wastes can be classified into various sources like the control wastes, and dangerous wastes. Control wastes are household wastes e.g food, office wastes, commercial wastes and wastes from stores. These are set of wastes that can be easily managed, treated, recycled and disposed of as the need be.

However, dangerous wastes are wastes that are too treacherous to treat, keep or dispose of. These are wastes that include acid, alkalis lead, mercury, and methyl etc. they are wastes that are dangerous to human life if swallowed, inhaled, or in contact with the human nature.

3.2 Waste Management

Waste management is the collection, transport, processing or disposal, managing and monitoring of waste materials. The term usually relates to materials produced by human activity, and is generally undertaken to reduce their effect on health, the environment or aesthetics. Waste management is a distinct practice from resource recovery which focuses on delaying the rate of consumption of natural resources

Waste management practices differ for developed and developing nations, for urban and rural areas, and for residential and industrial producers. Management for non-hazardous waste residential and institutional waste in metropolitan areas is usually the responsibility of local government authorities or the state.

There several methods of waste disposal that makes the management easier and effective are landfill, incinerator, energy recovery and resource recovery.

1. Landfill

Disposing of waste in a landfill involves burying the waste, and this remains a common practice in most countries. Landfills were often established in abandoned or unused quarries, mining voids or borrow pits. A properly designed and well-managed landfill can be a hygienic and relatively inexpensive method of disposing of waste materials.

Many landfills also have landfill gas extraction systems installed to extract the landfill gas. A typical example of a landfill is the one located in Ojota in Lagos State.

2. Incineration

This is also another method of waste disposal that aids the effective management of the concept. Incineration is a disposal method in which solid organic wastes are subjected to combustion so as to convert them into residue and gaseous products. This method is useful for disposal of residue of both solid waste management and solid residue from waste water management. This process reduces the volumes of solid waste to 20 to 30 percent of the original volume.

Incineration is common in countries such as Japan where land is scarcer, as these facilities generally do not require as much area as landfills. Waste-to-energy

(WtE) or energy-from-waste (EfW) is part of the features of incineration. A typical incineration in Lagos State is the center in Simpson and the waste to energy center in Ikorodu.

There a lot of other waste management methods but are rarely in use in Nigeria and they include Energy recovery, Resource Recovery and Avoidance and reduction methods of waste management. And also recycling is also a part of the methods of waste management that is also used in Nigeria.

Waste collection methods vary widely among different countries and regions.

Domestic waste collection services are often provided by local government authorities, or by private companies in the industry. However, in Lagos State, the state government is responsible for waste collection through the private participation of companies, and the effective door to door collection have seriously reduced the menace of refuse disposal in the state.

The issue waste management cannot be discussed without a mention of the marine waste management, the NIMASA DG Mr. Zikiade Patrick

Akpobolokemi, noted that investment in waste management in the Nigerian marine environment would not only improve the country's rating in the global maritime industry, but also have a multiplier effect of employment generation in Nigeria amongst others. "It is to the benefit of Nigerians that this public private

partnership model of managing waste in our marine environment is sustained and encouraged to grow rapidly.

Stages in Waste Management

The various stages involved in Waste management are:

1. **Generation:** This is the stage when materials becomes waste and is discarded. The generation rate is often defined as the weight of material discarded as solid waste by one person in one day
2. **Storage:** House storage, keeping solid waste in place or containers which is the responsibility of the individual members of the household while, Command storage, is the responsibility of the refuse collection agency.
3. **Collection:** This has to do with transportation of the solid waste from the point of storage to the point of disposal, two stages are involved in the collection stages;
 - a) **The direct collection,** which makes uses only one means of transportation i.e. the Solid waste is picked up from the point of storage in a truck that takes it to the disposal site,
 - b) **The second stage collection** Carries the solid waste from the storage facility to the Transfer station, at the transfer station, the waste is loaded into the secondary stage, to transport the refuse to the Disposal site.

4. Disposal: The final destination of solid waste, usually it is dumped on land at a tip, this may be done in an engineered and hygienic Way: - sanitary landfill or controlled tipping, or in a careless Way: - open tipping or crude dumping.

3.3 Sources of Laws governing Waste Management in Nigeria.

There are lots of laws governing waste management in Nigeria, these waste could come in different ways including the marine wastes just to mention a few of them. And these laws dates back to the colonial era:

- Public Health Act, 1917
- Water Works Act 1915
- FEPA Act 1988, now NESRA Act 2007
- Petroleum Act 1969
- Oil in Navigable Waters Act of 1968
- Lagos State Environmental Pollution Control Edict of 1991

Other international are:

- ∞ Basel Convention on the control of Trans-boundary Movement of Hazardous Wastes and their Disposal 1989.
- ∞ Vienna Convention on the Protection of the Ozone Layer 1987.
- ∞ Montreal Convention on Substances that deplete the Ozone Layer 1987.
- ∞ The Kyoto Convention on the Depletion of the Ozone Layer, 2003.

4.0 CONCLUSION

Waste generation, disposal and management are a daily part of our life that need to be treated with lots of impunity. It is important to also reiterate the efforts of the Lagos State government in waste management including all kinds of waste including hazardous waste like medical waste just to mention a few.

5.0 SUMMARY

In this unit, it is important to note that we have discussed the concept of waste and its management. Learners should be able to offer different definitions to it, its sources and should also be able to explain the concept of waste management and the sources of laws in treating and maintaining proper order on it.

6.0 TUTOR MARKED ASSIGNMENT

1. Waste Management in Nigeria is a concept that is relatively new, explain this with the methods of waste management that is available.
2. Explain the relevant laws that are sources of law to waste management in Nigeria.

7.0 REFERENCES/FURTHER READING

- Lawrence Atsegbua et al 2003: Environmental Law in Nigeria: Theory and Practice. Ababa Press Ltd, Lagos.

- David Wooley QC et al 2008: Environmental Law. Oxford University Press.

