



## An overview on the environmental management and policy in Nigeria

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### ABSTRACT

This study examines the environmental management issues in Nigeria with a view to delineate a management framework for effective implementation of environmental policies. This study present an argument on the management framework which would enable Nigeria to initiate, plan, and implement environmental policies in a way that would enable the country to achieve a sustainable goals. Further, the study investigates the social distribution of environmental benefits and burden. The finding revealed that, environmental policy without effective management component is unlikely to achieve its espoused objective.

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### Introduction

The emerging consensus in the international development community favors environmental protection. Consequently, different developing countries have initiated public policies presumably aimed at protecting the environment and maintaining its integrity. The environmental policies in Nigeria have failed to achieve their ostensible objectives. The failure is attributed to the sheer lack of a management framework to implement environmental protection. In other instances, there has not been a demonstrable commitment to effective management of environmental policies in both nations the developing countries. This appears to be the case in virtually all-African countries, especially nations like Nigeria in West Africa. The lukewarm attitude toward environmental policies in the country stems partly from the fact that governments cannot claim a sole ownership of those policies. The predominant style of development in Nigeria over the past three decades has essentially been an imitation of the style practiced in Europe and the United states, both in general terms and with specific reference to technology and energy. This style is based on the promotion of industrialization to attain the rapid growth required to bring about the desired wellbeing of the indigenous population. Consequently, because current environmental policies fail to take into account the real indigenous social and economic characteristics in Nigeria, the adopted style of development and environmental policies did not produce the expected effects. This has also caused varying repercussions to each of the two nations. Environmental policies that are exclusive to the indigenous society have led to comprehensive confusion rather than clarity in the rural areas of these nations.

The principal premise upon which this environmental style was based was founded on the supposition that significant incentives to the industrial sector through the use of modern technology would bring about a highly dynamic increase in all productive activities and this would in turn; propagate technological progress throughout the economy. Such a modernization process was expected to raise the qualifications of labor and management and thereby lead to new and highly productive investment as well as environmental conditions. In turn, the incorporation of advanced technology would permit future generations of domestic technology, which would

promote self-sustained development. Certain reforms in the agrarian structure, combined with the incorporation of capital and technology, would end stagnation in the agricultural sector and convert the sector into a consumer of industrial products. The formulation of these rigorous environmental policies, however, has ignored the input of indigenous people in Nigeria who were expected to help implement all the environmental policies in their rural land. Thus, environmental problems of these nations fall broadly into two categories - the problems arising out of poverty or the inadequacy of development itself, and the problems that arise out of the very process of development. The problems in the adopted style are reflected in the poor social and economic conditions that prevail in both the rural and urban areas. But as the process of development gets under way, the problems (among others) in Nigeria are resource depletion and pollution.

Fossil-fuel sources of energy, such as oil and coal, are finite; they also pollute the air and water, and contribute to global warming. Fossil-fuel source, such as wood, also contributes to warming and atmospheric pollution in Nigeria (as well as globally). Although in theory wood is a renewable resource, in these nations wood harvesting has passed the maximum sustainable level. Some of the hydroelectric power plants in these nations are also source of environmental problems. The Kanji dam in Nigeria, and other dam projects have displaced thousands of people and destroyed ecosystems. Further, although the natural deposits of oil in Nigeria may enable the nation to industrialize, it has also caused changes in the flow of rivers or air quality and livelihood of thousands of citizens who live in the Niger delta belt of the nation. In this sense, the environment is a dynamic inheritance, in both nations, that influences every new generation.

A prominent reason why Nigeria cannot claim ownership of their natural resources is that environmental policies have always been initiated rather haphazardly at the urging of the international development agencies and multilateral organizations. Whenever, foreign aid-giving agencies and organizations initiated environmental policies, they have cajoled governments in the region. Further, the continuous implementation of such programs has been mostly haphazard because of the absence of institutional mechanisms and

endogenous management infrastructure. Still, in other cases, human, physical, and financial resources have not been properly aligned and efficiently geared toward the achievement of the stated environmental policy goals. Furthermore, both external and internal stakeholders need to be effectively mobilized to provide sustained support for credible public policies aimed at protecting the environment. This study examines the environmental issues in Nigeria. It analyzes the need for public commitment to effective management of environmental policies in Nigeria. It further investigates the social distribution of environmental benefits and burdens in these nations.

This study also delineates a management framework that is critical to effective implementation of environmental policies in both nations. The objective of this study is to provide such a framework. It attempts to present an argument that a management framework would enable Nigeria to initiate, plan, and implement their environmental policies in a way that would enable them to achieve sustainable goals. It is further argued that environmental policy without effective management component is unlikely to achieve its espoused objective. Regardless of the levels of sophistication in Nigeria, environmental policies are unlikely to be successful without a corresponding management infrastructure. Establishing effective management infrastructure for the implementation of environmental policies, in turn, requires political leadership and commitment, both at the national and international levels. Industrialized countries should support Ghana's and Nigeria's environmental protection initiatives. Thus, the question of whether technical policies alone can help solve environmental problems in Ghana and Nigeria is explored in this article. This article further contends that environmental improvements are equivalent to economic improvements if they can increase social satisfaction or the welfare of the indigenous people in these nations. Finally, the study suggests appropriate waste management and environmental policies for Ghana and Nigeria in the twenty-first century.

