

Impact of Deforestation on Biodiversity Conservation in Nigeria and the Legal Response

Nelson Uwoh Sobere, PhD.

*Faculty of Law,
University of Port Harcourt, Rivers State, Nigeria.
Email: uwoh.nelson@uniport.edu.ng*

Abstract:

Forests are an integral part of life on the earth planet. Forests provide various ecosystem services for human well-being but deforestation is a threat to its sustainability. Deforestation is one of the known causes of biodiversity loss and a global environmental problem. Virtually all the countries of the world face the challenges of deforestation because of the much reliance placed on the forests by the growing population for one benefit or the other. Nigeria as a nation is also a victim of deforestation. Deforestation poses a significant threat to biodiversity conservation in Nigeria, with far reaching consequences for the environment, wildlife, and human well-being. Nigeria as a country has made concerted efforts to curb the menace of deforestation for sustainable development for her present and future generations. However, the onslaught of deforestation is still witnessed at an alarming rate. This paper seeks to examine the impact of deforestation on biodiversity in Nigeria, highlighting the causes, effects, and the legal responses in combating deforestation. The work reveals that deforestation leads to habitat loss, species extinction, and ecosystem disruption, compromising Nigeria's rich biodiversity. The legal framework, though existing, is inadequate and poorly enforced, necessitating a robust legal response to address the crisis. The paper recommends strengthening legislation, enhancing enforcement, and promoting sustainable forest management practices to mitigate the devastating impacts of deforestation on biodiversity conservation in Nigeria.

Keywords: Impact, deforestation, causes, biodiversity, loss, laws.

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1. INTRODUCTION

The natural forest is the repository of biodiversity crucial to improvements in agriculture and medicine as well as the sustained supply of products and raw materials to industries and households.¹ Tropical forests are being lost today at an alarming rate. More than a half of the animals and plants species live in the tropical forests.² Among the manifestation of global environmental devastation are deforestation (especially tropical rainforest), its biodiversity loss and its impoverishment.³ The clearing of forest across the earth has been occurring on a large scale basis for many centuries which necessitated the consideration of the issue as an agenda item at the United Nation Conference on Environment and Development in Rio de Janeiro in 1992.

Forests are burnt or cut down for various reasons, such as, clearing of land for agriculture, harvesting of timber, expansion of cities, and many more. According to the United Nations Framework Convention on Climate Change Secretariat, the overwhelming direct cause of deforestation is agriculture, logging, fuel wood; other causes of contemporary deforestation may include corruption of government institutions, the inequitable distribution of wealth and power, population growth, urbanization. Globalization is often viewed as another root cause of deforestation.⁴ It has been observed that ‘if the current rate of deforestation continues, the world’s forests will vanish within the next 100 years causing unknown effects on global climate and eliminating the majority of plant and animal species on the planet’.⁵

About half of the world’s original forests had disappeared by 2011, the majority during the last 50 years. In some countries, very little natural vegetation remains. For example, in Bangladesh a mere 6% of original vegetation is left; and in the United Kingdom and Netherlands only 4% of lowland bogs are left in their original conditions.⁶ It follows therefore that the disappearance of forests has the concomitant effect of loss of biodiversity and resulting in damage to habitats.⁷ Deforestation causes extinction, changes to climate conditions, desertification and displacement of populations as observed by current conditions and in the past through the fossil record.⁸ Deforestation

¹ Nelson U. S “Appraisal of the Legal Regime for the Protection of Biodiversity in Nigeria” being a thesis submitted to the Department of International and Comparative Law, Faculty of Law, University of Nigeria in partial fulfillment of the requirements for the award of Doctor of Philosophy (PhD) degree (University of Nigeria, Nsukka November, 2019), 57.

² Available at www.en.wikipedia.org/wiki/deforestation [accessed 12 July, 2024].

³ J. C. Nwafor, *Environmental Impact Assessment for Sustainable Development: The Nigeria Perspective*, 1st ed. (Enugu, Environmental and Development Policy Centre for Africa, 2006) 412.

⁴ Karen, “Demographics, Democracy, Development, Disparity and Deforestation: A Cross-National Assessment of the Social Causes of Deforestation” being a paper presented at the Annual Meeting of the American Sociological Association, Atlanta GA, August 16, 2013.

⁵ B. S. Chauhan, *Environmental Studies*, 1st ed. (New Delhi, University Science Press, 2011), 98.

⁶ *Ibid*, 21-22

⁷ U. S. Nelson (n, 1) 58

⁸ (n. 2)

also brings about loss of biotechnology as the usefulness of the plant species already destroyed are yet to be discovered prior to their extinction particularly endemic species.⁹

Deforestation is driven by many different factors consisting of anthropogenic and natural activities, which lead to the rapid extinction of many species.¹⁰ The removal or destruction of areas of forest cover has resulted in a degraded environment with reduced biodiversity. Forests support biodiversity, providing habitat for wildlife;¹¹ moreover, forest fosters medicinal conservation.¹² With forest biotopes being irreplaceable sources of new drugs such as taxol, deforestation can destroy genetic variations, such as crop resistance, irretrievably.¹³

2. THE CONCEPT OF DEFORESTATION

Deforestation as a concept suffers a unique acceptable meaning. Several terms are used to express the concept, including “land use conversion”. Deforestation is the purposeful clearing of forested land. Throughout history and into modern times, forests have been destroyed to make space for agriculture and animal grazing, and to obtain wood or fuel, manufacturing, and construction. Deforestation has greatly altered landscapes around the world. It mainly occurs from the removal of trees or land without replacement.¹⁴ It also connotes the conversion of forests to an alternative permanent non-forested land use such as agriculture, grazing or urban development.¹⁵ It refers to the removal of vegetation without simultaneous replanting for various economic or social purposes.¹⁶ It is defined as the removal of forests by humans, either for timber or to clear land for other uses, such as agriculture or urbanization.¹⁷ Deforestation is connected with activities that make use of forests or its resources such as felling of trees or the elimination of forests cover for agricultural activities. It results in desertification affecting the quality of such lands and reducing its productivity.¹⁸

On the other hand, desertification is the degradation of once viable land in arid, semi-arid and dry-sub-humid regions resulting from climatic variations and human activities.¹⁹ Agriculture on dry lands provides more than 20 percent of the world’s food supply. And when degraded, land can no longer sustain plant or animal life. In addition

⁹ U. S Nelson (n. 1) 58.

¹⁰ Rainforest Biodiversity Shows Differing Patterns, Science Daily, August 14, 2007.

¹¹ Ibid

¹² “Medicine from Rainforest”, Research for Biodiversity Editorial Office.

¹³ The Single-Largest Biodiversity Survey for Biodiversity says primary rainforest is irreplaceable, Biodiversity Medicine, November 14, 2007.

¹⁴ The Adequacy of the Global Legal Regime on Deforestation <djetlawyer.com/the-adequacy-of-the-global-legal-regime-on-deforestation> accessed 14 July, 2024

¹⁵ C. G. Van Kooten, and E. H. Bulte, “The Economics of Nature: Managing Biological Asset”, (2000), Blackwells, <http://www.researchgate.net> accessed 14 July, 2024.

