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Implication of Environmental Impacts Assessment on Construction Projects in Nigeria

OTTI, V.I., NWAFOR, A.U. AND DANNWAFOR, K.

CIVIL ENGINEERING DEPARTMENT FEDERAL POLYTECHNIC OKO

ABSTRACT

The paper describes the consequence of environmental development as degrading, disrupting process to social activities, leading to unproductive life through economic, social system and cultural value. Environment and Development complementing each other, where a carefully nurtured environment continues to provide the basis for continuous development.

Keywords: Environment, consequence, project, impact, development, economy, social.

*Correspondence to Author:

OTTI, V.I.
CIVIL ENGINEERING DEPARTMENT
FEDERAL POLYTECHNIC
OKO

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INTRODUCTION

Environment is referred as surroundings, the context within which people exist, and all living or nonliving things existing in an area and surrounded by other things (RDB 2017). Environment is the sum total of all surrounding of a living organism including natural force and other living thing which provide condition for development and growth as well as of danger and damage (Business Dictionary). Environment means the biosphere in a broad scale, earth atmosphere which supports life and it includes oceans, continental and low atmosphere (Renald and David 2010)

Environment is what is around us and can be living or nonliving thing including physical, chemical and other natural forces(WIKIPEDIA). When people are familiar with something that makes up our surrounding and affects our ability to live on the earth, air, water, plant and animal around us (Mercier and Muntemba 1999)

Environment is divided into two types namely natural and built environment. The natural environment encompasses all living things and non-living things (soil etc.) occurring naturally in the area, while built environment is referred to as the human made surrounding, that provides conducive atmosphere for human activity examples are building, water supply, parks, recreation centers and others.

Ecologically, environmental surrounding is where living things interact directly or indirectly for their benefit as stated by Winpenny (1996) in his Economic Appraisal of Environmental projects and policies.

Even in the absence of man, natural environment undergoes continue change, biomass effects superimpose on natural environment changes which are on those produce by man, with the domesticated of animals and the introduction of agriculture, the effects of this action become more wide spread, especially as large human settlement came into being, Fischer (2016).

Jones et al (2007) asserted that, the rate increase within the development of industries as muscle power was replaced by energy derived from fossil fuel, until during last of expansion. In every context of expansion, proposal of development project, human requirement to be addressed are potable water supply, need for recreation and knowledge of ecosystem, related to the research and educational component of the very project.

Development project is a temporary endeavour designed to produce a unique product, service or result with a defined beginning and end undertaken to meet unique goals and objective typically to bring about beneficial change or added value as stated by Jennifer 2008 in her environment impact Assessment in Developing countries. The temporary nature of the project stands in contrast with operations which repeat, permanent or semi-permanent functional activities to produce products or services.

Development is also referred to as any vital project for people both land and water which aims to bring about positive change to a community. The change may interrupt economic well-being, good health, comfort, faster movement, shelter, greater safety and security, better social, interaction, greater and better inter-relationship (WCED 1998). Therefore development project is the process of improving people's livelihood and welfare so as to attain a higher standard of living. It is also about people using the resource around them, as air, water, land to satisfy their needs. More so, it involves, material social, environmental political and cultural processes, with all these having direct impact on the quality of human life.

Naturally, the development projects and programs are activities which alter the environment or causes some environmental disturbance. These environmental disturbance have number of effects which in turn lead to environmental impacts which are categorized as being either negative or positive Ternney etal (2000).

Fernandes (2000) provided an over view of the potential impacts that could be encountered during construction and operation of project, affect both marina and land environments and are associated cumulative impacts from both marine and land based activities. The projects include dredging, marine construction, sea wall, construction infrastructural development, construction of modern towns, construction of break water, groynes, beach reclamation production of power energy through nuclear reactor. All these affect ecosystem function and may be physically destructing. In Nigeria environmentalist "Nigeria goes green" which is in charges of environmental assessment remained a relatively powerless agency in natural matters especially when chips are down, example is the toxic waste deposited at Oddy in Delter state. Moreover the Ezelweka road at Obosi is of beneficial to state government but harmful effects to the community as it gives rise to serious environmental impacts, because all the storm water collected from Onitsha Owerri road, is channeled to the farm lands and individual houses.

Most development project have objective of establishing an effective and sustainable instrument to improve the living condition and economic status of disadvantages communities. The modern city construction in about 90km out stretch of Calabar, which could create employment for the youth and cause harvoc to the wild life leading to the extinction of some animal species.

