IMPERATIVES OF ENVIROMENTAL REVOLUTION IN NIGERIA

Aneze, E. U.

Department of Surveying and Geoinformatics Enugu State University of Science & Technology, Enugu Campus, Nigeria

ABSTRACT

Every revolution is a child of necessity and exigency. Industrial revolution, through technological revolution is predicated on the duo. At present, environment and environmental issues have captured the attention of the entire world going by the amount of attention being given to it by notable world bodies, coupled with the stark realities of the situation as evidenced in environmental disasters being experienced these days. Consequently, nations are coming up with actions and policies aimed at protecting the environment from systematic battering and degradation. In adverse forms, ways and manners of coping with the adverse consequences are being advocated at different fora. Phenomena like climate change, global warming, desertification, extreme flooding, erratic weather conditions are highlighted extensively as well as wastes and waste management as crucial issues in environmental engineering. Exhaustive treatment of the environmental issues raised above maked the title of this work most apposite. Meanwhile, global warming is the term used to describe the change in the climatic condition of the earth which means the increase in the average temperature of the earth surface and ocean as a result of emission of green house gases into the atmosphere. Sometimes the ingredient of the topic can find comfort and safely when treated as "climate change" although the former is the component of the latter

Keywords: Environmental revolution, climate change, green house gases, temperature

INTRODUCTION

Life started with creations and that creative spirit handed down to man, has remained indomitably the creative process borne out of discovery in science. God therefore put the scientific gene into man to enable him create his world probably to suit him more (Nigerian Compass, 2008). Man has not failed God in this clime. Uplifting lives to civilization, science, an act of man has illuminated life and made it cool in equal measure, upgraded human activities and perhaps quickened our footsteps though indivisible in the sands of time (Nigerian Compass, 2008). From Aristotle (384B to 322BC), the first man to elevate thinking to sustain the dimension with indept studies in politics, metaphysics, science, logic and ethics to Archimedes (287 BC to 212 BC), the first mathematician of note and ancient inventor, Galileo, the father of modern science, it has been a dynamic world of changes all directed towards making life better (Nigerian Compass, 2008). Newton's emergence in 1643 was the needed human courage to sustain science and from the days of Newton, the third

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 47

mathematician after Archimedes and Gauss to Thomnic Edisson, and not too long ago Albert Bintun. It has been an explosive mechanism (Nigerian Compass, 2008). The spirit in these men and the numerous scientists, including the myriad of noble prize winners in physics, chemistry and physiology, medicine is well summed up in George Bernard Shaw's treatise "Back to Methuselah" who quoted "you see things and say why? But I dream things that never were and say why not?"

The ability to see the unknown and convert abstract thoughts to physical manifestation is science (Nigeria Compass 2008). Science is discovery and from discoveries man is able to change or re-invent his tools for production through the work of early scientists. this however, did not gain utility among men, they were the needed foundations that gave rise to the 18 century and early 19 century revolution (Nigerian Compass, 2008). It could be argued that Isaac Newton was the first major scientist before the revolution which gave rise to mass production of machines and tools for increased out put (Nigerian Compass, 2008).

The industrial revolution .of the 18 and 19 centuries caused the change in the worlds psyche from arts to science (Nigerian Compass, 2008); infact science was observed with arts. Politics and religion dominated the universe until the advent of scientific revolution (Nigerian Compass, 2008). Today the world and indeed arts is driven by science (Nigerian Compass, 2008). Industrial revolution was a period in the late 18th and early 19th century when major changes in agriculture, manufacturing and transportation had a profound effect on socio-economic and cultural condition in Britain (Nigerian Compass, 2008). It started before it spread throughout Europe and then to America. The better part of Asia and probably Africa were to join much later. Of note is china which did not witness industrial revolution quite early but today is almost second to the United States in industrial science and manufacturing (Nigerian Compass, 2008).

Today, the world is heavily industrialized and embarrassingly growing to the extent that science is itching to develop an industry where human being will be mass- produced through cloning and genetic engineering (Nigerian Compass, 2008) Before the 1900s were manual labour and the slow process of doing things one after the other but by the later part of the 1900s the manual-based economy in United Kingdom (UK) was replaced by industry and the manufacturing of machinery. And so textile, iron making (metallurgy), mining, steam power chemical, machine tools, gas lighting, Glass industries, Agriculture (mechanized) mass transportation appeared in massive quantities (Nigerian Compass, 2008).

