

Executing Environmental Policy and Waste Management in of Ghana, and Nigeria

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Abstract

This paper examines the effectiveness of waste management and environmental policies in Ghana and Nigeria. It argues that a nation that does not implement effective environmental policies and sustainable development initiatives may be unfair to its citizens and ecosystem. The absence of a better relationship between citizens and the ecosystem as a result of ineffective environmental policies have led to more degradation in Ghana and Nigeria. It utilizes the social sustainability, grassroots, market-friendly dependency, modernization, neoliberalism concepts to develop a management framework that could enable Ghana and Nigeria to effectively initiate plans to implement environmental policies in ways that could benefits their citizens, ecosystem, and achieve positive sustainable development goals. In addition, the question of whether technical policies alone could help solve environmental problems in Ghana and Nigeria is explored. This paper postulates that environmental improvements are equivalent to economic improvements if they can increase social satisfaction or the welfare of the indigenous people in both nations. Finally, the paper recommends some environmental policies that could help Ghana and Nigeria to achieve their respective waste management and environmental policy goals in the future.

Keywords: Environmental policies; Waste Management; Sustainable Development; Economic Development; Dependency Problem; Grassroot Approach; Social Sustainability, and Modernization.

Introduction

Environmental policies are actions taken by national and regional governments to ensure good quality ecosystem (Albrecht 1998; Kraft 1996; Dibie 2000). Environmental policies focus on all

aspects of the social and economic wellbeing of the citizens of the world. According to Common (1995) and Drobny (1997) pollution control and protection, natural resource use, regulating waste management, clean energy generation, and conservation such as reusable energy are all profound difficulties that many countries have to deal with in their sustainable development process. In addition, governments ability to invest in environmental protection initiatives have also created new patterns of consumption that could propel catastrophic implications in many African countries (Chokor & Odemerho 1991; Ofori 1991; Obadan 1991; Nwankwo 1988). A close observation of the current waste management problems, water pollution and air quality in Ghana and Nigeria is a sobering reminder that it will take a very long-time resolve. Because such problem requires a huge budget, scientific resources, and administrative and leadership skills to give the citizens of both countries the healthful ecosystem that they once desired to have in their lifetime. While there are a few negative effects where environmental policies are concerned, some scholars contend it is safe to assume that the positive effects from these policies far outweigh the negative impacts (Egunjobi 1993; Titilola 2000; Omuta 1988). According to Dibia (1999) the difficulties encountered by many African countries' governments in cleaning up their respective waste, air, and water pollution cannot be blamed solely on political incompetence, administrative failure, policy deficiencies and scientific maneuverings rather new technological development might also pose unanticipated environmental effects.

The emerging consensus in the international development community favors environmental protection. Consequently, different development countries have initiated public policies presumably aimed at protecting the environment and maintaining its integrity. The environmental policies in Ghana and Nigeria have failed to achieve their ostensible objectives. The failure is attributed to the sheer lack of a management framework to implement environmental protection standards or appropriate guidelines. In other instances, there has not been a demonstrable commitment to effective management of environmental policies in Ghana and Nigeria located in West Africa. In addition, the lukewarm attitude towards environmental policies in the region stems partially from the fact that governments in both countries cannot claim a full ownership of those policies (Egunjobi 1993; Breemer et al 1995; Abdul-Nasiru 2000).

The predominant style in Ghana and Nigeria over the past four decades has essentially been an imitation of the styles practiced in Western Europe and the United States, both in general terms

and with specific reference to technology and energy. These foreign styles are based on the promotion of industrialization to attain the rapid growth required to bring about desired wellbeing of the indigenous population (Ake 1995; Edoho 1991; Buel 1987). According to James (1997) because the current environmental policies fail to consider the real indigenous citizens' interests and social economic characteristics in Ghana and Nigeria. In addition, the adopted style of development and environmental policies did not produce the expected results and effects anticipated. This has also caused varying repercussions to each of the two nations. Environmental policies that are foreign and exclusive to the indigenous society have led to comprehensive confusion rather than clarity in the rural areas of these nations (James, 1993).

Environmental and land planning in Ghana and Nigeria has been affected by many factors that may have negatively affected better sustainable development goals for both countries. According to James (1993) and Kruper (1965) during the British colonial administration many towns and urban areas were deliberately connected by roads to satisfy the extraction interests of the colonial regime. Therefore, it could be argued that the different cultures of colonial power left different legacies in terms of African sustainable development goals, planning, and urbanization (James 1996; Kuper 1965). This argument helps to further explained why there are great differences in the infrastructure in regions where the colonial regime explored mineral resources and agricultural products and the areas where they could not find enormous economic gains. Therefore, there is no doubt that colonial administration in both Ghana and Nigeria played a major role in exacerbating the differences between urban and rural development in both countries (James, 1998).

The principal premise upon which this environmental style was based were 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 (Capporaso & Levine, 1992). Such a modernization process was expected to raise the qualifications of both labor and management and thereby lead to new and highly productive investment as well as environmental conditions (Moore 1989). 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 it into a consumer of industrial products (Harrison 1997). According to Thio (1992) and Aina and Adedipe (1991) the formulation of these rigorous environmental policies, however, has ignored the input of indigenous people in Ghana and 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.