Unit 3

Environmental Pollution and Management

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1.0 INTRODUCTION

It is important to note that pollution is an inevitable aspect of the environment. It is pertinent to note also that, industrialization has resulted in a high degradation of the environment and caused untold human health hazards especially in most urban and semi-urban centres.

The workers in most of these industries and the members of public are not protected against the health hazard because of exposure to hazardous chemicals which these industries release into environment.

The global environment is also being threatened by the problem of acid rain ozone layer depletion and climatic modification. The effect of this is devastating on the environment and the health of the populace in general.

2.0 OBJECTIVE

The main objective of this unit is basically going to be on pollution, we will discuss the definition, nature and history of the term pollution.

We will also discuss the types and sources of pollution to the environment. It is basically, important to reiterate that pollution is an environmental degradation to the populace. We will also discuss the causes and its effect on the environment and the people. Laws, policies and regulations guiding it will also be discussed.

3.0 CONTENT

3.1 Definition of Pollution

Pollution is the introduction of contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the elements of pollution, can be either foreign substances/energies or naturally occurring contaminants.

Pollution is the harmful effect on the environment of by-product of human activity, principally industrial and agricultural processes. For example, noise, smoke, car emissions, chemical affluent in seas and rivers particularly sewage and household waste (all contribute to greenhouse effect).

He went further that 'natural disasters may also cause pollution; volcanic eruptions, for example cause ash to be ejected into the atmosphere and deposited on land surfaces. Pollution can also be the consequence of a natural disaster. For example, hurricanes often involve water contamination from sewage

Pollution is assumed to be a relative concept because although almost no substance exists in pure state, it is only when the imparities rise above a certain level that it became dangerous and harmful. Therefore, pollution can be defined

as the addition to air, water and / or of any material (or heat) that usually found there or that is in excess of normal amount.

Pollution has also been defined under the Environmental Protection Act 1990 S 1(1); this involves pollution due to the release into any environmental medium from any process of substances which are capable of causing harm to man or any other living organisms supported by the environment.

Hodge posited that pollution is the introduction by man into the environment of substance or energy liable to cause hazards to human health, harm to living resources and ecology system, damage to structure or amenities or interference with legitimate of the environment.

In a similar vein, the FEPA Act in S38 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 beyond acceptable limits.

The UN conference on Environment in 1972 at Stockholm defines pollution as "The discharge of toxic substances and the release of heat, in such qualities or concentration as to exceed the capacity of the environment to render them harmless".

2.2 History and Nature of Pollution

The history of pollution dates back to the 1272 in England King Edward I of England banned the burning of sea-coal by proclamation in London in 1272, after its smoke had become a problem. Air pollution is the most common type of pollution and would continue to be a problem in England, especially later during the industrial revolution, and extending into the recent past with the Great Smog of 1952.

It was the industrial revolution that gave birth to environmental pollution as we know it today. The emergence of great factories and consumption of immense quantities of coal and other fossil fuels gave rise to unprecedented air pollution and the large volume of industrial chemical discharges added to the growing load of untreated human waste.

Pollution became a popular issue after World War II, due to radioactive fallout from atomic warfare and testing. Then a non-nuclear event, The Great Smog of Pollution began to draw major public attention in the United States between the mid-1950s and early 1970s, when Congress passed the Noise Control Act, the Clean Air Act, the Clean Water Act and the National Environmental Policy Act. 1952 in London, killed at least 4000 people.

The issue of environmental pollution became glaring worldwide and in the continent of Africa respectively shortly after the 1972 United Nations Conference on Human Environment at Stockholm where it was not only confirmed the emergence of environmental protection as a new focus of legislation so as to avoid crisis but equally emphasized the close inter relation between the environment and development. (Mowoe K 1990 - 171 - 2)

In Nigeria the issue of pollution came to the forebear after the Koko toxic waste saga that happened in 1988. It is important to reiterate further that oil spill is another sets of environmental pollution that has become a surge that need be fought.

It was this issue that triggered the response of the Federal Military Government to this incident that led to promulgation of the Federal Environmental Protection Agency Act, 1988 and the Harmful Waste (Special Criminal Provision)) Act of 1988.

Subsequently, in 1992, the UNO's Earth Summit in Rio de Jenerio in Brazil emphasized the close relationship between the environment and development. And the development must be sustainable by meeting the needs and aspirations of the current generation without compromising the ability to meet those of future generation.

3.3 Types of Pollution

Pollution can take any form, it depends on which area of the environment that has been polluted that will culminate into the type of pollution that it will be attributed to.

There are various forms of pollution in the environment all will be listed for the purpose of this study and they include:

- Air pollution: - the release of chemicals and particulates into the atmosphere. Common gaseous pollutants include carbon monoxide, sulfur dioxide:- chlorofluorocarbons (CFCs) and nitrogen oxides produced by industry and motor vehicles. Photochemical ozone and smog are created as nitrogen oxides and hydrocarbons react to sunlight.
- Light pollution: - includes light trespass, over-illumination and astronomical interference.
- Littering: - the criminal throwing of inappropriate man-made objects, unremoved, onto public and private properties.
- Noise pollution: - which encompasses roadway noise, aircraft noise, industrial noise as well as high-intensity sonar.
- Soil contamination occurs when chemicals are released intentionally, by spill or underground leakage. Among the most significant soil contaminants are hydrocarbons, heavy metals, MTBE, herbicides, pesticides and chlorinated hydrocarbons.

- Radioactive contamination, resulting from 20th century activities in atomic physics, such as nuclear power generation and nuclear weapons research, manufacture and deployment. (See alpha emitters and actinides in the environment.)
- Thermal pollution-: is a temperature change in natural water bodies caused by human influence, such as use of water as coolant in a power plant.
- Visual pollution-: which can refer to the presence of overhead power lines, motorway billboards, scarred landforms (as from strip mining), open storage of trash or municipal solid waste.
- Water pollution-: by the discharge of wastewater from commercial and industrial waste (intentionally or through spills) into surface waters; discharges of untreated domestic sewage, and chemical contaminants, such as chlorine, from treated sewage; release of waste and contaminants into surface runoff flowing to surface waters (including urban runoff and agricultural runoff, which may contain chemical fertilizers and pesticides); waste disposal and leaching into groundwater; eutrophication and littering.

