

Effect of Poor Road Maintenance on Erifun/Federal Polytechnic Ado-Ekiti Axis, Ado-Ekiti, Ekiti State, Nigeria.

Adeyemi Olabisi Omowumi, Ayeni Foluso Olayinka, ArunaKemisola Kehinde.
Department of Urban and Regional Planning Federal Polytechnic Ado-Ekiti, Ekiti State, Nigeria

ABSTRACT

This research work is undertaken to examine the effect of poor maintenance on Erifun/Federal Polytechnic Road, in Ado-Ekiti. The aim of this work is to assess the effect of poor road construction and maintenance on the servicing capabilities of Erifun/Federal Polytechnic Road. During rainy season, the damaged part of the route becomes slippery, thereby leading to accidents. Also, the route is not wide enough to accommodate the level of daily traffic that is being experienced on this route during peak period. The methods of data collection for this study include oral interview and personal observation, placing focus on the road user and business owners along the route. Analysis for the interview guide used and observation was presented with the aid statistical tables and pictures to present the true situation of the area. Recommendations were made for Road subsector maintenance stakeholders (agencies, contractors, transport operators, road users, and other beneficiaries) to be involved in raising awareness of the benefits of road maintenance activities. Private partnership towards proper management of the routes should be encouraged as the government organizations are characterized with lack of proper equipment's required to carry out their operations.

KEYWORDS: Maintenance, Stakeholders, Management.

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I. INTRODUCTION.

Transportation is the movement of people goods and services from one point of origin to another destination. Transportation is an act or process of transporting or being transported and also means of conveyance or travel from one place to another public conveyance of passengers or goods especially as well as commercial enterprise. (Merriam Webster dictionary)

Road transportation has the widest geographical coverage all over the world it is also the mode that lends itself so easily to expansion in order to reach every settled part of a country and the mode that used vast majority of the population. It has other advantages too, flexibility of service without necessarily requiring trans-shipment, ability of vehicles to use all parts of the network which usually includes roads of varying standard and capacity, and to operate on steep gradients, ability to make door-to- door service. Road transport also provides the initial and the ultimate transport service for the other modes, thus complementing them.

Roads have both positive and negative effects on people and the environment. The positive side of roads provide the opportunity of mobility and transport for both people and goods. The negative on the other side occupies land resources and form barriers to animals. They can also have impacts on natural water resources and discharge areas. (Lindgren Å., Friberg F).

According to Achaka (2014) in Ejem(2021), poor management of road transportation is a major problem that affects the growth of the Nigerian economy. Poor road transportation management has resulted into the bad road network, poor technological development and construction of sub-standard roads which led to the ineffectiveness and collapse of the Nigerian road system that supposed to carry bulky goods from one city to another and has increases the prices of goods and services. This in turn has bounced as the road transportation system characterized by heavy-duty Lorries overworking the road system and the resultant effect is damages of roads causing accidents and loss of lives and property. (Ejem 2021)

STATEMENT OF THE PROBLEM

The major means of transportation in Nigeria is the road transportation, it was discovered that majority of the roads these days are not in good shape and this has given rise to different evil vices in our society. Major roads in Nigeria have deteriorated over the years, due to negligence and the quality of work done on the roads, most road construction done are without proper drainage.

In most Nigerian cities, transport situation has gotten a crisis level (Odufuwa 2018) the aftermath of several years of negligence due to political instability. Hence, there is no crime in saying that the state of transportation in Nigeria is seriously inadequate (Filani, 2002; Oyesiku, 2002 and Odufuwa, 2003 cited in Odufuwa 2018).

THE STUDY AREA

The population of Ado-Ekiti in 2006 was 308,621. The people of Ado Ekiti are mainly of the Ekiti sub-ethnic group of the Yoruba and Edo peoples. Edo-Ekiti or Ado-Ekiti (the Yorubas typically referred to a person of Edo origin as Ado which is why the generals and princes/kings from Benin Empire in Yoruba lands are called Prince/Oba Ado) as it is now known is often categorized under the Yoruba ethnic group as a result of acculturation over the last few centuries. Ado Ekiti City has a State owned University the University of Ado Ekiti now Ekiti State University Ado-Ekiti, a privately owned University; Afe Babalola University Ado Ekiti, a Polytechnic; the Federal Polytechnic, Ado-Ekiti, Federal University Oye, (FUOYE), Oye-Ekiti, privately owned Polytechnic Crown polytechnic, Odo, Ado-Ekiti