### **Ecology and Environmental Problems**

In the 1960s, there was a resurgent environmentalism. However, the resurgence was limited to the industrialized countries (Pearce and Turner, 1990). In the United States, for instance, the concern over the environmental degradation reached a critical point in the 1970s. Thus, Erskine (1972: 120) was able to characterize "the unprecedented and urgency with which ecological issues have burst into American consciousness" as "a miracle of public opinion." In the developing countries, however, the recognition of the need for policy to protect the environment is a much recent undertaking. Pre-occupied with abject poverty, environmental protection ranked low on the list of developing countries priorities. But this attitude is changing. Although the specific details may vary, many countries are now united in a crusade to protect the environment. It is widely acknowledged that environmental degradation is antithetical to "sustainable development"—defined in the Brundtland Report as "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987: 43). Such a dramatic change in the perception of the international development community stemmed from the awareness that environmental problems are transnational issues that must be addressed jointly by the industrialized and developing countries. Consequently, environmental conferences have become a powerful rallying medium for articulating the need for substantive environmental policies at the national, international,

and regional levels. Previously, the debate on environmental policies was commonly framed as a zero-sum game. The debate was cast in terms of a trade-off between economic growth and environmental protection. By contrast, it is now widely acknowledged that a country can achieve substantial economic growth and environmental protection simultaneously. It is imperative to recognize that balancing economic growth against environmental protection and maintaining the structural equilibrium between them and among other competing values in the society can be mediated, not by the invisible hand of the marketplace, but by the guiding hand of government. This suggests why governments must use public policy as a sovereign instrument to address societal problems has been put forward by some African scholars.

Titilola (2000) contends that in the absence of appropriate or functional technical changes in Ghana and Nigeria two phenomena are important and immediate with respect to the problem of rising pressure of human and livestock population on traditional shifting cultivation. Thus, one is the link between livestock and overgrazing capacity and the second is the high rate of deforestation as a result of demand for fuelwood. Yudelman (1987) and Issahaku (2000) pointed that the aftermath of deforestation in sub-Saharan Africa includes erosion, and loss of topsoil with accelerated desertification. These problems of the environment in Nigeria and Ghana, therefore, constitute the reason why the government should give priority and adequate planning to issues concerning the environment. Unfortunately, these environmental issues have received little attention.

Two types of environmental policy options have been advocated for sustainable management of environmental issues in sub-Saharan Africa. One policy position favors a market-friendly, large-scale industrial development approach to the sustainable development of forests (World Bank, 1992). A key assumption behind this approach is that rapid economic growth based on free-market economics and expanding world trade offers the best path towards raising standards of living to a point where people have sufficient leisure to develop environmental awareness. In this Scheme, large-scale commercial logging and industrial plantations are key because they contribute to economic, environmental and social sustainability. Economic sustainability according to this approach flows from the financial, organizational and technological capabilities of large firms: from their quick, positive impact on gross domestic product (GDP); and from the favorable effect on the balance of payments of timber exports and foreign direct investment, usually in the pulp and paper industry. Social sustainability is rooted in the private sector's capacity to offer employment in rural areas (forests) that are often extremely impoverished due to the lack of economic opportunity.

Well-managed native forest stands and plantations promote environmental sustainability, given the role of trees in the control of greenhouse gases that affect global warming, as well as their role in protecting watersheds and in providing a bulwark against soil erosion. Several additional features of the market-friendly approach to sustainable forestry are significant. It endorses private property rights over cooperative ventures and communal ownership. It also recommends sharply reducing the sphere of government responsibility in the forest sector by decreasing the nation's control and regulatory functions. Once that has been accomplished, the approach recognizes the need to strengthen the nation institutions of the sector, especially with regard to the training, maintenance, and equipping of personnel. These provide the tools that will be needed for more efficient

crafting of market incentives for forest management and for effective implementation of key oversight duties. Finally, with respect to citizen participation, the market-friendly approach has two positions. First, it exhibits a strong normative preference for democracy, because open political systems allow environmentally aware citizens to organize interest groups – non-governmental organizations (NGOs) – to pressure governments into actions.

Secondly, those NGOs can help to implement policy, monitoring agencies, become involved in park management and community development within parks. The grassroots development approach to sustainable forestry argues that the wellsprings of economic, social and environmental sustainability have different sources (Redclift and Goodman 1991). It recognizes that healthy economic growth is necessary; but it argues that market economics alone is not the best course to social sustainability in the forest sector. Unlike the market-friendly approach which reinforces patterns of intense wage labor exploitation prevalent in deeply impoverished rural areas, the grassroots development approach posits that the livelihoods of peasants and small farmers will be better served by organizing communities and building small-scale enterprises to manage forest harvests, industrialize the timber and use non-timber products. The assumption is that under these conditions, more of the income-generated stays in the community in the form of higher wages, social benefits and capitalization. Economic sustainability also depends on the formation of cooperatives to pool resources and know-how, and on linking them to local, regional, national and world markets. The grassroots development approach contends that environmental sustainability is better served by small-scale use because, with appropriate technology, it offers a better opportunity to mimic natural processes. Equally important, the focus on low intensity use of timber and non-timber products takes into account the broader ecological functions of the forest, thus preserving biodiversity through the conservation of the complexity of the forest, as well as performing the functions stressed by the market-friendly approach.