For instance, the first gas lighting were established in London between 1812-1820. This helped the present age witnesses stupendous growth of human machination of his environment and the outcome gave rise to the second industrial revolution. Steel and improved alloy of iron is often cited as the first of several new areas for industrial mass-production giving birth to industrial revolution. The name industrial revolution was first amended in 1837 to mean technological change (Nigerian Compass, 2008). Technology indeed was reminisced in 2009 where they decided to

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 48

work in a feasible agreement ahead of Copenhagen. After little or no success, the working groups again met in Bonn between June 1 and 12, 2009. For the first time, negotiating text for Copenhagen was enlisted and discussed. However no agreed text was produced. This lead to an informal meeting of the group again in Bonn between August 10 and 14, 2009 (Nigerian Compass, 2008)

However, a few months to the Copenhagen conference, most of the text were squared, implying that nothing was agreed on and everything was still pending. Besides, negotiating were confronted with serious challenges in reducing the negotiating text to a manageable one. The working groups again met in Bangkok between September 28 and October 9, 2009 where negotiation tried to consolidate and shorten texts. This ended up with little success and this was the last official meeting before the Copenhagen conference took place in Barcelona between November 2 and 6, 2009 (Nigerian Compass, 2008). That meeting produced a somewhat workable text of 200 pages, but suffered some setback as African group walked out of the meeting. Beside, as a way of reassuring and ensuring meaningful outcome at the Copenhagen conference, weeks before, some countries announced cuts in their emission. United State of America, China, Norway, South Africa, South Korea, Japan, Russia among others stepped up their commitment to reduce green house emission. With this in place Copenhagen became a haven of hope for world leaders to reach an agreement that would serve the earth from avoidable environmental calamity.

NIGERIA'S ENVIRONMENTAL BURDENS

Environmental problems in Nigeria appear to have the same resonance that HIV/ AIDS had not long ago (Daily Champion, 2009). The disease was believed by the uninformed to be white-man's burden that had little to do with the economically challenged compatriots. Coping with the twin maladies of peasantry and deprivation, some even added that eating original local cuisines and drinking extracts from our cure-all local herbs and roots is adequate prophylaxis. Today, everyone knows better. In the environment sector, all available evidence shows that there is a major departure from this mindset. Not by choice but by the compelling and emphatic presence around us of matters of great environmental importance (Daily Champion, 2009). The scaring ambient temperature, for example, will have a great appetite for mimickery, and have often dusted other cultural groups even in their own invention and their own identities, whether in fashion or Hip Hop, or for that matter, culinary preferences Nigerians always excel in copying. But when it comes to the real indices of development and socio-economic advancement even the least endowed nation beat us (Daily Champion, 2009).

In no area is this better examplified than in the environment sector. A cursory survey of our inner cities, rural areas, road ways and even institutions reveal a most unflattering level of environmental innocence. A shocking revelation that once again the rest of the world has left us far behind. The garbage exhibitionism, the sprawling

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 49

neighborhoods, the road side market places, the poor road networks, lack of public toilet facilities, cooking in open places and inadequate drainage infrastructure stitch out like sour fingers (Daily Champion, 2009). No need to mention other precursors of pollution such as gas flaring in our oil wells, or the predominant recourse to tokumbo automobiles and the number of power generators for domestic, commercial and industrial uses (Daily Champion, 2009).

The savannah belt of the north has been contending with rapid desertification and drought, leading to lost of arable and the habitable more succinctly, the soil moisture is rapidly diminishing worsening the adverse consequences of drought, enduring in the region. Considering that the reasonable agricultural yield of the zone is irrigation-driven, prediction of a hunger epidemic is no longer academic. It is stark reality and even more significant in this season of global food crisis. The South East is home to the worst amenable rate of landscape loss as a result of gulley erosion (Daily Champion, 2009). The degradation rate, justaposed with the strategic resources available for containing them is like wedging a storm with straw bales. If the response capacity in this region remains reactive as it is today and nothing is done to beef up restoration and practice strategies, the entire area may be wiped out in the twinkle of an eye. The South-South and South-West zones do not fare any better. All it will take for complete submersion of all of Lagos and its littoral district is a few days of continuous rainfall and a gust of high velocity wind storm. A recently reported mild hurricane in some coastal areas is only a test-rum. At least it is enough to put us on notice that ill-tempered storms are no more a far-fetched (CNN Breaking News stuff about other land). We are no longer too far away from domesticating them (Daily Champion, 2009). The level of environmental pollution in the oil-rich region is perhaps, too well known to merit repetition.

