

THE IMPACTS OF BUILT DEVELOPMENTS ON URBAN ENVIRONMENT IN EDO STATE

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Abstract

The growing rate of urbanization in Edo State implies that the built developments must increase to meet the needs of urban dwellers. Developable urban space is becoming scarce and intensified. The situation has worsened further through the increasing use of marginal land. Thus, there are risks associated with the impacts of urban built developments on the environment. The Town Planning Department supervises impact assessment of the built developments in Edo State, using the instruments of the Urban and Regional Planning Law and the Environmental Impact Assessment Law of Nigeria. The study investigated the impact assessment procedure and found that it is not comprehensive. A good practice is proposed that could help assess the full impact of the built developments on > environment and how these can be mitigated.

Introduction

The pace of urbanization is growing fast in Edo State. A noticeable feature in the urban environment is the built developments meant to accommodate the activities of the urban areas. These built developments impact on the environment and not until the Environmental Impact Assessment law of 1992 and the Urban and Regional Planning Law of 1992 were passed, there were no formalized methods of assessing the impacts of projects on their environment. Since these laws and Federal Environmental Agency Law of 1988 came into existence many agencies have tried to use these laws as a framework in measuring the impacts of developments on the environment in order to determine the desirability of developments. Human sustainability demands a balancing of developmental activities with the carrying capacity of our environment.

The Town Planning Department in Edo State has been supervising the assessment of impacts of developments on the environment. The officials of the department have been invoking the provisions of the Urban and Regional Planning Law of 1992 to take decisions on projects that have significant effects on the environment. The activities of the Town Planning Department in doing this important assignment must be investigated in order to find out how to further enhance the urban environment in a more positive and sustainable way.

This study reviews the role being played by the Town Planning Department in assessing the impacts of the built developments on the environment. The relevant laws that serve as guides to the assessment of physical development impacts are examined. The issues that are pertinent are: Does the Town Planning Department follow the minimum guidelines in assessing impacts of projects on urban environment? Are there obstacles in the assessment procedure? How can good practice be furthered in assessing adverse significant effects emanating from built developments on our urban environment? These issues will be addressed in this investigation.

The Nature and Purpose of Impact Assessment

Impact assessment is relatively new when compared to the traditional audit of the impacts of developments on environment carried out by Town Planners. Environmental assessment is holistic, multi-disciplinary and preventive in its approach. Environmental impact assessment has been variously defined. Munn (1979), refers to it as the need "to identify and predict the impact on the environment and on man's health and well-being of legislative proposals, policies, programmes, projects and operational procedures, and to interpret and communicate information about the impacts". The U.K Department of Environment (1998), claims that: "The term 'environmental assessment' describes a technique and a process by which information about the environmental effects of a project is collected, both by the developer and from other sources, and taken into account by the planning authority in forming their judgments on whether the development should go ahead". Thus environmental impact assessment is a process of predicting and evaluating the effects of an action or

series of actions on the environment and using the conclusions as a tool in planning and decision-making.

Environmental impact assessment serves many purposes. According to Glasson, et al (1999), it serves as aid to decision-making. The Town Planning Department, the developers and the public require full information on projects that impinge on the environment. Such information can reveal so many features of a project, which were not known before. These could help the developers, the responsible authority, and the public to negotiate and take decisions. This can lead to an outcome, which takes into accounts all the interests affected by the development on the environment.

Another purpose of environmental assessment is that it serves an aid to the formulation of development actions. Environmental impact assessment carries a comprehensive review of development, looks at the location, size, method of operation and the effects of proposed development on the environment. The process makes it possible at planning stage of projects to know whether such projects are desirable on environmental ground. If the projects are necessary, what mitigation actions are to be put in place to protect the environment from degradation? Thus, the Environmental Impact Assessment will prevent developments that are detrimental to the environment to be embarked upon before decisions on what to do with them is faced by the society.

It has been observed that environmental impact assessment constitutes one of the greatest tools in enforcing sustainable development. Sustainable development is all about economic and social developments that are in consonance with the environment (Glasson et. al, 1999). In recent times sustainable development has become so important that national governments and international bodies have taken it as a serious concern. Agenda 21, an 800-page action plan for the international community into the twenty-first century, sets out what nations should do to achieve sustainable development. Prominent in the 115 programmes are actions on environment and impact assessment of actions on environment.

Legislative Framework for Impact Assessment

The carrying out of environmental assessment of building developments on the environment lies under the remit of Town Planning Department. However, it is able to carry out such mandate under the enabling instruments of the Environmental Impact Assessment Law No. 86 of 1992 and Urban and Regional Planning Law No. 88 of 1992.

The Environmental Impact Assessment Law under Part I — General Principles of Environmental Impact Assessment and Sub-section 1(a), sets as one of the objectives of impact assessment:

To establish before a decision taken by any person, authority, corporate body or unincorporated body including the government of the Federation, State or Local Government intending to undertake or authorize the undertaking of any activity that may likely or to a significant extent affect the environment or have environmental effects on those activities shall first be taken into account.