Cognizant of the transnational character of the environmental problems, there have been various international conferences to forge global strategies to address the challenges. International concern about environmental sustainability is traceable to the 1972 United Nations Conference on the Human Environment and Development (UNCED), held in Stockholm, Sweden. This conference was followed by two important events: the Nairobi Declaration in Kenya in 1982 and the appointment of a World Commission on Environment and Development by the United Nations secretary-general in 1983. The latter was instrumental to the 1987 Brundtland Report—*Our Common Future*. Together, these two events provided the framework for the epochal “Earth Summit” in Rio de Janeiro, Brazil in 1992. At the national level, countries have designed specific policies to protect the environment.

Tunji Titilola (2000) and Abdul-Nashiru Issahaku (2000) pointed that in order not to destroy the environment of Ghana and Nigeria, there is the need to use the most efficient production and extraction systems available. The conservation of natural resources in both nations, however, requires better knowledge of the limitations imposed by the natural and manmade environment as well as the need for ecological balance.

Management is the process of working with and through people utilizing scarce resources to achieve organizational goals. Literature identifies certain core functions of management:

planning, organizing, staffing, leadership, and controlling. Therefore, any meaningful environmental policy must have management at its core. In many cases, environmental policy has not been effective in African countries owing to the lack of systematic planning. In other cases, human, physical, and financial resources have not been properly aligned and effectively managed. Compounding these dilemmas is the pervasive deficiency in technical expertise needed for the management of environmental policy. Management framework is the critical missing link in the environmental policies initiated by African countries. Such a framework for implementing environmental policy is provided in this study.

In practice, policymakers in Nigeria are being asked to incorporate important environmental objects in addition to other central objectives of economic development. Yet there is no framework or coherent methodology for doing so. While a bureaucracy has been established to deal with environmental issues in Ghana, and Nigeria, the amount budgeted by the government to environmental programs remain very small, approximately one percent of annual national budget. Adopting a realistic environmental policy in Ghana, and Nigeria therefore requires recognition of the major development imperatives facing the nations, and working within these parameters to define priorities and selective interventions. Current patterns of economic growth, unless modified substantially, can have damaging environmental consequences. At the same time alarmist positions on the environment do little to address the most compelling challenge for policy-making?

#### **Nigeria's Environmental Policy**

It has long been recognized that development can have major effects on the environment. The concept of sustainable development goes well beyond this acknowledgement by also considering the effects of the environment on development. Nigeria is faced with the task of coping not only with localized environmental problems that are generated primarily by local poverty, but also with global environment problems, which have their origin chiefly in the wealthy industrialized nations. At the same time, some of the domestic environmental problems of Nigeria have major international implications of a significant scale. Consider the implication of tropical deforestation, for example, a problem occurring almost every day in the nation. During the past three decades, millions of Nigerians made it known that environmental protection should be an important item on the public interest agenda. This outcry was due to the sahelian droughts, floods, forest fires, technological accidents involving oil spills, industrial chemical effluent, and the increased visibility of toxic waste dumping and contamination of rivers, lakes, soil and air (Egunjobi 1993; James 1993; Adeola 1996). The Nigerian military government sounded the alarm in newspapers, books and films. There were also public demonstrations for ecological sanity and pressure was put on the federal and state governments to produce appropriate policies or decrees.

The policies that resulted includes the Endangered Species Decree of 1985, National Conservation Strategy for Nigeria 1986, the Natural Resources Conservation Council Degree 1989 and the Federal Environmental Protection (FEPA) Decree 1989. Perhaps more remarkable than the rise of environmentalism, is the discovery in an Italian ship in May 1988 of some imported toxic chemical wastes, made up principally of polychlorobiphenyls (PCBS). This discovery led to a hostile media reaction that accompanied the discovery hastened the creation of FEPA in 1989, since Nigeria lacked both the institutional and legal framework to tackle the issue.

Olugbenga Ayeni (1991,750) and Valentine James (1993) contend that prompt government action is overdue in dealing with environmental hazards of soil erosion due largely to over-grazing, bush-burning and indiscriminate tree felling for domestic cooking, industrial hazards, due to pollution of the environment and oil spills are very common and as old as the history of oil exploitation in Nigeria. These incidences of environmental pollution have devastated socio and economic lives of people In the Niger delta belt of the nation, which is the main oil producing area. Farmers often suffer irreparable damages after every oil pipe blowout, while fishermen live in perpetual dread of the oil slick. Some foreign oil companies operating in this area confiscated farmlands and paid compensation for the crops and not for the land. Julius Ihonvbere (1995) and Bayowa Chokor (1993) contend that no efforts have been made to make oil companies accept direct responsibility or liability for damage to ecosystems or the natural environment. Rather, oil spills are seen as accidents arising from equipment failures or sabotage.

