

**AN EVALUATION OF GOVERNMENT PROVISION AND MAINTENANCE
OF INFRASTRUCTURES IN NIGERIA: THE CASE OF ROAD TRANSPORT
INFRASTRUCTURE**

BY

MAYAKI HADIZA MUHAMMAD B.Sc (UDUS) 2007

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DECLARATION

I declare that the work in this thesis entitled, “AN EVALUATION OF GOVERNMENT PROVISION AND MAINTENANCE OF INFRASTRUCTURES IN NIGERIA: THE CASE OF THE ROAD TRANSPORT INFRASTRUCTURE” has been carried out by me in the Department of Economics. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this work was previously presented for a degree or diploma in any institution.

_____	_____	_____
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CERTIFICATION

This thesis entitled, “AN EVALUATION OF GOVERNMENT PROVISION AND MAINTENANCE OF INFRASTRUCTURES IN NIGEERIA: THE CASE OF THE ROAD TRANSPORT INFRASTRUCTURE” by Mayaki, Hadiza Muhammad meets the regulations governing the award of Master of Science (Economics) of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

Prof. A. G. Garba
Chairman, Supervisory Committee

Signature

Date

Dr. P.P. Njiforti
Member, Supervisory Committee

Signature

Date

Dr. S. I. Isah
Head of Department

Signature

Date

Prof. A.A. Joshua
Dean, School of Postgraduate Studies

Signature

Date

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ABSTRACT

Freight and passenger movement have become increasingly dependent on the road system to meet virtually all inland transport needs in Nigeria. Three major issues were identified to affect the Nigerian road network; axle overloading, neglect of routine maintenance and inadequate design and construction. However, the decline in road infrastructure vis a vis the boom in government expenditure between 1999 and 2011 raises several questions. This study analysed the trend in government budget and spending on road infrastructure between 1999 and 2011. The study also evaluated the effectiveness of government spending on the quality and quantity of Nigerian federal roads. First, data on government budget and spending on highway construction and rehabilitation for the period 1999 to 2011 was collected from the Federal Ministry of Works and analysed. A deviation between budget estimates and spending was also calculated to evaluate the budget process. To evaluate the effectiveness of government spending on the quantity and quality of federal roads, a case study of Bida-Sacci-Nupeko-Pategi Federal Road was carried out using data of government funding for the road from years 2000 to 2011. Government Budget and Spending on the road served as input while the output on the road and outcome (benefit) that accrue through the use of this federal road were analysed using graph showing the present condition of the road and data from questionnaire administered on a sample of thirty road users including drivers and passengers. The Statistical Package for Social Science (SPSS) was used to generate tables for frequencies and percentages. Results were thereafter presented in tables and analysed using simple statistical parameters such as frequencies and percentages. Findings revealed that the federal government spends less than it allocates in its annual budgets for the period of this study. Also, the pattern of allocation was inefficient as they were more likely to increase project cost and increase further the risk of abandonment of projects. Findings also show that although there was budget for the construction and rehabilitation of Bida-Sacci-Nupeko-Pategi federal road from year 2000 to 2011, money was released for spending only for year 2002 to 2008, no fund was released in years 2000 and 2001, and 2009 to 2011. Graphical evidence of the present condition of the road reveals a dilapidated and abandoned road. Sixty percent of the samples of road users agree that the condition of the road has not improved. Rather, that it had declined thereby increasing their traveling time by about thirty six percent. Sixty three percent of the sample feels the road is of poor quality, poor safety design thereby causing their vehicle maintenance cost to increase by about thirty six percent. Sixteen percent of the sample confirmed that the road had been abandoned. The study therefore concludes that inefficiencies in government budget allocation and spending affects efficiency in output and effectiveness of outcomes. The study further recommends an improvement in the budget process by specifying the spending plans for road infrastructure projects and budget discipline in fund releases.

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CHAPTER 1: INTRODUCTION

1.1: Background to the Study

A well-developed transport and communication network is a pre-requisite to competitiveness and economic development. Effective modes of transport, including quality roads, ports and air transport enable entrepreneurs to get their goods and services to the market in a secure and timely manner and facilitate the movement of workers to the most suitable jobs. However, out of the 139 countries assessed by the Global competitiveness report in the 2010-11 year, Nigeria declined in the rankings to 127th from 99th position. Nigeria also receives poor assessment for its infrastructure, ranked 135th and placing 128th for quality of its roads. Railroad infrastructure placed 104th, quality of port infrastructure and air infrastructure placed 121th and 101th respectively (The Global Competitiveness Report, 2010-11).