Obviously, development project focuses also on social assessment and designing programme of projects, improving access to basic education, health and social services Elliott (2009). Consequently, the world is rapidly urbanizing, putting intense pressure on cities to grow quickly and sustainably as Ruddy and Hility (2008) explained the impact assessment and policy learning in the European commission Environmental impact Assessment review. Planning land-use connecting people to jobs

and services, and finding wages, finance, expensive but necessary infrastructural improvement are increasingly critical, needs some sponsors noted by Lee and Walsh (1998)

In Anambra state, the proposal of greater Nkisi water project, for urban water supply and sanitation is to increase access, to enhance water supply and sanitation services in an operationally efficient manner in the entire state. The effectively maintenance of the project will improve the socio-economic situation and implementation of appropriate cost- effective sanitation

Relationship between Environmental and Development Project

The relationship between development and the environmental conception is interaction in sense that it characterized as one of interdependence, as development is always impossible without a good condition of living environment therefore, quality environment cannot be maintained in inhabited or intensively exploit areas without their sustainable development.

Development as economic growth, the quality of environment must be conducive and the accessibility of natural resources of raw materials available, and involves the concept of sustainable development, the quality of environment and its sustainable condition will become one of key- priorities. Lee and Walsh (1998).

The purpose of Environment and Development project is not only to provide necessary data, information and knowledge, but also to find relations and consequences, in-depth ways to fined solution and to show possible courses of development assistance.

Curry and Weiss (1998) in their project Analysis in Developing countries explained that, material, social poverty and bad quality of environment are often identified as the main causes of living environment devastations and poverty on the people.

More so, in every development project there are activities, which alter the environment or cause some environmental disturbance. These environmental disturbances have number of effects that could be negative or positive.

The relationship between environment and development project starts with analysis of selecting environmental problem on the global scale and their relationship to the development project, economically and socially of developing countries GRAHAM (2001).

The growing awareness and realization of our environment and development evaluate the magnitude of environmental effects of development project, which leads to worldwide discussion on the way forward for the projects and adoption of the concept of sustainable development Barbier and Markandya, (1996) clearly defined sustainable development as the development that meets the needs of today's generation without compromising those of future generation. Also sustainable development is a tool use in monitoring the wide ranging negative impacts, manifesting in ecological disturbance, habitat destruction, loss of animal and plant species, desertification, soil loss and flood becoming more and more prevalent. Thissen and Agusdinatu (2008)

Glasson and Chadiwisik (2005) were of the view that it must be a basic premise that all development projects must produce environmental impacts and therefore the basic question is how much is acceptable under the condition in that environment.

There is growing awareness that road development has major environmental impacts. Some of the major environmental impacts of the road projects include damage to sensitive ecosystem, loss of productive agricultural lands, resettlement of large numbers of people, permanent disruption of local economic activities, demography change, accelerated urbanizations, and introduction of disease Eccleston, (2011). Road construction and traffic operations, if undertaken without a proper understanding of the relationships inherent in

environmental function can be accompanied by serious disruptions to the environment, from when it may take a long time to regain equilibrium. In human terms, this may mean that generations must function in a debilitated environment and suffer many possible associated socio-economic hardships and financial losses.

Obviously, development is needed but of the kind that is sustainable and in conformity to development priorities, considering Anambra state government choice of good road network to potable water supply.

Surely, there must be an acceptable level of environmental impacts that will strike necessary balance between the need to develop and the need to protect vital environmental process, as road construction was prioritized to water projects, in a bid to control erosion menace in the state. Also it is important to consider the planned scale of the infrastructural development of the projects and their potential to unravel the social structure and life styles of the people in the area within which they are based.

Nkalagu Cement industry in Ebonyi state was abandoned in the 70s, but recently in considering the proposal for its rehabilitation the importance of identifying the anticipated cumulative environmental impact is of great value. In the cumulative, the level of adverse effect, is a function of the magnitude of the develop activity, the nature of the impact in question, the capacity of the environment to assimilate these influence and the methodology to be applied in relation to the particular activity, Leibowitz (1996) as he gave the importance of his synoptive approach to impact assessment. The approach is designed in such a way as to preserve and conserve the environment as much as possible, while under-taking the required activities necessary to bring life to the project.

In 2011, annual budget proposal, the federal government considered the dredging of River Niger and found that the most notable primary

aquatic impacts that could arise from the dredging operation are expected to be an increase in sedimentation and turbidity and an increase in toxic chemical in the water column, as many companies are located along the river bank.