However, for the purpose of this study only four will be discussed that is the land, water, noise and air pollution that affect our daily life in this part of the world.

1. Water Pollution

Water pollution is contamination of water bodies such as lakes, streams, rivers, oceans and groundwater caused by human activities, which can be harmful and injurious to organisms and plants that live in these water bodies through toxicity. It occurs when pollutants are discharged directly into water bodies without treating it first.

Water pollution is the process of altering the properties of any water which renders it unfit for consumption.

According to Akande, all fresh water contain dissolved materials such as phosphates, gases such as oxygen organic compounds, suspended particulate material such as silt and micro organisms. The quantities of each vary greatly from one area to another. But a lack of balance between them or a dramatic increase in any of them can lead to aquatic chaos in which whole ecology of the water body is upset. The water became unfit for human consumption and some or all focus of aquatic life are killed.

Water pollution can be classified into several ways which includes:

- i. Pollution by putrescible refers to foul smelling, rotting of organic materials by bacteria materials such as waste from human, paper pulp plants, and canaries. Organic pollution is controlled by accelerating the process of decomposition of these organic wastes. When discharged into stream or river or lake, the organic materials decompose by using large quantities of oxygen from water. And this results into a large scale of water pollution.
- ii. Pollution by heated effluents: Oxygen is readily restored when the water is cool. The hotter it is, the lower the Oxygen holding capacity of the water. The bubbles that arise from heated water demonstrate what happens to the gases in hot water. The discharge of clean hot water into an unpolluted stream is hence as harmful as the discharge of organic wastes. In these cases the oxygen content of water is drastically reduced. It is as a result of all these that water pollution is a serious issue in tropical countries. The temperature is always warm that it is difficult for the streams to absorb the necessary quantities of oxygen.
- iii. Pollution by toxic materials: These are toxic wastes which are not easily settle out and are not easily broken down by biological means. Such toxic wastes such as DDT, Mercury, heavy metals, herbicides and pesticides are poisonous toxic when consumed or contacted by plants and animals depending on the degree and rate of consumption or dosage received.

- iv. Pollution by inert materials, those which may affect biological conditions and equally De-oxygenate water. De-oxygenating materials includes sewage and organic wastes.
- v. Pollution by radioactive elements and compounds

2. Air Pollution

Air pollution comes from both natural and manmade sources. Though globally man made pollutants from combustion, construction, mining, agriculture and warfare are increasingly significant in the air pollution equation.

Motor vehicle emissions are one of the leading causes of air pollution, agricultural air pollution comes from contemporary practices which include clear felling and burning of natural vegetation as well as spraying of pesticides and herbicides

Air pollution in the words of Lawrence Atsegbua et al (2003:75) “is the upsetting of the natural arrangement of different gases in the air. Air pollution is the accumulation of substances in the air, insufficient concentrations to produce measurable effects on man, plants and animals. It involves the erosion of harmful substances into the atmosphere, which cause danger to any living things”

It is also referred as the presence of foreign bodies in the air such as gaseous, particulate or a combination of all, which is highly hazardous to the health, sustenance and welfare of man (Awake 1999: 28).

The sources of air pollution could take effect from its various locations, activities or factors which are responsible for the realizing of pollutants in the air. There are two key major categories of sources of air pollutants. That is anthropogenic sources and natural sources.

- i. Anthropogenic sources are human made activities mostly related to burning different kinds of fuel. The sources cover:
 - a. Stationary sources (smoke attacks)
 - b. Mobile sources (vehicular exhaust)
- ii a. Natural sources include dust, wind, methane emitted by digestion of food by animals e.g. cattle
- b. Industries/Factories, motor vehicle exhaust electric cables, homes, incinerators, mechanic villages, bush burning, locomotive railway, aeroplane, etc.

Out of all these, vehicular emissions account for about half of air pollution in the whole world whereas digging, tillers and burning of fires when clearing bushes or cooling account for the rest half. For instance, burning of oil and other local elements that produces sulphur IV oxide which is very dangerous and account for the recent air pollution that cause haven, discomfort to humans or other

living organisms or damages the natural environment and threat to human health as well as to earth ecosystems.

Also the greenhouse gases and global warming effect causes the release of Carbon dioxide, while vital for photosynthesis, is sometimes referred to as pollution, because raised levels of the gas in the atmosphere are affecting the Earth's climate.

3. Land Pollution

Land pollution can arise in different ways, it could be through authorized and unauthorized means. Although in many cases, pollution of land is just one part of licensed activities.

In Nigeria as a nation the main sources of pollution is land through waste disposal in landfill system. The term land pollution equally includes anything laid in land which automatically impairs its arableness, yield or cultivability such as land mines, booby traps and other similar military devices.

Without fiddling, the major cause of Land Pollution in Nigeria and other parts of the world particularly in the millennium age can be traced to development of technology, that is, industrialization which led to the bursting of urbanization and the over concentration of the world population in the areas of the landmass.

In addition, land pollution could also be in form of solid waste and has been defined as 'non - liquid, non - soluble materials hanging from municipal

garbage to industrial wastes that contain complex substances and sometimes hazardous substances' (Hesketh H. E 1970:20)

4. Noise Pollution

Noise can be described as unwanted or unbearable, / excessive sound. Be that as it may, "noise pollution" seems to have been taken for granted and in fact accepted by most people in the society.

Noise is a sound, especially when it is loud, unpleasant or disturbing. It can be countable or uncountable (A.S. Hornby 1984, 991)

In the words of C.S Ola, he reiterated that the average urban dwellers are open to health problems as a result of long continuous exposure to noise, sometimes at high intensities".