It is clear that the whole world is outraged about the people's plight, especially with the type of political leadership they manage to erect, that always succeed in guzzling their considerable allocation. The question that may become apt and imperative, what sort of development do we have in mind when the environment is slipping away from control? There is ample evidence that Nigeria has always had high level representation in all the international conferences, seminars, workshops, protocols and summits on the environment subscribing with great enthusiasm to all the blue-prints.

For many years the environmental statutes have not been reviewed or updated along the lines of need and *in tandem* with the global trend of urgency, desperation and unwavering activities. Proactive measures like mandatory Environmental Impact Assessment (EIA) for categories of projects have been handled with levity. A look at the eight-point focus of the MDGs reveal how far we have to go before scratching the precincts of modernity. Nothing about our performance reveals that we have the slightest inclination to embrace development.

Normal human activities produce a measure of waste. Good enough the almighty God assigned earth's natural circles to process such waste, cleaning the air,

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 50

the water and the ground (Awake, 2007). Our actions should be in harmony with those processes. Thus, we need to be careful not to contribute unnecessarily to earth's environmental woes. God instructed the nation of Israel to bury human wastes "outside the camp" (Deuteronomy 23:12 to 18). This kept the camp sanitary and speed up the process of decomposition. Similarly today, true Christians strive to dispose of garbage and other waste quickly and, properly, while special care is taken to dispose toxic materials. Many waste products could be recited or recycled. If recycling is mandated by local laws, then obeying such laws is part of rendering "Caesar's things to Caesar" (Mathew 22.21).

In order to fill human needs for food, shelter and fuel and thus sustain lives, we must consume natural resources. How we use those resources reveals weather we recognize that they are gifts from God. When the Israelites desired meat to eat in the wilderness, God provided abundance of gift. Greed caused them selfishly to abuse that gift, greatly angering God. (Numbers 11:3L33) Some may view unlimited consumption of energy or other resources as their right. But natural resources should not be squandered simply because we can afford them or there is an abundance.

Everyday we make choice that affect the environment. It is proper for us to consider the environmental impact of our choice in such areas as house hold purchases, transportation and recreation. For example, some choose to purchase products that have been produced or that operate in ways that minimize damage to the environment others strive to reduce their share in activities that create pollution or unduly consume natural resources. God placed upon humans the responsibility to care for the earth. Appreciation for this creative works should motivate us to make thoughtful, conscientious decisions regarding how we treat the earth (Awake, 2007).

The third national development plan made a start in trying to solve the primary environmental problems of human settlements. The plan at its inception was scheduled to tackle the problems of secondary environmental pollution especially with respect to industrial activities as they affect water land and air. It was also posed to tackle noise pollution and natural disaster in the form of floods, soil erosion and desert encroachment. Water scarcity has posed a serious problem towards our sanitation programmes It has been fashionable to insist on water closets in the urban areas, but the provision of water has never been adequate. Nigeria is notorious for its open gutters. Poor cities like Brazaville and Nairobi do not portray gaping gutters. As a matter of fact, such eye sires are non-existent there (Awake, 2007). Pensive about this situation, it is not out of direction thinking that it is either our terrain is cursed with the menace of open gutters or our civil engineers lack the practical expertise to adopt the neat sewage and drainage systems prevailing in modern urban centres all over the world. The constraint of open gutters must be settled once and for all.

There is practically no evidence that any toilet facility has been constructed in our cities in recent times. People are therefore compelled to pass out waste at random places, urinate or best bet is to farm out the provision of toilet facilities to private entrepreneurs. A more pragmatic attempt at addressing this issue is the private/

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 51

public partnership, if governments do not have the financial resources alone to build the facility where necessary. Massive, orientation programmes need also to be initiated to correct the negative attitude of members of the public towads the use of our deplorable toilet facilities. At the planning stage of new layouts, town and country planning is thrown out of gear by the uncontrolled growth of slums beside our major cities and towns. The migration from the rural to urban centres goes on unabated. It is often better to prevent slums from developing rather than the usual belated effort to demolish them at great human suffering after they have matured. This fire-fighting trend has been noticeable all along and should be erased from our schemes.