According to Ake (1995) and Denizhan (1991) 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 Ghana and 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 Ghana and Nigeria as well as globally (James 1996; Ihonbere 1995). 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 are also source of environmental problems in these sub-Saharan nations (James, 1993). The Volta dam in Ghana and the Kanji dam in Nigeria, and other dam projects have displaced thousands of people and destroyed ecosystem (Environmental Protection Council 1995; James 1993; Ofori, 1991). 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 (Obadan & Ckokor 1991; Nwankwo 1988; Olayiwola, 1987). In addition, Valentine James (1997) contend that efforts to develop and grow are not made in a perfect world where there is full knowledge of the social, economic, political and physical systems within which such development is operating. In the case of Ghana and Nigeria the choices of how national and regional (states) governments limited revenue are appropriated and distributed for development purposes are sometimes influenced by political structures inherited from colonial regime, ethnicity, corruption, and cultural impediments (James 1997; Kuper 1965). Because of these predicaments some regions or states in both Ghana and Nigeria may have been ignored due to the economic, social or natural systems that defines how development infrastructure are selected. In this sense, the current environment is a dynamic inheritance of the administrative regimes of both nations.

What is missing in the literature is that the grassroots and social sustainability approaches have not been effectively utilized to analyzed waste management and sustainability initiatives in Africa. This paper examines the effectiveness of waste management and environmental policies as well as current predicaments in Ghana and Nigeria. It argues that a nation that does not implement effective environmental policies and sustainable development initiatives in all its cities and regions make be unjust to its citizens and ecosystem and requires changes in the twenty-first century. The absence of a relationship between nature and society has led to environmental policy failure in Ghana and Nigeria. It utilizes the neoliberalism, modernization, market friendly, grassroot, social sustainability concepts and dependency theory to develop a management framework that could enable Ghana and Nigeria to effectively initiate plans to implement environmental policies in ways that could benefits their citizens and ecosystem as well as achieve positive sustainable development goals. Thus, the question of whether technical policies alone could help solve environmental problems in Ghana and Nigeria is explored in this paper. Finally, the paper recommends some environmental policies that could help Ghana and Nigeria to achieve the waste management and environmental policy goals in the future.

Ecology and Environmental Protection Framework

One of the overarching goals of environmental policy is to create and enforce best practices and laws that could balance both the need for protecting the environment and its natural resources. However, while considering other objectives such as waste management, economic growth and appropriate regulations, it is necessary for national, state, local governments and citizens to become active participants in ensuring that policies enacted are successfully implemented. Many scholars have used the platforms of neoliberalism, modernization, market friendly, grassroot and social sustainability concepts and dependency theory to blame the western industrialized countries for exploiting and creating poverty in many developing countries (Krugman 1995; Samuelson 1983; Hirschman 1981; Little 1982). Because of this economic growth debacles, some development economists advocated that industrialized nations should provide massive foreign aid in the form of technology assistance and capacity building to poor countries (Rosenstein-Rodan

1943, Myrdal 1957; Cypher & Dietz 1997). However, one of the unfortunate consequences of this recommendation was that economic development initiatives suffered neglect because they were very impossible to implement in many African countries. For instance, the principal causes of underdevelopment are government policies that distorted economic incentives. As a result of corruption, self-interest over society's welfare, and ineffective implementation of fiscal and monetary policies, market forces tremendously worked against economic development principles.

According to the concept of sustainable development as presented by Brundland Commission (1987) is that human beings and nations of the world should leave to the next generation a vibrant ecosystem so that they could also have good quality of life and assets (WCED 1987; Holmberg 1992). The concept suggests the reversion of current exploitation of human capital, agricultural products and mineral resources. In addition, postulates the reinvigoration of the type of investments and technological changes that could address the present and future needs of citizens as well as initiatives that would lead to good quality of life (Denizhan 1991; Kraft, M., and Vig, 1990). Thus, the framework of the concept explores the relationship between good life for current and future generation, social equity, economic development, and environmental quality (Adeola 1996; Ascher 1990; Chokor 1993; Egunjobi 1993; Ihonvbere 1995).

Modernization theory proposed a major change from an agricultural society to an industrial nation (Thio, 1992; Moore 1979). Subsequently modernization could lead to more economic development in any society or nation. According to Alex Inkeles (1983) modernization leads to better education, industries, urbanization, and mass communication. Modernization initiatives are also regarded as the strongest stimulus to sustainable development. In addition, Rostow (1960) contends that modernization requires (1) technological revolution in agriculture, (2) an accumulation of capital and money, (3) an expansion of foreign trade, (4) and the emergence of entrepreneurship. However, for modernization to effectively occur the four factors listed above must be accompanied by sociological and psychological changes (Thio 1992; Moore 1979).

Modernization theory help to explain the current dilemma or weaknesses facing poor African nations such as Ghana and Nigeria. The primary barrier to future modernization programs in Africa is that some economic growth has led to more inequality and people-centered development in Ghana and Nigeria. In addition, the theory does not adequately address the complicated challenges confronting Ghana and Nigeria in the past three decades. It misrepresented

the notion that all countries will eventually be modernized as well as follow the trend in North America and Western Europe. There is no doubt that modernization has destroyed the tradition of many developing countries (Capporaso and Levine, 1992). Both Ghana and Nigeria have experienced a trend whereby social progress tend to support the individual's interest above the group's needs. The fact that economic growth often leads to inequality beg to call for pragmatic planning and effective implementation so that development initiatives could further benefit the entire society. Modernization has also led to a new form of colonialism called neocolonialism whereby citizens of Ghana and Nigeria sought expensive education from the United States, Canada and United Kingdom and return to their home country. Unfortunately, on arrival, they often find that their new skills had little practical values to their people and minor relation to the job opportunities available in their respective countries. Selig Harrison (1979) and Wilbert Moore (1979) express a very interest observation that economic and social change in developing countries are already generating an unprecedented pressure for the democratization of cultural life and the reinforcement of new social identities. Because of this convergence dilemma citizens of Ghana and Nigeria may continue to expect conflict and misunderstanding between cultures and religion.

