**FUNDAMENTALS OF THE TRANSPORT PLANNING PROCESS AND THE SOCIO-ECONOMIC IMPLICATIONS OF EACH FUNDAMENTALS IN RELATION TO NATIONAL DEVELOPMENT IN NIGERIA.**

**BY**

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## 1.0 INTRODUCTION

Highways are the backbone of the Nigerian transportation system, moving the vast majority of the country’s products and goods, and providing the vital link between all modes of transportation. As the foundation of the country’s economy, highways have made it possible for the Nigerian people to enjoy, benefit from, and essentially take for granted, the ability to safely and efficiently travel wherever and whenever they wish. As the country moves into the heart of the 21st century, the highway system is largely a victim of its own success. The economic growth made possible by the highway system has fuelled tremendous increases in the demands placed on it. At the same time, the country’s investment in highway infrastructure has not kept pace with these growing demands. These circumstances present highway agencies with many critical challenges, including:

* The need to extend the service life of existing highway infrastructure.
* The need to build, rehabilitate, and rebuild infrastructure in ways that:
	+ Minimizes the impact of construction activities on already congested highways.
	+ Optimizes the overall cost/benefit for the improved infrastructure.
	+ Facilitates future adaptation to accommodate changing demands.
	+ The need to effectively address the mobility challenges posed by natural or man-made extreme events and hazards—including earthquakes, hurricanes, floods, collisions, and acts of terrorism—by designing and constructing less vulnerable infrastructure to minimize loss, and employing rapid restoration techniques to restore functionality after a disaster occurs.

**Transportation Planning** is vital as it conquers the planning for connection system either between a small scale area or a larger region through the management and design of movements. It is a continuous process of managing the transport system which involves a series of process. In developing town, city or region both human and goods need a good mobility facility so that there is good connectivity of a development. Besides, through the planning of transportation system, the development of a region will come to an advance naturally. This is because of the character of the access and circulation which create the structure and land use pattern of a city or a region. In short, transportation planning.

In addition, Transportation Planning approach attempts to foresee the modes of transportation as the major of transportation modes and defining the demand of future transportation infrastructure to get a solution towards sustainability transportation management. This will lead to the planning of the transportation facilities which will considering both for non-motorized and motorized modes of transportation.

There are five transport planning processes (TPP).

* Importance
* Funding
* Administration
* Decision Making
* Planning

## 1.1 Importance of Highway

Highways are vitally important to a country’s economic development. The construction of a high quality road network directly increases a nation’s economic output by reducing journey times and costs, making a region more attractive economically. The actual construction process will have the added effect of stimulating the construction market.

### **Implication of the Unavailability of Good Highway** in Nigeria’s economy

* Poor distribution of agricultural products as a result of loss caused by road accidents.
* Increase in price of goods and services due to transport challenges
* Poor highway system causes chaos on the road network due to poor traffic control.

## Funding

Finding adequate sources of funding for highways projects has been an ongoing problem throughout the world. Highway construction has been funded in the main by public monies. However, increasing competition for government funds from the health and education sector has led to an increasing desire to remove the financing of major highway projects from competition for government funds by the introduction of user or toll charges.

### Disadvantage to Nigeria’s economy

* Poor quality of roads will be constructed as a result of insufficient financing.
* More funds are being spent on roads without sourcing for ways to generate funds from the transport systems.

## Administration

The administration of highway projects differs from one country to another, depending upon social, political and economic factors. The design, construction and maintenance of major national primary routes such as motorways or dual carriageways are generally the responsibility of a designated government department or an agency of it, with funding, in the main, coming from federal government. Those of secondary importance, feeding into the national routes, together with local roads, tend to be the responsibility of local authorities. federal government or an agency of it will usually take responsibility for the development of national standards.

## Highway planning

The process of transportation planning entails developing a transportation plan for an urban region. It is an ongoing process that seeks to address the transport needs of the inhabitants of the area, and with the aid of a process of consultation with all relevant groups, strives to identify and implement an appropriate plan to meet these needs.

The process takes place at a number of levels.

* An administrative/political level, a transportation policy is formulated and politicians must decide on the general location of the transport corridors/networks to be prioritised for development, on the level of funding to be allocated to the different schemes and on the mode or modes of transport to be used within them.
* Professional planners and engineers undertake a process to define in some detail the corridors/networks that comprise each of the given systems selected for development at the higher political level. This is the level at which what is commonly termed a ‘transportation study’ takes place. It defines the links and networks and involves forecasting future population and economic growth, predicting the level of potential movement within the area and describing both the physical nature and modal mix of the system required to cope with the region’s transport needs, be they road, rail, cycling or pedestrian-based.
* At the lowest planning level, each project within a given system is defined in detail in terms of its physical extent and layout. In the case of road schemes, these functions are the remit of the design engineer, usually employed by the roads authority within which the project is located.

### Travel data

The planning process commences with the collection of historical traffic data covering the geographical area of interest. Growth levels in past years act as a strong indicator regarding the volumes one can expect over the chosen future time, be it 15, 20 or 30 years.

The demand for highway schemes stems from the requirements of people to travel from one location to another in order to perform the activities that make up their everyday lives. The level of this demand for travel depends on a number of factors:

* The location of people’s work, shopping and leisure facilities relative to their homes
* The type of transport available to those making the journey
* The demographic and socio-economic characteristics of the population in question.

### Highway planning strategies

There are four main highway planning strategies.

* The land use transportation approach
* The demand management approach
* The car-centred approach
* The public transport-centred approach.

There is currently no particular highway planning strategy adopted in Nigeria as all strategies are used side by side for example in Lagos the public transport centred approach was adopted when BRT buses were introduced as a means of controlling traffic, the state also adopts the land use approach by means of expanding the road to accommodate growing traffic “mostly federal and state routes”. The most used planning strategy in this part of the country is the demand management approach where demand on existing routes are managed instead of constructing new roads especially on local roads.

## Decision Making

Highway and transportation planning can be described as a process of making decisions which concerns the future of a given transport system. The decisions relate to the determination of future demand; the relationships and interactions which exist between the different modes of transport; the effect of the proposed system on both existing land uses and those proposed for the future; the economic, environmental, social and political impacts of the proposed system and the institutional structures in place to implement the proposal put forward.

The five steps in the rational planning process are summarised in Table 1.0

**Table 1.0: Steps in the Rational Decision-Making Process for A Transportation Project**

|  |  |
| --- | --- |
| **Step** | **Purpose** |
| Definition of goals and objectives | To define and agree the overall purpose of the proposed transportation project |
| Formulation of criteria/measures of effectiveness | To establish standards of judging by which the transportation options can be assessed in relative and absolute terms |
| Generation of transportation alternatives | To generate as broad a range of feasible transportation options as possible |
| Evaluation of transportation alternatives | To evaluate the relative merit of each transportation option |
| Selection of preferred transportation alternative/group of alternatives | To make a final decision on the adoption of the most favourable transportation option as the chosen solution for implementation. |

# Conclusion

Transportation planning is crucial anywhere in the world because it serves the area economically, socially and improves the quality of life for the residents. The purpose of transportation planning is focusing on what’s the most efficient movement for people and goods because building and managing road networks not only reduces congestion but the accessibility attracts new residents and businesses ultimately helping economic development. Transportation planning can break or make an area, and whether one is a concerned resident or an elected official it is crucial to look into what can be done to revitalise the transportation needs of the nation and maintain them.

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