FIG.1 MAP OF THE SUDY AREA WITHIN NIGERIA

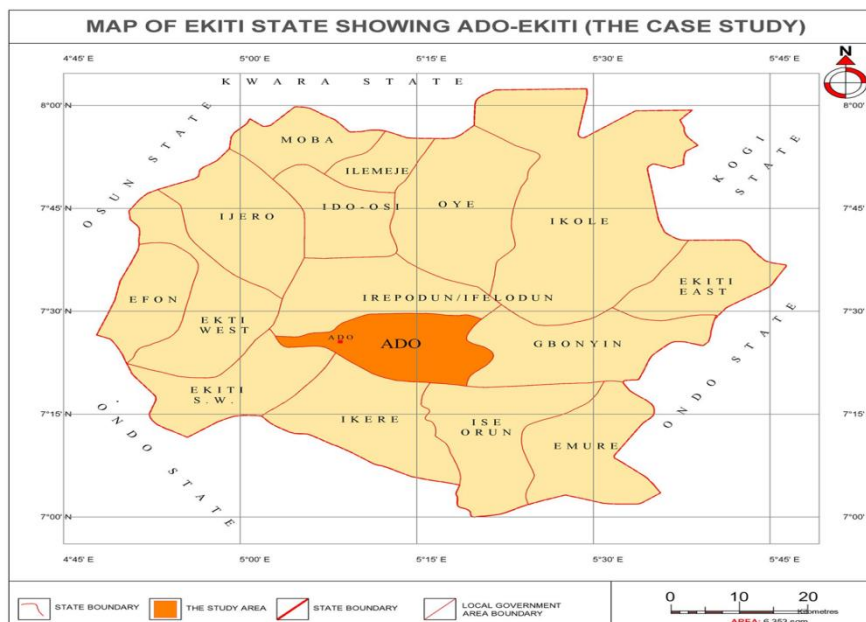


FIG 2: MAP OF THE STUDY AREA

Literature Review

Road transportation for any nation is an essential aspect of the social and economic life as it enhances trade in which the industrial and tourist sectors as well as distribution needs are served. (Ejem 2021) in this regard, a more responsive and effective transport system will improve economic development in Nigeria and strategic roles in the global economy. On the other hand, the road transport sector in Nigeria constitutes one of the greatest employers of labour in the economy. The impact of road transporters can be felt in every aspect of the Nigerian society. The major reason is majorly because road is the major mode of transportation in Nigeria. Other means of intra urban and inter urban transport system are the use of inland waterways and rail transport which are of course limited to a very few urban centers with peculiar terrain (water) in Nigeria (Oyeobu, Oyebisi, Olateju & Sesede, 2014 in Ejem 2021). Various studies established over 75% of population in cities depend solely on public transport while 25% depended on private transportation (Ogunbodede, 2008). Although, the first roads in Nigeria were built in the first decade of the 20th century, road transportation did not become generalized until the 1920s. The first road transportation services were by the colonial government and a few private individuals.

Road Transport Problems: the nature of road transport problems will be discussed under the following headings:

I TRAFFIC CONGESTION;

II ROAD TRAFFIC ACCIDENTS

TRAFFIC CONGESTION- The causes of transportation or traffic congestion in our urban roads are as follows:

- a. Increasing car ownership and inadequate mass transportation facilities
- b. Unplanned and over concentration of traffic generating land uses
- c. A wide range of road factors including planning design, control and maintenance problems
- d. A host of vehicular factors including the sizes and weights of the vehicles and the poor mechanical conditions of vehicles which results in constant break-downs on roads, thus causing a break-up of traffic. The indiscipline

of road users especially of motorists and motor-cyclists which is manifest in their non-observation of traffic queues and;

e. Failure to remove accident vehicles from the road way also contributes to traffic congestion.

Approaches to solving traffic congestion- These includes the followings

a. Governments at all levels should take measures to establish mass transit modes of transportation in our cities and towns.

b. The use of private intra-city transportation should be discouraged /restrained.

c. Over speeding and reckless drivers should be arrested and punished by security agents.

d. Decentralization of the location of major land use industries, government offices and commercial by town planning authorities.

e. More surprise checks could also be conducted by the police to check the road worthiness of vehicles plying the urban roads.

f. The police and municipal authorities (Road Safety) should clear accident vehicles and other obstructions promptly to enable free flow of traffic.

g. Traffic wardens and police authorities should enforce traffic regulations more rigorously than is presently the case.

ROAD TRAFFIC ACCIDENTS

The cause of accidents in our roads includes the following:

a. Road factors- include bad road geometry and surface finishes, inadequate road pavements and lay-byes, lack of or poor road signs, prevalence of narrow bridges and distracting road furniture and bill- boards and lack of street lightening in urban centers.

b. Vehicular factors- include those relating to poor mechanical conditions and maintenance of road vehicles such as defective brakes, lights, tyres, engines etc.

c. Human factors- by far the major causes of road traffic accidents in Nigeria include excessive speeding, reckless driving under the influence of drugs and alcohol, inexperience, fatigue and quite often over-confidence on the part of experienced mature and enlightened drivers.

Approaches to solving the road traffic accidents include the following:

a. Highway engineers should always ensure that all necessary facilities and structures are provided for in their road designs as well as proper supervision and maintenance of the roads.

b. Separate lanes could be provided for motor vehicles, motorcycles and pedestrians.