In Cross River state, Calabar Port dredging activity was put to a stop because a finance and mainly the primary activities that gave rise to environmental impact which is the deposition of dredged spoil for land reclamation purpose, affected badly the environment.

Environmental Consequences of Development Project

The consequences of environmental development can be degrading and disruptive to social activities of the people, leading to unproductive life, through the economy, social system and cultural value.

Exploitation of resources for maximum benefits has been the norm and little regard is considered to the side effects of development initiative. The consequences are always deterioration of the environment with unforeseen environmental cost ever building up (Graham, 2001).

In some cases, most projects which looked clean on paper, may have serious impacts after implementation. Often, on the contrary the environmental impacts of most of these projects could turn out to be costly, outweighing the anticipated benefits.

The analysis of environmental problem on a global scale and their relation to economical and social development which could lead to the following consequences and impacts.

Impact from Road Construction

Road development has major environmental impacts, which include damage to sensitive ecosystems, loss of productive agricultural lands, resettlement of large number of people, permanent disruption of local economic activities, demographic change, accelerate urbanization and introduction of diseases

Dredging Impacts (near shore ecosystem)

Dredging gives rise to most notable primary aquatic impacts, such as increase in sedimentation and turbidity and increase in chemical toxin into the water.

Land Reclamation Impacts

Reclamation leads to area elevation for expansion. The cumulative impacts relating immediately to the reclamation process of the expansion area or project development area are increase in salinization of soil, beach erosion, turbidity in water quality and the deposition of anoxic sediments

Domestic Effluent Impacts

Increase in nutrients and fecal coli form in the water column. This is referred to as eutrophication with phosphates and nitrate. These nutrients come from sewage effluent from flushing of toilets, from gray water effluent, (detergents) from fertilizer and decomposition of organic substance

Potable Water Impact

The source of salinization and some potable water ferried from indiscriminating mining. Brine is always associated with salinization that might discharge in to the deep well.

Solid Waste Impacts

Solid waste disposal which involves collecting transportation and deposition on site which generate environmental issues relating to the generation and management. These are potential for the attraction of feral animals to the site and the potential for increasing the incidence of the pestilence and pathogenic diseases such as Lassa fever from rats.

Energy Generating Impact

The implementation of hybrid energy generation to meet the development energy needs, could develop the possibility of hydrocarbon spills and leaks as a result of generator operation and marina servicing through maintenance and refueling. Also the impacts associated with the operation of wind turbine and its influence on the surrounding environment and on bird population. Spill and

leaks give rise to deleterious to the receiving environment.

Impact from Building Constructions

The associated impacts related to the building construction could be deleterious which include the clearing of land (removing of the vegetation), the placement of construction material and the actual construction phase which involves generation of noise and pollution. Also operation and maintenance.

Impacts from Oil and Gas Exploration

The impact from oil drilling and spillage most deleterious in the oil producing states in Nigeria. It has put to an end to agricultural production in Ogoni land. Gas fearing has caused some ill health to some community members in Bonny River state and Ogulagha in Delta State

Borrow Pit Excavation Impacts

Indiscriminating access to borrow pits has put some states in Nigeria into confusion, especial the eastern part. Most borrow pits not assessed prior to excavation which give rise to unbearable erosion menace leading to some communities leaving the land for gully erosion. Some indigenes' of Nanka in Orumber North, Anambra State have left their land to dwell in other towns.

Conclusion

Obviously, Environment and Development are seen as complementing one another where a carefully nurtured environment continues to provide the basis for continues development.

In today's world more pressure is being placed on industry both socially and legally to undertake new development in a more environmentally responsible manner. An environmental friendly fosters a sustainable development that would benefits the present and future generations. There is no project of a big size that can be successfully implemented without some negative environmental impacts. Therefore, it necessitates that every developer must reduce the effect to lowest level or negates them entirely if the situation allows.

Recommendation

- In any effect to ensure environmental concern in a project that brings in social and economic development, there must be prevention, minimization, mitigation or compensation of the adverse environmental impacts to the project.
- Moreover the industrial and commercial development particularly large scale running and growth in manufacturing activities, and corresponding increase in population must be under control to reduce the risk of environmental damage that exerts unmitigated pressure on the environment.
- The government must sponsor the green environmentalist for extensively, long term and precisely financial aid to the communities for local content environmental and maintenance drive

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