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# ENVIRONMENTAL MANAGEMENT AND ECONOMIC DEVELOPMENT IN NIGERIA

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By

**TANIMU TUBAYINI ZAKARIAH**

*Department of Geography,  
FCT College of Education,  
Zuba – Abuja.*

## **Abstract**

*This paper investigates the relationship between environmental management and economic development in Nigeria. The paper relies mainly on secondary data sourced from journals, textbooks and those generated by government and non-governmental organizations (NGOs). From these sources the paper reveals that, environmental management is a systematic approach to finding practical ways for saving the natural resources and reducing negative environmental impacts on man and his economic activities. That lack of proper management of the environment leads to environmental problems such as desertification, pollution, drought flooding and erosion among others, which increase the cost of economic production and reduce yield. That these problems impoverish man and his task of economic development more burdensome. That life degenerates into a mere struggle for existence when the natural resources are depleted, consequent of lack of environmental management. The paper concludes that environmental management, the basis for economic development and this calls for the urgent need to renew environmental laws and policies aimed at monitoring the relationship between the environment and economic development. The weakly articulated existing policies, legal rules should be reviewed and analysed in order to understand the direction as well as the limitations of the enforcement mechanism.*

The human history has been largely written in terms of the interaction between man and the environment over the terms of man's existence and over the terms of his efforts to achieve his goals and aspiration. And for most of human history, the major threats to man came from the environment, but today man is the major threats to the environment and to himself, as he engages in economic activities meant to improve his welfare. These activities meant for man's development are carried out in the environment and have impacted negatively on it; but environmental quality in turn

affects the performance of the economy. Marshall in Arokoyu (2004:187) agreed that it is man's developmental interventions that have caused environmental disturbances, when he stated that:

*“man cannot create material things... His efforts and sacrifices result in changing the forms or arrangements of matter to adapt it better for the satisfaction of his wants... as his production of materials product is really nothing more than rearrangement of matter which gives it new utilities, so his consumption of them is nothing more than a disarrangement of matter which diminishes or destroy its utilities.*

Thus, the need for concerted and a more focused approach to the management of environment is necessary if development is to be real, enduring and permanent. No wonder today both environment and economic development are perceived as having links that are inextricable. The emerging convention wisdom is that economic development activities if pursued without environmental considerations will in the long run limit the scope for growth and overall economic development. What is needed therefore is the kind of exploitation of the environmental resources in such a way that guarantees sustainability in man's economic developmental efforts.

This paper therefore examines environmental management as a strategy for sustained economic development. It also x-rays the impact of environmental challenges on economic development and makes recommendations for more efficient environmental management for meaningful and enduring development.

## **Explication of the Key Concepts**

### **Environmental Management**

Environmental management is not, as the phrase could suggest, the management of the environment as such but, rather the management of humans interaction with and impact upon the environment (Wikipedia, 2013). In this regard Isi (2007:287) stated that, environmental management broadly entails legislature that should be separated efficiently in order to promote a livable environment and guarantee sustainable development. He went further to explain that, the objective of an enacted policy is to encourage productive and enjoyable harmony between man and his environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man. It means that environmental management is the management of man's interaction with the environment. It is based on this notion that some scholars have looked at environmental management akin to conservation. Consenting to this Ribonson in Arokoyu (2004:195) defined it as,

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*The careful and rational use of natural resources and their preservation from reckless exploitation and wanton destruction so that man may continue, indefinitely to benefit from nature's gift.*

A more comprehensive definition of conservation is the one given by Allaby in the dictionary of environment, that, it is;

*The planning and management of resources so as to secure their wise use and continuity of supply while maintaining and enhancing their quality value and diversity.*

However, in whatever perspective one looks at environmental management it will reveal the fact that environmental management perceives economic development and the environment as complimentary parts, that if economic activities are pursued without environmental considerations will in the long run limit the scope for growth and overall economic development. Indeed environmental management is man-oriented and concerns the maintenance and sustainability of the environment for enduring development. It emphasizes the appreciation of the role, quality environment plays in raising real income and quality of life in a sustainable manner. It is that which permit continued improvements in the present quality of life at lower intensity of resource use, leaving behind for future generations an undiminished or even enhanced stock of natural resources. Certainly the importance of environmental management to the development and existence of man cannot be overemphasized; because the environment serves as the natural resource base upon which economic development is contingent.