In Nigeria, what is referred to as "public" interest is only partially related to the expressed needs and desires of the citizens. The crucial defining role is played by the corporate elites from the multinational oil companies of the industrialized nations who have the wealth, power and will to exert extraordinary influence over public policy. When the public's needs are blatantly abused (like the Ogoni people and other ethnic groups living in the Niger Delta area of Nigeria), people often look to the federal government to correct the abuse. In short, corporate elites are powerful enough to ensure that government efforts do little damage to corporate profit margins. For example, U.S. based Chevron oil company in 1997 admitted involvement in an incident in Nigeria where they ordered the Nigeria security forces to kill two local community activists in the Niger River Delta region. The two protesters were demanding that Chevron increase its contribution to the development of the local impoverished area.

The expansion of oil revenue has an unprecedented level of industrial and infrastructure development in Nigeria. This has generated deepening contradictions in terms of regional inequalities, impoverishment and disintegration of the Nigerian peasantry, urban unemployment and degradation of the Nigerian environment. These contradictions are particularly sharply focused in the oil-producing states of the nation. The entire production of Nigerian crude oil comes from the minority areas of farmers, Akwa Ibom, Delta, and Cross River State. On the whole, few of the intended or anticipated transformational effects generated by oil have occurred in these areas. These four states remain politically marginal and economically they represent some of the most underdeveloped states in the nation.

Francis Adeola (1996), Claude Ake (1995), Valentine James (1993), and Eboe Hutchful (1985) contend that it is the peasantry in the oil producing states who, while deprived of access to the benefits generated by oil surplus, has borne the negative impact of the industry. Oil industry operations have led to conditions of deepening under-development for this peasantry and have directly or indirectly transformed the peasantry in the oil-producing states from the export of commodities - i.e., palm oil - to the export of labor. In addition to inevitable degradation effects of the oil industry on the natural environment, the dependence of the Nigerian military juntas on oil revenues and their close alliance with the foreign oil corporations, as well as the inability of the state to control the technological processes involved in production, have freed the industry from a sense of

social responsibility towards peasant communities in the Niger Delta area.

The crushing debt load carried by Nigeria also constitutes one of the international economic factors that play a major role in forest and species declines due to a significant portion of the nation's financial resources being siphoned off to repay foreign debt. Forestry and other low -priority sectors are often hardest hit by cutbacks in staff and expenditures imposed by economic austerity programs, and these programs, combined with economic stagnation, also intensify pressures on forests through their impact on the poor. A second international factor is the high demand in industrialized nations for Nigerian timber and other commodities grown at the expense of forests. Growth built on such resource depletion is almost certain to be unsustainable. Many environmental policy interventions in Nigeria are regulatory, and seek to control the activities of both the public and private sectors in areas such as pollution, disposal of hazardous and toxic wastes, and health standards. Such policies, in order to be effective, require adequate funding, and trained staff, who are usually in very short supply and unlikely to remain untouched by the graft and corruption which frequently surround them and often form a part of their activities.

Over the past three decades, environmental policy in Nigeria has ignored the input of the indigenous people. The implication of such practice is that the indigenous people of Nigeria have been restricted to foreign resource bases that are limited in terms of both their extent and diversity. Therefore, as producers and farmers begin to experience decreased access to resources due to Nigeria's debt crisis, they are forced to take up agricultural practices for which they possess neither the knowledge nor organizational structures necessary to operate efficiently or respond to their environment's biophysical reaction. Thus, political elites and military juntas have often presented farmers with environmental models that are poorly suited to local conditions. As a result state development policies and agency structures are not conducive to the development of a satisfactory co-evolutionary relationship between nature and society. They are geared to the all too familiar "top-down" approach to rural development.

The environmental alarm is still being sounded but is increasingly being drowned out by warnings of other crises, for example, political instability, low economic productivity, education and high crime rate. Mass mobilizations continue to take place but are largely ignored by officials of the present administration who are dismantling all opposition to their regime policies. The search for safe, renewable energy has become a very low priority in the midst of today's economic recession. Does this mean that Nigerians have suddenly decided that environmental protection is not immediately important?

Francis Adeola (1996), Valentine James (1993), and Chokor (1993) assert that the most reliable indicators of the policies of governments toward environmental problems are how they are organized to deal with environmental issues and the amount of money allocated to address the problems. Based on this observation there is need for a closer look at what the Nigerian government and private citizens have done to improve the environment or to address environmental problems in Nigeria. The kind of environmental policy interventions currently favored by the United States and Western Europe, especially by economists such as Pearce et al. (1990a), present problems in the context of Ghana, and Nigeria. This is because goods and services such as water, gasoline and transportation are frequently subsidized in these nations, and several other African nations, in an attempt to counter the effects of inflation, and to

provide a stimulus to industrial growth. Whatever the true costs and environmental benefits of removing the subsidies on these goods, their removal penalizes the poor and can have a marked effect on their standard of living, especially in urban areas. Citizens of Ghana, and Nigeria are, often forced to adopt sustainable strategies out of necessity, they can only guarantee that acting sustainable will not make them lose control of their own immediate resources. This is not an inevitable outcome, and the dice are often heavily loaded against more sustainable practices. Uneven development has frequently made the poor face the internal costs of externalities in their daily lives.

