46. Howard Schissel, op., cit., 198, p.47.

47. For a comprehensive review of the environmental regulations made at international level against the indiscriminate dumping of toxic waste in third world countries, see UNEP, *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal-FINAL ACT,* 1989; See also Roger Batstone et al (eds) *The Safe Disposal of Hazardous Waste - The Special Needs and Problems of Developing Countries, Volumes I, II, and III* (Washington, D.C.: The World Bank, 1989).

48. Christoph Hilz, op., cit., 1992,

49. David Goodman and Michael Redclift, *Environment and Development in Latin America: The Politics of Sustainability,* New York: Manchester University Press, 1991, pp. 15-18.

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Environment Protection in Nigeria: Problems and Prospects

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Introduction

Environment pollution has been causing much concern in many parts of the world. In some countries in Europe the search for solution, to environmental pollution has intensified while the need to have a clean environment at all times has been raised to a level of political discourse. Indeed, European political parties have now made the problem of conserving the environment a political issue. Similarly, governments in Europe, North America and parts of Asia have increased their budgetary allocations in order to be able to cope with natural environmental hazards such as floods, drought, earthquakes etc. or man-made hazards such as air pollution from air-crafts, motor-cars, contamination of water by chemical and industrial waste. Much more illuminating is the positive attitude of policy-makers in the developed countries who have not only formulated pragmatic policies for managing hazardous waste but also made elaborate institutional arrangements for effective monitoring of the activities of polluters. All these have been informed by the close relationship between developmental activities and environmental problems. For instance, indices of development include a high level of industrialization, urbanization and improved standard of living[1] But these cannot be achieved, it seems, without extensive exploration followed by exploitation of the natural resources, while at the same time developmental efforts all undermined by environmental degradation resulting from rapacious exploitation of the resources of a country and the socially undesirable behaviour of private and corporate littler bugs[2]

However, the situation is different in most developing countries , especially those in Africa, where the regular occurrence of natural disasters engages the attention of the governments more than the need to control and manage environmental waste. The developing countries have had, for example, to deal more with the problems of natural disasters with their meagre resources and the trickles of foreign aid they receive than they have formulated national policy which seeks to protect their citizens from man-made environmental hazards.

This is not to suggest that the developing countries do not know that serious threats to their environment occur more often through the activities of individuals and corporate bodies than natural disasters take place, and that man-made environmental hazards cause as much damage as the natural disasters do. The problem as Burton et al, (1978) have noted, is that formulating policies and establishing effective institutions to protect the environment from pollution caused by industrial waste, harmful chemical substances and indiscriminate littering by individuals remain a remote goal[3] Where environmental policies have been formulated at all, their implementation has been bogged down by many problems ranging from lack of funds to inertia.

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This article examines the environmental policy of the Nigerian government including the legal and the institutional arrangements fashioned to implement such policy. The focus of the article is therefore on policy protecting the environment against man-made hazards and the role of the Nigerian Federal Environmental Protection Agency (FEPA) established by the Nigerian Federal government to implement the policy and enforce the law.

II. Formulating environmental protection policy for Nigeria

The environmental policy of the Nigerian government belongs to the protective-regulatory category well known in the literature on public policy[4] By the policy, the Nigerian government sought to protect the people against some harmful activities that some individuals and corporate bodies might engage in. The policy component therefore includes developing appropriate strategies, programmes and institutions which will enable the government 'to tackle the known problems of the environment confronting the country' and preventing or mitigating other problems 'that may be inherent in the future socio-economic development of the nation.[5]

The efforts of the Nigerian government to 'enhance environmental conservation and prevent degradation' started in the 1970's as Nigeria's Third and Fourth National Development Plans seem to indicate. The Third National Development Plan (1975-1980) classified, for instance, Nigeria's environmental problems into two, namely, primary and secondary problems. the primary problems were attributed to underdevelopment and the attendant poor living conditions' like slum housing, inadequate water supply, lack of sewage and proper facilities for waste disposal. The secondary environmental problems were said to have emanated from 'the process of accelerated development' such as when manufacturing and mining industries pollute the air, land, rivers, lagoons and coastal waters, causing grievous harm to human and marine life. Although the 3rd national development plan did infact identify the environmental problems which have hampered and will continue to hamper Nigeria's economic development, government efforts to grapple with these problems did not go beyond identifying environmental problems because there was nothing in the document to suggest that the government intended to establish infrastructures which would monitor the degree of environmental degradation or even to set in motion an effective environmental management and control system.

The fourth National Development Plan observed in its preamble on environmental issues that the previous plan (i.e. 3rd plan) was 'particularly lacking in the important area of comprehensive environmental planning, assessment, regulation and enforcement.[6] The 4th plan therefore sought to introduce an efficient environmental management system by ensuring that environmental considerations influence all economic and social activities 'so that the environmentally adverse consequences of such activities can be anticipated and hedged against or minimized'. The 4th plan noted, for instance, that small and large industries have been established throughout the country with little attention being paid to the negative effect of the untreated waste products generated by these industries; individuals and corporate bodies have also been destroying the natural erosion control, cooling, shading and watershed-protection which trees generally provide, by indiscriminately cutting the trees for domestic fuel or uprooting them to pave the way for construction work. All these have been

allowed because the emphasis of previous Nigerian governments, according to the 4th plan, has always been more on the quantitative aspects of human requirements like greater food production, increased water supply, more housing and increased energy supply, than the qualitative living condition of the people. The quality or human life was indeed of secondary importance.

The environmental policy enunciated by the 4th development plan focused therefore on management and control of man-made environmental hazards. In the plan the government promised to initiate programmes that will emphasise (a) environmental assessment, (b) environmental protection and (c) environmental education. Each of these has its specific components. Environmental assessment would entail, among other things, establishing an efficient nation-wide machinery for collecting data on the behaviour over time of many environmental variables which could facilitate policy formulation and management. It would also involve conducting research, analysing and synthesising the results of such research into 'a coherent body of knowledge about the existing state of the environment'.