It has been observed by medical experts that frequent or chronic exposure to both high and low intensity sound may cause stress on all higher forms of marine life, potentially affecting growth, reproduction and liability to resist disease.

Generally, there various kind of noise pollution and they are:

- i. Environmental noise and
- ii. Occupational noise

The occupational noise hazard is more important to our discussion in this unit due to the fact that workers in most of industries are exposed to high levels of uncontrollable noise over a long period of time. (Awake, 1999.28).

In these industries workers are exposed to idiotic situation of noise pollution because earmuffs to protect their eardrums are not provided, where they provides it, the workers due to gross carelessness refused to use the safety stuff that protects their ears from the excessive noise that may cause deafness.

It is important to note that there are various sources of noise pollution, which is peculiar to us in Nigeria.

- Amplified musical engine.
- domestic noise
- motor vehicle noise
- noise generated by the religious houses
- voices/sound from the neighbours
- Road traffic noise
- Noise from construction sites
- factories - mining, quarrying noise
- Noise emission from industries
- Mechanic and welder workshops' noise

3.4 Causes and Effect of Pollution

There are several causes of pollution to the environment ranging from the types of pollution that has been discussed in this unit. We will then analyse the causes and effect of these pollutions as discussed.

The causes of water pollution will be discussed and they include:

- Oxygen -depleting substances may be natural materials, such as plant matter like leaves and grass as well as man - made chemicals.
- Chemical substances are source of toxic for instance, pathogens produces waterborne diseases in either human or animal hosts.
- Surface water and groundwater pollution sources

The effects of the water pollution are numerous on the environment on human, animals and aquatics and they include:

- Water borne infectious diseases
- Arsenic Poisoning has adverse effects. It causes korotosis, a skin disease, and severe liver damage.
- Oil Spills equally result in health hazards to human beings and can also cause fire outbreaks, constituting extensive damage to life and property.

It is also important to note that the effects of noise pollution are numerous on human beings generally, it causes impairment, decrease efficiency, psychological disorder, disturbance of sleep and emotional disturbance.

The causes of this pollution especially in Nigeria are from numerous factories like The national and localized problems include cement Kiln dust SO₂ from the fertilizer plants in Kaduna and Rivers States, cements factories in Sokoto, Ewekoro, Ogun State, and Kabba in Kogi States, multiple pollutants from the Nigerian National Petroleum Corporation (NNPC) refineries and gas flaring in the air coastal regions, industrial furnaces, boilers and thousands of private electrical generators also contribute in no small measure to air pollution particularly in Lagos which generate more than 60% of Nigeria's industrial activities are located.

The effect of air pollution cannot be overemphasized, mainly the effect is health in nature, according to a medical expert, the injury to human health depends upon the degree of toxicity concentration, duration of exposure and individual susceptibility.

The degree of industrial emission is second to vehicular carbon monoxides emission which is the major sources of urban air pollution problems.

3.5 National and International Law Regulating Pollution

There are several laws governing pollution in its entire sphere both nationally and international. From water pollution, to air, land and noise pollution generally.

There have been laws regulating water pollution before the Koko toxic waste tale and they ranged from River Basins Development Authorities Act No 25 of June 15, 1976, the Chad Basin Development Authority Act No 32 of August 14, 1973, the Sokoto Rima Basin Development Act No 33 of August 14, 1973, the Sea Fisheries Act No 30 of June 10 1971, the Oil in Navigable Water Acts No 34 of April 22, 1968.

The Petroleum Act of 1969 which specifically deals with prevention of pollution of water courses and the regulations under this Act contained in Petroleum (Drilling and Production) Regulations 1969.

The establishment of the Federal Environmental Protection Agency (FEPA) through Decrees 589 of 1988 and 59 of 1992 (as amended) then the National Environmental Standards and Regulations Enforcement Agency (NESREA) established in 2007 via the Act of Parliament as the backbone of environmental protection in Nigeria which replaced the Federal Environmental Protection Agency.

One of the boards set up to protect water pollution is the Governing Board for the National Oil Spill Detection and Response Agency (NOSDRA) which came into being by the Establishment Act 15 of 2006. This agency was established as part of overall strategy to bring about healthy and clean environment in the country especially in Niger Delta region (Punch, 2010: 17).

The Official Regulation for the Control and Management of Noise is published in the National Environmental/Noise Standards and Control) Regulations 2009 Vol. 96, No 67. Government Notice No 288.

There are little or no regulation guiding air pollution in Nigeria Noxious Acts; the Lagos Public Health Bye Laws 1958 and the Criminal Code Act Cap 42, Laws of the Federation of Nigeria, 1958

The Courts have been alive to their responsibilities under civil liability since all the laws already mentioned come under criminal law. **Ryland vs. Fletcher (1868 LR 3 HL p 330)** is the umbrella under which the courts have dealt vividly with various environmental cases. The principle involved in this case is known as “Sic utere tuo et alienum non laedas” meaning “that one should not use one’s property or exercise one’s rights in such away as to interfere with the rights of others.

In Karagulamus vs. Kolawole Oyesile (1973) 3 UI.L.R, the fumes coming out of the defendants machines to the Plaintiff's bedroom were offensive to the Plaintiff who successfully sued.

And finally, the Land use Act 1978, is the main law regulating Land and all matter relating to Land pollution in Nigeria.

4.0 CONCLUSION

In conclusion, pollution is a day to day activity in our environment, it is however pertinent to note that pollution is an inevitable part of our life but with the promulgation and enactment of several Acts, then the human action in polluting the environment will be highly reduced.

5.0 SUMMARY

In summary we have discussed pollution generally ranging from the definition of the concept to the nature and history, types and sources, also to the effect of pollution to the populace in particular and the environment in general.

However, then learners should be able to distinguish between laws regulating pollution generally.

6.0 TUTOR MARKED ASSIGNMENT

1. Define the concept pollution and give a brief history of its evolution.
2. Write on four major types of solution and discuss their regulatory laws.