ENVIRONMENTAL CRISES IN PERSPECTIVE

Viewed critically, no nation, whether developed or developing is immune from the negative consequences and stresses of climate change. Many global environmental issues such as food scarcity, extreme weather conditions, availability of water, protection of wild life and several other climate related issues may be affected by climate change. The only difference is that its impact varies across the globe. There are basically three distinct interrelated concepts namely: Ozone layer depletion, global warming and climate change (Nation June 10:8). The ozone layer protects life on earth against harmful ultraviolet radiation from the sun. Unfortunately, substances have over the years been found to deplete the ozone layer. These are the green house gases, such as chlorofluorocarbons (CFCs) hydrochloroflurocarbon (HCFCs) halons, methylchloride, methylbromide etc., which are emitted into the atmosphere from human activities. Industrial and household use of products also have the potentials to cause global warming. They also affect the natural climate balance resulting in such extreme events like droughts, cyclones, floods, storms and landslides (Awake, 2007).

The increasing importance of the environment as part of foreign policy agenda has held to a number of international summits which address global environmental problem and pursue a wide range of actions to protect the environment and promote a goal of sustainable development. Good enough, the various summits on the environment have helped to identify problems which the world can no longer ignore. Increasingly, media reports tell that unless action is taken now, global warming may cause significant climate change with potentially dier consequences on man and its environment. It is now known that the concentration of carbondioxide has risen to 383 parts per million as against 280 part per million in the beginning of the coal boom (Daily Independent, 2007). Scientists now warn that we are moving closer to a condition that will make it impossible for humans to avoid irretrievable damage to the planets habitability for human civilization (Daily Independent, 2007), that without reading the consequences of our action we have been putting so much carbondioxide into the thin shell of air surrounding our world that we have literally changed the heat balance between the earth and the sun.

According to a recent report of the UN sponsored Intergovernmental

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 52

Programme on Climate Change (IPCC), global warming is unequivocal and "very likely," mankind is largely to blame (Awake 2009). Since the law of physics is applied in the Physical Science, the practicability is much evidenced in the vexed issues of global warming which is traceable to man's industrial activities and the effect on the environment (Nation, 2007). There is scientific evidence that global warming is as a result of uncontrolled release of methane (green house gas) into the atmosphere by leading industrialized nations which has adversely affected the measure of temperature in existence.

The traumatic experience and tragedy associated with flooding another disasters brought upon victims are caused by climate change. It is noteworthy that such disaster leads to loss of lives and property (Nation, 2007). According to a new report in Nature, a Science Journal, the carbon storing capacity of global forests could be lost entirely if the earth heats up 25°C above pre-industrial levels (Daily Independent, 2009). Droughts, insect invasion, fires and storms would cause wide spread forest destruction "The impacts of these fires and pest infestation will lead to an additional release of carbon into the atmosphere which again exacerbates climate change" says Alexander Buck of the International Union of Forest Research Organization (IUFRO) base in Vienna (Daily Independent, 2009).

Climate change is leading to significant losses of genetic resources in several regions of the world, says Atta Krah. He says diversity among crops species must be effectively conserved, managed and improve crops and adapt to climate change (Daily Independent, 2008). The world live stock are also in the danger zone (Daily Independent, 2008). A 2006 assessment of global animal genetic resources by the UN Food and Agricultural Organization estimated that 70% of the world's unique live stocks are in developing countries. That many breeds already risk extinction Also, that on average one livestock breed is lost every month mainly due to globalization of livestock markets. Climate change will affect the livestock by changing the yield and nutritional quality of their fodder, increasing disease and disease-spreading pests, reducing water availability, and making it difficult to survive in extreme environments (Daily Independent, 2008).

