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The Threat to Biodiversity in Nigeria: The Law and Participatory Development Theory to the Rescue

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Abstract

The survival of mankind depends solely on biodiversity and ecosystems. The functions and benefits of biodiversity in the life of mankind are enormous because it is from biodiversity that mankind gets its food, water air and all other natural resources with which life continues to flourish. Notwithstanding the enormous benefits derivable from biodiversity, the activities of human are causing an alarming rate of threat to biodiversity resulting to destruction of natural habitat. Threats are on biodiversity in Nigeria through various human activities such as tree felling, hunting, bush burning, agricultural intensification and many others. The aim of this article is to examine how instrument of law and participatory development theory can come to the rescue by arresting the incessant attack on biodiversity. Thus, it is suggested that machinery be put in place by the government for the enforcement of the instrument of law put at all levels. More importantly, the local people who are mostly pruned to threatening biodiversity be involved in not only the law making process of biodiversity conservation but also be involved in all other policies towards arresting the incessant threat to biodiversity

Key Words: Threat, Biodiversity, Law, Participatory Development Theory

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Introduction

In recent times, particularly over the last two and half decades, African continent, where Nigeria is located, has experienced serious food insecurity and manifestations of poverty which are partly due to environmental degradation. Loss of biodiversity is one of the forms of such degradation, and it has been due to various causes that are linked to excess demand for biological resources, as compared to the supply of these resources. There is only a limited supply of biological resources to meet the needs of growing populations of urbanizing communities, and global trade. In some cases the demands on species and ecosystems far exceed their natural rates of regeneration. Over exploitation thus results to the collapse of certain biological systems.⁹²²

Africa's economic and social welfare is integrally linked to the prevailing state of its biological diversity; and countries, like Nigeria, therefore, have a profound interest in the good management and sustainable utilization of biological diversity.⁹²³ Human being requires biodiversity as it guarantees food, raw material, recreation, stable climate, medicine, etc. Most of the elements of biodiversity are however subject to human ownership and constitute property. This concept of property really refers to the legal power to exclude or control the relationships of other persons. Therefore, the conservation of biodiversity at a macro level enjoins us to consider it essential to human and economic survival of nations⁹²⁴.

The biodiversity resources of Nigeria are fast diminishing and they could be exhausted within the next century. Economic development with concomitant increase in population, raising the standard of living and cash-cropping, is resulting in large-scale destruction of natural ecosystems.⁹²⁵ Approximately 11 per cent of the total area of the country is reserved forest estate. Out of this, 80 per cent is savannah woodland and 20 per cent or 2 per cent of the total land area is high forest which is the source of the country's timber and non-timber forest products. According to the Side Looking Airborne Radar (SLAR) interpretation, the area of the forest estate in Nigeria covers an area of 1,825,821 hectares. within this area swamp, riparian and mangrove forest occupy 369,080 hectares while rubber, oil palm and raphia palm occupy 44,379 hectares and other mosaic forest/swamp, farmland cover 315,632 hectares. The mangroves and

⁹²² Africa Environment Outlook News Release 2002/50 p 1-4; Also UNEP (2006) Africa Environmental Outlook

⁹²³ UNEP, Nairobi, Kenya (2006) and (2002) – Africa Environmental Outlook – Policy and Action Recommendations for a Sustainable Future 2-3

⁹²⁴ IUCN- THE World Conservation Union (1994) – A Guide to the Convention on Biological Diversity Environmental Policy and Law Paper No. 30

⁹²⁵ Ibid

swamp forest present problem for exploitation because of their flooded conditions. Forest inventory have an estimate of nearly 283,200,000m of standing mangrove timber.⁹²⁶

This article is divided into six parts. Part one focuses on the descriptive nature of biodiversity species and its importance to mankind. Part two discusses the various biodiversity components in Nigeria with particular reference to their locations. Part three also discusses the threat to biodiversity stemming from human activities like agricultural intensification, bush burning, tree felling amongst others. Part four focuses on the instrument of law put in place to check the incessant assault on biodiversity. Part five discusses the theory of participatory development that is involvement of the local people who mostly reside in the location or site of biodiversity in the law and policy making process towards biodiversity conservation. The article is concluded with a succinct summary and recommendation