7.0 REFERENCES/FURTHER READING

- Andrew Waite (2001) Environmental Law in property Transactions 2nd Ed, Butterworths London.
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- David Wooley QC et al 2008: Environmental Law. Oxford University Press.

Unit 4

Oil Pollution

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3.2 Impact of Oil Spills

3.3 Laws and Policies regulating Oil Spills

4.0 Conclusion

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6.0 Tutor Marked Assignment

7.0 References/Further Reading

1.0 INTRODUCTION

It is important to note that this is one of the major sources of pollution in Nigeria asides the once that have been discussed earlier. In this study oil spills in the Niger Delta will be our main discourses. It is however pertinent that oil is spill is caused major by a lot of issues relating to petroleum.

According to a study carried out by a team of Nigerian and international environmental experts in 2006, the Niger Delta is “one of the world’s most severely petroleum-impacted ecosystems”. They stated: “The damage from oil operations is chronic and cumulative, and has acted synergistically with other sources of environmental stress to result in a severely impaired coastal ecosystem and compromised the livelihoods and health of the region’s impoverished residents.”

2.0 OBJECTIVE

The main objective of this unit is to discuss oil spill and pollution generally and several cases that has been treated in that regard. The harmful effect of the surge cannot be overemphasised, it is also important that the laws regulating the spill will also be discussed in this unit.

3.0 CONTENT

3.1 Oil Spills

Most of the oil in Nigeria is found within the Niger River Delta, the largest delta in Africa and the third largest in the world. The inhabitants of the Niger Delta are primarily ethnic minorities, who are socially, politically and economically marginalized. Oil spills and gas flaring are the most frequently referenced forms of oil-related pollution in the Niger Delta, there are in fact several other ways in which the oil industry is harming the environment.

The Niger Delta has suffered for decades from oil spills, which occur both on land and offshore. Oil spills on land destroy crops and damage the quality and productivity of soil that communities use for farming. Oil in water damages fisheries and contaminates water that people use for drinking and other domestic purposes.

There are a number of reasons why oil spills happen so frequently in the Niger Delta. Spills result from corrosion of oil pipes, poor maintenance of infrastructure, spills or leaks during processing at refineries, human error and as a consequence of deliberate vandalism or theft of oil.

However, today companies increasingly maintain that the majority of oil spills are caused by sabotage and not by their poor infrastructure or operational problems. Communities, and many NGOs, strongly disagree over the number of

spills that are attributed to sabotage, and accuse companies of designating controllable spills as sabotage in order to avoid liability for compensation.

There is no doubt that sabotage, vandalism of oil infrastructure and thefts of oil are serious problems in the Niger Delta, although the scale of the problem is unclear. Sabotage ranges from vandalism by community members to theft of oil and deliberate attacks by criminal groups. Some people damage pipes while trying to steal small quantities of oil for sale at local markets or for personal use. Others damage pipes and installations to extort compensation payments or clean-up contracts from companies.

The amount of oil spilt since oil production began in 1958 is not known with any certainty.

Only SPDC reports publicly, from year to year, on the number of spills in its operations.⁴⁷ Between 1989 and 1994 the company reported an average of 221 spills per year involving some 7,350 barrels of oil per year.⁴⁸ The Department of Petroleum Resources (DPR) has reported that 4,835 oil spill incidents were recorded between 1976 and 1996, with a loss of 1.8 million barrels of oil to the environment.⁴⁹ These data are based mainly on what companies report to the DPR. According to UNDP, more than 6,800 spills were recorded between 1976 and 2001, with a loss of approximately 3 million barrels of oil.

Oil spill incidents have occurred in various parts and at different times along our coast. Some major spills in the coastal zone are the GOCON's Escravos spill in 1978 of about 300,000 barrels, SPDC's Forcados Terminal tank failure in 1978 of about 580,000 barrels and Texaco Funiwa-5 blow out in 1980 of about 400,000 barrels. Other oil spill incidents are those of the Abudu pipe line in 1982 of about 18,818 barrels, The Jesse Fire Incident which claimed about a thousand lives and the Idoho Oil Spill of January 1998, of about 40,000 barrels. The most publicised of all oil spills in Nigeria occurred on January 17 1980 when a total of 37.0 million litres of crude oil got spilled into the environment. This spill occurred as a result of a blow out at Funiwa offshore station. Nigeria's largest spill was an offshore well-blow out in January 1980 when an estimated 200,000 barrels of oil (8.4million US gallons) spilled into the Atlantic Ocean from an oil industry facility and that damaged 340 hectares of mangrove (Nwilo and Badejo, 2005).

Pirates are stealing Nigeria's crude oil at a phenomenal rate, funneling nearly 300,000 barrels per day from our oil and selling it illegally on the international trade market. Nigeria lost about N7.7 billion in 2002 as a result of vandalism of pipelines carrying petroleum products. The amount, according to the PPMC, a subsidiary of NNPC, represents the estimated value of the products lost in the process. Illegal fuel siphoning as a result of the thriving black market for fuel products has increased the number of oil pipeline explosions in recent years. In

July 2000, a pipeline explosion outside the city of Warri caused the death of 250 people. An explosion in Lagos in December 2000 killed at least 60 people. The NNPC reported 800 cases of pipeline vandalization from January through October 2000. In January 2001, Nigeria lost about \$4 billion in oil revenues in 2000 due to the activities of vandals on our oil installations. The government estimates that as much as 300,000 bbl/d of Nigerian crude is illegally bunkered (freighted) out of the country.

3.2 The Harmful Effect of Oil Spill

The harmful effects of oil spill on the environment are many. Oil kills plants and animals in the estuarine zone. Oil settles on beaches and kills organisms that live there, it also settles on ocean floor and kills benthic (bottom-dwelling) organisms such as crabs. Oil poisons algae, disrupts major food chains and decreases the yield of edible crustaceans. It also coats birds, impairing their flight or reducing the insulative property of their feathers, thus making the birds more vulnerable to cold. Oil endangers fish hatcheries in coastal waters and as well contaminates the flesh of commercially valuable fish.