Climate change will have impacts at the ecosystem level that poorly understood says International Livestock Research Institute (ILRI) Deputy Director-General for Research, John Mcdermot. That the effects will vary between the rain-fed high lands in the Great lakes region of eastern Africa and the forest of central Africa than international attention to the environment began on a large scale in 1972 with the Stockholm conference on the Human Environment and the founding of the United Nations Environment Programme (UNEP) At that time, only 25 countries possessed national environment ministries eleven of them in the developing world (Nation, 2008) Environment action was understood in context of clearing up pollution, and in the developing countries was viewed as a luxury to be afforded only after industrialization.

By the mid-80s, more than 140 countries of which 110 of them are in the

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 53

developing World had national environmental agencies (Nation, 2008). Admittedly, many of these agencies remained chronically under funded, poorly staffed near the bottom of the ministerial hierarchy. By this time emphasis had shifted from pollution to the management of resources such as forests, fisheries, rangeland, soils, genetic diversity and wetlands. Environmental degradation was now seen to be as much consequence of poverty as of successful industrialization (Nation, 2008). Governments were influenced by in-sights flowing from a new field known as Earth Systems Science or more simply, global change (Nation, 2008). It composed of studies that cris-cross the traditional boundaries of geology, oceanography, ecology, chemistry, paleobiology and meterology. Earth Systems Science emerged for several reasonsresearch of the previous years had erased the old nation of a stable and fully formed planet, replacing it with a picture of a planet, naturally in constant flux (Nation, 2008). Earth System Science increased understanding of the high degree of interaction among the planet, non-living realms, namely, water, the atmosphere, rocks, and soil and its living realms, the always evolving biosphere which overlaps each of these (Nation, 2008).

Following the earth system science came many realizations and forecasts, among these are by the year 2025, over 30 countries will be unable to provide 1000 cubic meters of water per person per year as a result of population growth. By the year 2025, 32% of the global population will live on some fifty -countries suffering from water streams or chronic water scarcity. Hazardous wastes have a long life span in the environment with the risks for the receiving country being not only contaminated air, soil , water and food stuff, but also increased rate of cancer, birth-defects, and the other health problems. Toxic gases release from cars and the factories are rained down on earth, contributing significantly to the poising of lakes, rivers, oceans, and wet lands. Chlorine gas which is mostly produced synthetically bonds readily with organic matter to form one of the world's most notorious environmental poisons known as Organo chlorines.

A number of chemicals and pesticides used to aid agriculture end up in the food chain with adverse health consequences such as decrease in fertility, depression of the immune system and the increase in the development of cancer. Soil erosion and deforestation are accelerating the flows of sediments and nutrients to the ocean, while dams built for irrigation and electricity interrupt the natural flow in others. The loss of species, which is estimated to stand at four per hour is utterly disrupting the natural balance speciation (that is, the evolutionary formation of a new biological species) and extinction. Human activities at industrial and subsistence levels have altered the composition of the atmosphere in ways that affect the climate and resulting in what is commonly known today as global warming (the increasing average surface temperature of the earth).

Desertification, characterized by the degradation of soil and vegetative cover has affected more than one-third of the earth's land surface with serious adverse effects on the environment, food production, and the lives of millions of people. The

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 54

dumping of pollutant in the marine environments is resulting in diminution of species variety, and a vicious cycle of death, decay and depletion which threatens the marine organism (The Nation, 2008).

KEEPING THE ENVIRONMENT REAL

Man over time as a result of his numerous daily life activities, has been in constant struggle with the environment which in turn tries to freeze, over heat, starve, and poison us (Daily Independent, 2009). For many people too poor to afford electricity, gas or kerosene, the only option is the fuel used by man since the dawn of time: wood, dried dung and crop residues (The Nation, 2008).

When burnt indoors, these fuels gives off noxious smoke with dangerous levels of chemicals such as benzene, formaldehyde and carbon monoxide which results in chest infections. this infections are one of the commonest global killers of children claiming at least two million, under-five every year (The Nation, 2008), who would have thought that the oldest task in human history, making fire with wood, could also be the most deadly and harmful? (The Nation, 2008) Though we all need water yet our streams, rivers and acquitters are full of nasty micro-organisms and parasites especially in an environment without swage facilities for disposal of human waste. Some 1.5 million children are killed annually by ancient water-borne diseases such as cholera and dysentery, making dirty water another common killer on the planet earth (The Nation, 2008).