On the other hand, the environmental protection programme envisaged in the 4th development plan was aimed at co-ordinating inter-agency actions designed to promote 'environmentally sound patterns of economic development and life styles in the country with particular reference to the impact of development on land, water, air, plants and animals'. In addition, it would entail the enactment and enforcement of appropriate legislation which would make the assessment of environmental impact on major projects in the country mandatory before they are executed. It would appear that the assessment aspect of environmental protection contained in the 4th plan was not new but was merely reinforcing the provision of section 17 (2) (d) of the 1979 Nigerian constitution which stipulated that the 'exploitation of human or natural resources in any form whatsoever for reasons other than the good of the community shall be prevented.' The 1989 Nigerian Constitution which comes into force in August 1993 has the same provision. The only way by which the provision of the constitution will be respected is for the government to compel, as the 4th plan seems to suggest, those involved in executing projects in the country to consider 'environmental planning as an integral part of their project.[7]

The implication of environmental considerations in all projects as envisaged by the 4th plan is that feasibility studies will then be required to accompany any application for permission to establish any project, e.g. the establishment of a chemical plant. As it is the normal practice in other countries where the protection of the environment is an issue of 'high politics', the feasibility studies report must contain an environmental Impact Statement (EIS) which will show among other things:

(a) the type of process technology to be used and possible available alternative;
(b) methods of disposing waste products
(c) description of the present state of the environment that may be affected by the project; and
(d) methods used in assessing the impact of the project on the environment.[8]

If the EIS unambiguously gives the information listed above, then government officials who must approve the commencement of the project will be able to make a correct assessment

of the total value of the poject to the country. Similarly, the EIS will assist the government to manage the secondary problem of environmental pollution arising from the execution of the project.

The environmental education component of the environmental policy seems to have been influenced by the Belgrade Charter of 1975 which called on all states to develop an informed population:

> that is aware of and concerned about the environment and its associated problems, and which has the knowledge, skills, attitude, motivation and commitment to work invariably and collectively towards solutions of current problems and prevention of new ones.[9]

While Nigeria may not have developed skilled manpower to tackle along all its environmental problems as the Belgrade Charter advocated, the government however has always considered it a matter of priority to draw the attention of Nigerians to the problems of urban degradation and massive environmental neglect and pollution. This has been modestly achieved through a series of government-sponsored seminars, conferences and workshops, radio jingles and nation-wide campaigns on environmental pollution.

In essence, there is now a clear Nigerian environmental protection policy as the 3rd and 4th development plans identified Nigeria's environmental problems and stipulated the strategies to be adopted to solve these problems and protect human and animal lives. Despite this clear policy, it does not appear that environmental degradation is abating. The reason for this is quite obvious; there is a gap between environmental policy as it is put on paper and the implementation process. Indeed, no serious attempt was made to implement this policy until 1988, a major crisis, the Koko waste incident, jolted the country.

III. Implementing Environmental Policy: Legal and Institutional Framework

We have discussed how environmental protection policy has been conceived and entrenched in Nigeria's 3rd and 4th development plans. However, the existence of development plans does not guarantee that the policies enunciated in the plans will be implemented. In fact, in some cases statements contained in the development plans may merely indicate the goal of the government and what will be done to achieve it without the government and its officials being seriously committed to implement the policy announced. Besides, some policy statements in development plans or in other official documents are couched in glowing but ambiguous terms that the impression is sometimes given that the policy statement is only meant to mobilise support for the government. To any policy analyst, therefore, the adoption of a policy by way of development plan is just one little step in the policy process. Concrete steps need to be taken to put the policy in shape. One of the steps usually taken to implement a policy is to pass appropriate legislation, revise existing rules relevant to the policy or give a specific administrative or executive order which authorises public officers or agencies to act in a particular manner consisted with the policy declaration. A new agency may also be established to implement the policy. In the case of Nigeria's environmental policy, new and more specific legislation has been passed and a separate agency established to ensure full implementation of the policy.

It needs to be stated here that there were in Nigeria at different periods some legislation which made it an offence to pollute the environment or which sought to protect public health. For instance, some sections of the 1916 criminal code made it an offence against public health punishable by imprisonment for six months, for any one found polluting the waters of any spring, stream, well, tank or reservoir (section 245) or vitiating the atmosphere in any place so as to make it noxious to the health of persons (section 247). Similarly, the 1968 Oil Navigable Waters Regulation sought to prevent the pollution of the sea by ships carrying crude or refined oil while the Petroleum (Drilling and Production) Regulations 1969 required all oil drillers and producers to take precaution to prevent the contamination of Nigerian waters and if such contamination has occurred to take prompt action to control and if possible end it.

None of these pieces of legislation can be said to have addressed the problem of environmental degradation the way they ought to have done because as Prince Bola Ajibola, Nigeria's former Attorney-General rightly observed, none of the regulations quoted above laid down any standard for the control of pollution or the protection of the environment.[10] Thus, the absence of any direct legislation to protect the environment could be attributed to lack of a clear environmental policy. But things have now changed. There is now an environmental policy. Consequently, it has become imperative to pass new laws and create an autonomous agency that will implement the policy and enforce the relevant laws. Besides, legal protection of the Nigerian environment was becoming more urgently needed in the light of recent development in West Africa where ship loads of toxic waste from Europe and North America have been dumped in some of the countries including Nigeria. The dumping of waste in Nigeria by a foreign ship, i.e. the Koko waste incident as it is now referred to, is a good example of an injurious act against the Nigerian environment, committed by foreigners working in collaboration with unpatriotic Nigerians, which needs to be prevented in future. Background information on the Koko incident is in order here to explain more forcefully the rationale for the present legal framework to protect the Nigerian environment.