The concept of neoliberalism refers to the idea that pro-market and anti-government intervention might be necessary in developing countries such as Ghana and Nigeria. According to Cypher and Dietz (1997) neoliberalism concept postulates a free economic system that could galvanize a vibrant society, increase economic growth, and the operations of businesses in any country. A neoliberal system warrants freedom of the market and minimal government interference in order to promote free enterprises in selling and buying of goods and services. Market failure often occurs when market do not consider the environment's positive effects on economies or when there is high unemployment and inflation. An economy might get even worse when it reflects negatively on the citizens, businesses and the environment. In addition, market failure could be effectively resolved by African nations' use of appropriate fiscal and monetary policies. These policies when used pragmatically by government could dictate limits on business behavior through laws and regulations. Government could also provide economic incentives that may galvanize market mechanism to promote resource conservation, economic stability as well as ensure fairness. Above all, it is the harnessing of such policies to support the interests of big business, transnational

corporations and financial institutions. Therefore, a neoliberalism approach could encourage a market free system that may be more beneficial to wealthy and powerful interests.

Most development policy initiatives often put into consideration that neoliberalism approach could lead to an intensified globalization. Thus, neoliberalism and globalization are inseparable sides of the same virtuous economy. Therefore, poor countries such as Ghana and Nigeria could be better served through appropriate targeted fiscal and monetary policies instead of instituting protectionist approach as a remedy.

Some scholars have argued that a nation's government and economic role tend to influence sustainable growth (Singh 1994; Dinan 1998; Frank 1967). Because of this very important role of government, appropriate direction should be taken in respect of fiscal and monetary policies to stabilize unemployment and inflation (Caporaso & Levine 1993). According to Adam Smith and David Ricardo a free market system usually propels or galvanize the capacity of the market to regulate itself with minimal government interference (Smith 1776; cited in Ghosh 1992). While market friendly system might be effective there is no guarantee that it could be stable forever. This is because markets generally have three characteristics such as: (1) externalities, (2) imperfect knowledge; and (3) missing markets (Caporaso & Levine 1993; Pieper et al 1994). As a result of these shortcomings of the market approach, the government has a function to play in ensuring stability in any economy. Under these unpredicted circumstances government may be required to enact appropriate policies to remedy the economic situation.

The market friendly approach argues that a limited government could provide a legal framework to allocate resources that might be more beneficial to people in a nation. In reality, the best initiative to promote economies of scale should be to adopt a free and open market system (Krugman, 1992). Toyé (1987) and Helpman and Krugman (1989) however observed that the theory of economic development that preceded the 1945 to 1963 in Africa and Asia rested on the premises that modern society was the most important goal of development. However, over the past six decades it has been reported that in the developing countries that achieve impressive rate of economic growth, the social, education, and infrastructure benefits did not reach majority of their citizens in the African continent (Krugman 1995; Obadan & Chokor 1991; Miller 1995; James 1997).

The concept of "social sustainability" covers issues ranging from social equity to capacity

building initiatives” (Yiftachel & Hedgcock 1993; Becker et al 1999; World Bank 1992). The listed factors are argued by scholars to be instruments that could ensure the stability of human capability to create and change social organizations (WCED 1987; Brundtland-Report 1987). It also entails the practice of creating a diverse and equitable society that successfully meets the basic social needs of citizens. In addition, social sustainability approach mobilizes community members to develop an inclusive systems or structures that could enhance civil society activities. (WCED 1987; Polese & Stren 2000). Most socially sustainable societies are diverse and very active in the promotion of shared governance, democracy and an outstanding quality of life to all their citizens (Hicks & Kicks 1997; Hiterberger et al 1999; Coleman 1988; Beck et al 1997; Allardt E 1973). The United Nations Global Compact (1999) contends that social sustainability is a process that describes the capacity of social systems to innovatively respond to challenges by developing new ways of relating individual visions to what it takes to establish better cordial relationship and good sense of inclusiveness. Social sustainability communities also advocate good living conditions and innovative institutions within communities or society (World Bank 1992; WCED 1987). On the other hand, Yiftachel and Hedgcock (1993) and Polese and Stren (2000) contend that social sustainability involves “the continuing ability of a city to function as a long-term, viable setting for human interaction, communication and cultural development.”