¹⁶ Deforestation in Nigeria <en.wikipedia.org/wiki/Deforestation_in_Nigeria> accessed 15 July, 2024

¹⁷ What is deforestation <green. earth/blog/deforestation-in-nigeria-causes-effects-and-solutions> accessed 15 July, 2024

¹⁸ (n. 14)

¹⁹ Article 1(a) of the United Nations Convention to Combat Desertification

to the agricultural, economic and social impacts, desertification threatens the biodiversity of ecosystems by destroying the plants and critical habitat for animals.²⁰ According to the United Nations, about one-third of the earth's surface and the livelihoods of at least one billion people are threatened by desertification (conversion of productive lands to desert), which contributes to food insecurity, famine and poverty. The former UN Secretary-General late Kofi Annan calls this a "creeping catastrophe" that creates millions of environmental refugees every year.²¹

One main driver of deforestation is human activities and this may be through human population growth, industrialization and economic growth or agricultural activities. Forest degradation and deforestation are the biggest threats to forests worldwide. Every second, more than one hectare of tropical forests is destroyed or drastically degraded which could threaten the survival of many species and over 1.6 billion people whose livelihood depends on forests.²²

3. STATUS OF DEFORESTATION IN NIGERIA

Nigeria's forest cover is shrinking in extent and quality. Conversely, reliable data on Nigerian deforestation rate is scarce.²³ Historical accounts indicate that the country's rain forest, which was over 600, 000km² in 1897 (60% of land mass), had diminished by about half in 1960 to 30% of land mass.²⁴ A report by the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD) indicates that the reducing rate of forest cover in Nigeria ranged from 3.5% to 3.7% per annum over the period 2000 to 2010. This translates to a loss of 350, 000-400, 000 hectares of forest land yearly.²⁵ It is noted that unless something decisive is done, urgently, the country will lose all its forest areas by the year 2052, if the prevailing rate of deforestation at 3.5% annually continues unabated.²⁶

Deforestation is a continuous process in Nigeria because of the economic benefits people derive from the forest ecosystem.²⁷ The massive rate of deforestation is a direct

²⁰ World Resources Institute, *A Guide to the Global Environment* (1994-5), 109-146

²¹ Nelson, U. S (n. 1) ;< www.library.thinkquest.org/07aug/00729/> accessed 14 July, 2024

²² "Deforestation and Forest Degradation", <<https://www.iucn.org/resources/issue/briefs/deforestation-and-forest-degradation>> accessed 14 July, 2014

²³ What is the current status of Nigeria's forest cover? <theconversation.com/nigerias-forests-are-fast-disappearing-urgent-steps-are-needed-to-protect-their-benefits-to-the-economy-and-environment-223922> accessed 15 July, 2024

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ For example, the introduction of cash crops like cocoa, coffee, rubber, cotton, groundnut and oil palm into the farming systems since the 1900s was a big impetus for massive deforestation of the natural ecosystems. The land devoted to agriculture increased from 8.9 Million hectares in 1951 to about 55.8 Million hectares in 1995. The recent rice farming programme in some of the Niger Delta States of the Federation has also resulted to the deforestation of several forest serving as habitats to many of the

cause of biodiversity loss. Wood accounts for about 85% of domestic energy use in the country which necessitated increase in deforestation. Also, the allowable cuts are not replaced hence sustained yield of the forests cannot be attained. Thus, high depletion of fuel wood species is easily noticeable in the savannah and rainforest ecosystems.²⁸ The Nigerian tropical forests are particularly hard hit. According to the United Nations Food and Agricultural Agency Report in 2005, Nigeria has the highest deforestation rate in the world (FAO 2005).²⁹

Deforestation threat is a common phenomenon in Nigeria and particularly in the Niger Delta region. For instance, during the World Environment Day 2016, the Bayelsa State of Nigeria Environmental activist warned at the rate in which *Irvingia Gabonensis* otherwise locally known as “Ogbono” trees are cut down and called for the protection of the tree because of its peculiar economic benefit to the people.³⁰ The tree is now considered as an endangered species in the area and is said to be facing extinction.³¹

No doubt, the rate at which deforestation takes place in Nigeria is alarming. According to the Nigerian Conservation Foundation (NCF), Nigeria has lost over 96% of its natural forest cover and deforestation is at an alarming rate of 11.1% per annum, one of the highest in the world.³² The body warned that Nigeria must declare an afforestation emergency, banning the felling of trees in the country for the next 20 years, while galvanizing the entire population to plant hundreds of millions of trees to avert the impending climate crisis.³³ In a recent report, Deforestation estimates in Nigeria stand at 163 kha/year, with 12% of the tree cover lost between 2001 and 2022.³⁴ In 2024, it was shown that there were 6, 812 deforestation alerts reported in Nigeria between 25th of June 2024 and 2nd of July 2024, covering a total of 83 hectares.³⁵ This is bound to increase with the current rate of poverty experience in the country.

Nigerian biodiversity of national and international importance. The massive rate of deforestation is a direct cause of biodiversity loss.

²⁸ The Fourth National Biodiversity Report, (2010), 24.

²⁹ In the African Independent Television (AIT) 8pm News of 5/6/16, the FAO observed that Nigeria is the second known country for deforestation in the world.

³⁰ This was also displayed at the AIT Headline News, 8pm of 5/6/16 where “Bayelsa activist wants Ogbono tree protected”.

³¹ In further AIT News of 17 July 2016 at 8pm, it was highlighted that “Deforestation Threat to *Irvingia Gabonensis* otherwise known as Ogbono faces extinction”.

³² Nigeria Has Lost Over 96% of Its Natural Forest Cover <ajsd.org/Nigeria-is-on-the-verge-of-a-climate-catastrophe-having-lost-over-96-of-its-natural-forest-cover/#The%20Nigerian%20Conservation%20Foundation> accessed 15 July, 2024.

³³ Ibid.

³⁴ Global Forest Watch <www.globalforestwatch.org> accessed 15 July, 2024.

³⁵ Global Forest Watch <globalforestwatch.org/dashboards/country/NGA/?category=forest-change> accessed 15 July, 2024.

4. CAUSES AND EFFECTS OF DEFORESTATION ON BIODIVERSITY

Deforestation is primarily linked to human activities and it varies from one form or the other. There are several drivers of deforestation. They are inter-connected and often reinforce one another thereby causing incessant rate of deforestation in Nigeria. Basically, the direct causes of deforestation are agricultural expansion, wood extraction (e.g logging or wood harvest for domestic fuel or charcoal), infrastructure expansion such as road building and urbanization, and population expansion.³⁶ For instance, between 2000 and 2005, Nigeria lost 55.7 percent of its primary forests due to logging, agricultural expansion, and fuel wood collection and this is bound to increase along with the population explosion.

The current population of Nigeria is 229, 335, 645 as of Wednesday, July 17, 2024, based on Worldometer's elaboration of the latest United Nations date.³⁷ On a more local level, it is difficult to drive along any road near forests in Nigeria-protected or not without seeing stacks of fuel wood for sale.³⁸ There is also evidence of log of woods along the road as timber and some of these timbers are cut from trees such as *Irvingia Gabonensis*. Through deforestation activities, two bird species, the Bannerman's *Weaver Ploceus Bannermani* and the *White Throated Mountain Babbler Kupeomis Gilber* are threatened by the loss of patches of their highland forest habitats on the Obudu and Mambilla Plateaus, the only location where they are found in Nigeria.³⁹

As noted, another major cause of deforestation in Nigeria is logging, both legal and illegal, which is connected to corruption and weak law enforcement. Every year, hundreds of tree species are harvested and sold. While a great deal of this trade is legal and not harming the wild populations, a worrying large proportion is illegal and threatens the survival of many endangered species.⁴⁰ There has been a massive onslaught on the exploitation of some of the Nigerian tree species such as African teak, rosewood etc. At the World Wildlife Day 2021, it was observed that the exploitation and trade of rosewood species, scientifically known as *Pterocarpus Erinaceus or Kosso* in Nigeria, has grown exponentially in the last two decades. Stemming from the over exploitation of rosewood species in Nigeria, in October 2018, the CITES Standing Committee recommended that Parties suspend trade in rosewood from Nigeria until the country carries out a non-detriment findings assessment for trade in the species.⁴¹ Also, in 2018, the International

³⁶ The drivers of Nigeria's deforestation <green.earth/blog/deforestation-in-nigeria-causes-effects-and-solutions> accessed 15 July, 2024.

³⁷ What is the current population of Nigeria in 2024< <https://www.worldometers.info>> accessed 18 July, 2024.

³⁸ Nigerian, Fifth National Biodiversity Report (2015), 36.

³⁹ Ibid.

⁴⁰ Nelson, U. S. (n. 1), 60.