IV. Koko Waste Incident

Koko is a relatively unkown small town with a seaport (Koko port), in Delta State in Nigeria. In April 1988, some Nigerian students studying in Italy wrote to many editors of Nigerian newspapers informing them that some Italian companies in collaboration with some Nigerians have been in the habit of exporting taxic waste to Nigeria since 1987 as chemicals and that the Pharmaceutical Board of Nigeria which has a duty to examine the chemicals had been aiding and abetting the importation of the waste by approving the substance as non-explosive, non-radioactive and non-self-combusting industrial chemicals. The students specifically mentioned Koko port as the principal dump-site for toxic waste. They implored the Nigerian press to look into this delicate matter, give it most urgent attention and inform the people of the dangers involved[11]

Two of Nigeria's most respectable newspapers, the Daily Times and Guardian, investigated the issues raised in the students' letter and discovered that the Koko port was actually a behive of activities, whereby toxic waste was being discharged. Further investigation also revealed that Irukpen, an ailing Nigerian-Italian construction company operating in Nigeria which claimed to have diversified its business operations because of a recession in the construction industry, had an international connection with the syndicate of waste exporters in many European countries and had in fact been importing toxic waste through the Koko

port. The company also acquired by the company belonged to one Mr. Sunday Nana who hired his premises to the company in his yard contained very environmentally hazardous substances like polychlorobyphenyle (PCB) and coluoring agents that are considered to be carcinogenic[12]

The Koko incident generated a lot of furore in the country and provoked a diplomatic row between Nigeria, the host country to the toxic waste, and Italy-the country from which the consignment of death came[13] There was indeed an outrage over the Koko incident. For one thing, many of the containers carrying the waste had burst and the substances were emitting a very offensive odour. It was also believed that part of the toxic waste might have been washed away during the raining season and found its way into streams and rivers which are sources of water supply to many residents of the town. For another, the diplomatic row caused between Nigeria and Italy and the swift reaction of the Nigerian government was not unexpected. This is because the dumping of toxic waste in Nigeria caused considerable embarrassment to the Nigerian government which has been warning other African countries not to permit the dumping of hazardous waste on African soil. For instance, just a month before the discovery of the Koko waste dump-site, the Nigerian President declared at the summit of the Organisation of African Unity (OAU) held in Addis Ababa, Ethiopia that 'no government-no matter the financial inducement has the right to mortgage the destiny of future generations of African children by allowing hazardous waste to be dumped in its territory'. The Nigerian President also played a prominent role in mobilising support of the OAU declaration against dumping of waste on the continent.[14]

In essence, the swift action of the Nigerian government in seizing an Italian cargo ship which was suspected to be carrying toxic waste, the hard-line posture in demanding that the waste dumped in Koko town be evacuated and the withdrawal of the Nigerian ambassador to Italy were not only meant to demonstrate the indignation of the Nigerian government at the Koko episode but also, and more importantly, to save the little reputation and credibility Nigeria might have gained for crusading against the dumping of hazardous waste on the African continent.

To the average Nigerian, the Koko incident, by way of summary, occurred mainly because of greed and ignorance on the part of Mr Nana. who allowed his premises to be used as dump-site; corruption on the part of customs officers who allowed the poisonous cargo to be discharged without proper scrutiny of its contents as it was expected of them; collusion between Nigerian businessman and some Italians operating in Nigeria, and collusion between Nigerian importers and officials of the Pharmaceutical Board. To the critics of the Nigerian government, the Koko incident was a deserved embarrassment because it was an unpardonable negligence of duty on the part of the government not to protect the people from toxic terrorism.[15]

This was sufficient indictment of the Nigerian government to compel it to take tougher measures than it had ever done before, to ensure that the Nigerian environment is adequately protected. One of these measures was the promulgation of Decree No. 58 of 1988 which established the Federal Environmental Protection Agency (FEPA)

V. The Establishment of Environmental Protection Agency

Prior to the establishment of the Federal Environmental Protection Agency (FEPA) the implementation of national environmental policy was the responsibility of the Federal Ministry of Works and Housing for the entire country while at the state level different government departments and agencies including local government councils, boards and commissions were responsible for refuse collection and disposal as well as general environmental sanitation aimed at securing for all Nigerians a quality of environment adequate for their health and well-being. None of these bodies set any standards for the protection of the environment. Indeed, all the bodies pursued different objectives in their different environmental protection crusades. Consequently, regulations made by one body often contradicted the rules stipulated by another body on the same subject-matter. For example, there have been as many Environmental Sanitation Edicts as there are states in the Nigerian federation. While all the sanitation laws were aimed at protecting the environment, the extent of criminal responsibility of the individual and the mode of enforcement of the edicts varied from state.[16]

There were therefore as many disparate objectives as there were different implementation strategies to protect the environment. Both the objectives and the various strategies lacked any cohesion. All thee made it imperative for the federal government to establish an institution that would not only co-ordinate all activities aimed at protecting the Nigerian environment but also serve as national reference point for policy and programmes on the environment.

The Federal Environmental Protection Agency (FEPA) hereinafter called the Agency, was established by the Babangida administration via decree No. 58 of 1988. The Agency is a corporate body with perpetual succession and a common seal, and may sue or be sued in its corporate name. In order to ensure that the Agency is in a good position to set environmental standards and possess the necessary human resources to perform its duties, the membership of the Agency has been so arranged as to comprise among others, a chairman who shall be a person with wide knowledge on environmental matters and four distinguished scientists.

Section 4 of the decree gives the Agency full:

> responsibility for the protection and development of the environment in general and environmental technology. including initiation of policy in relation to environmental research and technology.

Specifically, the Agency is to advise the government on national environmental policies and priorities, and on scientific and technological activities affecting the environment. It is also expected to co-operate with federal state ministries, local government councils, statutory bodies and research agencies on matters and use of facilities relating to environmental protection.