The Nigerian transport system consists of the following modes: road, rail, maritime (water), pipelines and air. From available statistics, the bulk of cargo transported round Nigeria makes use of the road system. The pipeline system (crude oil 2,042 km; petroleum products 3,000 km; natural gas 500 km) basically is used to transport oil, gasoline, diesel, natural gas and others, the air system are probably the less used in comparison with the rest (Madu, 2011).

An “efficient transport system” means that the transport services are provided in a way that ensures resources are used efficiently and the economic potential of appropriate technology is used to achieve sustainable gains in productivity in order to reduce costs and improve service quality. An efficient transport system also implies the progressive reduction of social costs, the control of other external costs of transport, and the

expenditure of public funds in a way that is properly justified and carefully managed (Engel et. al, 2009).

Nevertheless, the imbalance in the supply and demand for transport capacity and the development of the different modes of transport has increased since the first comprehensive draft transport policy of 1993 for Nigeria. Though efforts have been made to provide adequate transport of all modes, notwithstanding, the demand for transport services in Nigeria seems to exceed the supply (Draft National Transport Policy, 2010).

Filani (2002) found that over 90% of the country's goods and freight movement is accounted for by the road transport. Only 50% of federal roads and 20% of state roads are in good condition while a meager 5% of rural roads are freely motorable despite several reforms in the transport sector (Oni, 2009).

1.2: Statement of the Problem

In 1993, Nigeria introduced the first comprehensive National Transport policy which stated that “the Nigerian transport system was in crisis”. One of the principal causes identified was “a major imbalance between the needs of Nigerian society and economy for adequate transport facilities and the ability of the transport sector to meet such demands”. This statement was said to remain valid till in 2010, in respect of most of the transport system. The imbalance in supply and demand for transport capacity, the development of the different modes of transport, has in fact increased over the period since the first comprehensive draft transport policy of 1993 for Nigeria (Draft National Transport Policy of Federal Republic of Nigeria, 2010).

However, infrastructure is the second among the twelve basic pillars that serve as indicators of the competitiveness of a given country in the computation of the Global Competitiveness index. Nigeria received poor assessment for its infrastructure, the country scored 135th out of the 139 countries covered in the 2010-2011 Global Competitiveness Report. The forum noted that 65% of the 198,000 km Nigerian roads were in bad condition while inadequate supply of infrastructure placed second and accounts for 21.2% among the seven most problematic factors for doing business in Nigeria (The Global Competitive Report, 2010-11).

Three major issues were identified to affect the Nigerian road network, arising from the fact that the country has become increasingly dependent on the road system to meet virtually all its inland transport needs. These include: axle overloading causing damage to roads, neglect of routine maintenance and inadequate design and construction (Draft National Transport policy for Nigeria, 2010).

One of the major challenges faced by investors (both public and private) in Nigeria is that of infrastructure deficit. Out of Nigeria's 198,000 km of roads, less than 20% are paved and more than 65% are in bad condition, compared to South Africa's 362,099 km of roads out of which 73,506 km are paved (2002 estimate) and the rest in good motorable condition. The Nigerian Rail way Corporation which was established in 1955 has 3,798km of rail comprising 3,505 km obsolete narrow gauge rail and 293 km standard gauge that carries less than 1% of freight traffic compared with a global average of 46% (Ohia, 2011).

The annual loss due to bad roads is valued at N80 billion, while additional vehicle operating cost resulting from bad roads is valued at N53.8 billion, bringing the total loss per annum to NB133.8 billion (Federal Ministry of Work & Housing quoted in

CBN, 2003 Report). This figure does not take into account the man-hour losses in traffic due to bad roads and other emotional and physical trauma people go through plying the roads and the consequent loss in productivity. The poor state of roads in the country also accounts for the addition to the cost of operating vehicles as Nigerians are reported to spend over ₦487 billion annually to keep their vehicles on the road, small car owners in the country reportedly spend a total of ₦219, 500 for every 10, 000 kilometres of roads used, making the cost of operating vehicles in the country perhaps one of the highest in the world (Adewakun et. al, 2010).

The decline in road infrastructure *vis a vis* the boom in government expenditure between 1999 and 2011 raises several questions. First, what is the trend of government expenditure on road transport infrastructure? Second, what is the effectiveness of the government spending on road infrastructure?