⁴¹ United Nations World Wildlife Day 2021: The Exploitation of Rosewood in Nigeria-Acting to Save Nigeria's Forests <unodc.org/coning/en/stories/world-wildlife-day-2021-the-exploitation-of-rosewood-in-nigeria-acting-to-acting-to-save-nigerias-forests.html> accessed 20 July, 2024

Union for the Conservation of Nature (IUCN) classified Kosso (rosewood) as “endangered” with a decreasing population trend.⁴²

Urbanization is also another driver of deforestation. This is intrinsically connected with population growth. As cities grow, vital habitat is destroyed or fragmented into patches not enough to support complex ecological communities. Urbanization has been traced to have a significant impact on deforestation. Studies have shown that urbanization leads to the loss of forest cover.⁴³ Areas previously known to be housing variety of plants species are encroached through deforestation for one form of use or the other.⁴⁴ For instance, in Enugu⁴⁵, it has been observed that the population pressure exerted through urbanization has created different environmental problems such as deforestation in an unprecedented manner and therefore the roles of biodiversity in the provision of food, fibres, medicine, various ecosystem services etc. are disturbed and destroyed.⁴⁶

In India, from 2001 to 2019, 4.5% of tree cover loss occurred in areas where the dominant drivers of loss (primary drivers being urbanization, shifting agriculture) resulted in deforestation.⁴⁷ In 2007, the United Nations revealed that at least 50% of the World’s population is living in cities and by 2030 that number will jump to 60% with nearly 2 billion new city residents, many migrating from rural areas. As it was noted by Peter Kareiva that:⁴⁸

As a specie we have lived in wild nature for hundreds of thousands of years, and now suddenly most of us live in cities—the ultimate escape from nature. If we do not learn to build, expand and design our cities with a respect for nature, we will have no nature left anywhere. 8% of vertebrate species have been labeled as ‘endangered’ due to the effects of rapid urban

⁴² Ibid

⁴³ How Urbanization Influence the Deforestation? <typeset.io/questions/how-urbanization-influence-the-deforestation-1w203t8h94> accessed 30 July, 2024

⁴⁴ In the United Kingdom for example, an increasing human population density, and the resulting increase in urban development were found to be the cause of 35% of scare plant species extinction in the country’s surrounding urbanized areas. Similarly, in the United State, Urbanization has been found to be directly responsible for the endangerment of 275 species. See also Diana I. Ortiz, etal “The Impact of Deforestation, Urbanization, and Changing Land Use Patterns on the Ecology of Mosquito and Tick-Borne Diseases in Central America” <ncbi.nlm.gov/pm/articles/PMC8781098/#-test=This%20expansion%20of%20built-up,animal%20husbandry%20practices%5B30%5D> accessed 30 July, 2024.

⁴⁵ One of the states in the Eastern region of Nigeria.

⁴⁶ Nelson, (n. 1), 67

⁴⁷ Mehar Pandya and Kushagra Didwania, “Existential Repercussions of Development: Deforestation caused by Haphazard Urbanization and Rapid Industrialization”, *International Journal of Policy Sciences and Law* (2021) Vol. 1, (3), 1375 <ijpsl.in/wp-content/uploads/2021/03/Existential-Repercussions-of-Development-Deforestation-caused-by-Haphazard-Urbanization-and-Rapid-Industrialization...> accessed 30 July, 2024.

⁴⁸ Available at <www.science.daily.com/.../> accessed 30 July, 2024.

development. That number may continue to rise with new urban expansion and growth.⁴⁹

It is also important to note that poverty is a common phenomenon all over the globe and particularly in developing countries like Nigeria. Poverty is intrinsically linked to deforestation thereby leading to ecosystem deterioration and biodiversity loss. The poor basically see the forests as a sure means of livelihood. On daily basis, they depend on the benefits they can derive from the forests for survival. Three quarters of the world's poorest citizens rely on the environment in a major way for their daily existence.⁵⁰ Poverty often leads to unsustainable pressure on nature and its biological resources. The Millennium Ecosystem Assessment (MA) of 2005 found that 15 out of the 24 major ecosystem services it assessed were being degraded or used unsustainably. It concluded that the greatest burden of ecosystem degradation already falls on the poor, and it will continue to do so in increasing measure should current trends persist.⁵¹

In Nigeria, despite her rich renewable and non-renewable resources, poverty is widespread and rated among the world's worst. In 2004, Nigeria's relative poverty measurement stood at 54.4% but increased to 69% in 2010⁵² and is likely to increase in the future.⁵³ In fact, it was reported that an estimated 90.8 million Nigerians are living in extreme poverty as at the end of 2018 and to become the poverty capital of the world.⁵⁴

The World Bank report also indicated that the number of poor people in Nigeria had grown from 95 million in 2021 to 100 million in 2022, while the Nigerian Bureau of Statistics, NBS, indicated that the figure was 82.9 million in 2019 and 85.2 million in 2020.⁵⁵ Poverty is directly connected with forests loss in Nigeria. This is because rural livelihood with no and or less alternative depends almost entirely on forests. The population living around the forests is generally poor. The forests are at the mercy of the poor. It is obvious that not much can be achieved in the area of deforestation control and biodiversity conservation for sustainable development, if the rate of poverty lurking around the nation is not tackled now. As it was observed:

⁴⁹ Peter Kareiva was the Chief Scientist at the Nature Conservancy and Co-author of the report.

⁵⁰ The World Resources Institute in Collaboration with United Nations Development Programme, United Nations Environment Programme, and World Bank 2008

⁵¹ Available at < <https://www.chm.aseanbiodiversity.org/index.php> > accessed 30 July, 2024.

⁵² The National Bureau of Statistics Press Briefing by the Statistician-General of the Federation, Abuja, Monday 13 February, 2012 <www.nigeriastat.gov.ng/> accessed 30 July, 2024.

⁵³ According to the Human Development Index Report of United Nations Development Programme, the number of poor people in Nigeria remains high and the level of poverty is likely to increase over the years. See the United Nations Development Programme Report , 2008-2009.

⁵⁴ Available at < <https://www.pulse.ng/news/local/nigeria-ends-2018-with-908-million-peopel-living-in-extreme-poverty> > accessed 30 July, 2024

⁵⁵ Emma Ujah, Abuja Bureau Chief, "Economic Reforms: Nigerian under Poverty Line rise to 104M-World Bank <vanguardngr.com/2023/12/nigeriaa-under-poverty-line-rise-to-104m-worls-bank/> accessed 30 July, 2024.

Poverty pollutes the environment, creating environmental stress in a different way. Those who are poor and hungry will often destroy their immediate environment in order to survive. They will cut down forest; their livestock will overgraze grasslands; they will over use marginal land; and in growing numbers, they will crowd into congested cities. The cumulative effect of these changes is so far reaching as to make poverty itself a major global scourge.⁵⁶

Poverty constitutes a major threat to biodiversity and in other ways continues to further deepen the level of poverty in most rural areas. It is estimated that the livelihoods of at least 300 million rural poor in tropical countries depend upon degraded or secondary forests. For impoverished communities, biodiversity is about the basic human needs of eating, staying healthy and finding shelter. They also see wildlife as nature's gift that could be used for subsistence and commercial purposes.⁵⁷

It is therefore imperative to know that deforestation is a major threat to biodiversity conservation and it is linked to human activities. And as human population increases, so also are the activities that causes deforestation. The activities are divers in nature such as logging, agriculture, urbanization, etc. and they reinforce each other in an unprecedented manner and thereby causing alarming rate of deforestation without a corresponding effort to replace the forests cover. However, efforts have been made through legal and institutional framework to mitigate the rate of deforestation in the country.

5. INTERNATIONAL LEGAL RESPONSE FOR THE CONSERVATION OF FORESTS

Many environmental problems have a global outlook that international treaties are designed to address them. Forests degradation and deforestation is one of such environmental challenges facing the nations of the world and has dominated as an agenda item in many global and regional political arenas. The contemporary international forest regime consists of substantial soft law (non-binding) instruments as well as international and regional treaties. They are further complemented by international policy processes, which have themselves proliferated a body of policy instruments.

Besides, the Statement of Forest Principles, UNCED also resulted in the Agenda 21 action programme targeted at preventing the destruction of forests (Chapter 11, Combating Deforestation, UN Framework Convention on Climate Change and the

⁵⁶ Brundtland Report, 1987.

⁵⁷ F. Olaleru and R.I. Egonmwan, "Wildlife Conservation Challenges in Okomu National Park, Nigeria", *Ethiopian Journal of Environmental Studies & Management*, 7 (6) (2014), 670

Convention on Biological Diversity.⁵⁸ Nonetheless, forests and forest species constitute an integral aspect of biodiversity fall within the scope of certain global and regional legally binding instruments, there has been no universal consensus on the need for conservation of forests. Many existing international legal regimes on biodiversity only contain certain provisions that aim to regulate activities related to forests. Conspicuously, there is no global instrument having forests as its main subject of concern. Thus, reference will be made only on those global soft laws on forests conservation and biodiversity conventions that made provisions on the regulation of human activities on forests.

