

Environmental  
Degradation And  
Sustainable Economic  
Development In Nigeria:  
A Theoretical Approach

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## ABSTRACT

There are many socio- economic and environmental challenges associated with living in our environment today. However, successive Nigerian administrations from the colonial era paid little attention to environmental issues. This paper examined the effects of environmental degradation and the risk or threat it poses to sustainable economic development in Nigeria. The paper adopted the theoretical approach in the evaluation of the effects of environmental degradation on Nigeria and its implication for sustainable economic development. The paper posited that a high number of cases of diseases such as cancer, tuberculosis, viral diseases etc. are consequences of environmental pollution which poses great challenge to sustainable economic development among others. Cases of floods, erosions and drastic drop in agricultural output as a result of environmental degradation were also identified. The paper therefore submitted that since our national development policy objective is to achieve rapid economic growth and improvement in individual welfare on a sustainable basis a range of enabling policies, economic instruments and incentives are required to propel this development process in the desired direction.

**Keywords:** Environment, Environmental degradation, Natural resources, Sustainable economic development

## 1.0 INTRODUCTION

Generally, speaking problems with environmental degradation are often linked with process of development and therefore have effects on local, regional, as well as global levels. These effects which are the result of human activities have devastating consequences on the environment and so are harmful on human beings, animals and plants and can be passed on to future generations. (Acho, 1998; Danish International Development Agency, 2000; Kjellstrom and Mercado, 2008). In the face of global economic recession environmental degradation poses a great challenge to sustainable development.

There are many problems, challenges and opportunities associated with living in the environment today. The earth and its treasure base, is experiencing a siege from all aspects of human endeavours ranging from misuse, abuse and degradation of the environment that have become so easily spotted and there are disruptions every day and almost everywhere. Cultures, economic activities, cultural behaviours and livelihood practices are changing and changing fast as a consequence of the realization that when people have power to extract resources around them for a more fulfilling life, they sometimes unleashed such power with a sense of desperation to solve the increasing and mounting problems of survival and progressive improvement and this leads to environmental degradation. Thus, the desperate quest for self, family or organisational improvement is no longer a future threat but real threat for the future. To look up to the future with optimism, depends to some reasonable extent on how we are able to set the stage for tackling environmental degradation problems of today. This requires an intelligent and well co-ordinated balance has to be maintained between integrated

socio-economic development on the one hand, and lifelong preservation of human life and natural resources of mother earth on the other. Human beings are an end in themselves while every other thing is seconded to it without compromising the integrity and sanctity of the human species on earth. It is worth mentioning here that whenever there is an exhibited mismatch between human production systems and practices, and specific attributes of the resource base of the environment, a reversal of such inhibiting mismatch becomes imperative for the restoration of ecological balance.

Over the years colonial, military, as well as civilian administrations in Nigeria have not given the required attention needed to environmental issues. As a result of the afore-mentioned environmental resources and their harmonious relations with nature have suffered dire consequences for decades and this remains one of the most intricate problems in Nigeria. Examples of these environmental hazards which have suffered neglect include the gully erosion in the east, the seemingly devastating effect of solid mineral mining on the plateau and the encroaching of desertification in the north to mention a few. The effect of this neglect can be further seen in the Niger delta geopolitical zone of Nigeria where gas flaring and oil spillage in the Niger Delta has wrecked tremendous damage on eco system, health and livelihood of the people. Thus, exploitation of finite and renewable resources of the environment which was meant for sustained economic growth and development has turned out to be a curse. At inception intense exploration, exploitation and consumption of these resources were effectively contained within the carrying capacity of the environment and its renewable potential. However, with passage of time, teeming population, sophisticated technical progress and their overall impact and pressure on the environment, a rethink began to emerge. The challenge in the contemporary situation remained that of a clear need for regulated control of the living environment based on principles of sustainability. It has become evident that the paradigm shift from sustained development to sustainable development in the light of global environmental concerns becomes an imperative. The pressure of demands made on living and finite resources has risen to a height where the former development styles, processes and their products are now inappropriate and incapable of coping with long-term human demands. Essentially therefore, sustainable development has become the enigma for our common future. Pressure placed on the carrying capacity of the earth and its resources is reaching an alarming proportion and now at the front burner of development and environmental issues. In Nigeria for instance, there is both cultural diversity and ecological diversity. With about 250 distinct ethnic nationalities, the ecosystems range from the southern mangrove swamps, rainforests to savannah woodlands, and semi-arid Sahel regions in the north. The country is characterized by varied landscape, climate, soil, vegetation and regional dichotomies. Indeed the country can be studied as a paradigm of the paradox of development in Africa. There is rapid depletion of and degradation of the ozone layer, soil resources, as well as air and water pollution, amongst others in the world. Pollution and deforestation, soil erosion, oil spills, toxic dung and uncontrolled human activities make the environmental situation a grave one. These environmental problems are products of development activities.