Greater prosperity has allowed all of Europe, North America and large parts of Asia to have electricity, superseding dirty fuels such as wood. Practically, everyone has access to clean running water and can flush toilets after use. These advances have consigned "environmental" disease such as cholera to the history books. England, once a hot bed of cholera has had an outbreak since 1866 (The Nation, 2008). By contrast, an outbreak in Angola in 2008 infected 3000 people. Epidemics are still common all over Africa and south Asia (The Nation, 2008). Unfortunately, in Africa many governments actively conspire to prevent access to clean fuel and water, mainly by clinging to the outdated ideological belief that this essential utilities remain a public sector monopoly. Economic growth and pragmatic policy towards water and electricity is the surest to help people protect themselves against the vagaries of environment. Although growth increases air pollution, history shows that as countries get richer, pollution decreases as more is invested in a more efficient and cleaner technologies, smoke and sulphur in London's air are currently at the lowest levels for 500 years, despite massive increase in economic growth (Daily Independent 2009).

FOREST PRESERVATION AND THE ENVIRONMENT

The Food and Agriculture Organization of the United Nations says that Nigeria lost has 35 of its forest covers, which translates into about 6,145,000 hectares, to deforestation between 1990 and 2005 (Sunday Punch, 24/01/2010). The total rate of habitat conversion in Nigeria, as computed by the organization, stood at 39.2% of

forest and wood land (habitat). Within the period, Nigeria's rate of deforestation was listed as the highest in the world. The FAO reports and that of others credible international and local organization have been available to the federal government but were not acted upon despite the dangers highlighted in them. The same situation is observed in government's attitude towads the petroleum industry operation, where gas flaring, oil spills from facility failure, indiscriminate dredging, obliteration of mangrove swamps and other destructive activities of oil companies have continued unchecked for half a century (The Nation, 2008).

The recent disclosure of plans by the Ministry of Environment and Natural Resources could be a new beginning, a positive change of attitude informed by fresh insight provided at the December 11-18, 2009 United Nations conference on Climate Change. Inconclusive as deliberation and negotiation on certain critical issues, the conference drew global attention to the emergency proportions of temperature rise as well as the diminishing capacity of natural mechanism for absorption of carbon dioxide. The imperative of reasonable remedial measures is all too obvious (The Nation, 2008).

In the decades that Nigeria has witnessed massive deforestation, the impact on agriculture and other areas of economic importance has been devastating. Soil infertility is one consequence as the unprotected earth surface repeatedly battered by the rains and soil nutrients like nitrogen are washing away plants that depend on trees for their survival and fruiting. Growth also becomes stunted (The Nation, 2008). Soil erosion is also execrated whenever forest cover is depleted with the result that building entire villages and farmland are lost as it is the case in many parts of eastern Nigeria and with other parts of the world. Deforestation leads to more heat as the loss of shade provided by trees exposes humans to direct rays of the sun (The Nation, 2008).

These are trends that must be checked and with the resources at the disposal of government. At the global level Nigeria's responsibility to ensure that its forest are on a state that can moderate the carbon cycle through absorptive capacity species of trees discovered in the forest garbing and elsewhere known to be particularly valued in absorption of carbon dioxide. Afforestation does not have to be a task for the federal government and its agencies alone. States and local government councils, non-governmental organizations, groups and individual have to be actively involved.

DESERTIFICATION AND CHALLENGES OF POVERTY

Desertification is the destruction of the biological potential of the land leading to the spatial extension of the desert-like conditions of the soil and vegetation into areas outside the climatic desert (Daily independent, 2008). The great desert of the world were formed by natural process interacting over a long period of time. In some places desert are separated sharply from the surrounding, less arid areas of contrasting mountain that reflect basic structural difference in the regional geology (Daily Independent 2008). In other areas, desert fringes form a gradual transition from a dry

to a more humid environment, making it more difficult to define desert borders. These transition zones have fragile and delicately balanced ecosystem. In these marginal area, human activities may bring stress in the ecosystem well beyond it tolerance limit, thus resulting in the degradation of the land. Livestock hooves pound and compact the soil, reduce the percolation rate of the soil. This encourages erosion by wind and water. Grazing and fuel wood collection reduce or eliminate plants that help to bind the soil. It should be noted that desertification does not occur in linear pattern as some people portray. The presence of a nearby desert has no direct relationship to desertification. Areas far from natural deserts can degrade rapidly to bare rock or barren sailor sand due to poor land management (The Nation, 2008).