Biodiversity in Nigeria

Nigeria is rich in biodiversity and recognized among the areas of the world with similar levels of endemism and species abundance due to its multifaceted topography and a wide variety of habitats. These include but are not limited to coastal creeks of the Niger Delta, the rainforests of the Cross River basin, the mountain ranges along the Nigeria - Cameroun border;⁹²⁷ and the Atlantic Ocean at the southern border of Nigeria with its highly diverse marine and freshwater ecosystems. There also exists an inland layout array of other forest and woodland ecosystems, Sudan Savannah and Sahel/Semi-desert belt in the northern part of Nigeria. With very extensive and broad based river systems that emerge out of the two largest Rivers – Niger and Benue, Nigeria has a huge watershed resource which supports agriculture, navigation and commerce. There are three major plateau landscapes: in the central part -Jos, the south eastern end Obudu and the north east - Adamawa and Mambilla; these contain the topmost land peaks in Nigeria, where altitude approaches about 1800m. Each of these ecosystems has its own unique characteristics of wild fauna, higher and lower floral species and a huge collection of marine and freshwater aquatic species. In species diversity and endemism, Nigeria is highly endowed⁹²⁸.

⁹²⁶ Ibid

⁹²⁷ World Conservation Society 2015

⁹²⁸ Borokini T. I "A Systematic Compilation of Endemic Flora in Nigeria for Conservation Management (2014) 6 Journal of Threatened Taxa 6406-6426

However, overall, biodiversity in Nigeria is highly threatened due to land use from agriculture, overgrazing, over-exploitation of natural resources through extractive actors, invasive species and environmental pollution. According to the IUCN⁹²⁹, Nigeria has a total of 309 threatened species in the following taxonomic categories: Mammals (26), Birds (19), Reptiles (8), Amphibians (13), Fishes (60), Molluscs (1), other Invertebrates (14) and Plants (168).⁹³⁰ Biodiversity is the variability of life, and encompasses diversity at all levels of organization from the genetic through populations, species, ecosystems and landscapes. However, it most clearly manifests in the variety of different kinds of organisms and habitats in the world. It is the variety of organisms, interacting with the physical landscape that creates the range and diversity of ecosystems. At global level, biodiversity is very unevenly distributed, that is, some parts of the world are far more biologically diverse than others. The pattern is complex but by no means random. The most important overall trend, manifest in terrestrial, freshwater and shallow water marine systems, for species diversity to increase from the Polar Regions to the equator. This is because in general, warmer areas are more diverse than colder areas. On land, there is also a general trend for areas with more rainfall to be more diverse than drier areas. Geographical variations in diversity are very marked. There are, for example, differences of two or three orders of magnitude in the diversity of - for example, tree species in forests between arctic latitudes and equatorial ones.⁹³¹

Nigeria is a diverse country with many different natural habitats, including savannahs, tropical forests, wetlands, lakes, rivers, and coastal areas. Rainfall is heaviest along the coast and in the southeast, leading to the development of rainforest in this region. By contrast, the northern part of Nigeria receives less rain and includes increasingly drier vegetation zones further north. Three different highland areas are found in Nigeria: the Yoruba highlands in the west, the Jos plateau in the centre of the country, and the mountains bordering Cameroon in the east. This diversity of landscapes and climatic conditions results in a corresponding diversity in the plants and animals found there. There are many diversity species in Nigeria and the same have been documented through the research conducted by USAID/NIGERIA.⁹³² These include, Savannah

⁹²⁹Sedghi A. "Red List 2013- Threatened Species across the Regions of the World. The Guardian Retrieved from <http://www.theguardian.com/news/datablog/2013>

⁹³⁰ Ibid

⁹³¹ Nigeria: Fifth National Biodiversity Report 2015

⁹³²USAID/NIGERIA 'Nigeria Biodiversity and Tropical Forestry Assessment' (Published by United States Agency for International Development USAID 2008)

Grassland and the Arid North, Lowland Rainforests, Freshwater Swamp Forests, Savannah woodlands, Riparian Forests, Mangrove Forests, Montane Forest, Freshwater Ecosystems and Coastal Areas.