Sub-section 4 of the Impact Assessment Law further emphasizes that both public and private institutions must apply to the Agency in writing so that their project proposals are assessed before commencement.

In another vein, sub-section 33 of the Urban and Regional Planning Law No, 88 of 1992 specifically requires developers to meet the following:

- A developer shall at the time of submitting his application for development submit to an appropriate Control Department a detailed environmental impact statement for an application for;
- A residential land in excess of 2 hectares; or
- Permission to build or expand a factory or for the construction of an office building in excess of four floors or 5,000 square meters of a lettable space, or
- Permission for a major recreational development (Federal Government of Nigeria, 1992)

From the legal provisions cited, it is clear that the process of environmental assessment in Edo State is enshrined within the extant laws for the management of the environment

Built Developments and Impact Assessment

The focus of this study is on the impact of built developments on environment. The issue one needs to consider is: What constitute (the built development in our environment? Built development is defined as "encompassing a range of schemes, from simple house extensions to extensive mixed developments including residential developments, office and retail schemes, leisure complexes and light industrial developments (Construction Industry Research and Information Association, 1999)". In general the construction industry is the major player in the built environment.

The built activities occupy major urban space. They also constitute a definite life cycle of planning, construction, operation and decommissioning. At each stage of the life cycle, impacts emanate which becomes the subject of assessment. The built environment consumes resources, energy; generate movements, wastes and other services. These activities become very prominent in the operational stage and impact much on the environment. Thus, the Town Planning Department needs clear information on the likely significant effects of the built developments on the environment to take informed decisions without compromising the interest of the community.

Some aspects of the built environment like the construction of roads, bridges, reservoirs and so on have been excluded in our consideration because they constitute special problems, impacts and pollution on environment. Some of these projects are contained in the mandatory study activities in the schedule of the Environmental Impact Assessment Law No 86 of 1992. These major projects fall under the assessment ambit of the Environmental Protection Agency.

The Assessment Procedure of Town Planning Department

We have established the legislative framework for the assessment of impacts of built developments on environment. Our task in this section is to find out how the Town Planning Department in Edo State is exercising its mandate of keeping the built developments in check by not degrading the environment.

First, let us look at the minimum content for assessing impacts of developments as prescribed by law and how developers comply with them.

- **Minimum Content of Environmental Assessment:** The contents are as follows: a description of proposed activities; a description of the potential affected environment; a description of the practical activities; an assessment of the likely potential environmental impacts of the proposed activity; an identification and description of measures available to mitigate adverse environmental impact of proposed activities; an indication of trans-boundary impacts of a proposed project; and a non-technical summary of the process of assessment (FGN, 1992).

Every impact assessment carried out by a project proponent is expected to contain these minimum contents. We now ex-ray the procedure of the Environmental Impact Analysis Report (EIAR) required by law of certain categories of developers in Edo State when submitting their building plan proposals for approval by the Department.

The Department of Town Planning has guidelines for evaluating Environmental Impact Statements. Environmental impact statement (EIS) is the documentation of activities involved in carrying out impact assessment process. These guidelines are expected to serve as a checklist in finding out whether an EIS meets the minimum conditions required by law. A review of the guidelines and some of the Environmental Impact Statements written by many consultants suggest that these minimum contents by law have not been met. Let us look at the following areas of the assessment process.

- **Non-Technical Summary.** This aspect of many reports are generally lacking. More than eighty percent of the reports do not contain non-technical summary. This is supposed to be the part to be read by the political decision-makers and the general public. The lack of the summary is a major breach of the law on impact assessment.
- **Data Requirements.** Many impact assessment reports are like journalistic write-up. They do not look like scientific reports. The information needed on the proposed projects and the environment are not there. Yet many of the reports scale through the review of the Town Planning Department. It appears in Edo State and many other states in Nigeria the interest is to have the report as part of the documents to be submitted along the building plan proposal. This negates the purpose of preventing environmental degradation developments may have on environment.

- **Screening and Scoping.** The so called minimum requirements lack the major steps of screening and scoping. Although an attempt is made in the Urban and Regional Planning Law and the Impact Assessment Law to list certain projects that need assessment, this is not enough because assessors cannot be directly tied to those provisions. Screening determines the projects that require assessment; while scoping determines the significant dimensions of the environment that need to be investigated. These steps act as necessary guides in the assessment process.
- **Assumptions are Defective.** There is no way an assessor will be able to measure all the full impacts of developments on environment. However, if he is to make certain assumptions on environmental parameters, these must be objective and conclusive. Most of the assumptions we make, as consultants are flat and not conclusive. Unfortunately, these are not queried by the supervisory department. The implication of this is that the description of baseline conditions and the potentially impacted environment can hardly be separated for a meaningful decision to be reached.
- **Monitoring.** The guide-lines of the Town Planning Department do not expressly contain a commitment on the assessors to suggest how the project will be monitored during the stage of operation to see how the owners comply with the mitigation measures contained within their reports. The obvious lack of monitoring mechanisms makes the assessment process look like environmental auditing (Glasson et.al, 1999).
- **Impact Assessment is Developer-Oriented.** A noticeable feature of the EISS that are submitted to the Town Planning Department is that they are developer-oriented. It appears that the assessors lack the moral conscience to produce EISS that represent the state of things. The review that is intended to determine the veracity of the claims contained in the report is also oriented in favour of the developer. This practice does not augur well for the protection of the environment. The reviewer must be able to say no for assessments that are not correct and cannot identify and evaluate impacts of development on environment in clear terms.