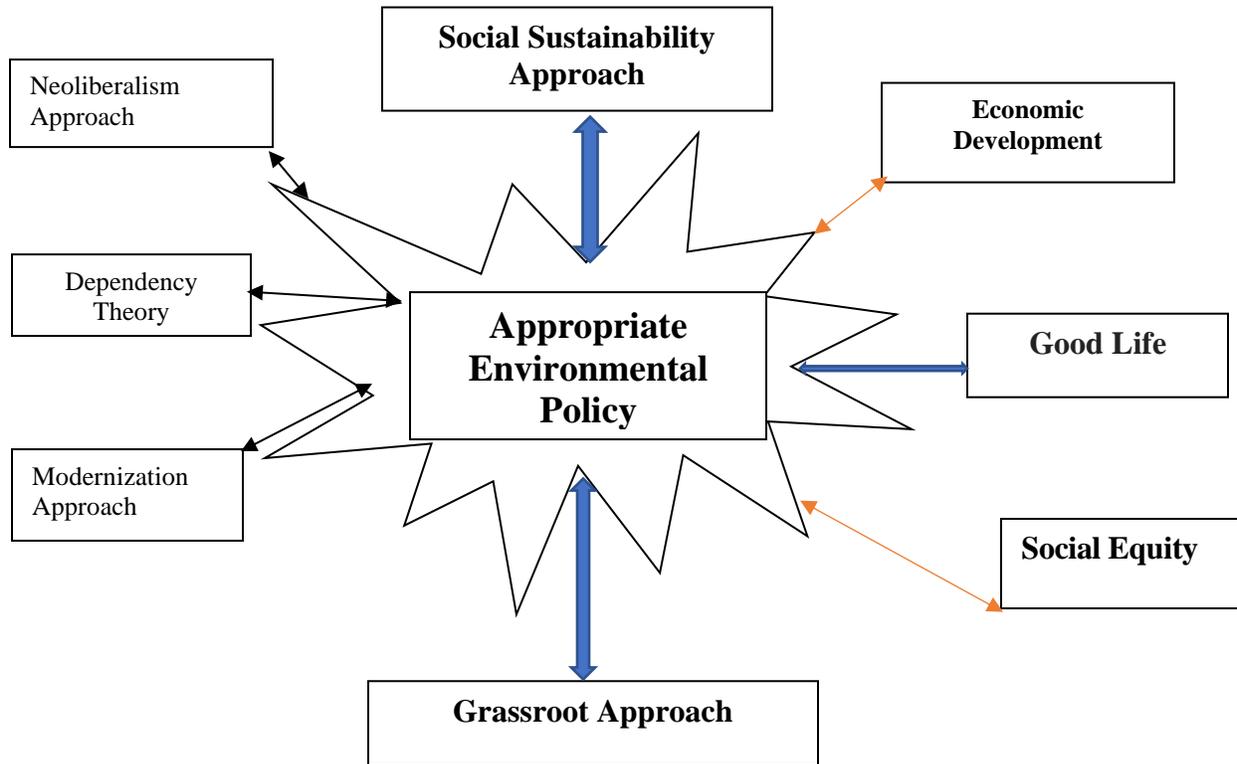
It has been reported by some scholars that for many decades developed countries have been helping or aiding poor countries in different forms to achieve incremental level of economic development (Stiles 1987; Buel 1987; Wilson 1992; Wang 1997; Ostrom et al 1003). Dependency theory describes a process whereby developed nations try to provide some technical assistance to poor countries and then turn around to use the opportunity to exploit the poor nations. Under such unequal relationship the rich western industrialized countries benefit more from the business partnership than the poor once (Baran 1957). In addition, the developed countries make every effort to prevent the poor countries in Africa, Asia and South America to continue to depend on them rather than teaching the poor nations how to learn the skills to produce goods and services for their own interest. According Frank (1967) and Baron (1957) the best thing to do in order for the poor nations to avoid such dependency trap is to break away from such exploitative relationship with developed nations. The dependency model of the rich western industrialized countries helping poor countries in Africa, South America, Asia and Eastern Europe has been referred as the

top-down or traditional approach (Stile 1987). The major platform used by industrialized nations are USAID; World Bank UNEP, EEC, multinational development banks and various NGOs. These traditional approach to helping disadvantaged people is also refer to as the “tree top development” or dependency theory (Stile 1987; Buel 1987). A major problem with the dependency theory is that foreign corporations, multinational companies, governments and nongovernmental organizations usually do not seek the opinion of the people at the grassroots that they are trying to help due to superiority complex. The notion of reciprocating the desires of the poor nations’ wants and needs are often ignored by foreign countries. One of their main goal is for African countries to continue to be dependent on their foreign goods and services (Stile 1987; Buel 1987).

An alternative approach to the top-down or dependency or tree top or donor bureaucracy model has to do with recipient government bureaucracy approach. This approach is referred to as the grassroots model. According to Sailh and Choudhury (1996) and Redcliff and Goodman (1991) grassroots development approach often involves facilitating the use of local citizens to work toward setting goals that could help members to build their own community, city, town, village, states, province or nation. Grassroots approach often lead to creativity, innovation and entrepreneurship, It also encourage members to mobilize their skills toward the attainment of economic growths. In some communities in Ghana and Nigeria grassroot entrepreneurs have systematically mobilized local resources to enhance economic development, manufacturing new products, creating jobs, fostering political inclusiveness with great success (Ake 1995; Akinmalodun 1976; Bremer et al 1995; Edoho 1991). Because of the alternative bottom-up or grassroots approach developing countries are beginning to explore local decision making, community participation and mobilization. The bottom-up approach has also enhanced grassroot inclusive implementation of development policies. Buel (1987) contends that the outcomes of many grassroots contribution and success all over the world shows that the approach is a good model to emulate in many developing countries. (Buel, 1987). Many scholars have also argued that there will not be any positive sustainable development attainment in both the developing and develop countries if there are no major transformation of character, skills, leadership, and culture without grassroots teamwork (Ekins 1992; Robinson & Tinker1998). There is no doubt that because of the improvement in the capacity of the people in the developing nations or grassroots

by education, they could be more knowledgeable and able to learn from each other innovative ways to address economic development problems that they have in their respective countries in Africa. (McCormick 1992; Wilson 1992; Edoho 1991; Titilola 2000). According to Stiles (1987), Taylor & Bullard (1993), and Wang (1997) grassroots members empowerment could also enhance their capacity to learn new technical skills and build new infrastructure to revitalize their communities and nations This is because on one hand, shared governance and a community approach that promotes the mobilization or distribution of resources equitably to all citizens tends to be more effective. On the other hand, social justice, the rule of law and economic development leads to sustainable growth for citizens and the ecosystem. Finally, another good outcome of grassroots organizations is that they can also mobilize members within the group entrepreneurs in preventing the degradation of their environment by learning new methods of waste management and the creation of renewable energy sources. not only within the communities but in their province, state, and national economic development dialogue (Wilson 1992; Ostrom et al 1993). Figure 1 shows the relationship between neoliberalism, dependency, and modernization models, and social equity, economic development, environmental quality and good life goals.

