

EPZ

CONCEPTS AND ISSUES



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CRYSTAL-GAZING SOME ENVIRONMENTAL CONCERNS AND THEIR CONTROL MEASURES FOR THE EXPORT PROCESSING ZONE (EPZ) IN CALABAR, NIGERIA

by

Moses E. Inyang-Abia.

The main objective of any Export Processing Zone (EPZ) is to attract export-oriented industries into a clearly delineated industrial estate within its national customs territory. As such the attracted firms operate within special regulatory and fiscal policies which allow some freedom of operation. Because the EPZ has special incentives such as tax holiday and freedom from import and export licences (NEPZA, 1992), it therefore has the capacity of attracting a wide variety of firms and industries. As a processing zone it is surely likely to generate some environmental problems. This causes serious concerns among the people within and outside the zone. These concerns are more serious especially when one considers the fact that majority of the people around are environmentally unaware. But with the active involvement of the Federal Environmental Protection Agency (FEPA) armed with available enabling laws and Decree 63 of 1992, the Nigeria Export Processing Zone Authority (NEPZA) and other relevant decrees, Nigerians may rest assured that their concerns are adequately taken care of, assuming their effective implementation. This presentation is therefore designed not as an Environmental Impact Assessment exercise but to:

(a) crystal-gaze the likely problems that may arise

(b) present culturally relevant analysis of such problems; and

(c) propose feasible control measures.

ENVIRONMENTAL CONCERNS AND THEIR CONTROL MEASURES

In highlighting some environmental concerns and their control measures this write-up is guided by at least three out of the proclaimed 27 basic principles by the Rio Declaration on Environment and Development, June 3-14, 1992. For example:

Principle 1: Human beings are the centre of concerns for sustainable development. They are entitled to the healthy and productive life in harmony with nature.

Principle 3: The right to development must be fulfilled so as to equitably meet developmental and environmental needs to present and future generations.

Principle 4: In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it. (United Nations, 1992:1. 8-9).

Environmental concerns arise because human beings are anxious and worried for, about and over their future and in relation to their physical and social surroundings. And since nature's reaction to human abuses are usually seen by the latter as violent and destructive, there is cause for everyone's growing concern with and about the environment. Among such important concerns, especially as associated with the Export Processing Zone (EPZ) in Calabar, Nigeria, are those linked with the effects of the following on the environment and people: Population

pressure, deforestation, waste generation and management, energy production and consumption, biodiversity loss, food scarcity, transportation, growing industrialization and urban sprawling, health issues, security problems, migration, economic issues, political issues, social issues and cultural issues among others, all of which impact both directly and indirectly on the environment and the people around the zone.

Based on the three principles earlier outlined the rest of this presentation will briefly discuss five of the concerns listed above.

Population: Arising from the growing need for employment and job opportunities offered by the zone, one of the earliest problems to be contended with within the zone is the population pressure upon available environmental resources. The rapid growth rate will arise more from immigrants than from increasing birth rate. The environmental consequences of the astronomical increase may be far-reaching with effects touching on all aspects of life and living: housing, solid waste, recreation, transportation, security, education, among others.

Need for office accommodation and residential quarters has already been felt although the EPZ is yet to take off. The obvious implication for the environment is that of urban sprawling and use of more land for structure. With ever increasing cost of building materials it means however that fewer new structures will be set up while the existing ones may be expanded even without approval of appropriate authorities.

One obvious solution to the housing problem is the completion and occupation of the abandoned housing estate at Ikot Ekpo which is just about five minutes drive from the EPZ, a distance of about ten kilometres from the

EPZ site. Although this may generate its own peculiar environmental problems it can nevertheless solve some accommodation problems for the vast majority of the probable increasing population. This can also reduce the problem of deforestation arising from clearing new site for new construction of structures.