A long history of corporate neglect of the environment and a more recent corporate opposition to environmental protection (Shell Corporation and the Ogoni people) provide a major explanation for today's environmental crisis. In fact, the only noticeable change is that corporate elites have begun to recognize that environmental problems do exist, and to develop an ideology that (1) absolves them of responsibility and (2) portrays them as the best hope for solving the problems. This change is a function of politics rather than a matter of newborn corporate morality

#### **Environmental Policy and Waste Management**

Like any other public policy, environmental policy needs to be effectively managed. Several reasons can be advanced to justify the need for effective management of environment policy in Nigeria. On the one hand, African countries have mono-product economies. On the other, these countries have extractive economies superimposed on weak industrial bases. Consequently, most African countries depend almost exclusively on one commodity for the largest portion of their export incomes. For example, Sierra Leone depends on diamond export for over 60 percent of foreign exchange earnings; Zambia obtains 85 percent of its income from exporting copper; while Nigeria depends on export of crude oil for about 90 percent of its income.

These extractive industries have been the major sources of environmental degradation in Africa.

This problem will continue far into the future until African countries diversify their economic bases. For example, the impact of oil on the socioeconomic conditions of Nigerians has been extensively documented (Olayiwola, 1987; Onoh, 1983). Oil has provided access for Nigeria to enter the world market. It has also been a conduit for technology relocation in the country (Edoho, 1991). However, although oil production has contributed enormously to the phenomenal improvement on the socioeconomic existence of Nigeria, it has also accentuated environmental pollution and degradation (Akinmalodun, 1976; Ikein, 1990). In this section, we document both the environmental hazards and their impact of oil exploration and exploitation on Nigeria.

#### **Magnitude of Environmental Hazards**

Oil industry worldwide is characterized by environmental hazards. These hazards include blowouts, spillage's, and seepage's. These environmental hazards stem from the operations in the upstream and downstream phases of the oil industry. However, the frequency of environmental hazards in the operations of the Nigerian oil industry reflects human error, corporate recklessness, and sheer insensitivity of the oil companies to the need for environmental protection. The sources of environmental hazards in the Nigerian oil industry include: flow-line leaks, overpressure failure; sabotage of well heads and flow -line; hose failures on loading systems; and failures along pump discharge manifolds (Ikein, 1990).

Actual data on these sources of environmental hazards are lacking in Nigeria. As a matter of public knowledge, oil companies rarely report oil leakages and spillages in the country. In 1970, there was a blowout at the Borne oil field. This blowout spread over many acres of fertile, cultivable land. In September 1974, there were major fire outbreaks at 18 wells at Afam oil field. In October 1975, 17 fire outbreaks were recorded in the same location. In 1980, there was a devastating fire eruption at the Funiwa oil well. Baker (1985) reported that the blowout released 400,000 barrels of crude oil into the environment. In addition to blowouts, oil spillages are rampant. Data from the Nigerian National Petroleum Corporation (NNPC) indicated a total of 1,581 oil spills during a thirteen year period; the number of spills per annum was 124 barrel per spill 1,062; and the spill figures ranged from 150 to 630,405 barrels of oil (cited in Ikein, 1990:170).

Table 1 provides a composite summary of the nature of oil spills and the distribution by states of barrels of oil involved in the spillage between 1979 and 1984. During this five-year period, there were 2,129 oil spills in Nigeria. This involved a total of 1,700,308 barrels of oil released into the environment. It should be noted that the number of oil spills and pollution distribution are most severe in the Rivers State, followed by the Delta States. These two states accounts for over 92 percent of oil spillage, and approximately 91 percent of the total barrels of involved. The magnitude of oil Table 1 : Number of Oil Spills and Distribution by State, 1979–1984

States	No. of Spills Pollution Distribution No. in Barrels
Delta	453 626,721
Cross River and Akwa Ibom	73 79,610
Imo	86 81,317
Ondo	3 100
Rivers	1,514 912,560
Total	2,129 1,700,308

*Source: Based on Ikein (1990).*

Spills in these two states largely account for the tensions between the oil-producing communities and oil companies and, by implication, the federal government. The federal of government of Nigeria holds majority shares in all oil-producing companies in the country. For example, the government has controlling shares of 80 percent in Shell; 60 percent in Mobil; 60 percent in Chevron; and 60 percent in Texaco. In sum, the federal government has at least 60 percent shares in all oil producing companies. However, the disillusioned farmers, dispossessed fishermen, and frustrated oil-producing communities do not see the perpetually invisible federal government. What they see, however, are the omnipresent oil companies and their drilling rigs? Therefore, in their thinking, oil companies are the visible expressions of environmental genocide. To the extent that they factor in the federal government, they consider it an ally of the oil conglomerates in their evil design to dispossess the people.

Because the federal government is dependent upon crude oil export for over 90 percent of its foreign exchange income, it is reluctant to check the environmental records of the oil companies that, in essence, are junior partners. Rather, the federal government is prone to maim, murder, or even hang the natives of the oil communities who protest against water reckless oil spills and ecological disaster wreak by the oil companies. Little wonder that oil-producing communities have reasoned that until they control this vital resource in their land, rampant oil spillages and environmental pollution would not be

effectively addressed. This is the basis of protests, confrontations, and uneasiness in the Niger Delta area in Nigeria.

