

The Challenges of Environmental Problems in Nigeria

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ABSTRACT Nigeria has a total land area of 983,213 km² occupied by about 120 Million people: The interaction of these millions of people with their environment has left indelible mark on the landscape. Urbanization, deforestation, desertification, over population and all kinds of pollution are some of the resultant effects of man's interaction with his environment. These changes occur as the people attempt to acquire their seemingly endless desire for food, shelter, recreation and infrastructural facilities. Though these wants and desires contribute to the development of the country, the unwise use of the land and its resources produce negative impacts on the environment. Federal Environmental Protection Agency (FEPA) was established to control the Nigerian Environment, its resources exploitation and management. But field observation revealed that environmental degradation is growing at a rate worse than the pre FEPA period. Solution to these problems require going beyond the strategies and objectives of FEPA. Environmental protection techniques should be indigenized. It should be written and delivered in Nigerian languages. The design should take cognizance of the deferent ecological zone in the country and the people should be the agents. For an enduring legacy, Environmental Educational (which should include environmental protection techniques) should be included in primary and post primary school curricula.

INTRODUCTION

Nigeria has a total land area of 983,213 square Kilometres of which 773,783sq. kilometres are in the savanna zones 75,707sq. kilometers are in the derived savanna zones and 133,717 square kilometers are in the forest zone. Nigerian population is more than 120 million yielding an average density of more than 120persons per square kilometer. Although this density may vary from one region to another, it is obvious that Nigeria is already experiencing high population density. The interaction of these millions of Nigerians with their respective environment has left indelible mark on the landscape. The manifestation of these impacts includes; urbanization, deforestation, desertification, overpopulation and all kinds of pollution. These impacts have both negative and positive effects on the natural environment. It is the negative impacts of man's interaction with the environment that is emphasized in this study.

The unwise use of the natural environment due to ignorance, poverty, overpopulation and greed amongst others has led to the degradation of the environment. The charges (degradation) occur as Nigerians attempt to adjust their seemingly endless wants and desires for food, shelter, recreation, infrastructural facilities, and

so on to the land and other resources available to them (NEST, 1992). These land use activities contribute to the overall development of the country but they equally produce negative impact on the environment. These negative impacts are referred to as environmental degradation which implies "abuse of the environment" due to improper resources management.

This paper examines some of the resultant impacts of man's interaction with his environment with a view to outlining their contribution to environmental problems. Suggestions are made for re-designing the objectives and strategies of the federal environmental protection Agency (FEPA).

ENVIRONMENTAL PROBLEMS

i. Urbanization: Urbanization is caused by high population growth rate and rural- urban migration. Urbanization in Nigeria is characterized by city slums with serious environmental consequences . The problem has been described as acute and exemplifies the inability of development measures to keep pace with the rate of population growth. The problem of the disposal of waste and refuse is quite serious because of the rapid rate of generation of non-biodegradable materials such as plastics.

Environmental conditions in cities have gradually deteriorated due to the rapid growth of the cities and the attendance inability of social services and infrastructures to keep pace with the rate of growth. Inadequate storm drains, dumping of refuse in drainage lines and construction of houses close to and even on the natural water channels have been shown to be responsible in that order for the increasing cases of flood in the urban centers. Environment problems associated with the increasing growth of urban slums including overcrowding in squalid housing conditions, poor quality or unavailability of basic infrastructures and social services, such as water and sewage facilities and even lack of access routes (NEST, 1992)

ii. Overpopulation: Population is a major factor in all environmental- related issues. Overpopulation causes stress on the environment. Environmental problems such as overpopulation, degradation, erosion, desertification, etc. are caused by man's misuse of environmental resources. Until very recently, Nigerians regard their "large population size" as a symbol of greatness, power and prestige and tend to resist attempts to reduce it drastically. It is only just becoming clear, that over population is forcing traditional societies to abandon age old production systems and resources management techniques that allowed them to produce enough food for themselves at minimal impacts on the environment. There is evidences every where of rapid decline in environmental quality and human living conditions occasioned by rapid increase in human numbers In 1985, Mabogunje, reasoned that because of the economic emergency that was declared in the country, the next few years where going to witness tremendous efforts at increased production and enhanced productivity in the country. Under such stressful situation, "it will be easy for people to become so exigent, worrying only about what to get out of the environment for their own immediate needs and uses, without caring very much for the consequence, especially

for succeeding generations (Mabogunje, 1985). The Federal Government of Nigeria (1988) National Policy on population for development also made the observation that "the present high rate of our population growth is already contributing substantially to the degradation of the ecology of the country. It observes that land fragmentation, over-farming and over-grazing

have led to soil erosion and desertification and that over crowding has led to the spread of shanty towns and urban blight, all of which would worsen if the present population growth continues (NEST, 1992).

iii. Deforestation: Forest are large area of land with trees and are noticeable in area with sub-equatorial and monsoon types of climates. The importance of the forest to man cannot be over emphasize. They act as sanctuary for rare and/or endangered animals. Forests act as storm breaks, thereby protecting the towns and villages from destruction. They provide useful products such as wood and char-coal for fuel, fibre for paper and textiles, medicine from the bark and leaves of some plant, breeding ground for animals, check erosion, and supply of food and materials for building houses.