- c. Commercial vehicles drivers to undergo road worthiness tests periodically.
- d. Mobile traffic courts should operate throughout the country to check reckless driving.
- e. testing and licensing officers should be stricter in their conduct of driving tests.
- f. Nobody under the age of 18 years should be issued with a driving license.
- g. Establishment of private traffic detectives to report on reckless drivers.
- h. The use of breathalyzer tests should be introduced to determine excessive drunkenness by drivers on the roads.
- i. Intensive and extensive traffic education (public enlightenment) programmes to the general public using all media available- Road, TV, Newspapers, and Cinema Theatres.
- j. The running of driving schools is directly under the joint supervision of the ministry of education and ministry of works.
- k. Long distance drivers should be requested to take some test after several hours of continuous driving.

Causes of road deterioration

The main causes of road deterioration resulting to failures of a road pavement according to Ashimole (2008) are as follows:

1. Traffic congestion
2. The action of weather, rain and heat.
3. Usable ground conditions and poor drainage.
4. Poor construction activities and method.
5. Post construction activities like digging of trenches along the road
6. Poor workmanship.
7. Inadequate maintenance.

Road maintenance

Boswell (2003) defined road maintenance as an activity to preserve the road infrastructure. Road maintenance is important in order to maintain the road in its originally constructed condition, and also to protect the road resources and users' safety, it is also to provide efficient convenient travel along the route. Ajani (2001) noted that during the design life of the road, efforts must be made to correct the various deteriorations that occurs on the road. The reason for this is to ensure that the road provides services to the users for a good number of years of its use. According to Adeoti (2001), in order to ensure proper road maintenance, there is need to identify various ways for maintenance.

Classification of road maintenance

According to Federal Roads Maintenance Agency (FERMA) (2004), road maintenance activities is classified or categorized into four (4) namely;

1. Routine maintenance
2. Recurrent maintenance
3. Periodic maintenance
4. Urgent or special maintenance.

Importance of road maintenance

According to Adelana (2003), the importance of road maintenance enhances a national development in the following ways;

1. Employment creation
2. Agricultural production

3. Industrial development
4. Manpower development
5. Research and development

Summary of Findings

According to the interview carried out, the road network is found to serve other states: Ondo State and Kogi state. This connectivity makes the route to be a busy road network (especially during peak period; Morning and Afternoon). This same route serves both institution along its axis (Afe-Babalola University ABUAD, and Federal Polytechnic Ado-Ekiti).

From the road users' perspective, the route is a federal road as it links Ekiti State with Ondo State and Kogi State, this prompts high and heavy traffic movement of various vehicles plying the routes daily. It was observed that the route is not up to standard width which could not accommodate movement of double heavy vehicle at the same time, as it can lead to accident or even traffic congestion or worse situation.

The route is not adequately accompanied with drainage ways; some parts have drainage while others do not have or are being blocked. This in essence, leads to over retaining of runoff water from any source, directly on the surface of the route, thereby leading to its degradation. Combination of both poor drainage ways and heavy traffic movement on the route also leads to the wear down of the road network.

There is also the famous Ureje bridge along this route, it's an old bridge which has caused a lot of issues in the past, whenever there's heavy down pour for days, most times the bridge becomes over flooded with water, and sometimes part of the bridge falls out which has led to loss of lives in the past and also accidents and traffic congestion.

The route is not in good condition thereby causing series of traffic congestion which are being experienced during peak period (i.e. when residents, students and workers are moving to their various destinations in the morning and as well when returning back to their place of abode in the evening). The route also causes accident during rainy season, as parts of the route that has being damaged are always slippery, which are dangerous to motorcycles plying the route.

As a federal road, the road network supposed to be constructed along with all necessary infrastructures such as traffic signs and signals, drainages among others, but it lacks more than enough of these infrastructures.

5.1 RECOMMENDATIONS

Based on this overview, the following recommendations could be considered if more focus and resources were to be placed on road maintenance activities:

- Road subsector maintenance stakeholders (agencies, contractors, transport operators, road users, and other beneficiaries) need to be involved in raising awareness of the benefits of road maintenance activities.
- Maintenance is best addressed as a sector issue with solutions at the sector and national level. At the same time, within any project or program operation, maintenance should be planned at all stages of the operations cycle, and of the life cycle of road assets.
- Post completion maintenance provisions could be built into project design including maintenance contracting beyond the investment period.
- Appropriate financial sources for maintenance should be identified and linked to relevant stakeholders, including road users and selected beneficiary groups, together with adequate organization and staffing.
- Encouragement of private partnership by the government towards proper management of the routes should be intact as the government organizations are characterized with lack of proper equipment's required to carry out their operations.
- The Ureje bridge should be reconstructed to a modern-day bridge to reduce menace on the road, and for easy movement during the peak of rainy season.

5.2 CONCLUSION

In conclusion, poor road maintenance has created a lot of serious damage to the road network available which hinders effective and smooth running of daily operations and activities within the study area. If the aforementioned recommendations are implemented and strictly adhered to by the government agency and individuals of the area respectively, sustainable and healthy environment free from certain environmental problems will surely be achieved.

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