1.3: Research Objectives

The study has two objectives:

- i. To analyse the trend of government budget and spending on road transport infrastructure; and
- ii. To evaluate the effectiveness of government spending on the quality and quantity of Nigerian roads.

1.4: Significance of the Study

Transport by road of persons and goods are responsible for the major part of transport movements in Nigeria. Road transport is also a major user of scarce resources – vehicles and parts (imported or with import content), fuel and skilled labour. Thus, the efficiency of this sector is of significant public interest (Draft National Transport Policy, 1993).

Findings from this research would expose the effectiveness and efficiency of government expenditure, reawaken policy makers with respect to decisions regarding planning and execution of capital projects and funds released for spending from annual budget allocation on particularly government capital projects.

This study would be a building block for future researchers in the area of evaluation of government expenditures on transport infrastructure development which is a very important component in our social and economic development, helping to save lives and time, encouraging investors to travel to wherever their services would be needed most and overall helping to boost agricultural production through increased access to farm, market and health care centres in the case of emergencies. This research would also serve as a reference for future researchers in this area.

1.5: Organization of Work

This study is structured into five chapters, chapter one dealt with the background to the study, statement of the research problem, objectives of the study and the significance of the study. Chapter two reviews conceptual issues, theoretical and empirical issues while chapter three presents the methodology for the study. Chapter four contains both

presentation and analysis of the results. The last chapter summarizes the study, draws conclusion and offers recommendations.

CHAPTER 2: LITERATURE REVIEW

2.1: Conceptual Literature

The term infrastructure is defined as the technical structures that support a society, such as roads, water-supply, sewers, power-grids, irrigations structures, ports, rails, educational institutions, hospitals, telecommunications, and so forth, its infrastructure can be grouped under two broad heads; the physical and social facilities. The physical facilities cover power, communication, irrigation, transportation and their forward and backward linkages while the social services include water supply, education, health, sanitation, etc (Satish, 2006 quoted in Sangwan, 2010).

In the project approval document of World Bank (2011) to the federal republic of Nigeria, **infrastructure** was defined as all basic inputs into and requirements for the proper functioning of the economy, divided into two generally accepted categories, namely, economic and social infrastructure.

Economic infrastructure is seen at a given point in time, as part of an economy's capital stock used to facilitate economic production, or serve as inputs to production (e.g. electricity, roads, and ports). This helps to produce items that are consumed by households (e.g. water, sanitation and electricity). Economic infrastructure can further be subdivided into three categories: **utilities** (power, piped gas, telecommunications, water and sanitation, sewerage and solid waste disposal), **public works** (roads and water catchments in dams, irrigation and drainage) and **other transport sub-sectors** (railways, waterways and seaports, airports and urban transport systems). In national accounts statistics, these are found in two sub-headings of the gross domestic product (GDP): electricity, gas and water are located in the Secondary sector; while transport, storage and communication are found in the Tertiary sector (The World Bank, 2011).

While **Social infrastructure** encompasses services such as health, education and recreation, it has both direct and indirect impact on the quality of life. Directly, it enhances the level of productivity in economic activities, indirectly, it streamlines activities and outcomes such as recreation, education, health and safety. The indirect benefit of improved primary health care, for example, is improved productivity, which in turn leads to higher economic growth and real incomes (The World Bank, 2011).

Pravakar *et. al* (2010) advocate that investment in infrastructure creates; Production facilities and stimulates economic activities, reduces transaction costs and trade costs improving competitiveness and provides employment opportunities to the people (the poor) while in contrast, lack of infrastructure creates bottlenecks for sustainable growth and poverty reduction.

Infrastructure is considered to be a public good and hence, characterized for the most part by two features: it is mostly non-rivalrous and non-excludable, like paved roads or public parks. And the production function of infrastructure is often characterized by economies of scale or increasing returns, meaning the more that the good is produced/supplied, the cheaper the marginal cost of producing/supplying it. In addition, some infrastructure projects provide benefits beyond the imagined direct benefit: for example, a road allows community members to travel more easily, increases tourism to the country because tourists can more easily travel, or may increase education consumption because children can now go to school more easily. The private sector usually undersupplies infrastructure because it cannot capture enough profit to cover the cost of supplying the good (Heller, 2009). Therefore, governments usually provide for the most part for infrastructure in its annual budgets.