Deforestation/Devegetation:

The problem of devegetation has positive correlation with structural development. In almost all circumstances it is necessary to clear the vegetation before setting up the structures. The EPZ has already taken its toll on the vegetation cover including the coastal and marine vegetation and aquatic life. This reduces the quantity of the vegetative cover as carbon sink and as source of atmospheric moisture through transpiration, let alone the loss of the trees as wind-breakers and animals of varying descriptions and their habitat. The tar surfacing of the zone also makes percolation impossible; rather it increases run-off which carries land debris into the river and increases the probability of flooding.

The need to green the EPZ with ornamental trees and fruit trees cannot be over-stretched. This need may be more pressing when the zone finally takes off fully. As wind-breakers the trees have very few natural rivals. There is also greater need for recreational facilities such as parks and lawns which can assuage the busy minds of the EPZ workers which adding aesthetic values to the entire zone.

Waste Generation and Management:

As an industrial zone, EPZ will have to cope with the universal and intractable problem of waste generation by developing effective waste management strategies. Whether solid, liquid or gaseous, whether industrial, toxic,

radioactive, domestic or human, waste pollutes. Its generation cannot be stopped as long as human activities continue, so the problem of its management becomes even more disturbing when human activities are concentrated as in the case of the EPZ. It is however important to note that what is considered waste in one situation can become wealth in another, depending upon the use to which it is put or fails to be put.

The major solutions to the problem of waste include capacity building whereby recycling, repairing and re-using of what is technically referred to as "waste" can be maximized. The ability to abide by the operational national policies and incentives for waste management is also important. The Calabar municipal authority and the EPZ authority (NEPZA) should also mobilize community support for waste re-use and recycling. Waste management planning should also be incorporated into resources recovery practices of the authorities. There is also the need to carry out adequate education and awareness campaign on waste generation and management for the workers and users of the EPZ.

The prevention of illegal international traffic in waste of all forms should be stepped up, so also should the importation of decadent technologies that are not environmentally friendly. That is why technology assessment centres in the zone may be very necessary. Environmental management and auditing unit may also be necessary in the EPZ. Above all, the zone should ensure that the ultimate responsibility for environmentally sound waste management strategies rests with her. The Cross River State Environmental Protection Agency (CREPA) should monitor closely the waste situation in the zone so that adequate steps can be taken when necessary. The

alternatives proposed by the Environmental Impact Statement (EIS) (hoping that such was comprehensively done for the EPZ) must be strictly complied with.

Energy Production and Consumption

Energy production and consumption at the EPZ has both direct and indirect relationship with environment: direct because most of the energy to be used at the zone derive from environment in the form of fossil fuels (gas and petroleum products); indirect because the damaging outputs or "bads" get into environment in the form of fumes, soots and carbon-monoxide among others where they attack vital life support systems (including air, water and land) and structures. The sulphur content of fossil fuels combine with oxygen in the air to form sulphur dioxide. When this reacts with moisture in the air in the presence of sunlight it forms sulphuric acid which has the capacity to fall as acid rain or as acid dry dust. It attacks land, plants, water, animal houses, monuments, metals and equipment. By implication it means fossil energy production and consumption is a major source of pollution and environmental degradation.

But since a large quantity of energy is inevitable for the EPZ for driving the production machines and for transportation, alternative sources of energy must be sought. The use of electricity is highly recommended yet its steady supply is a problem. That is why there is a pressing need to urgently develop hydro-electric power plant at Kwa Falls and Agbokim Falls to supplement the existing supply to the state. This can reduce the need to burn fossil fuels to drive locally installed electricity generators which are the likely alternatives at the EPZ.

It may not be feasible to develop solar-driven machines including motor vehicles soon, but such ideas

should be given serious thought by the EPZ authorities. This will be ultimate solution to the need for energy production. There is also need to use fuel-saving devices and technologies which again reinforces the need for technology assessment centres and environmental auditing units at the EPZ.

Pollution: Closely associated with the problems earlier specified is pollution. Focus here is on air, water and noise pollution. Pollution is most likely to arise from the industries in the zone and increased transportation by sea, land and air. When the industrial chimneys pump jets of fumes into the air, their pipes empty hot chemically-loaded water into the river while the hustling, bustling hisses of the machines send deafening noise around. The fumes in the air may carry with them some particulate matter which fall back into the earth or which circulate in the air. When inhaled, they can contribute to various forms of cardiac and lung-related problems.