This means that the ecology and economy are co-present challenges of our time. This can be seen in the drastic fall in food output as a result of soil infertility, gully erosion which is rampant in present times. The aforementioned problems threaten human existence, and life expectancy rate in Nigeria on a daily basis.

This paper therefore aimed at examining the nexus between environmental degradation and sustainable economic development of Nigeria. The paper examined the impact of environmental degradation on economic development of Nigeria. To achieve this purpose, the paper has been structured into six sections with the introduction as section one. Section two dealt with conceptual issues on environmental degradation and economic development. Section three briefly looked at the situation in Nigeria. The section four discussed the impact of environmental degradation on the Nigerian economy. The section five dealt with policy recommendations and section six is the summary and conclusion.

## **2.0 CONCEPTUAL ISSUES ON ENVIRONMENTAL DEGRADATION AND ECONOMIC DEVELOPMENT**

### **2.1 ENVIRONMENT VERSUS ENVIRONMENTAL DEGRADATION**

According to the World Bank (1991) the environment is the natural and social conditions surrounding all mankind including future generations. The environment as posited by Bayode, Emmanuel and Sogbon (2011), is made up of biophysical components and processes of natural environment of land, water and air. Expanding the above definition environment would also include all layers in the atmosphere, inorganic and organic matters, socio-economic components and processes of human endeavours. The elements mentioned here have a symbiotic relationship and any distortion of their natural state could affect economic activities. Emmanuel and Alakinde (2006), lending credence to the above asserted that land and associated resources, structures, sites, human health, nutrition and safety are also inclusive. The environment can justifiably be said to be the natural habitat of man with several components within which various kinds of activities and processes occur.

Environment was further defined by the National Conservation and Environment Protection Act (1987) to include the physical factors of the surrounding of human beings, land, soil, water, atmosphere, climate, sound, odour, taste and the biological factors of animals and plants. The Federal Environmental Protection Agency Act (1992) defined environment to include water, air, land, and all plants and human beings, or animals living there in and the interrelationships which exists among these or any of them.

In contrast environmental degradation is the deterioration of the environment through human activities resulting in the depletion of resources, contamination of air, water, and soil, the destruction of the ecosystems and the extinction of flora and fauna (wildlife). This could also be any change or disturbance capable of producing harmful effects on the environment i.e social, economic, technological and institutional activities, and consequently producing results that are undesirable for present and future generations. It occurs when

earth's natural resources (water, air, soil) are depleted. Some factors that could affect the environment are urbanisation, population growth, economic growth and activities, intensification of agricultural activities, increase in the use of energy and transportation. Land, air and water are compromised when people exhaust and waste resources or release harmful chemicals. Deforestation also adds to the decay of a safe environment and the effects of environmental degradation are not farfetched as they stare us right in the face.