The decree also empowers the Agency in section 5 to:

(i) collect and make available through publications and other organisations, basic scientific data and other information pertaining to pollution and other environmental protection matters;

(ii) enter into agreements with public or private organisations and individuals to develop, utilize, co-ordinate and share environmental monitoring programmes, research effects, (sic) basic data on chemical, physical and biological effects of various activities on the environment and other environmental related activities as appropriate;

(iii) establish such environmental criteria, guidelines, specifications or standards for the protection of the nation's air and inter-state waters as may be necessary to protect the health and welfare of the population from environmental degradation.

In addition, section 15, 16, 17, 18 and 19 of the decree empower the Agency to establish different water quality standards for different uses, establish effluent limitations for new and existing sources which shall require the application for the best effluent management practices; fix minimum essential air quality standards for human, animal or plant health, undertake programmes for the control of any substance, practice, process or activity which may affect the stratosphere, especially the ozone in the stratosphere; identify major noise sources, noise criteria and noise control technology; and establish such noise abatement programmes and noise emission standards as it may determine necessary to preserve and maintain public health or welfare.

In a more direct effort to prevent a reoccurrence of the Koko incident, decree No. 58 makes the dumping of hazardous substances a punishable offence. Section 20 (i), for example, prohibits the discharge of harmful quantities of any hazardous substance into the air or upon land and the waters of Nigeria or at the joining shorelines, except where such discharge is permitted or authorised under any law in force in Nigeria.

Violation of section 20 (i) attracts very stiff penalties. By section 20 (2), any one found guilty of discharging hazardous waste in any part of the country 'shall on conviction be liable to a fine not exceeding # 100,000 (1 US$ = # 20) or to imprisonment for a term not exceeding 10 years or to both such fine and imprisonment'. If the offence is committed by a corporate body, eg. a company, the corporate body shall on conviction be liable to a fine not exceeding #500,000 and an additional fine of # 1,000 for everyday the offence subsists. Furthermore, any member of the board of directors shall also be liable except he can prove that the corporate body 'committed the offence without his knowledge or that he exercised all due dilligence to prevent the commission of such offence'.

The agency is also specifically empowered to determine what substances are hazardous and to compel the spiller of hazardous substances to restore the environment to its original state and compensate those who may have suffered some damage. For example, in addition to any fine that may be imposed by the court, section 21 (i) makes the spiller of hazardous waste liable for:

(a) the cost of removal thereof, including any costs which may be incurred by any government body or agency in the restoration or replacement of natural resources damaged or destroyed as a result of the discharge; and

(b) cost of this parties in the form of reparation,restoration, or compensation as may be determined by the Agency from time to time;

Similarly, section 21 (2) compels the owner or operator of a vessel or onshore or offshore facility from which there is discharge of hazardous substances in violation of the decree, to mitigate the damage by

(i) giving immediate notice of the discharge to the Agency and any other relevant agencies;

(ii) beginning immediate clear-up operations following the best available clean-up practice and removal methods as may be prescribed by regulations made by the minister charged with responsibility for the environment.

In essence, decree 58 has by the provisions of sections 21 (i) and 21 (2) as quoted above, incorporated the polluter-pays-principale (PPP) which is now part of the total package of strategy adopted by many developed countries to protect their environment. This principle can be and has also been used to resolve the issue of compensation to victims of environmental pollution. Member-Sates of the European Economic Community (EEC), Organisation for Economic Co-operation and Development (OECD) and the Council of Europe have all adopted this principle in their environmental protection legislation.

In countries that have incorporated the PPP in their municipal law, it is generally considered a business misfortune for a corporate body to be found guilty of polluting the environment with hazardous waste because the cost of clearing the waste, the fines and the compensation to be paid may be high enough to paralyse the company financially.

The entrenchment of this principle in the environmental protection laws of developed countries boldly underscores the resolve of the government in those countries to protect the people and the environment. In the same vein, the adoption of this principle by the Nigerian government clearly demonstrates a commitment to protect the Nigerian environment. Without the provisions of section 21 (i) and 21 (2) of the decree polluters would only have been punished with ordinary fines and imprisonment while nothing would have been done to the damaged environment neither would any compensation have been paid to the victim of environmental pollution.

In theory, the significance and effectiveness of Nigeria's environmental policy can be judged from the comprehensiveness of the environmental legislation and more importantly from the functions and powers assigned to the Agency established to enforce the law. A careful reading of decree 58 will, therefore, indicate that Nigeria's environmental law is quite adequate and, if effectively enforced, Nigeria will be classified as one of the countries in the world where issues relating to environmental pollution rank high.

But the reality of the situation is that while the Nigerian environmental law appears draconian, at least in terms of the harsh penalties for polluters and the powers conferred on the Agency, its effective enforcement does not look promising. Indeed, the enforcement powers stipulated in the decree will definitely be constrained by a combination of some domestic and external forces with which the Agency has to contend.

(a) Domestic dimension in enforcing environmental law

It has not been and probably will never be easy for the Agency to enforce the environmental protection decree or any other regulations made pursuant to the decree because the way and manner the Agency goes about discharging tits duties will definitely bring it into sharp conflict with powerful interests. The Agency itself also lacks the capability to enforce some of the provisions of the decree. Let us consider the following.

For the purpose of enforcing the environmental protection law, section 26 (i) of the decree stipulates that any authorised officer of the Agency, a police officer not below the rank of inspector or customs officer may, without any warrant, enter any land, building, vehicle, tent vessel or floating craft or any other structure, in which he has reason to believe that an offence against this Decree or any regulations made thereunder has been committed'. It further empowers the authorised officer to demand, examine documents, appliances devices or other items used in relation to environmental protection. The authorised officer is also empowered to arrest offenders and seize any item or substance used in the commission of an offence against the decree or any other regulation pursuant to the decree.