On the other hand, Nigeria is also blessed with some flora and fauna that are valuable for the well-being of the citizens and for the economic growth of the country. Nigeria is a country with diverse landscapes and rainfall regimes and a correspondingly high diversity of biological niches harbouring many different species of plants and animals. In global studies of biological diversity, Nigeria can be found near the top of the list, especially when it is considered as part of a region variously defined by different international NGOs as the Gulf of Guinea Forests, the Cameroon Highlands Eco-region, the Cross Sanaga Faunal Region, or Cameroon-Nigeria Trans-boundary areas. No matter what this area is called or exactly how it is defined on a map, the tropical forests, montane forests, and high altitude plateaus that Nigeria and Cameroon share at their borders contain a wealth of biodiversity and many species still to be discovered. Similarly, due to the coastal mangrove and swamp forests with their own attendant species, the arid savannahs and grassland in the north, the important freshwater wetlands, and various specialized pockets of unique vegetation, it is easy to see why Nigeria's biodiversity has gained global attention. Thus, USAID/NIGERIA⁹³³ provides for those plant and animal alike that are most valuable in Nigeria. These include Mammals, Birds, Lower Vertebrates, Invertebrates, and Plants.

Threats to Biodiversity in Nigeria

Nigeria contains a few large patches of natural lowland and montane forests, important freshwater wetlands, savannas, high-altitude plateaus, mangroves, and coastal areas under various climatic conditions, resulting in an internationally recognized abundance of biodiversity. Unique primate species like the Cross River gorilla (*Gorilla gorilladiehi*), the drill (*Mandrillus leucophaeus*), and a number of smaller guenons are found only in Nigeria and adjacent forest areas. An extraordinary diversity of butterflies, amphibians, and other species has been tallied in Nigerian habitats. Many crop species also originated here, and a diversity of land races still exists in the country.⁹³⁴ Surrounding these remnant natural areas are villages,

⁹³³USAID/NIGERIA (See note 11 above)

⁹³⁴ Ibid

agricultural lands, and cities. As the most populous country in Africa, Nigeria faces extreme pressures on biodiversity and tropical forests that are mounting. Wildlife, trees, and many other plants are overharvested and poached, and the natural environment faces increased degradation from expanding unsustainable agriculture, water pollution, air pollution, and a variety of other anthropogenic factors. Desertification and climate change add to the stress. Lack of information about the present status of most habitats and species, about the actual extent of protected areas, and about other key data makes management difficult.⁹³⁵

Nigeria is a landscape dominated by people, and the population continues to grow about 2.4 percent per year⁹³⁶. The natural resources of the country do not grow similarly and continue to be degraded and depleted due to the increasing demands of people (and their associated industries) for water, food, fuel, and income.⁹³⁷ The implication of these losses is that many plants and animals, including many potentially valuable species are on the fast track to extinction. The USAID Report on Biodiversity and Tropical Forestry Assessment⁹³⁸ recorded that there are many-too many environmental threats in Nigeria affecting biodiversity. A National Assessment⁹³⁹ confirmed the reality of high rise and fast tracked increased in biodiversity loss in Nigeria. Thus, the major underlying factors responsible for the continuous degradation of biodiversity in Nigeria are high population growth rate, poverty, policy and legislation constraint, poor land use planning, governance and transparency, socio-cultural characteristics, food and trade connections, effect of climate change.⁹⁴⁰

The underlying factors stated above responsible for threats on biodiversity are categorized into three major areas namely:

- (i) Habitat Degradation – unsustainable Agricultural practices, unsustainable harvesting of bio resources and extractive industries and their activities
- (ii) Unsustainable natural resources harvesting which includes poaching, fuel-wood consumption, illegal logging, uncontrolled, illegal and bad mining practices, and

⁹³⁵ Ibid

⁹³⁶ Ibid

⁹³⁷ Ibid

⁹³⁸ 2002

⁹³⁹ Nigeria Conservation Foundation 2012

⁹⁴⁰ Nigeria: Fifth National Biodiversity Report 2015

- (iii) Unsustainable harvesting of non-timber forest products which include pollution, gas flaring, invasive species, over-grazing and bush fires.⁹⁴¹ In addition, indiscriminate hunting, acid rain, land reclamation, dams, soil erosion, misuse of use of pesticides, low investment have also been attributable to biodiversity degradation in Nigeria⁹⁴²

The Law of Biodiversity in Nigeria

It is important to note that there are many international and national instruments regulating the conservation of biodiversity conservation in Nigeria. The international instruments are in the form of resolutions, declarations and conventions that deal with biodiversity conservation and to which Nigeria is a signatory. The conventions create obligations for the Parties, and are required to be implemented once they entered into force. They are, in this regard, “hard law” as contrasted to the resolutions and declarations, which are regarded as “soft law”.⁹⁴³ “Soft law” is not binding in law, except for the spirit that guided the participants. Quite often the path charted by “soft law” is what crystalizes into binding conventions; thus, compliance with soft law is a fair reflection of a Party’s commitment to the terms of the relevant convention.⁹⁴⁴ Some of these instruments address biodiversity in express broad terms, while others are concerned only with specific components of biodiversity. Thus, the following are the related conventions on biodiversity that have provided the fundamental principles of conservation:

- (a) Convention on Fishing and Conservation of the Living Resources of the High Seas (Geneva, 1958)⁹⁴⁵
- (b) African Convention on the Conservation of Nature and Natural Resources (Algiers, 1968)⁹⁴⁶
- (c) Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 1971)
- (d) Convention for the Protection of the World Cultural and Natural Heritage (Paris. 1972)⁹⁴⁷

⁹⁴¹ Ibid 16-28

⁹⁴² Ladan, M. T. *Natural Resources and Environmental Law and Policies for Sustainable Development in Nigeria* (Ahmadu Bello University Press Limited, Zaria 2014) 65 79-85

⁹⁴³ Ibid, page 67

⁹⁴⁴ Ibid page 67

⁹⁴⁵ Ratified by Nigeria on 25/4/1961

⁹⁴⁶ Ratified by Nigeria on 7/5/1974

⁹⁴⁷ Ratified by Nigeria on 23/10/1974

- (e) Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington D C, 1973)⁹⁴⁸
- (f) Convention on Migratory Species of Wild Animals (Bonn, 1979)⁹⁴⁹
- (g) United Nations Convention on the Law of the Sea (Montego Bay, 1982)⁹⁵⁰
- (h) Convention on Biological Diversity (Nairobi, 1992)⁹⁵¹
- (i) Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (Lusaka, 1994)
- (j) United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification. Particularly in Africa (Paris, 1994)⁹⁵²

It is important to note that there exist many other conventions which also contain the principles of biodiversity conservation, but those listed above, by dint of their broad-based global or regional character, and their centrality in Africa's participation in environmental treaty-making, can rightly claim to provide the vital directions in biodiversity conservation in Africa⁹⁵³

It is to be noted that the above listed conventions are not in all respects identical. For example, the 1971 Ramsar Wetlands Convention is concerned with the general development of wetlands, including their protection and management as habitat for biological diversity. The kind of biodiversity conservation in contemplation here is clearly – in essence – in-situ conservation. The 1979 Bonn Convention is concerned with migratory species of wild animals, and again, embodies a concept that is broader than in situ conservation.⁹⁵⁴ Also, both the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention to Combat Desertification (CCD) are, for the most, part concerned with other objects except that they touch on biodiversity at various points. UNCLOS, for instance, has a much wider scope, concerning the entire legal regime for the seas and oceans, but it also deals with the subject of marine biological resources.⁹⁵⁵