### **Economic Development**

According to United Nation cited in Basheer et al (2012:139) economic development is a complex phenomenon which implies a quantitative concept that might be understood as economic growth (an increase in Gross National Product (GNP/Income per Capital) and also a qualitative concept that concerns with the idea of social well-being (a good standard of living) of the people in a given geographical area or nation-state. Similarly Todaro (2000:14) defined economic development as “multi-dimensional process involving the re-organisation of the entire social and economic systems. He went further to state that, it involves reduction or elimination of poverty, inequality and unemployment within the context of growing economy. Dudley Seers in Todaro (2000:15) posed the basic questions about development succinctly when he asserted:

*The questions to ask about a country's development are therefore: what has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels, then beyond doubt this has been a period of development for*

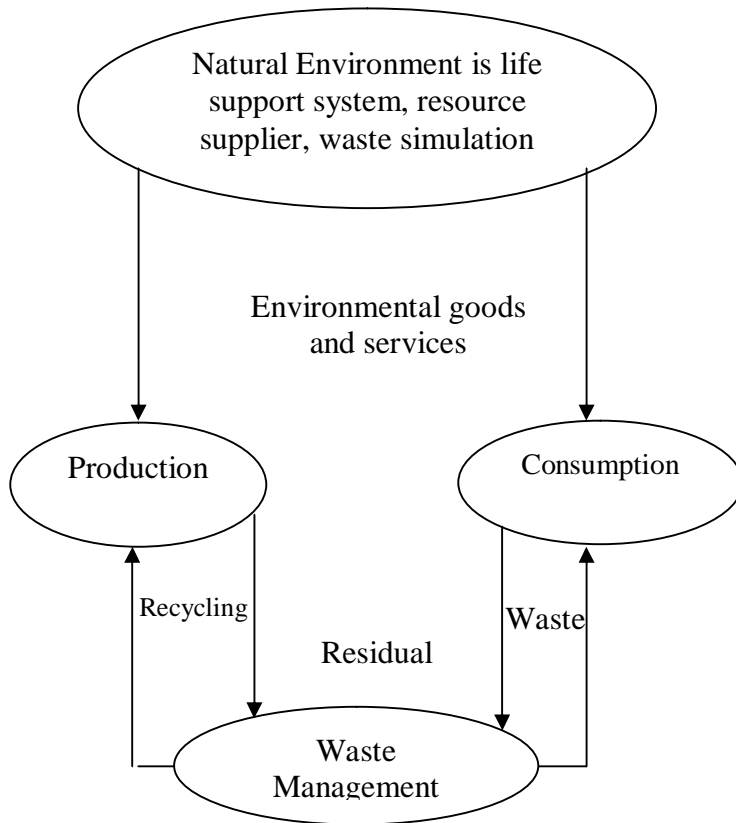
*the country concern. If one or two of these central problems have been growing worse, especially if all have, it would be strange to call the result development even if per-capita income doubled.*

Consenting to this assertion John (1999) opined that, an important aspect of development is that which is concerned with improving the welfare of human beings. He went further to state that it includes more than just increase productivity; it includes the resulting rise in the ability of people to consume the things they need to improve their level of living. He listed the improvements to include higher income, stable employment, more education, better health, consumption of more and healthier food, better housing and increased public services such as water, sewage, power, transportation, entertainment and police and fire protection.

Man is therefore a pivot of economic development since he harnesses the environmental resources and transforms them to goods and services for his comfort. It means therefore that there cannot be economic development in environment that is battered and characterized by environmental problems. This points to the fact that economic development of any given society reflects a linkage between the environment and man, economic and social development and the quality of life. The most crucial point is that the management of the environment is basic for any real and enduring economic development.

### **The Nexus between Environment and Economic Development**

Today, it is generally agreed that there is an intricate interdependence between economic development and the environment. For instance, economic development activities make great impacts on the environment and the environmental quality on the other hand affects the pace of development. It is assumed that within the economic system, the natural environment performs three major functions. First the environment provides the resources needed for development. Secondly, the environment also provides the site for the physical presence of all living things or it acts as a life support system. Thirdly, the environment serves as the sink for wastes (Udoh 2012:77 and Aregbeyen and Adeoye 2012:73). The rate and how much of these functions the environment continually performs is dependent upon increasing human economic activities of production and consumption; when man massively exploits the natural resources to the point that the resources are exhausted, his very survival and desire for comfort are threatened. This is to say therefore that economic development cannot be meaningful or possible in the environment that has been depleted. The relationship between the natural environment and economic activities is illustrated by a flow diagram model shown below:



The natural environment and economic activities.  
*Source: Adapted from Aregbeyen and Adeoye (2012:43).*

The natural environment supplies resources such as limestone, harvests from land, water, forests and other goods and services including air, which all flow within the environment to production and consumption activities. The activities at both production and consumption levels generate residuals such as air and water effluents, solid wastes, smoke, heat, noise, smell and other pollutants, most of which go directly back to the environment constituting externalities (Aregbeyen and Adeoye (ibid)). They went further to explain that where waste management facilities exist, residuals are treated either to become less harmful and returned to the environment in form easier for the environment to assimilate or to make recycling possible. Naturally, the environment has the capacity to assimilate these residuals but when the capacity is exceeded because of the heightened economic activities, the quality of the environment begins to deteriorate to the extent that environmental problems such as desertification, soil erosion, solid waste pollution, deforestation and climate change among others result.

These environmental problems change the quality of the environment thereby increasing the cost of production. For example, polluted resources may have to be treated before use or substitute may have to be sought thereby increasing the cost of production. Environmental management then becomes necessary in order to abate externalities to prevent decline in environmental quality and greatly improve the quality of the natural environment. Certainly unless environmental management is taken seriously in Nigeria, the relationship between economic development and the environment may result in a vicious cycle in which our economic activities impact negatively on the environment thereby creating environmental problems which in turn affect our economic performance resulting in low yield, low income, low working capacity and a low total productivity, making the country to depend heavily on the environment. A situation of this sort makes the country to remain under developed and poor.

### **Consequences of Environment Degradation in Nigeria**

The consequences of environmental degradation are complex and multidimensional, touching every aspect of economic development process and human life. Indiscriminate exploitation leads to a vicious cycle in which environmental problems impoverish man which in turn become heavily dependent on the environment. The effects could be short-term and long-term transcending generations and sometime lifelong. For instance, deforestation accelerates soil erosion, leads to oxidization, releases carbon in the air, thus adding to the atmospheric store of carbon-dioxide, cause drought, removes wind barriers, water pollution, flooding and desertification. All these no doubt affect economic development process and sustained livelihood.

It is obvious that when trees are depleted the quality of life of many Nigerian is affected because many rural families depend on tree products for income. Collecting, processing and selling of forest products are often the only ways by which women can obtain cash, fuel wood, dyes, medicine and building materials without which life will degenerate into a mere struggle for existence.

The destruction of natural habitat, through construction and expansion of settlement is the greatest cause of species extinction. The vision 2010 committees Report set up by the federal Government observed that there has been a decline in the country's wildlife population. An estimated 484 plants species from 112 families are threatened with extinction and about 10-12 species of primates, including the white-throated guenon, have been declared to be under threat (Ayodeyi 2007:60).

Pollution of water, air and land also have impacts, including genetic defect, cardio-respiratory diseases, skin, eyes, nose and throat irritation. Water born diseases such as cholera, typhoid, diarrhea and shortage of fresh water available per capital, as it

fell from 2,182m<sup>3</sup> in 2002 to 2056h.2m<sup>3</sup> in 2004 (UNFPA, 2005). Pollution definitely has negative impact on the human health and productivity because the energy and resources are spent on treatment of illness instead of being invested in capital projects.

Flooding apart from the damage it causes on roads, bridges, crop etc often results in the death of people and other animals. For instance, in 1999 over 600 people were rendered homeless in Jigawa state and more recently flood disaster claimed 15 lives in Ilorin, Kwara State (Zakariah and Englama, 2008:8).

Oil spills in the Niger Delta have been a regular occurrence and the resultant degradation of the surrounding environment causing crude oil pollution with devastating consequences on both aerial and terrestrial environs. For instance, oil slicks occasioned by oil spillage could either directly destroy the aquatic organisms or deprive the area of free oxygen (Dokun 2008:179) other effects of oil spills include the destruction of vegetation and human beings and land infertility.

All the above stated manifestations of environmental problems are real and result from economic activities carried out in unsustainable manner. It becomes obvious therefore that environmental problems resulting from man's economic development interventions detract the pace of economic development in the country by imposing high cost of health related maintenance and reduces the productivity of resources. No wonder that Nigeria is still ranked as one of the poorest countries despite her abundant resources. This is because economic development cannot be any meaningful in a battered environment. This means that healthy environment is the basis for sustainable economic development and human comfort.