These are very wide powers conferred by the decree on some Nigerian officials to preserve the environment which, arguably, has been seriously polluted. To that extent there is real justification for promulgating this decree. But the enforcement of this decree without clear guidelines and standards on environmental protection issued first by the Agency to those who have tendency to pollute the environment, e.g. corporate polluters, will appear unjust. As at the time of carrying out this study, there was not any set of guidelines issued by the Agency. The officials of the Agency claimed that guidelines had been prepared and submitted to the appropriate ministry for approval. But given the cumbersome process involved in securing approval for anything from any ministry, one is not surprised that more than three years after the promulgation of the decree, guidelines and standards which are needed to determine the extent of compliance with the decree are still being awaited. Even when the guidelines are eventually issued, companies need to be given some time to change those practices or methods of operation which may have been causing environmental pollution or alternatively be given a deadline to neutralize the effect of such pollution. It is only when the guidelines are issued and opportunity given to probable polluters to change their operations that one can justifiably punish polluters whose practices do not conform with set standards. It is probably because of the absence of any approved guidelines that the Agency has not strictly exercised the enforcement power given to it by the decree.

Setting standards to prevent environmental pollution and assessing the extent of compliance with the set standards presupposes that there is a crop of experts in environmental science in the services of the Agency who, for instance, will determine the extent of radiation in the environment, the source of such radiation; or whether a particular substance is toxic or not. But the Agency does not, to the best of our knowledge, have enough qualified hands to handle many of the scientific matters relating to environmental protection as at now, neither is it likely to succeed in recruiting many top-flight environmental scientists in the future. For one thing, the pay structure for the personnel in the Agency is the same as that of the country's civil service which most professionals and scientists shun while the universities which boast having these scientists who can be called upon by the Agency to assist, have lately been loosing the services of their scientists to the private sector or to foreign countries where they are handsomely rewarded.

Furthermore, the government's action that established the Agency but which refused to utilise the services of local experts seems to cast doubt o the competence of Nigerian scientists. An example will suffice here. In the wake of the Koko episode, the Nigerian government invited hazardous waste experts from the United Kingdom Atomic Energy Agency (UKAEA), the Environmental Protection Agency (EPA) of the United States and Japanese Atomic Agency and not Nigerian scientists, to assess the extent of radiation from the toxic waste. The Nigerian government received conflicting 'scientific reports' from these foreign experts. The British and American experts claimed in their reports that they could not find any highly radioactive elements in the sample of the toxic waste except some 'organic vapours, solvents, flammable liquids, corrosives, acids, poisons, poluychorobiphenyle (PCB) and large components of paints and pigment procedures'. They, however, admitted that although they could not find gamma (radioactive) rays from the stacks of drums that littered the Koko site, there could be alfa or beta emitters present which could not be detected by the equipment they had with them. The Japanese experts on the other hand found 'highly radioactive materials among the pack of toxic waste but assured the government that 'the radioactive materials would remain harmless as long as they remain in the drums.[18] The only suggestion common to all the reports was that the toxic waste should be evacuated from the site immediately. It was not clear which of the reports the government accepted. What is worth noting is that the government ensured that the site was quickly cleared, the environmental protection decree and the Harmful Waste (Special Criminal Provisions) decree N0. 42 of 1988 which prescribed life jail for any one found guilty of dumping toxic waste on Nigerian territory were promulgated.

It can also be argued that the government took note of the conflicting reports submitted by the foreign experts and promised to create facilities within the country to carry out in future similar simple tests rather than relying on foreign experts. This, at least, was partially achieved when, two years after the Koko incident, the government established what was described by the Nigerian media and government officials as an ultra-modern toxic waste laboratory. This is the laboratory which, when fully equipped, is expected to enhance the capability of the Agency to carry out a series of tests to determine what substance is harmful to the environment. However, the equipment with which the laboratory started its modest operations had been donated by the Japanese government and the Agency may have to rely more on such donations in future in order to be effective; otherwise, the laboratory will suffer the same appaling neglect visible in the Nigerian universities and other research centres.

There are two reasons for this seemingly pessimistic view. First, the financial practice in Nigerian public institutions of spending about 80-% of government subvention on the payment of salaries and emoluments of officials leaves little or nothing for plant and machinery, that practice that has refused to change not can it be changed in the Agency.

Second, there is no shred of evidence to suggest that the next civilian administration in 1993 will take the protection of the environment as seriously as the present military government

has done. Indeed, the protection of the environment has never been a campaign issue in Nigerian partisan politics. The two political parties now competing for the control of political power in Nigeria do not see any need to make it a political issue either. For example, the two political parties promised in their manifestos to protect the lives of the people, plants and animals by controlling pollution of water and the atmosphere as well as generally improving and beautifying the environment.[19] But at campaign rallies none of the two parties has pledged any specific commitment to improve the quality of the environment. Therefore, the low priority given by the parties to environmental issues is likely to affect the level of funding that will go to the Agency in 1993 and beyond when the civilians are in power.

Environmental pollution in Nigeria is traceable to some activities of individuals and corporate bodies over which the Agency can do very little. Nigerians themselves contribute to environmental pollution through overcrowding in cities which leads to poor sanitation; they generate solid waste from the way most of their food items are packaged and generally litter the streets with refuse. The situation is also compounded by the failure of the local government councils responsible for sewage and refuse disposal to discharge their statutory duties. All these put together have made the surroundings of most Nigerian cities filthy while the aesthetic quality of the country's landscape still remains very low.

Similarly, environmental pollution is also caused by hundreds of industries producing a wide variety of consumer and capital goods, and the extensive oil exploration now going on in the country. A majority of these companies are subsidiaries of foreign companies, although by Nigerian laws such subsidiaries have been incorporated in Nigeria. The companies provide jobs to thousands of Nigerians, pay company taxes and royalties to the government and offer a variety of goods and services which touch the lives of many Nigerians.

Despite their contribution to the Nigerian economy, many of the companies are sources of industrial pollution. For example, tannery, textile, paint, pharmaceutical, metallurgical, petroleum, seramic and pesticide industries indiscriminately discharge effluents which contaminate surface and underground waters while oil spillage which occurs almost yearly in some Nigerian communities affects human, plant and animal lives. Many of these industries have not even thought it fit to treat the effluents before discharging them. Little wonder then that the Agency was given such powers to enter and search industries that causes pollution, seize any materials used by the industries to pollute the environment and arrest the polluters.