Transport infrastructure consists of the fixed installations necessary for transport, and may be roads, railways, airways, waterways, canals and pipelines, and terminals such as airports, railway stations, bus stations, warehouses, trucking terminals, refueling depots (including fueling docks and fuel stations), and seaports. Terminals may be used both for interchange of passengers and cargo and for maintenance. It also refers to the major structure of component parts of the transportation system offering the bedrock or the provision of transport services and operations e.g. rail tracks, roads, air and seaports (Oni and Okanlawon, 2005).

Road infrastructure on the other hand is the structural facilities that aid the movement of persons and goods through the various means of transport on road. It is said to be composed of the following: The carriage way; the pedestrian facilities (where applicable), Drainage system, Culverts (Box or Ring types), Bridges and flyovers, Street light installations, Traffic signs, Traffic Islands etc, (Abdulkareem, 2010).

2.2: Current State of Road Transport in Nigeria

2.2.1: The state of the transport system



Figure 2.1: Map of Nigerian Showing Roads and Railways

Source: Peter, (2011).

The map above shows the road and railroad networks respectively across the thirty six states of Nigeria. It also shows major cities in each state where airports, waterways and pipelines are located.

Nigeria has a population of over 140 million people (2006 census); its transport system (transport modes) consists of: 198,000 km of Roads, 3,500 km of Railways, 8,600 km of Inland Waterways and 22 Airports (Chidoka, 2011). The overall efficiency and

effectiveness of the transport system depends on the development of these modes and their interfacing/integration (Draft National Transport policy, 2010).

Table 2.1: Budgetary allocation to the road, railway and inland waterways

Year	Road (billion #)	Railway(billion #)	Inland waterways(billion#)
1999	9,583,000,000.00	227,894,581.00	-
2000	36,947,326,332.00	1,359,000,000.00	268,288,000.00
2001	66,867,990,000.00	19,324,780,000.00	1,442,250,890.00
2002	70,002,773,000.00	13,768,136,409.00	3,120,000,000.00
2003	55,547,940,000.00	3,180,000,000.00	3,080,000,000.00
2004	42,607,064,300.00	1,000,000,000.00	1,095,000,000.00
2005	70,490,562,710.00	4,390,957,042.00	2,692,081,125.00
2006	67,734,363,765.00	2,827,101,626.00	1,617,389,881.00
2007	716,126,211.00	2,359,163,563.00	12,636,463,895.00
2008	67,982,651,723.00	2,543,755,191.00	6,079,987,973.00
2009	198,618,000,000.00	23,451,900,243.00	13,042,318,912.00
2010	210,773,218,922.00	117,628,325,217.00	21,194,622,741.00
2011	128,966,108,230.00	33,753,984,951.00	14,868,911,352.00

Source: Budget office of Nigeria, Federal Ministry of Finance

Budgetary allocation to the transport system from 1999 to 2011 shows that road infrastructure got a larger share compared with the other modes of transportation. This is shown in table 2.1 above. The state of road infrastructure in Nigeria despite huge allocation to it becomes a subject of research. Figure 2.1 below depicts trend of budget allocation to the road, railway and inland waterways from 1999 to 2011.