5.1 Convention on Biological Diversity (CBD)

This Convention was negotiated under the guidance of United Nations and adopted during the Earth Summit and one of the major outcomes of the United Nations Conference on Environment and Development held in Rio de Janeiro, 1992.⁵⁹ The CBD is the first attempt by the international community to address biological diversity as a whole in a global legal instrument including forests. The Convention Secretariat and the Conference of the Parties have provided specific input into the Intergovernmental Panel on Forests and Intergovernmental Forum on Forests.⁶⁰ It is based on a broad ecosystem approach rather than the sectoral approach (focusing on specific species, ecosystems or sites) that is characteristic of other international conservation agreement such as Convention on International Trade on Endangered Species of Fauna and Flora, 1973, Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979 etc.

The Convention which aims at ensuring the conservation of biodiversity, sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources extends its protection to forests as they provide habitat for a large variety of the world's terrestrial biodiversity.⁶¹ To combat the effect of urbanization, the Convention adopted in-situ conservation in ensuring the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surrounding against human encroachment.⁶² It calls for sound and sustainable development in areas adjacent to protected areas.⁶³ It obligated contracting parties to introduce appropriate procedures requiring environmental impact assessment of proposed projects that are likely to have significant adverse effects on biodiversity with a

⁵⁸ Beatrice Chaytor, "Development of Global Forest Policy: Overview of Legal and Institutional Frameworks" <iied.org/sites/default/files/pdfs/migrate/GOO26.pdf> accessed 4 July, 2024

⁵⁹ < www.biodiv.be/convention > accessed 4 July, 2024.

⁶⁰ Beatrice Chaytor, (n. 58), 13.

⁶¹ CBD, Article 1; (n.14).

⁶² CBD, Article 8 (a) and (d).

⁶³ CBD, Article 8 (c).

view to avoiding or minimizing such effects, and where appropriate allow for public participation.⁶⁴

Accordingly, the second Convention on Biological Diversity COP meeting in 1995 adopted a Statement on Biodiversity and Forests, which was presented at the second session of the Intergovernmental Panel on Forest. The COP, *inter alia*, requested advice and information pertaining to the relationship between indigenous and local communities and forested and a study on links between forests and biological diversity.⁶⁵ In the same vein, the third Conference of Parties (COP-3) under the Convention in 1996 adopted the Work Programme for Forest Biological Diversity focusing on the research, cooperation and development of technologies imperative for the conservation and sustainable use of forest biological diversity of all categories of forests. Similarly in 1998, COP-4 created an Ad Hoc Technical Expert Group on Forest Biological Diversity to suggest measures for the conservation and sustainable use of forest biological diversity among others.⁶⁶

5.2. United Nations Framework Convention on Climate Change (UNFCCC) 1992

Besides the CBD, the United Nations Framework Convention on Climate Change was one of the international environmental treaties negotiated at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro and popularly titled, the Earth Summit in 1992. The objective of the treaty is to “stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system; to allow ecosystems to adapt naturally to climate change; to ensure that food production is not threatened and to enable economic development continues in a sustainable manner.⁶⁷ The Convention identifies the relationship between forests and climate change as forests act as reservoirs and carbon sinks storing carbon in biomass and soils resulting in greater uptake of atmospheric carbon dioxide. Significantly, the UNFCCC commits parties to promote sustainable management, conservation and enhancement of sinks and reservoirs of GHGs, including biomass forests and oceans as well as other terrestrial, coastal and marine ecosystems.⁶⁸

⁶⁴ CBD, Article 14.

⁶⁵ (n.58).

⁶⁶ Ibid.

⁶⁷ <<https://unfccc.int/essential.../6031> > accessed 4 July, 2024.

⁶⁸ UNFCCC, Article 4.

5.3 Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1997

The UNFCCC as the principal treaty to stabilize greenhouses in the atmosphere failed to set binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms but states that parties should act to protect the climate system on the basis of “common but differentiated responsibilities”.⁶⁹ To fill the perceived gaps in UNFCCC, the CoP propelled by the Intergovernmental Panel on Climate Change (IPCC) report negotiated and adopted a legally binding instrument that would stabilize greenhouse gas concentration in the atmosphere “at a level that would prevent dangerous anthropogenic interference with the climate system” which led to the emergence of Kyoto Protocol in 1997.⁷⁰

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its parties by setting internationally binding emission reduction targets.⁷¹ It was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. It contains more explicit provisions by obligating industrialized parties to “implement and/or further elaborate policies and measures such as promotion of sustainable forest management policies, afforestation and reforestation”.⁷²

5.4 United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and, or Desertification, particularly in Africa (UNCCD), 1994

This Convention, the only Convention stemming from a direct recommendation of the Rio Conference’s Agenda 21, was adopted in Paris, France on 17 June, 1994 and entered into force in December 1996.⁷³ It aims at combating desertification, mitigating the effects of drought and contributing to sustainable development through long-term strategies that focus on improved productivity of land and the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions for people.⁷⁴ It has been estimated that over 350, 000 square kilometers of Nigeria’s land mass is threatened by advancing deserts, especially in Northern Nigeria.⁷⁵

⁶⁹ UNFCCC, Article 3(1).

⁷⁰ Kyoto Protocol, Article 2.

⁷¹ Nelson, (n. 1) 157.

⁷² Kyoto Protocol, Article 2.

⁷³ Available at <www.unccd.int/.../convention/about- > accessed 4 July, 2024.

⁷⁴ UNCCD, Article 2.

⁷⁵ Nelson, U. S and Kalada D.S. Nonju, “Impact of Desertification on Biodiversity Conservation in Nigeria. An Evaluation of the Legal Regime” (2021) Vol.5, *Uniport Journal of Public Law*, 160

Forests protection is one of the main themes of this Convention as forests play a central role in the mitigation of the effects of drought and preventing desertification.⁷⁶

5.5 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 1973

The Convention was drafted as a resolution adopted in 1963 at a meeting of members of the International Union for Conservation of Nature (IUCN).⁷⁷ It also contains provisions which extended to the protection of forests and forest resources. The principal aim of the Convention is to protect species threatened with extinction, which are, or may be affected by trade through a system of listing, licensing and import/export permits.⁷⁸ As at 2017, roughly 30, 000 plant species and 5, 800 animal species were stated as being protected by CITES and listed in the three CITES Appendices.⁷⁹ As noted earlier in this work, because of the overexploitation of rosewood species in Nigeria, the CITES Standing Committee recommended that Parties suspend trade in rosewood from Nigeria until the country carries out a non-detriment findings assessment for trade in the species.

5.6 International Tropical Timber Agreement (ITTA) 2006

The first international Tropical Timber Agreement was adopted in 1983 and was superseded by its successor agreement 1994, which entered into force on 1 January 1997.⁸⁰ The 1983 and 1994 ITTA were adopted on definite period and at the expiration of the 1994 Agreement, negotiations for a third ITTA were concluded in 2006, signed in Geneva and entered into force in December 2011.⁸¹ It seeks to balance concerns about deforestation in tropical countries with recognition of the fact that trade in tropical timber is highly relevant for the economic development of these countries. It is an agreement to provide an effective framework for cooperation between tropical timber producers and consumers and encourages the development of national policies aimed at sustainable utilization and conservation of tropical forests and their genetic resources.⁸²

5.7 Principles on Forests

This is also known as the Rio Forest Principles. It is a non-legally binding authoritative statement of principles for a global consensus on the management,

⁷⁶ (n.14).

⁷⁷ Nelson (n.1), 127.

⁷⁸ CITES, Article 2.

⁷⁹ The CITES Species < <https://www.cites.org/eng/disc/species.php> > accessed 4 July, 2024.

⁸⁰ U. Beyerlin and T. Marauhn, *International Environmental Law* (United Kingdom, Hart Publishing, 2011) 202.

⁸¹ Ibid.