Figure 1: Relationship between Development theories, Social Equity and Goodlife



Source: Designed by Dible and Edoho 1999.

An additional benefit of the grassroots approach is that it also helps to facilitate new initiatives to help change the traditional norms of the people at the local level using local capacity building mechanism and political dialogue (Tititlola 2000; James 1997; Wang 1987)

The inability of Ghana and Nigeria’s governments to fully comprehend the sources of their problems, and effectively adopt the grassroots and social sustainability approaches could be another reason why the two nations are finding it difficult in breaking the barriers in becoming fully development nations. The authors of this paper wonder why after almost 45 years of independence from the British colonial administration the leaders of both countries still embrace depending on the United Kingdom. One factor that is not correct and have to be refuted is that the western industrialized countries do not necessarily believe that all countries are respectively

interested in the development poor countries. If this is true, there would have not been cases of exploitation by governments and multinational corporations from industrialized countries. In addition, other problems ignored involves pollution and the degradation of the ecosystem in poor countries that are endowed with mineral resources by most multinational corporation operating in African countries. This predicament often requires Africa's nations' governments to appropriate a lot of their limited budget for repairing such degradation problems. Such repeated waste of money seems to delay or slow down the process of economic development in Ghana and Nigeria.

According to Ostrom et al (1993) the agricultural sector was considered to be of secondary importance to economic development. On the other hand, industrialization was considered the first and best tools for infrastructure building such as building dams, roads, power stations and networks, telephone systems, irrigation system, airports, railways and managing waste effectively. Instead of dwelling on infrastructure building most African nations considered agriculture to be more important (Bauer 1984; Ostrom et al 1993). Finally, a more strategic approach for the government of Ghana and Nigeria to adopt should be to break down the formidable obstacle to growth, As well as initiate and sustain the economic development growth process by enacting pragmatic policies. On the other hand, effectively implementing the new economic development policies to achieve appropriate goals should be paramount. External advisers could also help both countries to provide information about options that have proven successful in countries such as South Korea and Japan. According to Valentine James (1996) there are several positive outcomes in waste management in Ghana and Nigeria as a result of newly enacted environmental policy. However, there are still many streets and refuge dump areas that spill-over to residential areas. Therefore, citizens are often exposed to dangerous health conditions as a result of lack of appropriate government action to effectively manage waste. One of the biggest concerns is the incurred costs and feasibility of businesses meeting compliance.

In practice, policymakers in Ghana and 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 or an agency has been established to deal with environmental issues in both Ghana and Nigeria respectively, the amount budgeted by the government to environmental programs remain very small, approximately one percent of the annual budget (EPC Ghana 1994; FEPA Nigeria 1991).

Adopting a realistic environmental policy in Ghana and Nigeria therefore requires an effective appraisal or evaluation of the environmental conditions in both countries. The recognition of the major sustainable development problems facing both nations and working within these parameters of appropriate policy analysis framework to define priorities and selective interventions mechanism could help to improve the situation in the near future. The current patterns of economic growth, unless modified substantially, can have damaging environmental consequences. At the same time, traditional believes about the environment will do little to address the most compelling challenges for policymaking.

Evolution of Environmental Policy in Ghana

Since Ghana attained independence from Britain in 1957 its environmental policy like those of most sub-Saharan nations have relied heavy on modernization theory as the major development strategy. This strategy focused attention on urban industrialization and rejected indigenous life-styles in favor of alien or modern systems. Although this strategy has had some positive impact, in most cases, development projects in Ghana as elsewhere in Africa have had adverse environmental impact and endangered the very basis on which sustainability of development depends. For example, the construction of the Volta dam has bred trypanosomiasis, which causes river blindness and almost half of the human population over 40 years of age living along the banks of the Volta lake has lost their eyesight (Appiah-Opoku and Mulamoottil 1997). Between 1960 and 1964, the incidence of bilharziasis rose from a mere 5% in riparian children to an outrageous 90% among children who live near the lake, and today virtually all the people inhabiting the entire shoreline are infected (Moxon 1984; Appiah-Opoku and Mulamoottil 1997).

Ghana created the Environmental Protection Council in 1973, enacted the Provincial National Defense Council law 116 of 1985, and PNDC law 207 Of 1988 which makes the district assemblies responsible for human settlements and the environment in the districts. It also empowers the district assemblies to monitor the execution of projects under approved development plans and evaluate their impact on the people.

In 1989 the government embarked on an Environmental Action Plan. This plan was sponsored by the World Bank, USAID and the Overseas Development Agency (ODA) of the United

Kingdom. The main purpose of the conference was to present a draft environmental action plan for review and comments by a wide audience and to see broader involvement and grassroots support for its implementation. The implication of the conference, however, is that Ghana adopted environmental guidance from Canada, Australia, and the United Kingdom despite cultural differences. These Western approaches to modernization in sub-Saharan Africa have proved unsatisfactory due to: (1) the failure to harness available resources within communities at the grass roots, (2) total dependence on outside ideas, goals, technology and supervision, and (3) differences in physical, socioeconomic, cultural and political environment between the West and the developing countries, and (4) 40 percent more expenses, in terms of imported materials and technology as well as the galaxy of outside experts in all fields needed to implement the approaches. The situation compounded by the West commitment to the goals and aspirations of the host nations.