### **The Impact of Environmental Hazards**

The adverse environmental impact of oil production in Nigeria is evident. Oil spills “have disrupted the ecology of the oil-producing Niger Delta Basin” (Baker, 1985: 201). However, the “tales of paralyzed social and economic lives due to oil spillage are as old as the history of oil exploration in Nigeria” (Ayeeni, 1992:750). Thus, the dimension of the dangers threatening the existence of the oil-producing communities in Nigeria is real. Olusi (1981) has documented the negative impact of oil-related pollution on health. Oteri (1981) has indicated that groundwater contamination from hydrocarbon spills is widespread. A World Bank’s study indicates that in sub-Saharan Africa, contaminated drinking water and poor sanitation contributes to infectious and parasitic diseases that account for over 62 percent of all deaths—twice the level found in Latin America and 12 times the level in the industrialized countries (World Bank, 1992:45).

Oil spillages and the accompanying pollution are detrimental to the socioeconomic existence of communities, environmental quality, human health, and marine life. Oil spills deprives the farmland of vital nutrients. Yam productivity in the oil producing area has reportedly fallen in weights and sizes; corn is often found with empty cobs; cassava have mere fibrous roots, with little or no starch; and cocoyams and red species of cocoyams are extinct. Fish stock has been decimated as a result of oil spills. “It has become nostalgic in many part of the oil producing area,” Akinmalodun (1976:374) has observed, “to think of fresh fish soup. Even fishermen in the area have come to depend on the frozen fish from the supermarkets and from foreign countries.”

Beyond these problems faced by farmers and fishermen in individual communities, the impact of environmental degradation on Nigeria as a whole is considerable. In fact Nigeria’s economy suffers enormously from environmental degradation. Evans Aina, former head of Nigeria’s Federal Environmental protection Agency, noted that “Losses due to environmental degradation have been put at 25 billion Naira [about US\$1.5 billion, 13 percent of GNP] while 50 million Nigerians [half of the country’s population] are at risk due to environmental degradation” (quoted in Ayeeni, 1992:750).

### **Determining Environmental Priorities**

A study done for Nigeria identified three key national environmental problems facing the country: soil degradation, water contamination, and deforestation (FRN, 1990). Table 2 shows the national ranking of environmental priorities in the country. It must be noted Table 2 National Ranking of Environmental Priorities:

	Problem Resource/	Economic Growth/	Distribution Equity
Integrity Soil degradation	High	High	High
Water Contamination	High	High	High
Deforestation	High	High	High
Gully Erosion	Moderate	Moderate	High
Fisheries Loss	Moderate	Moderate	High
Coastal Erosion	Moderate	Moderate	High
Wildlife & Biodiversity Loss	Low	Low	High
Air Pollution	Low	High	Moderate
Water Hyacinth	Moderate	Low	Low

Soil degradation, water contamination, and deforestation all have high negative impact on economic growth, distribution equity, and resource integrity. Farmers and fishermen in the

country have experienced these problems as they have dispossessed of their trade and means of livelihood.

### **Management Framework for Environmental Policy**

As stated at the onset, the focus of this study has been to provide a management framework for implementing environmental policy. Environmental policy generally has to do with a set of principles by which a country regulates its utilization and conservation of environment for the purpose of achieving its national development objectives. A country’s environmental policy is concerned with the methodology of planning, classifying, prioritizing, and organizing resources as well as establishing institutional mechanisms designed to achieve national goals. Policy in itself has several connotations, but all carry the implication of choice (Norman, 1996).

Management of environmental policy as a focus of inquiry presents policymakers with multiple sets of problems that may complicate the choice among competing alternatives. The management dimension in this context is concerned with the specific arrangements that a country must make and activities it must undertake to implement the environmental policy. Such arrangements and activities are all inherent in the basic functions of management. Management scholars believe that the basic functions of management include planning, organizing, advocacy, implementation, and controlling. Each of these functions of management will be discussed in order to determine how they fit in the broader context of the national environmental policy scheme.

#### **Planning**

Planning is considered the primary function of management. Generally, planning is concerned with a systematic definition of objectives and setting of environmental goals, development of strategies to achieve the espoused goals, and identification of the resources to achieve those goals. With respect to environmental policy, planning underscores the need for a country to determine the goals it seeks to achieve by initiating environmental policy. The next set of issues has to do with the question of when to achieve those goals declared in the environmental policy (two, three, four, or five years). As part of the planning regime, suitable strategies to achieve the stated goals must be designed. In addition, a country must identify the necessary resources (material, financial, and human) required to implement the environmental policy. More importantly, environmental planning must deal with the whole issue of exploitation, utilization, and conservation of the natural resources.

#### **Organizing**

Organizing deals with how people and other resources are mobilized in order to achieve the stated environmental goals. Organizing entails structural arrangements, institutional mechanisms and designs, and establishing a hierarchy of relationships among various tiers of the environmental management system. It involves coordinating, mobilizing, and aligning the physical, financial, and human resources in a manner that would achieve the stated environmental goals. Organizing also ensures effective coordination of cross-functional activities.

#### **Advocacy**

Advocacy has to do with generating both internal and external support and mobilizing resources to support and promote environmental policy goals. The support of internal constituencies is critical to effectuate environmental policy. For any policy to succeed in addressing societal problems, the support of internal stakeholders is crucial. Since environmental policy cuts across functional departments, personnel in the

applicable areas must support the policy goals, by carrying out the specific programs and activities designed to achieve them. The external support for environmental policy is also crucial. Credible environmental policy is important for states to attract additional resources, such as funding, equipment, and technical expertise to achieve policy goals.