⁸² ITTA, Article 1.

conservation and sustainable development of all types of forests. It is a document produced at the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992.⁸³ Although, these principles are non-binding but they represent the first step in the international law-making process regarding forests management. Their adoption illustrates that States feel some sense of commitment, either legal or moral, to abide by their provisions in the elaboration of a regime to manage forests which represent an integral part of the earth's limited resources and other elements of the global eco-system.⁸⁴ It is made up of preamble (a-f) and fifteen (15) principles. At its preamble, it provides that the guiding objective of these principles is to contribute to the management, conservation and sustainable development of forests and to provide for their multiple and complementary functions and uses.⁸⁵ These principles reflect a first global consensus on forests. In committing themselves to the prompt implementation of these principles, countries also decide to keep them under assessment for their adequacy with regards to further international cooperation on forest issues.⁸⁶

At its preamble, it is stated that these principles should apply to all types of forests, both natural and planted, in all geographic regions and climatic zones including austral, boreal, sub-temperate, temperate, subtropical and tropical.⁸⁷ It further provides that all types of forests embody complex and unique ecological processes which are the basis for their present and potential capacity to provide resources to satisfy human needs as well as environmental value, and as such their sound management and conservation is of concern to the Governments of the countries to which they belong and are of value to local communities and to the environment as a whole.⁸⁸

It is important to note that all the 15 Principles are geared towards conservation of the forests for the benefit of present and future generations. States have the sovereign and inalienable right to utilize, manage and develop their forests in accordance with their development needs and level of socio-economic development and on the basis of national policies consistent with sustainable development and legislation, including the conversion of such areas for other uses within the overall socio-economic development plan and based on rational land-use policies.⁸⁹

Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual human needs of present and future generations. These needs are for forest products and services, such as wood and wood

⁸³ Forest Principles-Report of the United Nations Conference on Environment and Development <www.unep.org/other-information/forest-principles-report-of-the-united-nations-conference-on-environment-and-development> accessed 5 July, 2024.

⁸⁴ (n. 58), 6.

⁸⁵ Preamble (b) to the Principles on Forest.

⁸⁶ Preamble (d).

⁸⁷ Preamble (e).

⁸⁸ Preamble (f).

⁸⁹ Principle 2 (a).

products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, carbon sinks etc. It is provided that appropriate measures should be taken to protect forests against harmful effects of pollution, including air-borne pollution, fires, pests and diseases in order to maintain their full multiple value.⁹⁰

5.8 Agenda 21

The United Nations Conference on Environment and Development also resulted in the Agenda 21 action programme aimed at preventing the destruction of forests. Prominent to the Agenda 21 is Chapter 11 which essentially dwells on combating deforestation.⁹¹ One of the objectives of the Agenda 21 is to “facilitate and support the effective implementation of the non-binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests, adopted by the United nations Conference on Environment and Development, and on the basis of the implementation of these principles to consider the need for and feasibility of all kinds of appropriate internationally agreed arrangements to promote international cooperation on forest management, conservation, and sustainable development of all types of forests, including afforestation, reforestation and rehabilitation”.⁹²

5.9 International Governmental Institutions

Apart from the global conventions and soft laws touching on the conservation of forests to curb deforestation, there are other independent bodies that have emerged and indeed assisted in the forests policy processes. Because there is no globally dedicated convention on forests conservation though fragmented in the conventions discussed above, the institutions help in filling the perceived gaps. These institutions did not only assist in the areas of creation of awareness on forests management, international co-operation in financial assistance and technology transfer, scientific research, forest assessment but also in shaping forest policy processes.

5.9.1 The Intergovernmental Panel on Forests (IPF)

United Nations Economic and Social Council (ECOSOC), on the recommendation of the Commission for Sustainable Development (CSD) in 1995, approved the establishment of an open-ended ad hoc Intergovernmental Panel on Forests (IPF). It was perceived to be the top way for assessing forest issues in a reliable manner, and assumed it could follow the successful model of the Intergovernmental Panel on Climate Change (IPCC), calling for reasoned dialogue in an otherwise polarized and highly charged

⁹⁰ Principles 2 (b) and 15.

⁹¹ United Nations Sustainable Development <
sustainabledevelopment.un.org/content/documents/Agenda21.pdf > accessed 5 July, 2024

⁹² Chapter 11 of Agenda 21, paragraph 11,12 (e)

political context.⁹³ The IPF was open ended and intergovernmental, thus all countries were eligible to participate in the debate, either as member, or as observers.⁹⁴ Non-governmental organizations, intergovernmental organizations, representatives of major stakeholders,⁹⁵ which are accredited to the CSD, were allowed to participate as observers to the Panel in the same way as in the CSD.

The mandate of IPF was to pursue consensus among the international community and to formulate options for further actions in order to combat deforestation and forest degradation.⁹⁶ It was to promote multidisciplinary action on forests at the international level consistent with the Forest Principles, Rio Declaration and Agenda 21, attesting that these soft law instruments formed the bedrock of the IPF's work in further developing international forest policy. It recognized the need to strengthen co-ordination among international organizations and multilateral institutions in order to provide a holistic and balanced approach to all types of forests. It also acknowledged that there existed no single multilateral body, organization or instrument with either a mandate or capacity to address, in a balanced, holistic and mutually-reinforcing way, all the issues currently on the international agenda, with respect to all types of forests.⁹⁷ Thus, there is an enormous expectation surrounding the outcome of the IPF's work:

It is expected that the Panel will make substantive progress towards international consensus on all areas within its mandate. It is hoped that the Panel's deliberations will result in, among other things, improved national forest policies and development strategies at the national level; better co-ordination and enhanced quality of international co-operation; new approaches to forest resources assessment including social and economic values of forest resources; and improved understanding of environmental implications of harvesting and trade of forest products.⁹⁸

The IPF reported to the fifth session of the CSD in April 1997. The Special Session of the UN General Assembly (UNGASS) in June 1997 adopted its report and specifically the Proposals for Action which represent significant progress and consensus on a wide range of forest issues. The Proposals for Action centred around 11 thematic elements and

⁹³ R. Tarasofsky, "The International Forests: Legal and Policy Issues", IUCN/WWF, Dec. 1995. P. 1

⁹⁴ Beatrice Chaytor, (n. 58), 7

⁹⁵ Including Farmers, women, youth, local authorities, indigenous people, business and industry, the scientific and technological community

⁹⁶ See The Report of the Ad Hoc Intergovernmental Panel on Forests on its Fourth Session (New York, 11-12 February 1997) (Report of the IPF). E/CN.17/1997/12. Paras. 1-2.

⁹⁷ Beatrice Chaytor, (n. 58), 8

⁹⁸ See Forests in the Global Political Debate. The Intergovernmental Panel on Forests: its mandate and how it works at <<http://www.unorg/esa/sustdev/ecn17ipf1996-ifp.htm>> accessed 8 July, 2024.

sub-elements, corresponding to the IPF's programme. However, they impose a political obligation on States to give effect to them at the national level.⁹⁹

5.9.2 The Intergovernmental Forum on Forests (IFF)

It was established essentially for the purpose of continuing the intergovernmental policy dialogue on forests started by the IPF. The General Assembly, at its Special Session acknowledged that dealing with forestry sector issues required “a long-time political commitment to sustainable forest management worldwide.”¹⁰⁰ The IFF was created to maintain the momentum generated by the IPF process. It was noted that the Proposals for Action developed under the IPF process has shown considerable progress and the policy dialogue should continue.¹⁰¹ The outlined mandate of IFF included: Promoting and facilitating the implementation of the IPF proposals for action; reviewing, monitoring and reporting on progress in the management, conservation and sustainable development of all types of forests; considering matters left pending as regards the programme elements of the Intergovernmental Panel on Forests, in particular trade and environment in relation to forest products and services, transfer of technology and the need for financial resources. In the end, the IFF's process closely resembled the outcome of the IPF, which also proposed an on-going forum on forests and continued discussion of a legally binding instrument.¹⁰²

5.9.3 United Nations Forum on Forests (UNFF)

The creation of the United Nations Forum on Forests (UNFF) was considered necessary due to the failure of the ad hoc arrangements to provide or maintain enough momentum towards legally binding commitments on sustainable forest management. They did not singly reflect the significance of forest issues within the wider international environment and development agenda.¹⁰³ It was envisaged that the UNFF will work on the basis of a multi-year programme of work, drawing on elements reflected in the Rio Declaration on Environment and Development, the Forest Principles, Chapter 11 of Agenda 21 and the IPF/IFF proposals for action. It is conceived that these soft-law instruments have shown relevance in the development of forest policy.¹⁰⁴ The first session of the UNFF took place in June 2001 and adopted a Plan of Action for the rest of the UNFF sessions. Each of the subsequent sessions of the UNFF considered: multi-stakeholders dialogues; enhanced co-operation and policy and programme co-ordination; national forest programme; trade; and enabling environment.