Further despite the establishment of the Ghanaian Environmental Protection Council in 1973 and its adoption of foreign environmental strategies, there was no formal environmental assessment procedure in Ghana until 1995. There was only a systematic environmental review procedure in which the EPC was the main governmental body that decided whether or not an environmental impact certificate or permit should be issued to proponents of undertakings. In recent years, Ghanaians have come to a sudden realization that great harm is being done to humans, plants, and animals in the forest belt within the middle section of Brim River and around Takrowase, Saabe, and Wenchi (Ofori, 1991). While the EPC was busy trying to implement foreign environmental models there were epidemics that gradually destroyed human flesh which were linked to the toxic smoke of arsenic oxide and sulfur oxides emitted from the Ashanti Goldfields Mining Company (AGC) limited. A recent experiment revealed a high proportion of arsenic concentration in human hair in Obuasi (Environmental Protection Council 1994). The residents of Dumasi village also recently took up arms to protect their environment. They threatened to take measures against what was alleged to be extensive environmental pollution caused by a nearby mining activity that had received an environmental impact approved from Ghana's Environmental Protection Council. Journalists who visited the village claimed that rivers and streams had turned muddy due to sludge pouring from the mine of Billiton Bogoso Gold Limited. Houses were collapsing from the impact of dynamiting and crops were being damaged by toxic emissions from the mines.

All this environmental harm existed in Ghana despite the presence of government policies

and the EPC. Therefore, it can be concluded that an alternative development approach that recognize the importance of participation of local people in the environmental development process is now overdue not only in Ghana but also in most sub-Sahara African nations. Local or grassroots participation in development planning decision is considered by many as not only a basic human right, but also the most effective way to ensure success of development efforts (Korten and Alfonso 1983; Appiah-Opoku and Mulammottil, 1997). Arnstein's (1971) "ladder of citizen participation" describes different levels of local participation from manipulation to citizen power. Moving up the ladder requires that people are empowered to take an active and informed role in decision making.

Against this background, a practical alternative to the importation of a Western approach to environmental assessment in sub-Sahara African nations could be initiated by exploring and improving indigenous approaches to conservation. These approaches have been proven to be emotional and human friendly. In the words of Brokensha (1986) "it is essential first to examine what indigenous people know before telling them what to do." After all, development as Goulet (1975) notes, "is not a cluster of benefits given to people in need but rather a process by which a populace acquires greater mastery over its own destiny." It is in this light that the potential contribution of indigenous institutions to environmental assessment in Ghana is explored.

Nigerian 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 an 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 on them and only without compensation for the acquired land neither was there any compensation or potential future crop productivity on 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 nation's people. 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 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 recently 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 impoverishment

The expansion of oil revenue has an unprecedented level of industrial and infrastructural 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 the rivers for example, Akwa Ibom, Rivers, Delta, and Cross River states (James, 1996). 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 some of the most underdeveloped 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 corporate 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. 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 surrounds them and often forms 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 which 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 coevolutionary 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 (1997; 1993), and Caldwell (1990) 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. (1989), present problems in the context of Botswana, Ethiopia, 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 Botswana, Ethiopia, Ghana, and Nigeria are, often forced to adopt sustainable strategies out of necessity. They can only guarantee that the control of their own immediate resources will not be lost by acting sustainably. 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 or corporate social responsibility.

The Future Approach to Environmental Policy

The uncontrolled and continuous depletion of ecological resources has posed a serious threat to the environment and socioeconomic life in Ghana and Nigeria. Other serious predicaments are declining agricultural productivity, shortage of firewood and timber products, and long working hours spent searching out and gathering firewood. Growing inter-regional migration and inter-ethnic tensions have contributed to the overcrowding of urban areas creating sub-human living conditions for the poor. Following the internal politics and the international concerns expressed on environmental issues in Ghana, and Nigeria described in this paper, two questions immediately come to mind: (a) Why and how has this situation developed; and (b) Can anything be done about it in the twenty-first century?

In response to environmental problems in these nations. The national governments should introduce a sustainable agriculture model. Sustainable agriculture recommends adopting those practices that ensure a long-term, sustainable, and environmentally safe agriculture. It does not advocate the abandonment of technology and scientific farming. Indeed, it seeks a synthesis of scientific ecology, technology, and traditional conservation techniques. Sustainable agriculture strategic plan does, however, requires abandoning the priority that has been given to productivity and economic efficiency or at least redefining the notion of what count as productivity. Thus, it seeks to replace the image of a farm as a factory with the image of a farm as a natural ecosystem.

Shifts towards sustainable agriculture in the future would also require changes in the ultimate consumer of agricultural products. Conveniences of prices, availability, selection and appearance could well be sacrificed in a society of low-tech, diversity, and organic agriculture. A conversion to sustainable agriculture would require substantial changes in Ghana and Nigeria's social, economic, and personal habits.

Sustainable agriculture could have a profound influence on political values like freedom and democracy. A sustainable farm is an independent farm, free from control and domination by external sources. Given this independence, decisions affecting a sustainable farm must be made at the grassroots or local level by those people most directly affected by them. As Joseph Jardins (1997)

envisioned, small self-sufficient farms can encourage a variety of civic virtues important for sustaining democracy.