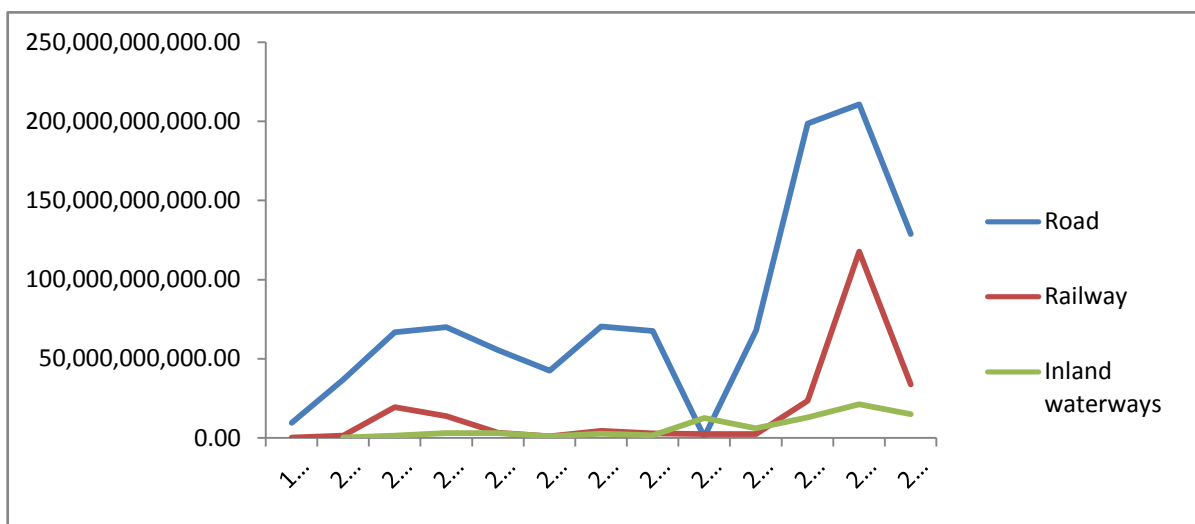


Figure 2.2: Trend of budget allocation to the road, railway and inland waterways

Road networks grew from 6, 500 km in 1960 to 10, 000 km in 1970 and to 29, 000km in 1980(Ebenazar-Uzor, 2011). In 1990 Nigeria had 108, 000 kilometers of roads out of which 30,000 kilometers were paved, 25, 000 kilometers were gravel, and the rest were unimproved earth carrying 95 percent of all the nation's goods and passengers, the roads constituted the most important element in the transportation network. The estimated current total road network is 198, 000 kilometres (Chidoka, 2011).

Table 2.2: Total Area, Land and Road Networks in Nigeria respectively

Total Area	923,770 sq.km / 356,700 sq. miles
Total Land Area	910,770 sq.km / 351,650 sq .miles
Total Road Network	198,000 kilometre

Source: (<http://www.motherlandnigeria.com/geography.html>)

Table 2.3: Length of Roads in Nigeria

Federal Roads	34,120km (mostly interstate roads with high density)
State Roads	34,300km
Local Government Roads	129,580km
Total Road Networks	198,000km

Source: Chidoka, 2011.

The responsibility for planning, developing and maintaining the nation's transport infrastructure is divided among the three tiers of Government. Intra-state roads are the responsibility of State Governments, while the Local Governments are required to cater for intra-urban and rural feeder roads, which account for about 66% of the existing road network. The Federal Government is responsible for the national highways which constitute only 17% of the existing road network. In addition, the Federal Government through its Agencies is also responsible for financing Inland Waterways/River Ports, Sea Ports, railways, airports and pipelines (Draft National Transport Policy, 2010).

Seventeen percent (17%) of the total road network in Nigeria is owned and managed by the Federal government (trunk A roads), while another seventeen percent (17%) of the 198,000km total road network is owned and managed by the thirty six(6) states (trunk B roads) while the remaining sixty six percent (66%) is owned and managed by the seven hundred and seventy four(774) local government areas (trunk C roads) of Nigeria where a majority of people live.

2.2.2: Transport Policies in Nigeria

National Development Plan 1962-1985

Investment in road development was included in the first, second, third and fourth national development plans respectively, that ran through the period 1962 to 1985. The first national development plan (1962 to 1968) concentrated on the maintenance/repair of old narrow, windy, poor drainage facilities, and provision of new straightened and improved road network. Total planned expenditure for the road sub-sector stood at N150.6 million out of N288 million voted for the development of the transport sector, absorbing about 59 percent of the total expenditure.

The second national development plan (1970-1974) focused on rehabilitation of the numerous roads that were adversely affected by the civil war due to poor maintenance. A total of N288.84 million representing about 59 percent of the total vote for the transport sector was allocated to road development. New roads were also built such as the Warri-Benin-Auchi-Ososo-Okene road, Calabar-Ikom-Apapa road, Ijora causeway.

The third national development plan (1975-1980) on the other hand, gave more priority to the road transport sub sector too. Under this plan, the federal government was billed to take over some trunk B routes that were formerly under the state's responsibility while the states would take over some trunk C roads that were for the local government. Sixteen thousand (16,000) kilometer of trunk B roads were taken over by the federal government such as the east-west as well as the north-south roads that formed the national grid. However, the fourth national development plan (1981-1985) laid more emphasis on the rehabilitation and improvement of the existing road networks such that

7, 457.91 million out of the 10,706.02 million representing about 70 percent of the total allocation to the transport sector was allocated to it (Francis and Andrew, 2005).