However, the Agency has not been known to exercise these wide powers. It could have failed to do so either because the officials of the Agency are probably fully aware of the economic and social implications of taking actions that may cause economic dislocation or even lead to the total closure of industries. The closure of some industries will, for instance, put many Nigerians out of work; reduce government tax revenue and discourage foreign investors from contemplating further investment in the Nigerian economy. Additionally, officials of the Agency are probably aware in the present circumstances, the industries are not to blame because the country itself lacks any effective sewage and waste disposal system, a legacy of poor planning since the 1950's.

Consequently, the Agency is, according to its officials, not interested in the strict application of the environmental law and the imposition of stiff sanctions just to show that it has powers. On the contrary, the Agency is inclined to use an approach that combines elements of persuasion with an effective enlightenment campaign to convey its message to the general public, resorting sparingly to the imposition of sanction Herein lies the dilemma of an organisation that is vested with wide powers but which has been reluctant to use the power lest its action do more harm that the law actually envisaged. This explains, perhaps, why many of the industries still discharge effluents into Nigerian waters because the Agency that is supposed to call them to order is merely appealing to them to change their mode of operation. If privately-owned industries have been acclaimed to be contributing tremendously to the economic growth and development of the country in line with the capitalist ideology of the Nigerian government, the Agency is not to blame for upholding the ideology by avoiding to take any step that would paralyse business in the name of protecting the environment. The prevention of environmental pollution is definitely a scientific undertaking while promotion of business enterprises is a matter of ideology. But as Peterson observes, when scientific knowledge requires that something should be done but that doing it will conflict with ideology, science loses in that conflict. This appears to be the conflict that needs to be resolved by the Agency.

One other point that has hindered the enforcement of decree No. 58 relates to the size and structure of the Agency. The Agency is a federal institution which is expected to focus its attention on the urban and rural areas of the country because pollution exists or can exist in all areas of the country, although it is more common in urban areas. But it is becoming increasingly clear that the Agency cannot discharge its duties effectively in a large country like Nigeria if the Agency still retains its centralized structure.

The drafters of the environmental decree must have also considered the size of the country and the difficulty of having one central Agency to protect the environment. To this end and in order to ensure the maximum enforcement of the decree throughout the federation, the Minister in charge of the environment is empowered in section 24 of the decree to:

> encourage States and Local Government Councils to set up their own Environmental Protection Bodies for the purpose of maintaining good environmental quality in the areas of related pollutants under their control subject to the provisions of this Decree.

Regretably, this provision lacks any enforcement punch and can be said to have tacitly paved the way for outright neglect of the rural environment. First, neither the states nor the local government councils can be compelled to establish environmental protection bodies, they definitely would lack the manpower and the financial resources to discharge the functions stipulated in the decree. The farthest many of the sates and local government councils in Nigeria have gone to protect their environment is the setting up of environmental sanitation bodies which merely ensure that people are mobilized for the weekly or monthly environmental sanitation exercises. These exercises, it should be remembered, are directed at beautifying the landscape than actually protecting the environment.

Therefore, the performance of the Agency will become much more effective at the state and local government levels if there is a specific national legislation compelling the states and

the local governments to establish such environmental protection bodies or as an alternative, the Agency should be decentralised with branches established in all the states of the federation. Until this is done, the impact of the Agency will hardly be felt in many parts of the country. It is also possible that corporate urban polluters will begin, if they have not already begun, to discharge their solid waste in the remotest part of the country beyond the eagle eyes of the officials of the Agency who are based in the federal capital.

B. International dimension in enforcing environmental law

The enforcement of Nigeria's environmental protection decree has some implications for Nigeria's relations with other countries and international law. Section 26 (i) of the environmental protection decree allows, among other things, an authorised officer of the Agency to enter and search any building in which he has good reason to believe that an offence against the decree has been committed; cause to be arrested any person who commits the offence, and seize any item or substance which has been used in the commission of the offence against the decree. The strict application of this section evidently raises a number of questions in relation to foreign embassies. For instance, it is permissible for an authorised officer of the Agency to enter the premises of a foreign embassy, search the premises, seize an item or substance which he suspects has been used to pollute the Nigerian environment and cause to be arrested a diplomatic representative or anybody within the premises who, he suspects, has committed an offence against decree No. 58? Will there not be a diplomatic row with the country whose embassy has been so assaulted by the action of the officials of the Agency?

It is true that diplomatic representatives who enjoy diplomatic immunity in accordance with Articles 29, 30 and 31 of the Vienna Convention are most unlikely to be involved directly in the criminal importation of toxic waste into the state where their mission is based. It is also true that toxic waste is unlikely to be kept within an embassy. Nevertheless, it is possible that the diplomatic mission of the country of origin of the toxic waste may have greatly assisted in the importation of toxic materials. If this happens, there is no way in which the Agency can bring any legal action against the diplomatic representatives who are believed to have assisted in the unlawful importation and discharge of toxic waste. It will also be extremely difficult for the Agency to seize documents that relate to dumping of toxic waste or equipment associated with radioactivity associated such as listening and monitoring devices commonly found in many of the embassies of the industrialised countries.

The important thing to note from the point above is that shipment of toxic materials from the developed countries to the developing states seems to be receiving some tacit encouragement from the government of the developed countries which want to prevent by all means environmental pollution in their countries and protect the lives of their people. Thus, if a government is to take some steps to prevent the dumping of toxic waste by some foreign nationals in its territory, then such a government must be prepared to have a diplomatic show-down with the country where the targeted foreign national comes from. This happened between Nigeria and Italy over the Koko incident.