The objective of the Convention to Combat Desertification (CCD) is to “combat desertification and mitigate the effects of drought in countries experiencing serious drought

⁹⁴⁸ Ratified by Nigeria on 9/5/1974

⁹⁴⁹ Ratified by Nigeria on 15/10/1986

⁹⁵⁰ Ratified by Nigeria on 14/8/1986

⁹⁵¹ Ratified by Nigeria on 29/8/1994

⁹⁵² Ratified by Nigeria on 8/7/1997

⁹⁵³ Ladan M. T (See note 22 above)

⁹⁵⁴ Ibid

⁹⁵⁵ Ibid

and/or desertification, particularly in Africa.⁹⁵⁶ One of the strategies for achieving that objective is “long term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land and water resources.”⁹⁵⁷ It is evident from this strategy, and from the interconnectedness of land and water with biodiversity in the overall ecological process, that one of the Conventions to Combat Desertification preoccupations is the Conservation of biological diversity. Also, important to note are the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the 1992 Convention on Biological Diversity (CBD). Notwithstanding the significance of the two conventions to the conservation of biodiversity, the two have significant differences. Whereas, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is confined to international trade issues touching on endangered species of fauna and flora, Convention on Biological Diversity has the broadest sweep that covers all biological diversity as well as both in-situ and ex-situ conservation, all over the world.

Against the backdrop of the foregoing international instruments on biodiversity conservation, it is important to note that there are national and municipal laws enacted by the Nigerian government to regulate the biodiversity conservation. Principal among which is the Constitution of the Federal Republic of Nigeria,⁹⁵⁸ the National Environmental Standards and Regulation Enforcement Agency Act,⁹⁵⁹ National Effluent Limitation Regulations,⁹⁶⁰ National Environment Protection (Pollution Abatement in Industries and Facilities Producing Waste) Regulations,⁹⁶¹ Federal Solid Hazardous Waste Management Regulations,⁹⁶² Environmental

⁹⁵⁶ Article 2. 1 of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (Paris, 1994)

⁹⁵⁷ Article 2. 2 Ibid

⁹⁵⁸ Sections 20, 33, and 34 of the 1999 Constitution of the Federal Republic of Nigeria; which makes it an objective of the Nigerian State to improve and protect the air, water, forest and wildlife in Nigeria as well as a guarantee of fundamental human rights to life and dignity, the latter having been linked to the need for a healthy and safe environment to give the rights effects thereto

⁹⁵⁹ Section 7 of the NESREA Act 207 which provides that authority must ensure compliance with environmental laws, local international, on environmental sanitation and pollution prevention and control through monitoring and regulatory measures

⁹⁶⁰ Section 1 (1) which requires industry facilities to have anti-pollution equipment for the treatment of effluent

⁹⁶¹ Sections 4 and 5 of the Regulations (1991) require industries to report a discharge if it occurs and to submit a comprehensive list of chemicals used for production to the agency

⁹⁶² Section 1 and 20 of the Regulations (1991) which make it an obligation for industries to identify solid hazardous wastes which are dangerous to public health and the environment and to research into the possibility of their recycling as well as to make notification of any discharge to the Agency

Impact Assessment (EIA) Act,⁹⁶³ The Nigerian Urban Regional Planning Act⁹⁶⁴, Hydrocarbon Oil Refineries Act,⁹⁶⁵ The Endangered Species Act,⁹⁶⁶ Sea Fisheries Act⁹⁶⁷ and Convention on Biological Diversity.⁹⁶⁸ There are in existence in Kwara State, Nigeria presently Bush Burning (Control) Law⁹⁶⁹, Charcoal Production (Prohibition) Law⁹⁷⁰, Environmental Sanitation Law⁹⁷¹ and Forestry Law⁹⁷² to regulate biodiversity conservation in Kwara State. These legislations by the various provisions created a strict regime setting out regulations that make protection, preservation and conservation mandatory by all users of environment. In addition, government as well as the user of biodiversity is charged with responsibility of providing adequate measures to curb and arrest any impending threat to biodiversity. It also required that a principle of restoration and regeneration is adopted in order to sustain biodiversity from extinction.