⁹⁹ See Report of the International Expert Consultation, Six Country Initiative, 29 June-3 July 1998, Baden-Baden, Germany, p. 1

¹⁰⁰ GA Doc.A/S-19/29, Annex, para. 39

¹⁰¹ Beatrice Chaytor, (n. 58), 10

¹⁰² *Ibid*, 10-11

¹⁰³ *Ibid*, 13.

¹⁰⁴ *Ibid*, 14.

6. NATIONAL LEGAL REGIME ON CONTROL OF DEFORESTATION

With the quest to combat the increasing onslaughts on forests ecosystem by human activities in the search of livelihood which result to deforestation, successive government in Nigeria have made several efforts to address this menace through laws and administrative approaches. To ensure the safety of forest resources for human wellbeing and sustainable development, there are about 445 forest reserves in Nigeria covering about 9, 652, 000 hectares wherein unauthorized activities are disallowed.¹⁰⁵ Also, certain areas are designated as National Parks which are designed for the protection and management of plant and animal species in their enclosed parks/areas. Currently, Nigeria has a total of seven National Parks in existence though the Yankari Game Reserves handed over to the Bauchi State Government at its request in 2006, is still reflected in the Act as one of the National Parks.¹⁰⁶ The above reserves/protected areas were designated to complement the existing laws for the regulation of deforestation and wildlife protection in Nigeria. Some of the national legal regime relevant to the control of deforestation, in no particular order, are but not limited to:

6.1 National Environmental Standards and Regulatory Enforcement Agency (Establishment) Act, 2007

This framework legislation enacted in 2007, repealed the hitherto Federal Environmental Protection Act for lack of, or weak enforcement and poor environmental compliance.¹⁰⁷ The Act establishes a new National Environmental Standards and Regulatory Enforcement Agency (NESRA) charged with the responsibility of regulating and enforcing all environmental laws, policies, guidelines, standards and regulations in Nigeria. The Agency also has the responsibility to enforce compliance with the provisions of international agreements, protocols, conventions and treaties on the environment including climate change, biodiversity conservation, desertification, forestry etc. and such other environmental agreement as may from time to time come into force.¹⁰⁸

The Act empowers the Minister charged with the responsibility of the environment to make and review regulations touching on the protection of the environment including forestry and deforestation. Pursuant to this power, the Agency has made several regulations and related to this work are the National Environmental (Control of Bush, Forest Fire and Open Burning) Regulations 2011, National Environmental (Protection of Endangered Species in International Trade) Regulations 2011 and as well as the National Environmental (desertification Control and Drought Mitigation) Regulations containing

¹⁰⁵ Food and Agriculture Organization, "Annual Book of Forest Statistics", (2000), FAO, Rome <<http://www.fao.org> > accessed 8 July, 2024.

¹⁰⁶ See National Park Service Act, s. 50(2); Nelson, (n.1), 187.

¹⁰⁷ M.T. Ladan, 'Recent Trends in Environmental Regulations in Nigeria: 2011-2013', *NIALS Journal of Environmental Law*. Vol. 4 (2016), 112.

¹⁰⁸ NESREA ACT, s. 7(c).

obligations to utilize best practices and environmental management plans to address forest control.¹⁰⁹

6.2 Nigerian Urban and Regional Planning Act, 1992

As earlier noted in this work, it has been identified that one of the emerging causes of deforestation is urbanization. As the population increases and people tend to move to urban areas, some of the protected areas are being encroached upon through development. There is a clear link between development and environment.¹¹⁰ To ensure that development did not extend to forest reserve areas/protected areas, the Act provides that “an application for land development would be rejected if such development would harm the environment...”¹¹¹ The law empowers the relevant authority to issue a stop work order against any project where such project will reasonably damage the environment and distort the ecosystem and makes it an offence to disobey such order.¹¹² Section 72 of the Act is significant and provides for the preservation and planting of trees for environmental conservation.

6.3 Environmental Impact Assessment (EIA) Act

The Act is the solid foundation for the protection and conservation of the environment. It is viewed as the starting point to solving the various environmental challenges likely to be caused by human activities such as deforestation. This is in agreement with the provisions of Article 14 of the Convention on Biological Diversity which allows for EIA over proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures.¹¹³ The Act reveals that before any person or authority makes a decision to undertake or authorize any activity that may likely or significantly affect the environment, prior consideration of its environmental impacts should first be taken into account while also promoting the implementation of appropriate procedures and encouraging reciprocity of information and adequate consultation.¹¹⁴ It is targeted at protecting lands from the environmental effects of industrial and development activities.

The EIA must contain a description of potential environmental impact and alternatives and possible mitigation measures to these impacts. Where such project is likely to result in unjustifiable, immitigable and significant adverse environmental effects, the Agency (NESREA) will not permit such project to be carried out.¹¹⁵ It is immaterial

¹⁰⁹ Nelson (n.1), 211-214.

¹¹⁰ As it was reported by Our Common Future that “The environment is where we live; and development is what we all do in attempting to improve our lot within that abode. The two are inseparable.

¹¹¹ Nigerian Urban and Regional Planning Act, s. 39(1).

¹¹² Ibid, s. 59.

¹¹³ See CBD, Article 14 (a-e).

¹¹⁴ EIA, s. 1(a-c).

¹¹⁵ Ibid, Ss. 40 and 42.

whether it is intended for economic interest of the country provided it will have adverse effects on the environment. Simply put, the EIA is predicated on proposed development and funding measures appropriate to prevent, mitigate or compensate for unacceptable impacts, while enabling decisions making to put all these into considerations.¹¹⁶

It is mandatory for all agricultural projects involving 50 hectares of land and above to have environmental impact assessment carried out before embarking on the project. Thus, one of the objectives of the EIA requirement for agricultural projects is to eschew embarking on indiscriminate activities that might propel deforestation and desertification. The EIA Act is aimed at preventing the impact of any project on the environment but its enforcement is usually cumbersome in some instances¹¹⁷. Beyond this, the EIA is flawed by lack of public participation. Most times, the concerned entity usually engaged in the EIA without the involvement of the community or persons likely to be impacted by the alleged project and merely submit the EIA report at the Ministry of Environment and other such institutions as evidence of compliance.¹¹⁸ The Act provides for the offence and penalty for failure to comply with its provisions¹¹⁹ but this is hardly enforced¹²⁰.

6.4 Forestry Act, 1937

Forest constitutes a major holding of plant and animal species of all kinds and following the decline of the Nigerian rich tropical primary forests through deforestation and other human activities leading to desertification¹²¹; and in order to ensure the preservation and control of the forests particularly forest reserved areas, the Forestry Act was enacted.¹²² This is the most direct law on forests preservation in Nigeria though obsolete in nature. For the purpose of the Act, forest includes government forest reserves

¹¹⁶ L. Atsegbua, et al, *Environmental Law in Nigeria: Theory and Practice* (Asaba Press Ltd, 2004) 168

¹¹⁷ For example, an environmental baseline study is carried out in Trans-Amadi Industrial Estate of Port Harcourt and such study reveals an overcrowding of facilities emitting dangerous substances beyond the ecosystems absorbing capacity. It becomes difficult and political to determine which of the firms should shut down or be relocated.

¹¹⁸ A. Abdulwahab and E. Ediri, 'Community Shuts Construction of Gas pipeline'. In this case, the people of Igboye Community in Epe Local Government of Lagos State have protested against what it called "failure to meet necessary pre-requisites" by the operators of the Phase 2 Expansion of Escravos Lagos Gas Pipeline Project which passes through their farmland. In their protest they argued that the company embarked on its work without necessary documentation with the community as well as carrying out the required Environmental Impact Assessment. Available at <https://www.vanguardngr.com/2014/12/community-shuts-construction-gas-pipeline>. Accessed 16 November 2018.

¹¹⁹ See s. 60 of the Act. It states that "an offender shall be liable on conviction in the case of an individual to a fine of ₦100, 000 or to 5 years imprisonment and in the case of a firm or corporation to a fine not less than ₦50, 000 and not more than ₦1, 000, 000.