In the Koko incident, the Nigerian government and media strongly believed that the Italian embassy was very much implicated in the importation of the toxic waste. In defending the embassy, the Italian charge d'affaires claimed that he had duly informed the Nigerian ministry of external affairs about moves by the Italian company to ship the toxic waste to Nigeria and that he had in the memo to the ministry specifically asked for information about existing Nigerian rules guiding the importation of waste materials. He claimed that the ministry did not reply his memo. This robust and credible defence notwithstanding, the Italian embassy was accused of complicity as Nigerians generally believed that the embassy aided the importation of the toxic waste dumped in Koko town. This belief conditioned the reaction of the federal government to the incident. For, in addition to asking the Italian Charge d'affaires to leave Nigeria, some Italians suspected to be involved in the toxic waste deal were arrested but later released; an innocent Italian vessel waiting to berth at a Nigerian port was suspected to be carrying another consignment of toxic waste and was consequently asked to return to Italy with its undischarged cargo while tremendous pressure was successfully applied on the Italian government to remove the toxic waste from Koko town. The Nigerian government also threatened to commence legal proceedings against the Italian government at the International Court of Justice (ICJ). The suit has since been withdrawn.

The scenario above represents what can happen again if another foreign embassy is implicated in the importation of hazardous materials into the country. The situation could be worse if some diplomatic representatives were to be directly involved in the importation. The most important point to note here is that the enforcement of Nigerian environmental protection decree on the staff of an embassy is a difficult undertaking because it can only be done with complete disregard of the 1961 Vienna Convention, an action that may attract retaliatory measures.

It is trite knowledge today that many developed countries which grant financial aid to the developing countries, including Nigeria now attach two new conditions to the aid, namely, the establishment of democracy and the prevention of environmental pollution. More specifically, many developed countries now insist that the level of aid they give will be determined by the extent to which the recipient country deals with environmental issues. Thus, Nigeria qualifies for commendation by the Western developed countries for putting in place sound legislation to protect the Nigerian environment.

However, the same Nigerian government will sooner or later learn that its Agency has great difficult in rigidly enforcing the environmental protection law against the corporate polluters majority of which come from the developed countries. This is because the same developed countries which are urging the developing countries to open up their economies to more foreign investors so as to achieve sustainable growth and development are also putting pressures on them to be flexible in the implementation of their environmental policy and legislation. In fact, there has been the fear, instilled by the developed countries in the developing countries including Nigeria, that foreign investment may dry up if economic growth and development are not given priority over environmental issues.

African Heads of State seemed to have taken this seriously when they advised governments in their Abidjan Declaration to ensure that all the steps they take to protect the environment do not frustrate the development process. This incidentally tallies with the policy goal of

the Agency to 'provide a rational, practicable, coherent and comprehensive approach to the pursuit of economic and social development in the implementation of the environmental protection law. The Abidjan Declaration simply underscores the dilemma faced by a country like Nigeria which is in a hurry to industrialize through massive foreign investment but which is susceptible to pressures from foreign-owned industries not to enforce rigidly its environmental protection law against corporate polluters. An example of this type of pressure will suffice here. When one state government in Nigeria passed an environmental pollution edict in 1989 which adopted the polluter-pays-principle, there was a deluge of protests from local and foreign-owned companies which feared the crippling effect of the edict on their operations. As it is to be expected, the edict is still inforce but there is no record to show that the polluter-pays-principle has been enforced while effluent is still being discharged indiscriminately in that state. The situation is not different in other parts of the country.

Conclusion

There is now grave concern about the increasing pollution of the Nigerian environment by individual and corporate bodies. The Nigerian government has taken the matter seriously and has responded to the call to protect the environment against a reoccurrence of the Koko incident by enacting specific environmental protection legislation and establishing an Agency charged with the responsibility to protect the environment.

However, it does not appear from the evidence available that the Agency established to enforce this legislation has the administrative and scientific capabilities to discharge its duties to save Nigerians from environmental pollution caused by the action of some manufacturing companies based in Nigeria as well as the activities of Nigerian importers of toxic waste and their foreign accomplices. Furthermore, many Nigerians believe that the activities of the Agency to date are geared more towards symbolic issues such as featuring at seminars, workshops, conferences, tree planting campaign, etc., than taking practical steps towards protecting the Nigerian environment. In essence, effective enforcement of the environmental protection decree will remain a herculean undertaking given the domestic and international conditions which will influence its enforcement or non-enforcement.

Recommendations

Despite the problem of enforcement highlighted in this paper, it is our belief that while the environmental legislation is still in force, some steps need be taken to complement the efforts of the Agency to achieve the objectives for which it is established. Thus, if Nigerian environmental policy, law and the Agency are to achieve desired objectives, the following need be done:

(i) the government should consider environmental pollution a security issue and the dumping of toxic waste on Nigerian soil by foreigners should be treated as an act of aggression which needs to be repelled as much as an invading army is to be repelled. To do this effectively therefore, it will be necessary for the Nigerian Navy to be well equipped with devices which can detect any ship carrying radioactive materials that are to be dumped in the country. Similarly the customs department, especially the unit operating at Nigerian air and sea ports should be supplied with Geiger Counters an instrument used in detecting radioactive substance in any material. The customs officers need to be trained to use it.

(ii) The right of every Nigerian to a healthy environment should be regarded as fundamental and be constitutionally guaranteed like the other rights. This means in effect that every Nigerian should be able to commence civil proceedings against any one causing environmental pollution, the liability of which goes beyond the ordinary civil liability for nuisance. It is therefore imperative for the human rights organisations in Nigeria to extend their campaign to the protection of individuals against environmental pollution. By doing so, the organisations will be drawing the attention of the government and the people of Nigeria to the threat to human lives posed by a polluted environment.