Rolling Plan 1990 to 1999

Table 2.4: Federal Government Sectoral Allocation to Road, Railway, Inland Waterways and Air Transportation Networks

Plan period	Roads%	Rail%	Water%	Air%	Total allocations in millions
90-92	70.14	14.03	7.24	8.60	2,210.000
91-93	52.42	12.95	19.41	15.22	2,695.428
93-95	59.65	6.23	15.91	18.21	8,379.446
94-95	56.67	1.33	22.92	19.09	6,017.250
96-98	40.23	42.16	15.98	1.62	491.420
97-99	32.03	32.93	26.19	8.86	310.162
Average	51.86	18.27	17.94	11.93	

Source: Culled from Oni and Okalawon, 2005.

Table 2.4 above shows that road transport sub-sector was given priority over other modes. On the average, 51.86 percent of the fund in the rolling plan period was devoted to road transport against 18.27 percent for rail transport, 17.94 percent for inland water transport and 11.93 percent for air transport.

Annual Plans

The return to medium term planning in Nigeria was not until the launch of the Nigerian Economic Empowerment Development Strategy (NEEDS) 2004-2007 in 2004 with the aim of reforming the transport sector. These include completion ongoing construction

of 3,000 km network of roads, and embark on new construction when fund- specific assistance or finance is available to facilitate economic growth and development across the geo-political zones of the nation, strengthen the newly created roads maintenance agency and involve the private sector in the management of roads, Rehabilitate and upgrade the railways with a view to restoring the relevance of the railways in the national transportation (bulk/haulage and human) system etc.

In 1993 a National Transport Policy was launched based on two major thrusts, first, ensuring that transport services are adequate to meet the social and economic needs of the country and to provide an effective instrument of national development policies. Secondly, ensuring the most efficient use of resources within the transport sector and sustained improvements of the sector's productivity. Again in year 2010, draft National Transport Policy document was presented with efforts to inculcate the culture of maintenance and continuous upgrading of transport infrastructure services, develop transport infrastructure that ensures environmental sustainability and international standards and to remove all barriers towards private sector participation in the development, provision, maintenance and operation of transport infrastructure and services.

In 2005, the federal government approved the Infrastructure Concession Regulatory Commission. "This Act provides for the participation of private sector in financing the construction, development, operation or maintenance of infrastructure or development projects of the Federal Government through concession or contractual arrangements; and the establishment of the Infrastructure Concession Regulatory Commission to regulate, monitor and supervise the contracts on infrastructure or development projects" (Infrastructure Finance Conference, 2010).

On the 30th day of November, 2002, The Federal Roads Maintenance Agency (FERMA) (Establishing, etc) Act No.27 of 2002 was enacted by the National Assembly and assented to by the President. FERMA became Nigeria's first institutional mechanism for monitoring and maintaining all federal roads in the country. On 15th March, 2004, land mark operation 500 Roads Programme (FERMA'S first major road maintenance intervention campaign) flagged off at Tsafa Hill along Jebba-Mokwa road in Niger State. Five hundred selected federal roads nationwide with a total length of 12,800 km were repaired through Direct Labour operations and maintenance by Rates Contract.

On 25th May, 2007, the act establishing FERMA was amended so the agency could generate its own revenue called "levy", this is the 5% users' charge and there is also the International Vehicle Transit Charge (IVTC), yet to be implemented by the Federal Government. The agency was empowered to charge some levy on vehicles coming into or out of Nigeria for the use of roads across Nigerian borders. The IVTC when implemented could generate for the agency, ten billion naira annually (FERMA, 2012).

Major challenges faced by FERMA has been inadequate funding, over loading with vehicles carrying as much as 70 to 100 tons of load against the 30 tons that these roads were designed to carry. While it is the responsibility of the Federal Ministry of Works to construct, reconstruct and rehabilitate roads and hand over to the Agency for routine maintenance, the agency (FERMA) needs nothing less than 120 billion Naira annually to efficiently carry out its responsibilities (FERMA, 2012).

2.3: Theoretical Literature

2.3.1: Nexus between Transport and Economic Growth/Competitiveness

Transportation is a key element in economic development, to Adam Smith, ‘good roads, canals, and navigable rivers by diminishing the expense of carriage, put the remote part of the country more nearly upon a level with those in the neighbourhood of the town. He suggested that they are upon that account, the greatest of all improvements – they break down monopolies ... they open new markets (Thirlwal, 1994).

Competition is a key driver of economic growth. Improved accessibility and faster, more reliable journey times for passenger and freight traffic could have a similar effect on the economy as a reduction in trade barriers and deliver growth benefits by exposing firms to greater competition. Transport has historically played an important role in opening up access to markets, driving down prices and increasing output, as well as stimulating innovation. The integration of markets globally suggests that transport will continue to remain important in retaining these competitive effects (Global Competitiveness Report, 2010-11).