## **2.2 THE CONCEPT OF DEVELOPMENT**

The term development refers to the quantitative and qualitative exchange in an economy where such actions can involve multiple areas including development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy and other initiatives (Dang, 2013). According to Todaro (1997) development is process that has many sides including economic, social, political and educational advancement. Most times the term development is used in an economic perspective because the type of economy under scrutiny is an indication of other social features.

Economic development can be looked at by essentially focusing on equitable distribution of wealth and involves increasing a greater percentage of the people living standard of an overall population. (Ogboru 2006).

Health and education have been given prime place as welfare indicators in addition to the indices of Gross Domestic Product per capita because education, good health and longevity are valuable outputs of life. The concept of human development has been broadened to include attitudinal change absence of corruption, access to basic infrastructure e.t.c in addition to the per capita income measure. (Simon and Francis 1998; UNDP 1990).

## **2.3 SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT**

Sustainability has become the central focus in development studies today. For researchers and policy makers, it has remained a catch phrase. It echoes notes of intergenerational equity in environmental resource utilization. The concept is diverse in application and meaning depending on the orientation and professional framework being used. Of central value to the concept are economic, technical, ecological, environmental, material and human resource base. The origin of the sustainability concept is traced to the club of Rome report titled "Limits to Growth" published in the early 1970s; the Brunt-land Report titled our common future published in the 1980's and the Agenda 21, a declaration of the Earth Summit held in Rio de Janeiro in 1992 are significant contributions to the development of the subject of sustainable development. According to International Union for the Conservation of Nature (IUCN,1980), the concept of sustainable development was first used and developed in the World Conservation Strategy. Three specific areas were covered in that document – namely:

- The maintenance of ecological processes

- The sustainable use of resources, and
- The maintenance of genetic diversity.

Very little attention was paid to the economic dimension of the concept. Guided management of human use of the resources and wealth of nature is vital if it is to yield the greatest benefit to the present generation and society. Sustainability is development, of present generation without mortgaging the future generation. (Declaration of the UN conference on the Human Environment 1972). It brings consumption and conservation together in a way to promote peace. Tools of production must be controlled by attitudinal change directed by the sustainability impulse. Viability of the economy, appropriateness of technology, institutional change through education, human security and peace, and of course, harmonious natural and socio-cultural environment comes together. The essence is to create socially acceptable indices for human peace, quality of life and development. In essence, both natural and rational variables must be brought into our development thinking, economic growth and ecological quality must agree.

#### **2.4 SUSTAINABLE DEVELOPMENT PROCESSES IN THE ENVIRONMENT**

The strategy for responding to the challenge of environment degradation and pollution takes us to the issue of sustainable development. As a result, urban environmental issues will continue to dominate sustainable development agenda in a developing nation like Nigeria and the world generally. As urban population continues to grow the problem of inadequate supply of infrastructures – housing, schools, hospitals, road networks will continue to be overstretched, resulting in an unhealthy environment characterised by improper waste disposal, and other poor sanitary conditions which further pollute the air, water and soil in Nigeria. (Ahmed, 2011)

Sustainable development processes are dynamic and can only work through series of actions taken to achieve human-centred development objectives. These include:

- To meet the basic needs and security of all people on the planet earth and help them live in dignity and peace.
- Development is pragmatic and progressive, it is based on the level of knowledge available to people, their social organization and how they apply themselves. So it must be made sustainable.
- Globalization, which supports sustainable patterns of trade and financial relations, serves to engender world peace.
- Flexible political and administrative structures have the capacity for self-correction to engender authentic development.
- Economic growth that is married to environmental quality sustains human security.
- Basic human needs meeting orientation which supports livelihoods and reduces poverty is a human peace initiative.

- Population control through family life education makes for meaningful existence.
- Management of environmental risks mitigates the incidence of disasters.
- Technological re-orientation should reduce ravage of environmental resources.
- Team spirit and participatory decision-making should guide decision-making and development activities.
- A self-adjusting economic system able to sustain itself is one guaranteed process for sustainable development.