⁹⁶³Section 2 (1) & (4) of the Act Cap E12 Laws of the Federation of Nigeria 2004 which require an assessment of public or private projects likely to have significant (negative) impact on the environment and also provide for mandatory writing to the Agency before embarking on projects for their environmental assessment to determine approval

⁹⁶⁴Section 72 of the Act Cap N138 Laws of the Federation of Nigeria 2004 provides that the preservation and planting of trees for environmental conservation

⁹⁶⁵Section 9 of the Act Cap H5, Laws of the Federation of Nigeria 2004 which provides for that refineries must maintain pollution prevention facilities

⁹⁶⁶Section 7 of the Act, Cap E9, Laws of the Federation of Nigeria 2004 which provides for regulations to be made necessary for environmental prevention and control as regards the purposes of this Act

⁹⁶⁷Section 14 (2) of the Act, Cap S4, Laws of the Federation of Nigeria 2004 which provides authority to make for the protection and conservation of sea fisheries

⁹⁶⁸Article 8 (a) of the Convention on Biological Diversity 1992 which provides that each Contracting Party shall establish a system of protected areas where special measures are to be taken to conserve biological diversity. The conservation of ecosystems and natural habitats and the maintenance and recovery of viable population of species in their natural surroundings where they have developed their distinctive properties are made paramount importance to the preservation of biological diversity. This eventually spur the Federal Government to enact legislations on in-situ conservation such as the National Park Service Decrees Cap N65 Laws of the Federation of Nigeria, the Decree having been linked similar to Article 8 of the Convention on Biological Diversity 1992

⁹⁶⁹Sections 3 and 8 of the Law Cap B6 Laws of the Kwara State of Nigeria 2010; These sections provide for prohibition of bush burning without permit and the power of the Governor to ban bush burning in specified areas.

⁹⁷⁰Section 8 of the Charcoal Law, Cap C8 Laws of the Kwara State of Nigeria 2010; The section prohibits the burning of any tree or wood and that all licenses and permits granted to any person or body of persons before the enactment of the law to produce charcoal in any part of the State is hereby revoked

⁹⁷¹Sections 13, 38, 39, 48, 49, 58, 59, 60, 61, 62, 63, 64, 65 and 66 of the Law Cap E4 Laws of the Kwara State of Nigeria 2010. The gist in the provisions of these sections is to the effect that the Agency shall power to carry on all environmental protection activities to enhance the achievement of the objectives of the Agency. Prohibitions of series of activities that are inimical to the environment are also provided so as to ensure adequate protection of the environment resulting from human activities

⁹⁷²Sections 31, 32, 33, 34 and 36 of the Law Cap F5 Laws of the Kwara State of Nigeria 2010 provide inter alia for the powers to establish an area to be known and called protected forests as well as the power to control and manage the forests for the purpose of protecting same from human activities