### **Principles of Environmental Management and Economic Development in Nigeria**

There are many principles that are needed to attack the underlying causes of environmental damages. Zakariah (2006:52) discussed two sets of such principles as explained below:

1. Policies that seek to harness the positive links between environment and economic development by correcting policy failure, improving access to resources and technology and promoting equitable income growth like market friendly policies for development like investing in people through education, health, nutrition, removing market rigidities to ensure competition, legal structure clarification, promotion of open trade to foster integration= globally and capital flows. All these policies can enable better environmental management and its consequential sustained economic development.
2. Policies that are targeted at specific environmental problems like incentives or market based policies, which charges polluters according to the amount of damage

they cause. This is to enforce the recognition of environmental values in decision making and in production.

These policies have been extensively, especially the regulatory group, applied by many Asian countries which are now developed (Aregbeyen and Adeoye 2012:47). The market-based approach is a pricing reform in which full cost is fundamental to reducing the consumption of resources in all sectors. Thus taxes are levied on pollution and congestion which are equivalent to raising price on water and land resources. The regulatory, legal and administrative policies are required to complement the market-based approaches. For two sets of policies are required in order to reduce pollution and environmental hazards.

Implicit in the notion of sustainable economic development is the fact that future growth and overall quality of life are critically dependent on the quality of the environment. The natural resource base of the country and the quality of its air, water and land represent a common heritage of all generations. To destroy that endowment indiscriminately in the pursuit of short-term economic goals penalizes both present and, especially, future generations (Todaro and Smith 2009:485). More specifically environmental management strategies that can be adopted to enhance economic growth and protect the environment at the same time are:

Environmental management should be recognized as one of the top priorities of a corporate body. This means that all companies in the country should establish policies, programmes and practice for conducting operation in an environmentally sound manner.

Production management must ensure that operations are efficient and as non-pollution as possible. In this regard projects must be in harmony with environmental policies and product must be clean, safe and efficient to meet our needs.

Organizations must educate, train and motivate both management staff and workers to conduct their activities in an environmentally responsible manner, consumers have to be educated on the use of products by the companies.

Integrating environmental management principles into development policies will result in job creation in the areas of sewage and waste-management, research and environmental infrastructures; invention of new technologies that are needed for recycling, waste management etc, cost saving, reduction in the exposure of workers to health hazards and enhancement of environmental awareness and responsibility.



### **Policy Suggestions for Integrating Environmental Management and Economic Development**

In-line with the global linkages between economic development and environment, there is a strong argument that only actions that will bring a balance between economic development and environmental quality of health should be taken. In this regard the following are key practical steps that can be taken:

Government should strengthen its institutional capacity for environmental management. In addition to the clear need for better technical skills, adequate finance and clarification of environmental regulations, institutions like research, monitoring, evaluation, public information etc should be strengthened.

Government should also embark on measures to control environmental degradation. This means activities that damage the environment must be brought under control to restore and protect the environmental systems. Specific measures should include the creation of awareness on the link between the environment and economic development, forest protection and ensuring Environmental Impact Assessment (EIA) before establishment of development projects.

Local participation as a strategy for involving all stakeholders in environmental management should be encouraged. This helps in ensuring informed decision making and strengthening of ownership of projects and the likelihood that the project will meet their objectives. Local participation will yield high economic and environmental returns in implementing programmes of afforestation, soil management, parks protection, water management and sanitation, drainage and floor control.

Information about environmental friendly policies should be improved and made available to the general public. Ignorance is a serious impediment to finding solutions to environmental problems. There is a great need to overcome a grave-lack of knowledge in soil depletion, land productivity etc.

There should be an effective and correct pricing which must take into consideration the environmental impact of resource use, the value of the resources to the present and the future generation, including direct and indirect use as bequest recreational use of value.

Finally, the government should immediately ban the exportation of raw timber, except fully machined furniture parts, plants and/or railway sleepers, and encourages states environmental protection agencies and the federal ministry of environment to work in concert to enforce the waste management regulations and their respective by-law on waste and environmental sanitation.

## **Conclusion**

The paper reviewed the intricate links between environment and economic development, stressing that both impact on each other resulting in a vicious cycle, in which economic developmental interventions impact on the environment, causing great damage and the damaged environment in turn results in low yield and slow pace of development. The paper also discussed the imperatives of environmental management, stressing that it is necessary for an enhanced and sustained economic development. Thus the paper concluded by recommending that regulatory, legal and administrative institutions that have to do with environmental protection should be strengthened and that local participation should be encouraged.

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