### **3.0 THE IMPACT OF ENVIRONMENTAL DEGRADATION ON THE NIGERIAN ECONOMY**

#### **3.1 HEALTH IMPACTS**

The concentration of greater number of people in urban areas of Nigeria has asserted pressure on land space for the production of food, infrastructure, housing and industrialization (Structural transformation and natural resources, 2013). This exacerbates the environment as additional persons result in increase in the demand of infrastructure and eventually results in ecological imbalance which comes with adverse environmental hazards and disaster. Population growth should necessarily be supported with corresponding socio-economic growth so that basic amenities and infrastructures are not overstretched. This will help in creating an ecological balance. When this is done a vast majority of urban residents in Nigeria who, suffer from acute deficiency in the supply of basic infrastructure and social amenities will have the aforementioned issue addressed. Statistics in Nigeria reveals that approximately 67 percent of Nigerians falls within the low income category and therefore among the poor. (NBS, 2014). These low income categories of people are more susceptible to environmental induced diseases which are attributable to environmental degradation. Furthermore their situation is aggravated by the absence of a functional urban planning and management board, thereby exposing them to the impacts of hazardous environmental degradation without compensation from the appropriate organisations or even government. Consequently these affect quality of life, health, productivity and development capacity.

Netzer and Altheu (2012), reported that the number of people going hungry is higher in 2012 than it was in 1992, reaching a historic high of around 1 billion. The report on the sub Saharan Africa is that it would witness about 185 million deaths linked to climate change induced diseases. As a result of the high level of poverty, underdevelopment and unemployment experienced in Africa, it remains a continent vulnerable to the effects of climate change.

#### **3.2 ENVIRONMENTAL IMPACTS**

*Loss of Bio-diversity and endangering of plants and animal Species.*

The Intensification of urban land use has caused serious and extensive deforestation. The overall effect of the process of deforestation calls for serious concern. This is because forest reserves are supposed to be protective of the immediate environment in which they are located. The forest is supposed to serve as shield for soils beneath, especially from direct impact of downpours, high temperatures and destructive winds. The ecological consequences can be seen in erosions, floods, environmental degradation and instability.

In relation to the loss of biodiversity, the World Fact Book 2005, identified Nigeria's 3.3 percent as one of the highest forest loss rates in the world. The world fact book further stated that since 1990, Nigeria has had to loss some 6.1 million hectares or 35.7 percent of its forests. The statistics went on to show that Nigeria's most biodiversity ecosystems are fast depleting at an alarming rate. From 1990 to 2005, Nigeria lost a unimaginable 79 percent of her forests and thus Nigeria has consistently faced environmental sustainability challenges. The various species of plants and animals that are required to maintain ecological balance in the food web and chains have been devoured without replacement which poses a threat to man and the environment.

### **3.3 SOCIAL IMPACTS**

Problems associated with environmental degradation pose serious threats to the wellbeing of urban residents in Nigeria. Social problems resulting from environmental degradation affecting the psyche of the people include deviant behaviour, apathy to government policies and programmes and also social vices for example drugs/drug abuse, prostitution, crimes, and juvenile delinquency. There is no gainsaying the fact that environmental problems are harmful to social equity and welfare with respect to accessibility to social infrastructure and job opportunities. It can be inferred from this paper therefore that urban poverty in Nigeria has a positive relationship with environmental degradation. Losses of job opportunities, cultural heritage, increased poverty level, social exclusion e.t.c. are also results of environmental degradation in Nigeria (Adediran, 2012). As a result of these crime rate has increased to include activities like bribery, pick pocketing, armed robbery, assassination, rape and other vices.