In 1975, the total area of forest of all types in the country was estimated at about 360,000sq kilometers or about one third of the country total land area. It was also estimated that the annual harvest of sawn timber from high forest was 1.5 million cubic metre which would take between 25 to 30 years to denude the forest of matured timbers. With rapid rise in domestic consumption of timber due to increased rate of building construction resulting from the rise in population and income, it would take less than 15 years to exhaust the forest of timber resources (NEST, 1992).

Deforestation is a process where by trees are felled for several purposes, but with out replanting to replace the ones felled. Deforestation is dangerous to man, animals and properties. It leads to erosion of the soil and storm, which can cause destruction of properties, crops and Animals. When forest are cleared, the soil are exposed to erosion devastation, floods occur, and rivers and lakes, are filled up with silt. The water becomes dirty and impure for mankind. The remover of tree canopy (particularly the leaves)has effect on the rainfall of that area, as there is less leaf surface area for the transpiration of water, which in turn affect the relative humidity of the atmosphere. The repeated cultivation of crops on cleared area of plant tend to exhaust the soil of its mineral content (Omiegbe, 1998).

Deforestation in general – for agricultural development, Urban growth, industrial expansion and pressure from an increasing population-has reduced the extent, diversity and stability of the Nigerian forest. The food and agricultural

organization (FAO) estimated that Nigerians destroy about 600,000 hectares of her forest every year through careless exploitation and husbandry (Okafor, 1988). Such careless exploitation of the forest has been implicated in a number of worsening environmental problems in the country including soil erosion and infertility, desertification and flooding.

iv. Desertification: Desert are barren lands, waterless and treeless and often sand covered such as Sahara desert which spread across Africa continent. Desertification is therefore the encroachment of the desert on land that was once fertile. Desertification can be induce either by natural process or by the action of man. Natural hazards such as drought and sand deposit by winds are prime factors in the desertification process.

Desertification is more pronounced in the northern part of the country where the Saharah desert has eaten deep into the once fertile land. The Lake Chad basin which is situated in the area is not left out of desertification. The lake basin has diminished from a water surface area of about 24,000sq. kilometers in 1963 to about 3,000sq. kilometres in 1984 (Daily Times, may 21, 1985). This is due to natural hazards (Drought and sand particles transported by winds to the area) and man's unwise use of the lake environment.

Desertification is dangerous to man. It leads to famine, diseases, destruction of crops, livestock and man. Desertification can be controlled through irrigation , terrace ploughing and planting of trees and grasses.

v. Pollution: Environmental pollution can be categorized into three groups. These are air or atmospheric pollution, aquatic or water pollution and land or surface area pollution. The World Health Organization (WHO) (1990) defined air pollution as "limited to situation in which the outer ambient atmosphere contains materials in concentrations which are harmful to man and his environment". Man's activities on the earth surface has largely degraded the quality of the lower atmosphere. The growth and development of industries and Urbanization has contributed greatly to the excess carbon monoxide produced by combustion and other human activities. Carbon monoxide reacts with the blood vessel and prevent it from taking up oxygen and the people are suffocated. In Nigeria, several rural towns that had in the past enjoy fresh and dry air are currently experiencing air pollution problems

(Obajimi, 1998). This is due to industrialization process and expansion in human activities.

Aquatic or water pollution is the discharge of unwanted biological, chemical and physical materials into water bodies from man's environment.

The pollutant are usually chemical, physical and biological substances that affect the natural condition of water. This incidence is responsible for the wide spread water contamination in most Nigeria cities. Also solid waste have equally flooded the water ways in these Urban centers.

Land surface pollution is the occurrence of unwanted materials or waste on land. The commonest pollutant on land is the waste products that are often scattered on land area in the cities. According to Onwioduokit (1998), most environmental problems are due to the production or consumption of goods whose waste products translates easily into pollutant. Ayeni (1978) and Sada (1981) believed that the emergence of Urbanization is responsible for the rapid accumulation of solid waste. Generally, it would appear that the growth of urbanization and industrial development coupled with improper wastes management control have added a great dimension to land area pollution in Nigeria.