Oil spills in the Niger Delta have been a regular occurrence, and the resultant degradation of the surrounding environment has caused significant tension

between the people living in the region and the multinational oil companies operating there.

One of the major oil spills that affected many lives negatively are the Idoho oil spill traveled all the way from Akwa Ibom state to Lagos state dispersing oil through the coastal states, up to the Lagos coast. This culminated in the presence of sheen of oil on the coastal areas of Cross river state, Akwa Ibom state, Rivers state, Bayelsa state, Delta state, Ondo state and Lagos state.

In April 1997, samples taken from water used for drinking and washing by local villagers were analyzed in the U.S. A sample from Luawii, in Ogoni, where there had been no oil production for four years, had 18 ppm of hydrocarbons in the water, 360 times the level allowed in drinking water in the European Union (E.U.). A sample from Ukpeleide, Ikwerre, contained 34 ppm, 680 times the E.U. standard.

However following the major Texaco Funiwa spill of 1980, it was reported that 180 people died in one community as a result of the pollution. On several occasions, people interviewed by Human Rights Watch said that spills in their area had made people sick who drank the water, especially children.

3.3 Laws and Policies regulating Oil Spills

There are several national and international laws regulating oil spills in Nigeria, some will be discussed in this unit and the purpose they each serve also.

a. Oil Pollution Act (OPA) of 1990

The Oil Pollution Act of 1990 (OPA 1990) is responsible for many of the nation's improvements in oil spill prevention and response. OPA 1990 provides guidance for government and industry on oil spill prevention, mitigation, cleanup and liability. The majority of OPA 1990 provisions were targeted at reducing the number of spills followed by reducing the quantity of oil spilled. OPA 1990 also created a comprehensive scheme to ensure that sufficient financial resources are available to clean up a spill and to compensate persons damaged by a spill.

b. National Oil Spill Detection and Response Agency (NOSDRA)

A National Oil Spill Detection and Response Agency (NOSDRA) have been approved by the Federal Executive Council of Nigeria.

The establishment of the contingency plan and the agency was in compliance with the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC90) to which Nigeria is a signatory. The draft bill on the NOSDRA has been forwarded to the National Assembly for deliberation and enactment into law (Alexandra: Gas and Oil Connections, 2006).

c. The Niger Delta Development Commission (NDDC)

To reduce the rate of oil incidents along the Nigerian Coast particularly as a result of vandalism, the Federal Government through an act of the National Assembly in 2000 passed into law the Niger Delta Development Commission. (NDDC).

The NNDC act is a strategic way of dealing with all forms of pollution activities in the Niger Delta like:

- o Tackle ecological and environmental problems that arise from the exploration of oil in the Niger-Delta area.
- o Liaise with the various oil mineral and gas prospecting and producing companies on all matters of pollution prevention and control.

d. Petroleum Related Laws and Regulations

The following relevant national laws and international agreements are in effect:

- a. Endangered Species Decree Cap 108 LFN 1990.
- b. Federal Environmental protection Agency Act Cap 131 LFN 1990.
- c. Harmful Waste Cap 165 LFN 1990.
- d. Petroleum (Drilling and Production) Regulations, 1969.
- e. Mineral Oil (Safety) Regulations, 1963.

- f. International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971.
- g. Convention on the Prevention of Marine pollution Damage, 1972
- h. African Convention on the Conservation of Nature and Natural Resources, 1968.
- i. International Convention on the Establishment of an International Fund for the Compensation for Oil Pollution Damage, 1971.

e. Oil Trajectory and Fate Models for Oil Spill Disaster Monitoring

Oil spill simulation model is used in oil response and contingency planning and as a tool in oil fate and impact assessment (Rossouw, 1998). In the event of an oil spill taking place, predictions of the slick can be supplied, provided that the necessary meteorological information is available (Rossouw, 1998). Oil spillage can also be treated or removed by natural means, mechanical systems, absorbents, burning, gelling, sinking and dispersion.

4.0 CONCLUSION

Oil spill in the Niger Delta of Nigeria has been the major surge of environmental pollution in that part of the world. It is also important that oil spill has been with us for a very long time, and if adequate measures of sabotage, pipeline vandalism and that most oil companies and the Federal Government beef up

security in this regard it will still continue to be a source of worry, and environmental degradation and an easy ticket to death.

5.0 SUMMARY

In summary, this unit has discussed oil spill in general in the Niger Delta area of the country. However, its impact on the environment has been largely discussed as well. It is also important that learners should be able to discuss and expatiate more on the laws regulating oil spill in Nigeria.

6.0 TUTOR MARKED ASSIGNMENT

1. Oil spill in Nigeria a menace to the people of Niger Delta. Discuss with its environmental impact on the people.
2. Explain the laws and policies available to combat oil spill in Nigeria.

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Unit 5

Human Rights and the Environment

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1.0 INTRODUCTION

International awareness of the linkages between human rights and environmental protection has expanded considerably since conservation of the environment became a matter of national and international concern some two decades after human rights emerged on the international agenda.

Generally, Environmental rights do not fit neatly into any single category or generation of human rights. We should talk about human rights and the environment within the existing framework of human rights law in which the protection of humans is the central focus – essentially a greening of the rights to life, private life, and property – or has the time come to talk directly about environmental rights – in other words a right to have the environment itself protected.

The Constitution of the Federal Republic of Nigeria 1999 has not really or specifically protects the rights of its citizens in relation to the environment, it only does that in the chapter 2 of the Constitution which is not specifically enforceable.

2.0 OBJECTIVE

This unit will discuss the general right of a citizen as it concerns the environment. The obligation of states to the right to a healthy environment will also be discussed.

3.0 CONTENT

3.1 Human Rights and the Environment

International environmental agreements, especially since 1992, more commonly consider certain human rights as essential elements to achieving environmental protection.