Competitive economies are those that have in place factors driving the productivity enhancements on which their present and future prosperity is built. Competitiveness is defined as set of institutions, policies and factors that determine the level of productivity of a country. A more competitive economy is one that is likely to grow in the medium to long term. These ideas informed by Global Competitiveness Index (GCI) include a weighted average of many different components, which are further grouped into twelve pillars. They include: Institutions, Infrastructure, Macroeconomic Environment, Health and Primary Education, Goods Market Efficiency, Labour Market

Efficiency, Financial Market Development, Technological Readiness, Market Size, Business Sophistication and lastly Innovation. Infrastructure happens to be the second pillar of the GCI. Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy. Effective means of transport including quality roads, railroads, port and air transport, enable entrepreneurs to get their goods and services to the market in a secure and timely manner and facilitate the movement of workers to get their most suitable jobs. Infrastructure has been identified as the second basic requirement which is important for a factor driven economy. Nigeria dropped to 127 from 121 out of the 139 countries covered, with infrastructure development having the poorest score of 135 from the results of the measurement across different aspects of the competitiveness (Global Competitiveness Report, 2010-11).

Transport can impact on the performance of the economy and will ultimately impact on overall output. Gross Domestic Product (GDP) is a measure of the size of the economy as it measures the total value of goods and services produced. Transport investment can impact on the drivers of productivity by encouraging private investment through raising its profitability; facilitating labour mobility and thereby increasing the returns to investment in skills; and enabling effective competition even when economic activity is geographically dispersed. Identifying the impact of transport on productivity is important because improving productivity is a key determinant of long-term growth and living standards (Lakshmanan et. al, 2011).

Travel time, cost, reliability, market access, intermodal transfer connections and travel route connectivity can all come into play as relevant factors affecting the economic growth of industries and locations. Economic benefit of transportation investment is the value of savings in passenger time and vehicle costs. To assess the business growth, job

and income benefits of new transportation facilities and services, there is the need to consider factors such as accessibility to markets, scale economies from market expansion, reliability, intermodal logistics and connectivity though there is neither mathematical models nor computer software to oversimplify that assessment (Glen, 2007).

In a developed country, through economic stabilization, stimulation of investment activity and so on, public expenditure maintains a rate of growth which is a smooth one. In an underdeveloped country, public expenditure has an active role to play in reducing regional disparities, developing social overheads, creation of infrastructure of economic growth in the form of transport and communication facilities, education and training ,growth of capital goods industries, basic and key industries, research and development and so on (Bhatia, 2002).

The general view is “that public expenditure either recurrent or capital expenditure, notably on social and economic infrastructure can be growth-enhancing although the financing of such expenditure to provide essential infrastructural facilities-including transport, electricity, telecommunications, water and sanitation, waste disposal, education and health-can be growth-retarding (for example, the negative effect associated with taxation and excessive debt)”. The purpose of government spending is to provide infrastructural facilities and the maintenance of these facilities requires a substantial amount of spending (Ogun, 2010).

2.3.2: Budgeting and Budget Structure

Trade-Off

Performance-based budgeting aims to improve the efficiency and effectiveness of public expenditure by linking the funding of public sector organizations to the results they deliver, making systematic use of performance information. There are a number of models of performance-based budgeting that use different mechanisms to link funding to results. Some have very sophisticated features and require the support of correspondingly sophisticated public management systems while others focus more on the basics. The most basic form of performance based budgeting is that which aims to ensure that, when formulating the government budget, key decision makers systematically take into account the results to be achieved by expenditure. The essential requirements for this most basic form of performance-based budgeting are information about the objectives and results of government expenditure, in the form of key performance indicators and a simple form of program evaluation; and a budget preparation process designed to facilitate the use of this information in budget funding decisions, including simple expenditure review processes and spending ministry budget decisions (Robinson and last, 2009).

Line Item Vs Performance Based Budgeting

One of the most common types of budgeting is a line-item budget which breaks down sums of money designated for a specific purpose. Expenditures grouped into line-items can only be spent for items that are allowable within the line-item (Phillips, 2007). While Performance Based Budgeting is characterized by explicitly focusing on the outcomes, as well as evaluation of programs by measuring the relationship between resources and results. It therefore helps assess performance of a program in terms of its

effectiveness and efficiency. Enhanced efficiency provides savings that can be reallocated to enhance program delivery or add new services (Concord, 2012).