#### **Implementation**

Implementation has to do with prioritizing action programs and executing specific ones. It involves the execution of the strategies and programs designed to achieve environment goals. Implementation phase must be considered when environmental planning is done. Evidence suggests that planning is not the problem, but implementation is. Some programs developed for the implementation of the environmental policy may not be feasible. Therefore, a serious thought must be given to feasibility of the programs in the planning phase. The question of whether the country has capacity to implement environmental policy must be addressed up-front. It can be argued that while making environmental policy may not be a problem, implementing the policy may be a major problem in terms of the availability of technical expertise.

#### **Controlling**

Controlling is the process of devising ways and means of ensuring that planned performance is actually achieved. In the controlling phase of the environmental policy management system, the actual performance is compared to the established standards. While comparing the established policy goals with the actual achievements is important, however, the major focus is to monitor the activities in the environmental sector on a continuing basis. Forms of control commonly used include inspections and progress reports. In essence, control involves setting performance standards, determining methods for measuring performance, measuring actual performance, comparing performance with established standards, and taking corrective action when necessary to bring actual performance into conformity with the established standards. Two types of control are feed forward and feedback.

#### **Outcome**

To ensure whether or not the environmental goals have been achieved, the outcomes of the policies must be analyzed and evaluated. Such an analysis is critical from several standpoints. First is the need to determine whether or not the actual achievements are consistent with the intended goals of the policy. Second is the need to evaluate the unintended consequences of the environmental policy. Planning sets the environmental goals to be met; it devises the strategies to achieve those goals. Also, planning sets the stage for organizing and advocacy functions of management.

#### **Institutional Mechanism**

One enduring problem in articulating environmental policy centers on the appropriate institutional mechanism for the implementation of policy. Should existing ministerial departments or bureaus implement the policy? Should the policy programs be distributed among various departments? Should a new institutional mechanism be established specifically to implement environmental policy? Or under what institutional mechanism would environmental policy achieve its stated goals? Despite these thought-provoking questions, however, there is no general consensus on the institutional arrangements best suited to the management of environmental policy. We need to address this and other related issues in a more systematic fashion, while underscoring the central problems in environmental policy in Africa.

#### **Ministerial Structure**

It should be noted that environmental protection is relatively a new area of public policy compared to traditional areas, such as agriculture, commerce, and others. There are those who argue that one of the existing ministries/departments should be charged with the responsibility of implementing environmental policy. This argument is predicated on the assumption that the costs of establishing a full-fledge ministry for environment are prohibitive. Therefore, given their deteriorating economy and dwindling income, the burden of adding a brand new ministry to the existing ones would be too much for African countries to bear. According to this school of thought, a functional department established under any of the existing ministries to enforce the policy would be sufficient to address the concern. By contrast, others believe that a full-fledge ministry of environment is needed, and that the cost of establishing such a ministry pales into insignificance when compared to the benefits. The proponents further contend that establishing a ministry would give environmental issues the attention they deserve. They assert that such a structure would give the approaches to environmental protection a national prestige and international visibility. Finally, such a visibility would lend credibility to the proposition that placing environmental matters closer to the highest policymaking authority in the country symbolizes the priority given to them. Opposing this structure, however, are those who contend that ministerial structure is change-resistant. In addition to this, the ministerial structure is steeped in daily politics, and therefore vulnerable to frequent changes in government.

#### **Autonomous Body**

There are those who propose the establishment of a different autonomous body or agency specifically charged with implementing environmental policy. According to this perspective, if a different functional department is established under the existing ministries, the traditional issues with entrenched stakeholders are likely crowd out environmental issues. Similarly, they argue against establishing a full ministry of environment on the ground that environmental issues will become unduly politicized. The idea here is that in countries where environmental issues and daily politics are separate, a minister with cabinet rank does not head the environmental policy-making body. Rather, environmental matters are referred to a special autonomous statutory body. This approach would encourage managerial continuity in policy when frequent changes in personnel occur at top political level. Such an approach has the potential of insulating the body from the bureaucratic pathologies that plague many African countries. The functional utility of such an autonomous body is that there will be minimal political interference, given the high -level of professional expertise needed to manage the system. Political appointments are not often made in terms of who would deliver the good, but who is loyal to the regime.

#### **Future Policy Options**

The environmental management systems proposed for Ghana and Nigeria should be operationalized through a number of principles, the most important being, giving the responsibility to every member of the community in the form of orientation or environmental education towards conservative use. Others are judicious use of available resources in view of the need for self sufficiency and independence from outside support; a minimal degree of specialization among community members and thus a widespread knowledge of the environment and its management; and also the recognition of psychological and spiritual values. Such involvement demands as propriety, some upgrading of

environmental awareness among school curriculum, the people of Ghana, and Nigerians in general.