Likewise, polluted rivers inhabits polluted fish and other aquatic life. In a riverine culture like ours where fresh water foods are a daily delicacy one has to be careful. Another implication lies with the type of chemicals emptied by the industries into the water. Some of these could be detrimental to the aquatic life while others could lead to eutrophication and overgrowth of aquatic plants thus cutting off oxygen supply for aquatic animals and obstructing marine transportation system. Added to these is the possibility of the change of aquatic temperature and chemical content which may lead to the death or migration of aquatic animals. All these can contribute to scarcity of fish and poor nutrition for the masses, let alone loss of revenue to the fishermen. People who depend on the river water for their household chores

may also suffer from various ailments arising from polluted water. This can lead to loss of man-hour, loss of revenue and even life.

The incidence of noise pollution is sometimes associated with liver problems, indigestion, increased blood pressure, cardiac problems and deafness (Inyang-Abia and Usang: 1992).

Probable solutions to these problems are both technological, economic and educational. Technologically, there should be greater focus on recycling and waste reduction strategies. There is also increasing need for monitoring to ensure that all the industries abide by the existing laws and regulations as provided for by the Federal Environmental Protection Agency Decrees (FEPA 1991 (a) (b) (c)). Sustained environmental awareness campaigns, empirical studies, integrated approaches to industrial planning and developmental programmes and improved attitude to the environment at the management level of EPZ authorities are also important. The industries should also adopt most modern technologies that are environmentally friendly. The need for international co-operation in areas of pollution cannot be over-emphasized here particularly because of its effects beyond the national boundaries.

Conclusion:

Human beings are central to all forms of environmental concerns. As social beings human are endowed with a wide variety of cultural perspectives. It is therefore pertinent to emphasize that all environmental concerns are closely tied to human culture. Poverty, desire to challenge, improve and overcome rather than to co-operate with nature as well as human belligerent and gluttonous nature are some factors at the root of environmental concerns. That is why justice to this topic cannot be done if the

positive dimensions of the concerns are not briefly touched upon.

The culture of poverty is definitely likely to be challenged by the existence of the EPZ. Apart from exposing some people to the culture shock, the EPZ will definitely bring with it some identifiable economic prosperity that can influence the environment positively. For example, with increasing environmental awareness more people are likely to have positive disposition towards the environment. Future decision-makers are more likely to consider the environmental issues at the planning stage of their projects and programmes. This can have salutary economic effects for the entire zone in particular and the nation in general, especially when one considers the economics of sustainable development and the associated multiplier effects.

Socio-politically, the zone will be better placed in the affairs of the nation not just because of the international attention but more so because of social and political developments expected within the zonal catchment area. With new jobs created new skills are likely to be learnt. This poses a new challenge to the educational sector. Both human and societal growth and development are likely to occur. People are likely to become more responsible and aware of their expectations, rights and responsibilities to both the environment and fellow humans. Rise in crime rate as a direct consequence of population influx and slum culture may attract the need for improved security system and recreational facilities among others.

Technological transfer, one of the objectives of the EPZ should not be such that will jeopardize the growth and improvement potentials of the existing local technologies. They have to be appropriate and capable of helping

the local ones to fully grow. Since the industries permissible within the zone are those associated with electrical and electronics, textile, wood, leather, petroleum, rubber and plastics, cosmetics, educational materials, printing materials among others which raw materials are easily available within the catchment area, there is even greater need to encourage, as much as possible, the adaptation of the imported technologies to suit the environmental requirements. This is an important concern for us all.

This presentation has highlighted a few of the many possible environmental concerns likely to be encountered by the EPZ. Some of the suggested remedies may be for long term solution of the problems. One thing which is certain is the need for the Federal Environmental Protection Agency (FEPA) to be more alert to meet with the concerns envisaged by actively eliciting the interministerial and multilateral co-operation of other bodies; including the relevant units and educational institutions. Environmental problems are no respecter of race, culture nor political boundaries. They must be jointly tackled.

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