(iii) There is a need for the government to adopt an effective strategy for the management of hazardous waste generated within the country. As part of the strategy, the government should designate a large area in the country as a dump-site, invest in the technology of landfill, treatment of hazardous waste which will include burning at high temperatures, chemical treatment for neutralization and recycling of some waste for other uses. On the economic potentials of recycling waste products, for instance, one cannot ignore the suggestion of Mr. Yutaka Itakura, the Japanese consultant to the Agency, that much of the solid waste that litters the Nigerian cities can be recycled, their impurities removed and the by-product used for other purposes. Admittedly, the management of hazardous waste is no cheap enterprise. It requires substantial financial resources, technology and expertise, all of which are in short supply in the country. Nevertheless, some annual budgetary allocations from the government, compulsory deductions or contributions from all the industries and companies that generate solid or liquid waste as well as donations from the financially and technologically advanced countries (given their pledges at the 1992 Earth Summit in Brazil in June) will go a long way in enhancing Nigeria's efforts in the management of waste.

(iv) Finally, the level of consciousness of the people on environmental hazards needs to be raised beyond the awareness generated by the monthly national sanitation exercise. As the Chief Executive of the Agency rightly observed, every Nigerian must be provided with relevant information to become environmentally responsible through the development of the necessary discipline, habits and life-styles, to participate effectively in protecting and enhancing the quality of the environment.[37] Indeed, every Nigerian should be sufficiently informed of the need to report to the authorities the dumping of waste which are suspected to be harmful to the people. Perhaps, if Mr. Nana or his neighbours had been conscious of the danger in allowing strange containers to be deposited in their area, the contamination of the air, the surface and underground waters believed to exist now in Koko town would have been averted.

The Nigerian government can be commended for initiating an environmental protection

policy and law and establishing an agency that will implement them. But the efforts of the government will yield greater dividends if the recommendations above are considered anytime a review of environmental policy and law is being contemplated. This is where the Nigerian Society for the Protection of the Environment (NISOPEN), a non-governmental organisation recently formed by some Nigerians who are determined to prevent another disaster like the Koko incident, will need the commitment of all its members in assisting the government in monitoring and exposing the activities of corporate and individual polluters.

Notes

1. For a comprehensive discussion on what development is, see Meir, G. and Seers, D. (eds) *Pioneers in development* (Oxford: Oxford University Press, 1984.
2. Geller, E.S. *Preserving the Environment*, (New York: Pergamon Press, 1982 chapter 3.
3. Burton, I. et. al. *The environment as hazard*, Oxford: University Press, 1978).
4. Lowi, T.J. 'Four systems of policy, politics and choice', *Public Administration Review*, 32: (1972): 298-310.
5. Key note address of the Honorable Minister of Works and Housing, 'Policy issues and institutional arrangements in national environmental programmes' cited in Sanda, P.O. and Odemerho, F.O. (eds) *Environmental issues and management in Nigerian development*, (Ibadan: Evans Brothers, 1988).
6. The Federal Ministry of Information, Lagos. The fourth National Development Plan 1985, p. 358.
7. Sanda, P.O. and Odemerho, op. cit. p. 10.
8. Ibid, p. 44.
9. Ibid, p. 42
10. Shyllom, F. (ed) *The Law and the Environment in Nigeria*, (Ibadan: Vantage Publishers, 1989), p. 9.
11. See the letter in the Guardian, (Nigeria) June 10, 1988. The Students also forwarded to the Newspapers the English Translation of other Publications in Italian which showed that export of toxic waste to Nigeria had been going on since August 1987.
12. West Africa, June 13 1988.
13. Newswatch, July 4, 1988.
14. West Africa, June 20, 1988.
15. Ibid.
16. Uchegbu, A. 'A legal Framework for Environmental Protection and Enforcement' in Sanda, P.O. and Odemerho, F.O. (eds) *Environmental Issues and Management in Nigerian Development*. op. cit., pp. 382-293.
17. The Guardina, (Nigeria) June 27, 1988.
18. The Guardian, (Nigeria) July 1, 1988.
19. The Manifestos of the two Political Parties published by the Political Enlightenment Committee of MAMSER, Ilorin, December 1989.

Industrialisation Policies and Development with Reference to Tanzania

Daudi Rivelo Mukangara

1. Background

1.1 Introduction

This paper reaches into the dependence debate and tries to draw out the important issues of development that the debate may have generated. It tries to match the theoretical constructs of that debate with the historical and current development experiences of some countries. It then focuses on the role industrialization in development, and on industrialization policies in Tanzania.

1.2 Dependence, development and industrialisation: The debate

Discussion of industrialisation policies in the current 'reform' outlook inevitably recalls the larger debate on a development framework for "Third Wold" countries, which emerged in the 1950s and prospered in the 60s and 70s. In particular it calls to mind the challenge of the ECLA-Prebisch thesis[1] to the conventional development framework of that time, and the dependence outlook which deepened the ECLA-Prebisch critique of international political economy.

The most enduring precept of the traditional philosophy of development was the principle of comparative advantage, which dates from Adam Smith. The principle proposes that as long as one selects and specializes in conducting production in those areas in which one is best endowed, and as long as one carries out trade with others, economic benefits and thus development automatically accrue. One of the assumptions on which the principle rests is that monopoly power in the market is absent and there is no hindrance to the spread of technological progress to all parts of the trading system (Love, 1980:48). In its post-classical version these assumptions in turn presuppose equilibrium extended to the international system, and it is interesting to note that Prebisch came to attack these assumptions at the international level in the same ways as Keynes did with respect to the national economy.

Prebisch attacked the assumptions of equilibrium and automatic (price) adjustment in the economic system, the received wisdom until then, arguing that it did not take account of the possibility of a prolonged depression (Love, 1980:50). He also noted that in practice the principle of comparative advantage was regularly violated by industrialized nations.

Prebisch brought together, and elaborated on, his ideas on trade and development in a work prepared for the ECLA in 1949. That work (Prebisch, 1950) became the basis of the official view of ECLA on those issues. The main argument in it was that the terms of trade for agricultural produce exporters had deteriorated between the end of the 19th century and the

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