Birnie and Boyle define environmental human rights as: 'terminology [used] to ascribe value or status to the interests and claims of particular entities'.

While, Churchill defines the term as '[...] broadly the right of an individual or group to a decent environment, [...] that extends beyond what is judicially enforceable but limited to genuine rights [...] as they are found in existing human rights treaties'.

However, the last definition seems to be the most useful for purposes of this unit 'Environmental right' in this report is the term used to describe both existing human rights with environmental implications (or derivative rights) and the emerging right to a clean and healthy environment.

Generally, human rights and the environment in this unit will discuss the right of an individual as it relates to its environment. The first approach is essentially anthropocentric insofar as it focuses on the harmful impact on individual humans, rather than on the environment itself: it amounts to a 'greening' of human rights law, rather than a law of environmental rights.

The second approach is seeing the environment as a good in its own right, but nevertheless one that will always be vulnerable to tradeoffs against other similarly privileged but competing objectives, including the right to economic development.

However, there are some significant examples of collective rights which in certain contexts can have environmental implications, such as the protection of minority cultures and indigenous peoples, or the right of all peoples freely to dispose of their natural resources, recognised in the 1966 UN Covenants on Civil and Political Rights and Economic, Social and Cultural Rights, and in the 1981 African Charter on Human and Peoples Rights.

It is important to note that some legal texts and authors proclaim the existence of a right to a safe and healthy environment as an independent substantive human right. At present, examples of this in positive law are found predominately in national constitutions, in regional human rights treaties and in International

treaties. Thirty-five years ago at the United Nations Conference on the Human Environment held in Stockholm, Principle 1 of the Declaration declared that *'Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being.'*

And it was further stated that he bears a solemn responsibility to protect and improve the environment for present and future generations.

This grand statement might have provided the basis for subsequent elaboration of a human right to environmental quality. (Dinah Shelton)

Among human rights treaties only the 1981 African Charter on Human and Peoples' Rights proclaims environmental rights in broadly qualitative terms. It protects both the right of peoples to the 'best attainable standard of health' and their right to 'a general satisfactory environment favourable to their development.

Article 24 of the Charter imposes an obligation on the State to take reasonable measures 'to prevent pollution and ecological degradation, to promote conservation, and to secure ecologically sustainable development and use of natural resources. Article 11 of the American Convention on Human Rights in the area of Economic, Social and Cultural Rights is also a regional instrument like the African Charter on the protection of its citizens as it relates to the environment.

However in a similar circumstances the Inter American Commission and Court of Human Rights have interpreted the rights to life, health and property to afford protection from environmental destruction and unsustainable development and they go some way towards achieving the same outcome as Article 24 of the African Convention. See the case of Ogoniland and Maya indigenous community of the Toledo District v. Belize, Case 12.053, Report No. 40/04, Inter-Am. C.H.R., OEA/Ser.L/V/II.122 Doc. 5 rev. 1 at 727 (2004).

The European Convention on Human Rights makes no explicit reference to the environment at all or did so only in relatively narrow terms focused on human health

If Stockholm did little for the development of international environmental rights, it may have had greater impact on national law. Environmental provisions of some kind have been added to an increasing number of constitutions since 1972.

A human rights dimension has also emerged in the context of climate change discussions. Resolution 7/23 entitled “human rights and climate change”, adopted by the Human Rights Council in March 2008, expressed concern that “climate change poses an immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights”.

However, on 25 March 2009, the Council adopted resolution 10/4 “Human rights and climate change” in which it, inter alia, notes that “climate change-related impacts have a range of implications, both direct and indirect, for the effective enjoyment of human rights ...”

3.2 States Obligations on Human Right and the Environment

Enforcement of environmental rights involves courts in not only determining the mandated environmental quality, but also in assessing whether or not the government has taken the requisite actions to achieve that quality.

It is pertinent to note that rights-based approaches are preferable, however, because human rights are maximum claims on society, elevating concern for the environment above a mere policy choice that may be modified or discarded at will. Some clearly create no rights based approach towards the right of its citizens as it concerns the environment.

Article 48A of the Indian Constitution provides only that ‘The state shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country. This article obviously creates no enforceable rights.

Nigeria as a nation is also not specific as this right is not drafted under Chapter 4 of the constitution which talks about the fundamental human right of the people rather under chapter 2, section 20 which states that “the state shall protect and

improve the environment and safeguard the water, air and land, forest and wild life in Nigeria this is a right that is not enforceable.

However, some constitutions have lived up to their responsibility Article 35 of the Constitution of the Republic of Korea declares that 'All citizens shall have the right to a healthy and pleasant environment.

While others give it stronger human environmental rights Article 45 of the Spanish Constitution declares that everyone has 'the right to enjoy an environment suitable for the development of the person as well as the duty to preserve it.'

Article 56 of the Turkish Constitution states that: 'Everyone has the right to live in a healthy, balanced environment. It shall be the duty of the State and the citizens to improve and preserve the environment and to prevent environmental pollution.

The 1996 South African Constitution gives everyone the right 'to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

In *Yanomami v. Brazil*, Res. No. 12/85, Case 7615 (Brazil), in Annual Report of the IACHR 1984-1985, the Inter-American Commission found that the government had violated the Yanomani rights to life, liberty and personal security guaranteed by Article 1 of the Declaration, as well as the right of residence and movement (Article VIII) and the right to the preservation of health and well-being (Article XI) because the government failed to implement measures of “prior and adequate protection for the safety and health of the Yanomami Indians.”

However, in *Okyay and Others v. Turkey* concerned the failure of Turkish authorities to enforce constitutional rights and statutory environmental laws.

The African Commission also has identified governmental obligations in this field by reference to environmental norms. In *SERAC v. Nigeria*, Case No. ACHPR/COMM/A044/1, May 27, 2002. The African Commission held that Article 24 “imposes clear obligations upon a government to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources.