Participatory Development Theory and Biodiversity Conservation

There is no gainsaying the fact that most of the biodiversity components are mostly found in rural areas. It is also not out of place that basic needs for the survival of mankind are rarely found in the rural areas. It then becomes imperative for rural people to resort to tampering with the biodiversity species for survival. Therefore, tree felling, bush burning, agricultural intensification, pouring acidic chemicals into the rivers and streams meant for domestic use in order to catch fish as well as hunting for wild animals are mostly practiced in rural areas. For this reason, the need to involve the rural poor in the formulation of policies to conserve biodiversity is significant to achieve the desired goal. The participatory development theory is a theory that seeks to engage local populations in developmental projects. It has taken a variety of forms since it emerged in the 1970s when it was introduced as an important part of the “basic needs approach to development.”⁹⁷³ There is also what is called participatory development communication - it is a theory and practices of communication used to involve people in the decision-making of the development process. The purpose of communication is to make something common, or to share meanings, perceptions, worldviews or knowledge.⁹⁷⁴ Practice participatory development is many things to many people. The motivation to use participatory development methods and the approach to its practice depends upon one’s perspective on, or philosophy of development. It can be a manipulative tool to engage people in a pre-determined process, an expedient way to achieve results, or an attempt to support a democratic, empowering process. The emergence of participatory development encompasses a confluence of several theoretical shifts spanning feminism, environmentalism, critical pedagogy and a critique of development itself. From the South, there is an increasingly strong critique of development. Shiva⁹⁷⁵ is one of the writers on participatory development which she sees as a continuation of the colonial experiment. Worster⁹⁷⁶ & Rees & Wackernagel⁹⁷⁷ posited that the rise of the environmental movement in the past thirty years has also gradually had an impact on participatory development, bringing the rest of nature into the discussion of participation.

⁹⁷³ <http://en.m.wikipedia.org.wiki> accessed on the 20/9/2019

⁹⁷⁴ Ibid

⁹⁷⁵ Shiva V. *Staying Alive: Women, Ecology and Development* (Zed Books, London 1989)

⁹⁷⁶ Worster D. *Nature’s Economy: a History of Ecological Ideas* (Cambridge University Press Cambridge 1994)

⁹⁷⁷ Rees W & Wackernagel M. *Our Ecological Footprint: Reducing Human Impact on the Earth* (New Society Publishers, Gabriola Island, British Columbia 1996)

Participatory development process allows for representation, consultation, information flow, mediation, negotiation, deliberation and influencing decision by the people in policy formation and implementation. In other words, participation is the vehicle through which representation, consultation, negotiation and deliberation is achieved and support for organizational goals is achieved. It is also an information medium and a way of eliciting the people's motivation, commitment and loyalty. In addition, it is a coordinating mechanism which comprehends formal control processes which are cumbersome and time consuming.⁹⁷⁸ Participation encourages communities to be involved in the process of decision making and the influencing of how resources are utilized which increases the self-esteem of individuals and households, stimulates community organizations and enhances communities' capacities to negotiate with other parties including external agencies. It is also important to note that participatory development theory entails more than allowing people to participate alone in the policy making. It involves the local people who live in rural areas where most of the biodiversity species are found. There is the need to involve the local people in the identification of the problems resulting to degradation of biodiversity. This is followed by also involving the local people in the design of the policy that will enhance the desired result. Not only that, the local people are also to be involved in the monitoring of the policy put in place as well as the evaluation of the policy whether it is yielding the desired result. More importantly, the local people are to be involved in the implementation and enforcement of the instrument of law and policies put in place by the government to stem the tide of biodiversity degradation.

Conclusion and Recommendation

The government has put in place instrument of laws at various levels to stem the tide of the alarming rate of threat to biodiversity. The law can only be potent if necessary mechanisms are put in place by the government for the enforcement of the law. However, the enforcement of law to checkmate biodiversity is not effective. The local people who live in rural areas where the vast expanse of biodiversity are neither aware of the law; nor is the enforcement of the law carried to the rural areas for its effectiveness. That being the case, the threat to biodiversity can

⁹⁷⁸ Ijaiya G. T "Participatory Development and Poverty Alleviation in Nigeria: An Analytical Framework Nigerian Forum vol. 23 Nos 1-2 2002 Nigerian Institute of International Affairs, Lagos, Nigeria

only be checked by the involvement of the local people in the policy making including the law making process, and enforcement.

To this end, it is suggested that machinery be put in place by the government for the enforcement of the instrument of law at all levels. More importantly, the local people who are mostly prone to threatening biodiversity be involved in not only the law making process of biodiversity conservation but also be involved in all other policies towards arresting the incessant threat to biodiversity and stem the tide of biodiversity degradation.