Ideally it would be desirable to have a firm grasp of environmental affairs in all regional levels and to reach some generalizations about their pattern. Such initiatives would be more than a herculean task. Fundamental to environmental assessment is the availability of baseline ecological data, including past and current behavior of local ecosystem. Indigenous ecological knowledge could be invaluable in this context especially in regions where recorded knowledge of local environment is poor (Jardins 1997; Johannes 1993) This is the case in Ghana and Nigeria. There is a general lack of accurate scientific assessment for the environment in Ghana and Nigeria and all the leading institutions responsible for data collection in the area of land and water resources lack the very basic facilities for efficient operation (Environmental Protection Council 1991 in Ghana; Federal Environmental Protection Agency of Nigeria in 1995). Thus, the incorporation of indigenous institutions and their ecological knowledge may help resolve the paucity of scientific data for environmental assessment. It may also facilitate the involvement of the indigenous people and encourage local participation and bottom-up approaches to environmental decision making.

In the twenty-first century Ghana, and Nigerians should move away from the custom of regarding the national government as the only source of innovation in environmental matters and the states as laggards. But the growth of citizen environmental action at the local and state levels, and federal programs should help to build state administrative capacities which will also tend to foster new state environmental activities. Because each state has an independent source of potential initiative and because the complexity of the influences leading to such action varies with each state, the results might vary.

Another possible approach is the establishment of cooperative management regimes at the community level. A cooperative management regime is an institutional arrangement in which formal government agencies with jurisdiction over resources and user groups enter into agreement covering a specific geographic region and spell out a system of rights and obligations for those interested in the resources, a collection of rules indicating actions that subjects are expected to take under various circumstances, and procedures for making collective decisions affecting the interests of government actors, user organizations, and individual users. This may improve communication, learning, and understanding between indigenous institutions and formal environmental management agencies.

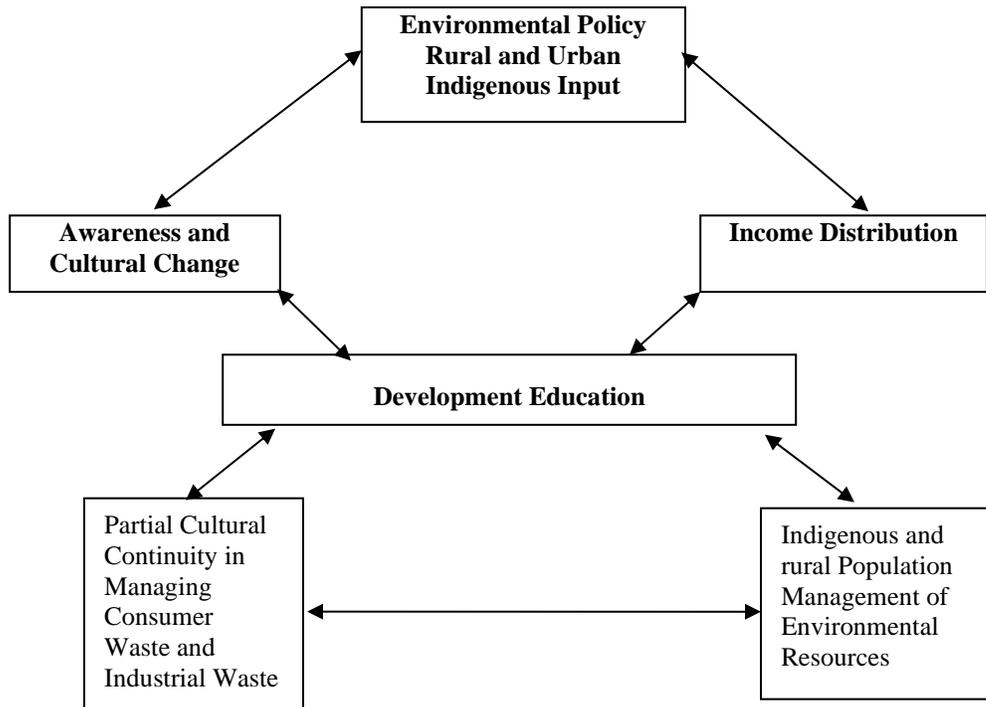
In order to work towards conscious, organized environmental management, four preconditions exist at the local level. A first precondition is that the population involved should gain insight into the problems in their own environment and perceive that these problems directly concern them. Practical involvement then becomes a second precondition. As a third precondition, the local population should feel that they are able to do something about the problems. A fourth precondition is that the people should feel that their efforts to achieve improved environmental management will benefit them. The sooner these benefits emerge, the better motivated they will be. Thus, there should clearly be self-interest, short-term as well as long-term benefits.

The federal and regional governments should provide the indigenous people with space for independent environmental management. A certain autonomy and greater authority to take their own decisions is essential. Closely related to this, is that government should guarantee legal security of tenure ship of their own territory. Further, in two respects, there should be self-imposed limits on international aid. In the first place, it is the local people themselves who should take action, not the foreign aid workers. Aid from outside therefore has to be primarily of an initiating character, aimed at enticing and stimulating local people to do the work, instead of the mere parachuting of materials and manpower - which still happens too often. Secondly, aid should be limited in scale. In many instances, better and more sustainable results are achieved with a large number of well-designed small-scale projects, than with one multi-million large-scale project, and often at considerably lower cost. Small-scale projects are more manageable, more flexible in being adaptable to changing conditions or new insights, and more suited to the lives of the local population.