4.0 CONCLUSION

It is important to note that right to the environment is a fundamental human right that should followed to the letter. We will reiterate further that most states should do more about enforcing the right, country like Nigeria should make it a fundamental human right like counties like South Africa.

Then most other regional instruments should stand to its responsibility like the African charter which is one the main regional instruments that is alive to it responsibilities in protecting the rights of its citizens as it concerns the environment.

5.0 SUMMARY

In summary we have discussed the human right in relation to the environment and the state obligations in that regard and the role of the courts in enforcing this unique human right as it relates to the environment.

6.0 TUTOR MARKED ASSIGNMNET

1. Explain the concept of human right and the environment in line with the Stockholm declaration.
2. Briefly outline the state obligations as it concerns its citizen's right in relation to the environment.

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Unit 6

International and Regional Environmental Laws

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3.2 The Basel Convention

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3.5 The African Charter on Human and People's Right 1981

3.6 The Bamako Convention

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7.0 References/Further Reading

1.0 INTRODUCTION

International and regional law is relatively a new subject, but there have a lot of laws and policies in that regard to support the subject to its fullest. It is also important to reiterate that there are lots of international laws that have done well in protecting the environment and the citizen's right in that regard.

The regional efforts are also not left out of this campaign for environmental protection. The Stockholm Declaration is the first of the international laws that was set for the protection of the environment and it came into force in 1972, followed by the Rio Declaration of the 1992.

Naturally, international environmental law consists primarily of treaties, conventions, protocols and other international legal instruments. Nigeria as a nation is a signatory to many of these treaties dealing with the environment only few will be discussed here.

2.0 OBJECTIVE

This unit will discuss the international and regional laws and policies as it relates to the environment. The first on the list of our discussion is the Stockholm declaration, the Basel Convention, the Kyoto Protocol, and the Copenhagen Accord. However, the main regional Declaration is the African Charter on Human and People's Right and lastly the Bamako Convention.

3.0 CONTENT

3.1 The Stockholm Declaration of 1972

The United Nation Conference on the Human Environment is generally referred to as the Stockholm Declaration and is considered as the cornerstone of modern international law. The declaration also affirms the sovereign right of states to exploit their own resources pursuant to their own environmental policies in accordance with the United Nations Law.

However, the counterpart to this treaty is the Rio Declaration which came into existence in 1992, and the principle is generally the responsibilities of states in view of their different contribution to global environmental degradation and the need to reduce and eliminate unsustainable patterns of production and consumption.

3.2 The Basel Convention 1989

This is a convention on the control of Transboundary Movement of Hazardous Wastes and their Disposal, and it came into force in 1989. Nigeria as a nation is a signatory to this convention. This is one of the major international treaties after the Koko toxic saga in Nigeria.

The Convention was to protect by strict legal control, human health and environment against adverse effect, which may result from generation and management of hazardous waste.

One of the significant attributes of this convention under Article 8 is that if wastes are smuggled into the territory of one state without the competent authority's consent or such consent by fraud, such waste can be returned back by the country. This was however, the case in Koko toxic incident, where Nigeria as a country returns the waste back to Italy.

3.3 The Kyoto Protocol

This was the convention that brought about the Green house gas effect and the depletion of the ozone layer, the global warming inspires world leaders to deliberate. It was adopted on 11 December, 1997 in Kyoto, Japan but came into force on 16 February, 2005 after so many nations have ratified. As at September 2011 191 states have signed and ratified the protocol with exception of USA, Afghanistan, Andorra and South Sudan.

The purpose is treating the green house gases instead of allowing it to radiate back into space.

3.4 The Copenhagen Accord 2010

The Copenhagen Accord is a document that delegates at the 15th session of the conference of parties (COP 15) to the United Framework Convention on the Climate Change agreed to take note of at the final plenary on 18 December, 2010. It is not a legally binding document and does not commit countries to agree to a binding successor to the Kyoto Protocol, whose present round ends in 2012.

The Accord

- Endorses the continuation of the Kyoto Protocol
- Underlines that climate change is one of the greatest challenges of our time and emphasizes a strong political will to urgently combat climate change in accordance with the principle of common but differentiated responsibilities and respective capabilities
- To prevent dangerous anthropogenic interference with the climate system, recognizes “the scientific view that the increase in global temperature should be below 2 degrees Celsius”, in a context of sustainable development, to combat climate change.
- Agrees that developed countries would raise fund of \$30 billion from 2010-2012 of new and additional resources.
- Agrees a goal for the world to raise \$100billion per year by 2020, from a wide variety of sources, to help developing countries cut carbon emissions

(mitigation). New multilateral funding for adaptation will be delivered, with a governance structure.

3.5 The African Charter on Human and People's Right 1981

The charter was adopted in 1981, the aspect of the charter that treated environmental issue was particularly the Article 24, and this is the first international instrument to proclaim the right to a satisfactory environment as a human right to which all people are entitled.

The main reason behind the charter was a response to the danger pose by the export of toxic waste from Europe to Africa. It also represents sustainable development of the continent.

3.6 The Bamako Convention

This was a convention that came into existence as a result of the dissatisfaction of developing countries with the Basel Convention over the partial ban on trans-boundary movement of hazardous waste.

The Bamako Convention permits the trans-boundary movement of waste within Africa, so that the prohibition is therefore limited to importation into Africa

4.0 CONCLUSION

It is important to note that International Environmental law like the Conventions, Protocols and Accord has attained the standing of an independent discrete subject with its own principles.

5.0 SUMMARY

In summary, we have discussed most international environmental law that are most relevant, ranging from the Stockholm Declaration to the Copenhagen Accord, which is the latest in the environmental world. Learners are expected to read more on the laws that are not discussed here to broaden their knowledge of the international environmental law.

6.0 TUTOR MARKED ASSIGNMENT

1. Briefly explain the edge of the African Charter over other International Environmental Law.
2. Discuss the purpose of the Bamako Convention that the Basel Convention did not address.

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