### **3.4 SUBSISTENT ECONOMIC ACTIVITIES AND TAX AVOIDANCE.**

The inability of Nigerian cities to adequately address the problems of environmental degradation is manifested in poor economic growth and development. Rapid growth in urbanization unmatched with the required development has resulted in the bloated low-income informal sectors (Musa, 2010). This informal sector which has assumed a national economy stature with subsistent economic activities has the tendency of grinding the economy to a halt. This is because a greater percentage of sectors in the urban area do not pay taxes, these businesses have no financial records are not registered with government, and so they have no access to formal credit facilities. The result of the above is the low contribution to Gross domestic product (GDP) by theses agro allied industries in Nigeria. Thus the millennium development goals (MDGs) in Nigeria sought to address the se environmental development challenges (Adediran, 2011).



With the perceived population growth in urban centres unless drastic actions are taken, environmental decay is set to increase and this will pose a great threat to sustainable development. This is because Nigeria to a large extent depends on its ecology for food production, power generation and natural resources for industrial activities and expansion.

#### **4.0 IMPLICATIONS OF ENVIRONMENTAL DEGRADATION ON ECONOMIC DEVELOPMENT**

The mismanagement of environment has its impact on the economic development of Nigeria as the petroleum and gas industry is estimated to cover about 97 percent of Nigeria's GDP. There was increased exploitation/exploration of oil on the land in the Niger Delta due to the results of over-population and increased demands for more diversity of production. This exploitation of the energy and oil industry has been accompanied by the inadequate attention to the proper use of environment and instability in the eco-system.

##### **4.1 INSECURITY**

The increase in terrorist activities using explosive devices is also affecting the environment negatively. Not only is there loss of lives but destruction of assets, climate and soil. Nigeria has experienced several bombing in recent times; for example the bombing of oil installations around the Niger delta area, bombing of terminus market in Jos on 20<sup>th</sup> April, 2014, bombing of Nyanya, Abuja on 14<sup>th</sup> April and 1<sup>st</sup> may, 2014 etc. There has also been in recent times in Nigeria suicide bombings attempts which involves the perpetrator's death and causing massive death and injuries. Examples of suicide bombing in Nigeria were the bombing of Church of Christ in Nations (COCIN) headquarters church Jos, the St. Finbarr's Catholic Church Rayfield, Jos, Living Faith church in Bauchi state etc. The effects of the bomb blast leads to damage of land especially for agricultural purposes and the release of various harmful and hazardous substances into the land, water and air greatly pollutes the environment. Large hectares of forests are being destroyed and agricultural land rendered unproductive especially in the northern part of Nigeria as a result of these terrorist activities. Wildlife is sometimes also destroyed when explosives are released and this can lead to the extinction of some rare species of animals.

Terrorist activities also cause indirect impact on the environment as people migrate from areas of conflict to other areas. People are displaced and there is massive migration into urban areas. Refugee camps are usually set up and more pressure is put on the forests and urban areas. As more people migrate into areas where infrastructure is inadequate for the few residents, available resources are over stretched and much pressure is exerted on the meagre resources available. There is usually no proper waste disposal system and toilets in refugee camps and boreholes are usually dug next to sewages this has led to the poor quality of water and consequently led to cholera and other health related challenges.

## 4.2 FALL IN PRODUCTIVITY

Environment's mismanagement has resulted in environmental insecurity in Nigeria, which has led to a fall in production and productivity. This fall in output invariably results to a fall in income generation for the people and the nation. By implication the fall in income and output impacts negatively employment generation and investment potentials in the economy. All these translate eventually into lack of or insignificant growth in the economy.