Desertification leads to poverty as a result of the disempowerment of the affected populace. Empowerment is a divine directive and it was commissioned when the Almighty God gave man dominion over things he had created. In fact, this divine empowerment was one of an environmental type. Man was authorized by God to subdue his environment and use it for his own benefit. Different countries of the world are carrying out this divine directive with various degrees of success. The advance countries of the world have gone far in carrying out this directive. In fact, some of them have now extended their dominion to extra-terrestrial environment while the lowest degree of compliance is found among the under developed societies like Nigeria. Generally speaking, any form of disempowerment lead to poverty or serious disharmony and it is repugnant to natual justice. In human personality, inability to subdue ones environment to the benefit of man results in poverty (or impoverishment) because the environment has all that is takes to enhance quality of living. The need for food, clothing and shelter could all be met by exploiting the resource found in the environment, likewise the basic raw materials for industries.

As noted earlier, desertification leads to the destruction of the biological potentialities of land. This means that agriculture cannot be practised on a desertified land and by extension, human existence is impossible. The Sahelian draught that began in 1968 was responsible for the death of between 100,000 to 250,000 people, the disruption of millions of lives and the collapse of the agricultural base of five countries (Daily Independent, 2008). In 1973/74, desertification caused by drought led to the death of thousands of animals in Dagacheri, a village in Jigawa State (Daily Independent 2008). Among the dead animals were work bulls which are highly prized by farmers. Another dimension to desertification is the competition between the pastoralists and the farmer for scarcely available land that is good for agriculture.

This competition often develops into bloody clashes between the two group causing fatalities in some cases. These clashes often lead to heightened social tension and dislocation. The over all effect is that instead of consecrating efforts at combating the minerals of the desertification, efforts would then be directed towards conflict resolution. With the collapse of agricultural basics as a result of desertification, livelihoods of affected communities would be seriously threatened or completely disrupted. This leads to poverty and social disharmony.

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 57

RIGHT TO A CLEAN ENVIRONMENT

Going by the degradation that our environment has suffered over the years and the extent to which this negatively affected the quality of life, it will be idle hype for anyone to assert that the existing safeguard of our right to a clean environment are adequate without the problem of food shortage and poverty, economic inefficiencies, corruption, lack of basic social amenities and infrastructure, It is easy to be bothered by the more esoteric concerns of the environment.

No one will suggest that the individual has no right with regard to protection of the environment. Rather it could be suggested that those he possesses are grossly inadequate to enable him confront the challenge that development, economics growth, science and scientific research, technological advancement and capitalism as brought on the environment (The Nation, 2008). The irony is that man's exploitative attitude towards the earth and its natural resources which no doubt have continued to provide economic benefits to human kind is what has concomitantly manifested awesome negative impact.

If we return to the province of "right" it would be seen that before the right of a citizen can be safeguarded, those rights must first be formulated (The Nation, 2008). In the case of the right to a clean environment, the formulation is what has proved to be the most difficult. In this regard, the pertinent question that has continued to stare at us in the face are: Which way is the right to clean environment running? How far will you wish to run? Are we satisfied with the way it is running? The consideration of these fundamental questions is beyond the province of any one discipline. Nevertheless, it is only when these questions have been answered that we shall be able to define the purpose, function and orbit of environmental law and environmental justice in the global environment that every living person is a natural citizen.

Prior to the industrial revolution, not much of importance was attached to the issue of the right to a healthy environment (The Nation, 2008). This, to a large extent, was because people lived close to the earth. These apparently prompted Rachel Carsm to note in her famous classic titled "Silent Spring" that if the bill of right contains no guarantee that a citizen shall be secure against lellial poison, distributed either by private individual or by public official, it is surely only because our forefathers, despite their considerable wisdom and fore sight could conceive of no such problem (The Nation, 2008). As a result of the industrial revolution, the scene has changed. The system of resources used became significantly insufficient, thus, giving rise to the depletion of the natural resources based on large scale social amenities and imbalances in the natural system.