¹²⁰ See *Oronto Douglas v SPDC & 5 Ors* Unreported Suit No: CA/143/97

¹²¹ K. M. Ibrahim & S. I. Muhammad, 'A Review of Afforestation Efforts in Nigeria' *International Journal of Advanced Research in Engineering and Applied Sciences*, Vol. 4 (12) (2015), 25-26

¹²² It came into force on 1st February, 1938 and reprinted in the Laws of the Federation of Nigeria, 1990 as Cap. 507.

and protected forests, and communal forestry areas. Deforestation has many negative environmental problems and one of the main consequences of deforestation particularly in the Northern part of the country is desert encroachment.¹²³

Among other things, the Act prohibits certain activities likely to result to deforestation such as taking of forest produce;¹²⁴ uproots, burns, strips off the bark or leaves from, or otherwise damages a tree; sets fire to grass or herbage, or kindles a fire without taking due precaution to prevent its spreading; pastures cattle or permits cattle to trespass; digs, cuts, turns or cultivate the soil or makes a farm or plantation; resides or erect a building; hunts or fishes etc. and prescribed punishment though not sufficient to drive deterrence .¹²⁵

The Act confers power on the President to constitute a forest reserve in land at the disposal of the government or local authority; land in respect of which it appears to the President on the advice of the Minister that the forest growth on land should be protected or reserved or forest growth be established. And the President may by notice in the Federal Gazette declare a land to be a government protected forest.¹²⁶ The moment there is an order of the President constituting the reserve, no new rights to be acquired in land to be constituted a reserve and no new house shall be built; no tree shall be cut; and no forest produce shall be removed except with approval as provided under the Act.¹²⁷

However, despite the clear provisions of the law that outlaw certain activities and prescribed sanctions, illegal activities in form of logging, burning, firewood fetching etc. are still carried out in the forest¹²⁸ and this constitutes deforestation accelerating desertification and drought. It is argued that the penalty regime of the Act is not forceful to instill deterrent in view of the incessant activities in forest reserve areas ranging from illegal timber harvest, unauthorized grazing, and encroachment etc. Also, the Act is outdated and cannot cope with the current challenges facing forests preservation in the country and need to be reformed.

It is worthy of note that the power conferred on the President under the Act appears to be in sharp contrast with the provisions of the Land Use Act where all the land comprised in the territory of each State in the Federation are vested in the Governor of that State.¹²⁹ Consequently, the exercise of the power as conferred on the President under the Forestry Act, will amount to usurpation of the power of the State Governor under the

¹²³ K. M. Ibrahim & S. I. Muhammad, 'A Review of Afforestation Efforts in Nigeria' *International Journal of Advanced Research in Engineering and Applied Sciences*, Vol. 4 (12) (2015), 25-26

¹²⁴ See Forestry Act 1937, s. 2 Forest produce includes- timber, firewood, charcoal, rubber, fruits, fibres, bark etc. whether found in or brought from forest or not.; and all tress and all other parts or produce of trees not otherwise mentioned in the Act; plants and all parts or produce of such plants; honey, beeswax, humus and all produce from animal etc.

¹²⁵ Ibid, Ss. 48 and 49

¹²⁶ Ibid, s. 4(1) and (2).

¹²⁷ Ibid, s. 19.

¹²⁸ Ss. 48, 49 and 51.

¹²⁹ Land Use Act, Cap. L5, LFN 2004, s. 1.

Land Use Act. It is therefore possible for the President for to make such a declaration in respect of land comprised in the Capital Territory than that of a State. There is therefore the need to avoid statutory conflict by reforming the law. Interestingly, there is a new Forestry Bill before the national Assembly to enact a new Forestry Act that has not seen the light of the day for years now.¹³⁰

6.5 Endangered Species (Control of International Trade and Traffic) (Amendment) Act, 2016

The 2016 amendment Act was enacted to repeal the principal legislation of 1985. The essence of the amendment was to review the fines upwards in order to have a more deterrent effect and reflect the present economic realities.¹³¹ The Act is the vehicle through which Nigeria implemented the provisions of the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). It is aimed at discouraging market in endangered species.¹³² It has been heralded as a significant statutory land mark in giving legislative effect to the government's wildlife conservation policy by effectively prohibiting and regulating specific activities relating to wildlife conservation in the country.¹³³ The law adopted the listing method as it is in CITES.

Unlike CITES, the Act, fails to prohibit or control activities touching on the endangered or threatened plant species. It only prohibits trade in animal species and enumerated them into first and second schedule without flora species. In nutshell, the Act did not regulate trade in plant species which threatened with extinction or likely to be threatened with extinction in future. There is a great lacuna in the Act and persons caught in the exploitation of the forests for trees species such as Mahogany, *Nauclea Diderrichii* (Opepe), *Terminalia Superba* (Afara) etc. cannot be subjected under this Act.

6.6 Land Use Act, 1978

In 1978, as a measure to checkmate activities likely to impair the environment and or cause land degradation, the Land Use Act of 1978 was enacted. Under the Act, all land within the territory of each State of the federation is vested in the Governor of the State to hold in trust for the benefit of the citizens.¹³⁴ The law also provides for the establishment of "Land Use and Allocation Committee" which shall among others things advise the Governor on any matter connected with the management of land¹³⁵. Consequently, the Governor (where the land is in urban area) or the Local Government

¹³⁰ Nelson, (n. 1), 178.

¹³¹ See the Long Title of the Endangered Species (Control of International Trade and Traffic) (Amendment) Act, 2016. The penalties as provided in section 5(1)(a) and (b) of the Principal Act have been amended by substituting for the expression ₦1000 for ₦5, 000, 000 and ₦500 for ₦1, 000, 000. Available at <nass.gov.ng/document/download/9410 > accessed 10 July, 2024.

¹³² Nelson, (n. 1), 225.

¹³³ M.T. Okorodudu-Fubara, *Law of Environmental Protection: Materials and Text, 1st ed.* (Ibadan, Kenhim Press Ltd, 1998), 353-354.

¹³⁴ See Ss. 1 and 2 of the Land Use Act, Cap L5 LFN 2004.

¹³⁵ S. 2(2) (a) of the Act.

Authority (where the land is in rural area) may refuse to grant consent for the use of land that is fragile or that may be prone to desertification in course of the intended use¹³⁶.

Thus, the Law allows government access to land for the overriding interest of the state. It is argued that the Green Great Wall project was made possible through the Land Use Act which enables the government to access such magnitude hectares of land for the project¹³⁷. However, being a law that touches on land development, it is submitted that the Act should be amended to integrate issues relating to environmental conservation such as forestry protection, biodiversity conservation, and drought and desertification control.

6.7 State Laws

The issues relating to the protection of the environment which include the preservation and control of forests are not within the exclusive reserve of the National Assembly to legislate on. Like other matters, the Constitution of Nigeria did not specify the 'protection of the environment' in the exclusive list.¹³⁸ It follows therefore that both the National Assembly and States Houses of Assembly have concurrent legislative powers on forests control.¹³⁹ Consequently, apart from the laws examined above, the various States of the Federation have also enacted laws directly or indirectly regulating human activities that will impair the forests at large. Some of these laws are domesticated from the national laws with little or no changes. Some of the laws are Forestry law, Bush Burning Law etc. The Edo State of Nigeria recently enacted the Biodiversity Law as a direct measure to protect her abundant wildlife species of fauna and flora.¹⁴⁰

7. NATIONAL POLICIES AND PLANS TOWARDS DEFORESTATION CONTROL

The government in taking cognizance of the multi-sectoral problems of deforestation, has developed a number of policies and plans to ensure a concerted national response to the multi-faceted impacts (including its impact on biodiversity conservation) of deforestation on national development. The basic goal of the policies and plans is the conservation of the environment with emphasis on halting land degradation and deforestation, combating desertification and mitigating impacts of droughts on loss of biodiversity and protection of ecologically sensitive sites.

¹³⁶ See Nigeria's National Report on the Implementation of the UNCCD for Submission at the Third Session of the Conference of the Parties, Recife, Brazil, November, 1999.

¹³⁷ S. 28 (2) (b) of the Act.

¹³⁸ The 1999 Constitution of Nigeria, Second Schedule, Part 1.

¹³⁹ Ibid, s. 4.

¹⁴⁰ Nelson, (n.1), 237.