The agricultural sector in Nigeria is dependent on rainfall. Pollutants have vitiated the environment, air pollution, chemical acids and other environmental factors have affected the agricultural output which fails to meet the growing demand of agricultural products. This has astronomically increased food prices and put pressure on the Nigerian economy. Air and water pollution have affected the fishing industry as well. An example of this is evident in the Niger Delta geo political zone of Nigeria where oil exploration and exploitation activities which often result in oil spillage have contaminated water thereby making it unsafe for living organisms. Attention therefore should be paid to environment conservation with all the urgency it requires to avoid further negative impacts. This exploitation and extraction of environmental resources can lead to environmental degradation which will in turn impoverish the people (Nwagbara, Abia, Unyang, Ejeje, 2012). In many countries in Africa, crop harvests are declining as consumption increases. People are finding less nutritious food to eat, are vulnerable to weather changes, water shortages and urbanisation. Marine life is destroyed as waste and chemical are dumped in the sea and oceans. Most times the destruction is great and the consequences are tremendous. Agricultural output is reduced due to loss of fertile lands and gully erosions, marine resources, a source of income for some people are depleted. This further aggravates the poverty level and impacts on humans, wildlife, animals, plants and micro-organisms and is the cause of some illnesses and deaths.

## 5.0 CONCLUSION

The dispensation in which we live is a challenging one and the range of earth life forms, ranging from aquatic to terrestrial species is exposed to un-simmering human pressure. From the forest to the oceans, environmental resources are being depleted with vigour. Attitudes of people towards the non-human world have become so predatory that we are beginning soon to live as endangered species when the vary basis of our survival is in jeopardy. It is therefore a great concern that nations begin as a matter of urgency to follow the path of ensuring long-term harmony in the economic and ecological practices for all generations. Sustainable environmental development is not just a concept but also a process and a means to an end. It demands an understanding of development imperatives and an attitude of mind to make it work to support human security and peace through the conservation of natural resources for sustenance of livelihoods and ultimately economic development of Nigeria.

## 6.0 POLICY RECOMMENDATIONS AND SUGGESTIONS

Sectoral Policies, environmental laws and regulations are important, but cannot alone, be expected to deal with the problems of environment and development. Prices, markets and governmental economic policies also play a complementary role in shaping attitudes and behaviour towards the environment. Sustainable development entails that the exploitation of resources, production of goods and services, direction of investments, orientation of technological development and institutional change are all in harmony. This will ensure that the needs of the present generation are met without endangering the future generations. Since our national development policy objective is to achieve rapid economic growth and improvement in individual welfare on a sustainable basis, a range of enabling policies, economic instruments and incentives are required to propel the development process in the desired direction. Strategies/Activities/ Action to be adopted in bringing this about include:

- Incorporate environmental costs to decisions of producers and consumers in order to deter them from treating the environment as a free good.
- Government should Integrate social, environmental and other costs of negative environmental externalities into economic activities, so that prices will appropriately reflect the true and total value of resources. This will help prevent cases of environmental degradation;
- Institutionalize “Polluter Pays Principle” so that the polluter bears the cost of environmental degradation or pollution; thus providing the positive incentives to limit degradation or pollution of the environment.
- Develop and implement a mechanism for charging emission fees and fines for all pollutants and effluents (based on quantity, quality and detrimental effects) thereby internalizing all costs and other negative externalities into the production process and output prices.
- Impose penalty taxes, fines, and charges for non-compliance to environmental standards and regulations so that violations to such regulation become costly to the violators.
- Encourage participation of all stakeholders in the management, harvesting and the utilization of revenue from the use of natural resources.
- Adopt an appropriate pricing of natural resources and production inputs to encourage optimal allocation, production and consumption of these resources.
- Promote tax reliefs that encourage investment in pollution abatements through:
  - Grant of accelerated depreciation allowance on pollution abatement equipment.
  - The removal of import duty on abatement equipment.
  - The grant of tax holidays and pioneer status to environmentally sound new projects.
  - The use of other tax credit schemes.

- Government should introduce charges and introduce taxes on the extraction of resources to discourage their destructive exploitation.
- Allow, where appropriate, the direct transfers of financial assistance subsidies in order to encourage groups to improve their environment where conservation initiatives have directly affected them.
- Government should introduce insurance policies and other risks management programmes to remedy and restore polluted and degraded areas.
- Encourage active participation and prompt payment of financial contributions to relevant international organizations charged with protecting the environment;

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