Generally, there are other environmental problems resulting, from the humanization of the natural environment, only some of the important impacts are discussed. In the next section, we will discuss the way forward and suggest some basic points which will assist the federal Ministry of Environment to achieved her objectives.

THE WAY FORWARD

Environmental problems – desertification, urbanization, deforestation, overpopulation and pollution – become important paradigms in Nigeria in the last three decades. Similarly, Government, Non-governmental Organization, corporate bodies and individual's interests in reducing, stemming and / or mitigating the consequences of environmental degradation is very recent. It was not until December 1988 that the federal Government passed the Federal Environmental Protection Agency (FEPA) Decree 58 (of that year) setting up FEPA to work out rules governing the handling of Nigerian's environment.

However, prior to the 1988 Decree (which established FEPA), there where some laws and

acts of Government relating to environmental protection. They include; the mineral act of 1969, 1973 and 1984, oil in navigable water Decree of 1968, associated Gas injection act of 1969 and Chad Basin development act of 1973 to mention but a few. These laws and / or acts were promulgated to address specific and identified environmental problems. They were narrow in scope and spatially restricted. Decree No 58 of 1988 as amended by Decree 59 of 1992, which gave birth to the FEPA (Now Ministry of Environment) empower the agency to have control over all issues relating to Nigeria Environment, its resources, exploitation and management.

Despite the legal backing and funding, which FEPA enjoys from the federal government, the level of success so far recorded by FEPA is a far cry from her set objectives and goals. This is because the rate of environmental degradation is growing worse than what it was before the establishment of FEPA. For example, urbanization, deforestation, desertification and pollution are now more remarkable than ever before. If appropriate techniques and technology of environmental protection and management are not put in place, Nigeria may become a difficult country to live in the next 15 years.

FEPA as an institution or agency is foreign to the people. It is not indigenous. The concept or idea did not evolve from the people's tradition or way of life. FEPA is very far from the people and the environment. Her officials are like the tax collectors of the olden days. As a development strategy, FEPA is "Top-down" and not "Bottom-up" which is more popular.

For FEPA to succeed, certain basic ideas about environmental management has to be conceptualized. Before the dawn of modernization, our people were tied intricately to their environment. They have the technology of utilizing the resources within the environment, and protecting same from despoliation. In this regard the concept of FEPA should be community based. In the dissemination of modern and scientific methods of agriculture, the agency create what is called "Agric cell". Agricultural officer attached to each cell goes to educate the people about modern methods of crop cultivation. In a similar vein environmental protection officers should be sent to one or group of communities to enlighten them on modern methods and techniques of environmental protection. The

framework which should be community based will be organized at the following levels. Ward, (a group of communities, or streets in the case of urban centers) and the local government level. At the local Government level there should be some power to punish erring offenders. It goes on to the state level and the federal level. This is community participation and wherever it is adopted, remarkable success have been achieved. The environmental protection officer should be fluent in the local language(s) of the area of his jurisdiction. This is because a majority of those who are engaged in tilling and ploughing the soil do not have western education (Omofofomwan, 2000). This will be the beginning of environmental awareness. When the people become aware of the effects of their unwise use of the environment, and well-equipped with the techniques of environmental management, the goals of the national Policy on environment will be easy to achieve. Finally the addition of Environmental awareness (Education) to the Schools (primary and post primary) curricula is hereby supported.

CONCLUSIONS

Nigeria has a total land area of 983, 213 km² occupied by more than 120 million people. The interaction of these millions of people with their environment has left indelible mark on the landscape. Attempts by these Nigerians to adjust their seemingly endless wants and desire for food, shelter, recreation and infrastructure facilities to mention but a few have resulted in deforestation, desertification, urbanization, over population and all kinds of pollution. Although, these land-use activities contribute to overall development of the country, they equally produce negative impacts in the environment.

It is because of these environmental problems that FEPA (now Federal Ministry of Environment) was established to control all land use activities. However, the rate of environmental degradation in Nigerian today is worse than the pre-FEPA days. These problems raise new and complex issues, which requires going beyond the objectives and strategies of FEPA.

Environmental protection techniques need to be cultured, home-grown and the framework should be "Bottom-Up". It should be community based. The framework should be organized at the village or community level. A number of community should be grouped together at the

(political) ward level. From ward level to Local Government Level. Environmental protection agents at the local government level should be empowered to punish every offenders. Environmental awareness education should be included in the primary and post primary school curricula.

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