Effective prevention of desertification involves both local management and micro policy that emphasized ecosystem sustainability (Daily Independent, 2008). It is better to pay more attention to prevention because the effect of rehabilitating desertified areas are more costly and yield limitless result. The limited success in the rehabilitation of dryland ecosystems that have been affected by desertification support

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 58

the assertion that it is more advisable and cost effective to prevent desertification (Daily Independent, 2008). Addressing the menace of desertification is critical in meeting the millennium development goals (MDGs). About 90% of dry land population of the world are found in the developing countries. Also about half of the world population who live below the poverty line is found in the dryland. The combination of high variability and unpredictability in ecosystem condition in the dryland and high poverty level lead to a situation where susceptibility to further decline in human well-being is a stark reality. Thus combating desertification would enhance eradication of extreme or crippling poverty, huger and deprivation as enshrined in the MDGs.

CONCLUSION

Successive Nigerian governments have failed the people in the assigned tasks of providing them with the basic life amenities, friendly operating environment as well as good governance. Nevertheless, the present administration must as a matter of priority tackle the problem of electricity, as well as provide other social amenities that will make life worth living in the country. It is only this that will make the people discriminate the harmful practice of being their own municipal government-by generating their own electricity and providing water and thus hemorrhaging nature's fragile membrane.

Lack of provision of potable water has caused many Nigerians to turn to boreholes for regular water supply. Many who afford it has sunk borehole in their homes. The governmental implication of such action is just as bad as gas emission. The protective layers of the earth are directly affected when holes are punctured in sensitive areas of the earth crust in the bid to get clean and clear water that is good enough for consumption.

There is no doubt about the threat an unsafe environment or a carbon monoxide filled atmosphere posed to humanity. Apart from the harmful effect it has on the environment, humans, animals and flora, it may gradually lead to the extinction of humanity as well as plants and animals. In Nigeria, life expectancy is said to have fallen below 45 years. The degradation and willful rape of the environment is one of the factors that cause life to depreciate drastically in the country, it is not unexpected that the high amount of poisonous and/or toxic air that is breathed in by Nigerians mighty be one of the major causes of sudden death.

Environmental laws need to be given more bites. While it is wrong to ask government to come up with tough measure on the use of generating sets, when it has failed to provide the people adequate electricity supply, it still need to take drastic measures against indiscriminate emission of industrial waste and dumping of toxic materials on the environment by company and even humans. In spite of the numerous entreaties by government to oil companies operating in the Niger Delta, gas is still being flared indiscriminately in the region, causing more environmental hazard to

Journal of Environmental Issues and Agriculture in Developing Countries, Vol. 3, No. 2 August 2011 59

the people. What these suggest is either the absence of law that guides such operation or failure by the government to execute such laws, even if they are available. But whatever maybe the case, the Nigerian government needs to review her attitude towards the environment and adjust appropriately to confront the enormous challenges a poisoned environment presents.

REFERENCES

Awake Magazine (December 2007). Why care for earth's to Environment. pp 3-4

Daily Champion (June 9 2008). Nigeria's environmental burdens. p 1

Daily Independent Newspaper (November 20, 2006). We have neglected our environment. p6

Daily Independent Newspaper (August, 2007). Global warming simplicities.

Daily Independent Newspaper (December 1 2008). Desertification and challenge of poverty. pB8

Daily Independent Newspaper (March 14, 2008). Can crops Be climate - proofed. pC8

Daily Independent Newspaper (September 1,2009). Environment: Keep it real. p5

Daily Independent Newspaper (December 1, 2008). Desertification and challenge of poverty. pB8

National Mirror Newspaper (November 8, 2007). Why global warming may persist. p26

Nigerian Compass Newspaper (20th June 2008). Industrial Revolution and continued scientific explosions. p l2

Sunday Punch (January 24, 2010). Forest preservation and the environment.

This Day New Paper (9th January 2010). Anti climatic End to climate change. pp29-32

The National Newspaper (June 9, 2008). Standup to climate change, most Apt.

The Nation Newspaper (July 29, 2008). Right to a clean environment: Several answers, unending questions. pA4

The Nation Newspaper (December 2, 2008). Role of Language, Culture and Justice in Africa Environmental Protection and Sustainable Development. pA4

60