Accountability and honest self-reflection should become a priority for policymakers and policy-implementors. Then it would become clear that an area is often better served by less aid, but, of course, aid workers also have their own interest. It should be stressed that accountability is also required at other levels ranging from federal, state, local governments to nongovernmental organization (NGOs). Local and federal governments should be accountable to their people for sustainable management of the nation's natural resources. Accountability at these levels will imply the enhancement and application of appropriate policy instruments. Figure 2 shows the relationship between indigenous practice and sustainable environmental policies.

Figure 2. Combining Indigenous Practice to National Environmental Policy for Sustainable

Management of Ecosystem.



Source: Designed by Dibia and Edoho 1999.

Figure 2 shows that combining indigenous practice to national environmental policy for sustainable management of the ecosystems in Ghana and Nigeria could produce better results than the top-down or tree top models that were previously used. In addition, the introduction of a comprehensive development administration would also enhance the process of attaining better sustainable development goals in both countries. The preconditions for accountability at governmental levels will include the proper institutional setting, political commitment to promoting an appropriate, conducive policy environment, and translation of political priorities into national budget. Figure 2 shows how, and what kind of policy and program instruments - i.e., legislation, pricing policies, incentives, technology development, training and extension, participatory approaches - are linked to and could help fulfill the four basic pre-conditions. Most of these policy and program instruments have to be implemented by government agencies such as FEPA and NGOs as well. It should be recognized that relevant policy instruments are also expected to be influenced by global economic situations and international environmental concerns.

In the interaction between federal, and regional governments, communities and NGOs, the starting point should be the local communities. Environmental policies developed at the national level should be adapted to the conditions of the rural population if they are to be effective. Of course, effective policies may, and are even intended to modify these conditions, which in turn may necessitate the formulation of new policies. The overall system of interactions between different actors and their respective responsibilities will essentially define the institutional environment needed to accomplish the goal of development policies that focus on the sustainable use and management of natural resources at local levels around Ghana, and Nigeria.

These environmental management systems proposed for the twenty-first century 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 a propriety, some upgrading of environmental awareness through ecosystem friendly school curriculum. the people of Ghana, and Nigeria.

There is also the need to look beyond the exploitation of environmental resources for immediate short-term needs. Environmental assessment should be regularly conducted to monitor how careful protection of resources for long-term sustainable economic returns are executed. This would require incorporating training programs in environmental science in the two 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 could be oriented towards conservative use. The recycling of waste product, utilization of refuse 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 Ghana and Nigeria under study, which in turn could result in difficulty in controlling the rate of poverty in the two nations. 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 simply addressing effectively with western based traditional regulatory tools alone, but citizen participation, incentives and educational efforts may be useful supplements.

Conclusion

This paper has examined the effectiveness of waste management and environmental policies in Ghana and Nigeria. It argues that a nation that does not implement effective environmental policies and sustainable development initiatives may be unfair to its citizens and ecosystem. As the grass-root and social sustainability models suggest, the maintenance of nature, society and intra-societal linkages are imperative to the sustainability of all agricultural production systems. Publicity and campaign at all

levels is very important. Environmental issues should be discussed politically together with poverty issues since these two are inextricably linked. People should be encouraged to set up voluntary organizations to help other people. The government should provide all the necessary support and encouragement to people who wish to help promote afforestation in the remote areas where the environmental problems is 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 was instilled in the minds of both rural and urban citizens of both nations. This is because local or grassroots participation in development planning decision is considered by many as not only a basic human right, but also the most effective way to ensure success of development efforts (Korten & Alfonso 1983; Appiah-Opoku & Mulammottil, 1997).

The Ghanaian and Nigerian governments must be quite frank in facing the facts that organizational problems remain because of foreign aid and dependency approaches. 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 both initiation and management of environmental resources. Any revision to environmental policy to promote development of natural environmental management must involve full participation of rural or local people if the policy is to succeed. Promotion of this concept should permeate the rhetoric of the national conservation strategies throughout the governments of sub-Saharan Africa.

Local people must fully comprehend the objectives of waste management and the policy determinations behind them. Citizens must also need to understand and accept their roles and responsibilities for achieving environmental objectives and how they in turn will participate in the benefits stream. These should all be part of the elements of the policy framework which must be communicated to the indigenous people's level. Moreover, the incorporation of indigenous institutions and their ecological knowledge in environmental assessment is tantamount to harnessing available human resources within communities at the grassroots level. This may reduce total dependence on outside ideas, goals, technology, and supervision in environmental management. It may also reduce expense in terms of the galaxy of outside experts in all fields needed to conduct environmental assessment and the lack of commitment to goals and aspirations of host communities. indigenous peoples should be assigned higher participatory role in all environmental matters.

Future research should be conducted to determine if environmental assessment outcomes have

been useful in the implementation of public policies in both Ghana and Nigeria. The solutions to environmental problems today will be more difficult, costly, and controversial than those of the past two decades because of more awareness by the citizens and their subsequent demand that their government compensate them for excessive exploitation. The trade-off between paying off national debt or paying damages to indigenous people will also make solutions more costly. Thus design and implementation of appropriate policies will require ingenuity efforts and new budgetary priorities by governmental institutions and NGOs. All governmental programs should compete with one another for scarce resources, and thus the extent and quality of environmental leadership in both Ghana and Nigeria's environmental agencies ultimately will depend upon politics. However, priorities will change when the indigenous people of both nations under study 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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