There is the need to look beyond the exploitation of environmental resources for immediate short-term against a more careful protection of resources for long-term sustainable economic returns. This would require incorporating training programs in environmental science into the nations. National and regional governments should provide educational programs in environmental matters. This should be part of the school curriculum. Through education and public relations campaigns indigenous people and communities should be oriented towards conservative use. The recycling of waste product, utilization of refuses organic fertilizers; biomass and so on should be encouraged. These have great potential as raw materials, but are currently not well utilized in the two nations. A very conscious and deliberate action is also needed to improve the efficiency with which natural resources are transformed into end products. Greater efficiency not only has economic advantages, but also makes it possible to save resources in order to reduce environmental deterioration in the extraction as well as processing phases. The application of pesticides in farm estates and plantations is increasing annually as a result of infestation by pests. Environment policy should include pesticides control so as to prevent the indiscriminate use of chemicals and the pollution of the atmosphere, as well as the poisoning of the soil from wrong use of fertilizer. Population stabilization is also very important and should be closely considered in future environmental policies in Ghana, and Nigeria. The increase in population could adversely affect the degradation of the environment coupled with a rapid demographic transition of the two nations under study, which in turn could result in difficulty in controlling the rate of poverty in Ghana and Nigeria. Hence a national population maintenance policy inclusive of indigenous input is very critical for future environmental management.

Finally, environmental policies in the twenty-first century should be concerned with the problems arising out of poverty and those that arise out of the very process of development. The remedial approaches to these problems are closely interwoven with policies for sustainable development. These policies should embrace wider dimensions than the growth of gross national product alone, and must include some of the major environmental problems that arise in the context of urban and rural poverty. The problems of poor water supplies, inadequate sewerage, sickness, nutritional deficiency, and bad housing need to be dealt with in the process of planning and policy making. Goals and objectives in these fields should be incorporated into development plans as much as targets for the growth of output. Many environmental problems in Ghana, and Nigeria cannot be addressed effectively with western-based models and regulatory policies alone, in addition, indigenous citizen participation, incentives, and educational efforts may be useful supplements. The governments of Ghana and Nigeria should encourage the private sector to be involved in research as well as cleaning the environment. Government agencies that are not providing adequate environmental services should be privatized. Several joint ventures or partnership between business and government should be encouraged to boost environmental awareness in both nations.

### **Conclusion**

This article has examined the environmental predicaments facing Ghana, and Nigeria. As the grass-root and sustainable agriculture models suggest, the maintenance of nature/society and intra-societal linkages is imperative to the sustainability of all agricultural production systems.

Publicity and campaign at all levels is very important. Environmental issues should be discussed Politically and related with poverty issues in Ghana and Nigeria. Poverty and environmental issues are inextricably linked in these sub-Saharan nations. People should be encouraged to set up voluntary organizations to help other people. There is an increasing awareness that environmental degradation is a plague to be conquered and modified for better human welfare in sub-Saharan Africa. The emerging consensus tends to support the idea that human beings are stewards of their geophysical environments. The underlying logic is that by protecting it and maintaining its integrity, the environment will serve people's needs far into the future. This is an important argument in environmental ethics.

For African countries, whose citizens are barely surviving the odds, embarking upon environmental protection crusade may appear to be a non-issue and a distant dream. Yet, a cursory observation would reveal certain steps have been taken to articulate environmental policies in these countries. However, those policies have not been effective in addressing the environmental problems because of the necessary management framework for their implementation. This study provides a managerial framework for articulating and implementing environmental policy in the region. It is also imperative to note that this framework per se will not address the problem identified in the environmental policy without adequate funding and qualified personnel. Inadequate funding has crippled the implementation of public policies that might have had the potentials to solve the problems they were intended to address. Equally, even with adequate funding, environmental policy implementation will not achieve the stated goals without competent professionals. In other words, effective implementation of environmental policy is dependent upon both adequate funding and qualified professional simultaneously.

The Ghanaian and the Nigerian governments should provide all the necessary support and encouragement to people who wish to help promote afforestation in the remote areas where the environmental problems are becoming more acute. There should be efforts to educate the rural population about the consequences of environmental degradation. Much of the problem would be solved if nationwide awareness were instilled in the minds of both rural and urban people of both nations.

The Ghanaian and Nigerian governments must be quite frank in facing the facts that political and corruption problems remain because of foreign aid. Such "dependency trap" undermines the resources available to them, which include the indigenous human capital. The local or rural political units should be involved for the initiation and management of environmental resources. Any revision to the environmental policy to promote development of natural environmental management must involve full participation arrangement with rural or local people if the policy is to succeed. Promotion of this concept should permeate the rhetoric of the national conservation. The problems in environmental degradation are very huge, especially in the area of management and implementation of policies. Special efforts should be made by the governments of Ghana and Nigeria to enforce environmental laws. On one hand they should impose strict control over the illegal behavior of public officials who are vulnerable to high level corruption. On the other hand they should educate the local people, who cannot pay high bribes, to report their activities. The solutions to environmental problems today will be more difficult, costly, and controversial than that of the past three decades in Ghana and Nigeria. This is simply because the

indigenous people are more aware than before. The awareness is making them to demand more compensation from their government than in the past. The trade-off between paying off national debt or paying damages to indigenous people will also make environmental solutions more costly. Thus, future design and implementation of appropriate policies will require genuine efforts and new budgetary priorities by governmental institutions and NGOs. It is our believe however, that environment al issues will again priority when the citizens of Ghana and Nigeria demand that their elected officials take environmental protection and enlightened stewardship of natural resources more seriously than has been evident in the past.

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