Some of the strategic policies and plans of direct relevance to deforestation control and drought mitigation for enhancement of forestry and biodiversity conservation in Nigeria are the National Forest Policy, 2006 to encourage and support an aggressive establishment of plantations of economic trees of both exotic species, such as teak and indigenous species; and foster the redirection of development resources; 1989 National Policy on Environment reviewed in 1999 to promote inter-sectoral approaches to combating deforestation, desertification and other environmental problems such as biodiversity management, addressing climate change as it affects drought and desertification etc.; National Water Resources Conservation Master Plan (1995-2020) for sustainable utilization of water resources with particular emphasis on the drylands of Nigeria; Green Agenda of the Vision 2010 Report for sustainable human development, control and management of ecological problems including drought and desertification; National Agricultural Policy for the protection of agricultural lands against drought, desertification, soil erosion, flood, and protection and conservation of forest, National Tropical Forestry Action Plan for the protection of forest resources and goal of achieving 25 percent forest coverage in Nigeria, National Conservation Strategy for the conservation of forest, marine, fisheries, forage, wildlife and soil resources etc.

It is important to note that virtually all the supporting policies, plans and strategies to the deforestation, desertification control and drought mitigation are in harmony with NAP activities through which various projects such as Arid Zone Afforestation Project, Pilot Project on Sand-Dune Fixation, Pilot Project on Rangelands etc. were launched to check desert encroachment in Nigeria¹⁴¹. The Federal Ministry of Environment is the lead implementing ministry with other line ministries and agencies such as the Federal Ministries of Agriculture, Finance, Water Resources, National Environmental Standards and Regulation Enforcement Agency (NESREA), Energy Commission of Nigeria, State Environmental Protection Agencies and Local Government Authorities.

8. INSTITUTIONAL FRAMEWORK

It is not enough to have the laws in place but there must be institutions that will implement the laws. Nigeria has a relatively sound institutional framework for implementing policies and enforcing laws that relate to environmental protection. In 1977, the Nigerian Government made the first attempt at desertification control by setting up a National Committee on arid zone Afforestation Programme (AZAP) for in-depth examination of the problems of desertification and to draw up a suitable programme of afforestation geared towards checking desert encroachment.

However, the committee was dissolved sometime in 1985 and its functions were transferred to the Department of Rural Development and River Basin Development

¹⁴¹ I. N. Meduga, et al 'A Comprehensive Approach to Drought and Desertification in Nigeria' *Management of Environmental Quality*, 19 (6) (2008), 697, 700

Authority (RBDA) in the then Federal Ministry of Agriculture, Water Resources and Rural Development. The RBDA was reorganized in 1987 and its afforestation functions transferred to the Forestry Department of the Federal Ministry of Agriculture and Natural Resources (MANR) (now Federal Ministry of Agriculture and Rural Development)¹⁴². The Forestry Department is responsible for forestry matters, including the implementation of afforestation programmes and projects as a means of checking the menace of desertification which is one of the drivers of deforestation.¹⁴³ The National Parks Service is also another body responsible for the management of all national parks in Nigeria to ensure the conservation of plant and animal species as a means of controlling deforestation as well as desertification.

But sequel to the 1988 Koko waste dump incident¹⁴⁴ which revived the pace of institutionalization of environmental protection in Nigeria, the Federal Environmental Protection Agency (FEPA) as a key body for environmental protection in the country was established through Decree No. 58 of 1988.¹⁴⁵ However, in 2007, FEPA was repealed and replaced by National Environmental Standards and Regulations Enforcement Agency (NESREA).¹⁴⁶ NESREA is now the key federal enforcement agency responsible for enforcing all environmental laws, standards, regulations, rules, policies and guidelines in Nigeria¹⁴⁷. It is the incumbent federal body charged with the protection of Nigeria's environment.

The functions of the Agency include the enforcement of compliance with laws, guidelines, policies and standards on environmental matters; coordinate and liaise with stakeholders, within and outside Nigeria, on matters of environmental standards, regulations and enforcement; enforcement of compliance with the provisions of International agreements, protocols, conventions and treaties on the environment, including climate change, biodiversity conservation, desertification, forestry, oil and gas, chemicals, hazardous wastes, ozone depletion, marine and wildlife, pollution, sanitation and such other environmental agreements as may from time to time come into force; enforce compliance with guidelines and legislations on sustainable management of the

¹⁴² It should be noted that the Federal Ministry of Agriculture and Rural Development is co-ordinates annual Tree Planting Campaigns throughout the country and implements projects on afforestation, woodlot plantations, plant nursery and so on s measures geared towards combating deforestation and desertification.

¹⁴³ A. E.Abuza, 'The Law and Policy on curbing Desertification in Nigeria: A Contemporary Discourse', *Journal for Juridical Science*, 42(2), (2017), 86

¹⁴⁴ Where an Italian firm dumped five ships loads of toxic wastes at Koko, a small port town in the then Bendel State of Mid-Western Nigeria and now in the present day Delta State, Nigeria.

¹⁴⁵ The Agency was probably the most far-reaching initiative undertaken by the Federal Government of Nigeria for the purpose of addressing the multifarious environmental problems including drought and desertification.

¹⁴⁶ NESREA Act was accented to by President Olusegun Obasanjo into law on 30th July 2007 and repealed FEPA.

¹⁴⁷ NESREA Act, S. 1 (2)(a).

ecosystem, biodiversity conservation and the development of Nigeria's natural resources etc.¹⁴⁸.

The concern to protect the environment gave rise to the creation of the Federal Ministry of Environment in June 1999 by the then President Chief Olusegun Obasanjo to ensure effective coordination of all environmental matters, which were hitherto fragmented and resident in different ministries.¹⁴⁹ The creation of the ministry was intended to ensure that environmental matters are adequately mainstreamed into all developmental activities. The mission of the Ministry is to ensure environmental protection, natural resources conservation and sustainable development. The main functions of the Ministry revolve around the following key issues, especially in the area of policy awareness, enforcement and intervention: Desertification and deforestation; biodiversity conservation; pollution and waste management; climate change and clean energy; flood, erosion and coastal management (shoreline protection); environmental standards and regulations. The Ministry is comprised of departments each charged with distinct environmental responsibility.

At present, Nigeria has established a lot of general and specific institutions with the mandate to set environmental standards; make environmental regulations, monitoring, ensuring compliance with and enforcement of environmental laws, guidelines, regulations including international environmental conventions to which Nigeria is a State Party. It is instructive to say that these institutions have demonstrated enormous commitment in environmental protection including combating of land degradation and deforestation. Nevertheless, the desired level of curbing desertification in the country has not been met due to weak institutional capacity to effectively implement sustainable forest management strategies characterized by some inherent challenges affecting their productivity such as corruption, lack of political will, inadequate funds, lack of equipment for monitoring, and inadequate personnel for the forest reserves and protected areas etc.¹⁵⁰

9. CONCLUSION

The paper painstakingly examined the impact of deforestation on Nigerian rich biodiversity. Nigeria is a country blessed with biodiversity of both domestic and international importance providing several ecosystem services for the population well-being. Despite the essential benefits provided by biodiversity, the country consistently witnesses loss of biodiversity through several causes. It is the finding of this paper that deforestation is one of the major drivers of biodiversity loss in the country. Deforestation occurs on daily basis because of the attached reliance on forests derivatives. There is

¹⁴⁸ NESREA Act, S.7.

¹⁴⁹ Available at www.environment.gov.ng/index.php/about-Moe. Accessed 11 January, 2019.

¹⁵⁰ A. E. Abuza, (n.143), 87-88.

unprecedented and irreversible loss of biodiversity in recent times necessitated by elimination of natural habitats through deforestation.

This onslaught occurs irrespective of the existing legal regime on the protection of the environment. It is clear from the examination of the relevant legal framework that none of them directly addresses the core environmental challenges of deforestation save for Forestry Act 1937 which appears to be obsolete and not coping with the present incessant deforestation in the country. Thus, it is the recommendation of this work amongst others that the Forestry Act of 1937 should be repealed and replaced with a more modern and comprehensive law on forests protection raising the penalty/punishment regime high enough to ensure deterrent and dissuade people from venturing into unregulated activities in the forests. And because most of the forests are found at the community level, there should be community engagement and participation in forest control activities and provision of alternative livelihood options so as to shift the attention of the community from forests harvesting. Above all, the available laws must be adequately enforced against defaulters, strengthen institutional capacity and ensure effective monitoring of the illegal activities in the forests.