These are some of the observations made on the process of impact assessment in Edo State. These are not made to ridicule the Department of Town Planning. Indeed it fared well when compared to what is happening in some other states in Nigeria, As a matter of fact no assessment is fully complete in any part of the world because there are gaps in knowledge about the environment.

Furthering Good Practice

Impact assessment in Nigeria is still at its infancy and undergoing a learning curve. We are however, opportune to learn from other countries that have tried to further what might be referred to as 'good practice'. First, we suggest an assessment process that leads to good practice. The steps are as follows (i) project screening (ii) scoping (iii) the consideration of alternatives (iv) the description of the project/development action (v) the description of the environmental baseline (vi) the identification of the main impacts (vii) the prediction of impacts (viii) the evaluation and assessment of significance (ix) public consultation and participation (x) EIS presentation (xi) review (xii) decision-making (xiii) post-decision monitoring and (xiv) auditing.

The steps listed above are not linear rather they are cyclic and some of them will be optional in the assessment of impacts of small-scale built developments on environment. The World Bank and the United Nations Environmental Programme are already following these systematic steps in assessing impacts of the projects they supervise.

Another issue to be considered in furthering good practice is what should be contained in the EIS report. The report should contain the following as suggested by Glasson et. al (1999) and presented in Table 1

Table 1: An EIS for a Project - Example or Contents

Non — technical summary
Part T: Methods and key issues
1. Methods statement
2. Summary of key issues; monitoring programme statement
Part 2: Background to the proposed development
3. Preliminary studies: need, planning, alternatives and site selection
4. Site description, baseline conditions
5. Description of proposed development
6. Construction activities and programme
Part 3: Environmental impact assessment - topic areas
7. Land use, landscape and visual quality
8. Geology, topography and soils
9. Hydrology and water quality
10. Air quality and climate
11. Ecology: terrestrial and aquatic
12. Noise
13. Transport
14. Socio-economic impact
15. Interrelationship between effects

Source: Glasson, J., Therivel, R and Chadwick, A. (1999) Introduction to Environmental Impact Assessment.

Another important way good practice can be sustained in the process of environmental impact assessment is that the reviewing authority must have a checklist containing a set of criteria against which any environmental impact statement is evaluated and scored. The presence of review criteria that are objective and comprehensive will make the review to be objective and capable of assessing impacts of developments. The review criteria will compel assessors to do good jobs, knowing that their reports will pass through standard test.

The Town Planning Department in Edo State has these yardsticks for reviewing EISS. However, the review criteria are not dense enough to screen out EISS that are not properly prepared. We present here a tested and abridged version of Oxford Brookes University review criteria as an example of EIS review criteria.

Table: EIS Review Criteria of Oxford Brookes University

EIS Number:

Project:

Reviewer Name:

Marking criteria

(A-F) to summarize how well EIS fulfils criteria for all criteria

A - good

B - generally satisfactory (minor omissions etc)

C - just satisfactory (despite omissions)

D - just unsatisfactory (because of omissions etc)

E - not satisfactory (significant omissions etc.)

F – poor

I. Description of the Development[^]

Criterion	Performance Against Criteria	Comments
1. Principal features of the project		
Explains the purpose(s) and Objectives of the development.		
indicates the nature and status of the Decision(s) for which the Environmental		
Land requirements		
Project inputs		
Residues emissions		
2. Description of the environment		
Description of the area occupied by and		
Baseline conditions		
3. Scoping, consultation, and impact identification		
Scoping and consultation		
Impact identification		
4. Prediction and evaluation of impacts		
Prediction of magnitude of impacts		
Methods and data		
Evaluation of impact significance		
5. Alternatives		
6. Mitigation and monitoring		
Commitment to mitigation and monitoring		
Environmental effects of mitigation		
7 Non-technical summary		
8. Organization and presentation of information		
Organization of the information		
Presentation of information		
Difficulties compiling the information		

Conclusion

. Environmental Impact Assessment is a desirable tool for checking the impacts of development projects on built environment. The assessment procedure needs to be comprehensive so that the various aspects of the impacts are taken care of. The resultant Environmental Impact Statements should be objective so that they can inform good judgment on how projects affect our environment. The Town Planning Departments should possess good criteria for reviewing impact statements so that the exercise does not become trivialized. Monitoring mechanisms must be effective in order to verify the claims made by developers in their reports. Thus monitoring of impacts of built developments on environment is necessary so that the whole exercise of Environmental Impact Assessment does not become a one-shot event.

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