Unlike the traditional line-item budget system that allocates resources based on organizational units and line item expenses, Performance Based Budgeting allocates resources based on service performance; both planned and actual performance are measured in terms of service effectiveness and efficiency. Rather than attaching budgets to specific items of expense (line item budgeting), budgets are tied to overall program outcomes.

Funds can be shifted by the program manager to those areas that provide the greatest return toward meeting the desired outcomes. This flexibility allows responsiveness to changing service needs or unanticipated demands.

With this much needed information, the budgetary system is capable of providing a data driven mechanism to direct government decisions or actions to prioritize services and allocate funding on the basis of in-depth programmatic and financial analysis (Concord, 2012).

2.3.3: Public Infrastructure Funding Models

Funding Models: Grants could be from governments, organized private sector and international donors, toll gate collections, fees or services rendered by agencies and monies accruing from road concession and Capital market investments.

Financing Plan for Infrastructure in Nigeria

On-budget	Off-budget	Private sector	Overseas development assistance
- Regular Budgetary Allocation	- Special Intervention Funds	- Pension Fund	
- Enhanced Statutory Allocation	- FGN Bonds (DMO)	- PPP	
- Viability Gap Funding	- Low-Interest Concessional Loans	- Long-Term Commercial Bonds	
	- Credit Enhancements	- Export Credit Finance	
		- Private Equity	
		- Infrastructure Bonds	

Figure 2 3: Sources of Finance for Infrastructure Projects

Source: Ahmed, 2011.

Public funding is used in large part for funding all type of Infrastructures in most parts of the world: procurement of design / construction / operation and maintenance are almost 100% public responsibilities, all risks, including delays in completion and cost overrun are managed by the public sector funding, it is directly on the state balance sheet. Funding costs are in line with the rating of the relevant public sector entity in charge of the project (State, region or municipality).

Private Public Partnership however, is used in many countries to develop Infrastructures. The public sector transfers the financing, design, construction, operation and maintenance of the asset to the private sector in exchange for : in the case of a Concession project : a toll or an occupancy fee paid directly by the users of the asset, or in the case of a Private Finance Initiative(PFI) / Private Public

Partnership(PPP) : a rent paid by the Public Authority, For Concession projects with volume / traffic risk, a public contribution (capital grant / operating subsidy) can be necessary. Rent deductions subject to operation performance indicators are essential features to the PFI / PPP projects. However, appropriate risk allocations between public and private are put in place (Bouygues, 2011).

2.3.4: Maintenance Models

Highway Design and Maintenance Standard Model

The model was developed by the World Bank's Transportation Department to meet the needs of highway authorities, particularly in developing countries, for evaluating policies, standards, and programs of road construction and maintenance. The model simulates total life cycle conditions and costs for one road, a group of roads with similar characteristics, or an entire network of paved or unpaved roads, for a series of road agency construction or maintenance strategies, and provides the economic decision criteria for evaluating the strategies being analyzed. The primary cost set for the life cycle analysis includes the costs of road construction and maintenance and vehicle operating costs, to which travel time costs can be added. The costs of construction related traffic delays, accidents and environmental pollution can be entered in the model exogenously based on separate estimates. HDM can be coupled with the companion Expenditure Budgeting Model (EBM) to find the best way of using road agency funds under budgetary constraint (The World Bank Group, 2001).

The model is said to have sound empirical base but model users are warned to beware of the fact that: The model does not explicitly account for the effects of varying basic routine maintenance (shoulder and drainage maintenance, grass cutting, and maintenance of side slopes) on pavement performance and that the model does not

endogenously predict road accidents or their costs, nor environmental impacts such as air and noise pollution, nor traffic delay costs during road construction or maintenance (The World Bank Group, 2001).

Road Economic Decision Model (RED)

RED is a consumer surplus model used to evaluate investments in low volume roads. The model is implemented in a series of Excel workbooks that collect all user inputs, present the results in a user-friendly manner, estimate vehicle operating costs and speeds, perform an economic comparison of investments and maintenance alternatives and perform sensitivity, switch-off values and stochastic risk analyses. The model computes benefits accruing to normal, generated, and diverted traffic, as a function of a reduction in vehicle operating and time costs. It also computes safety benefits, and model users can add other benefits (or costs) to the analysis, such as those related to non-motorized traffic, social service delivery and environmental impacts (The World Bank Group, 2006).

2.4: Empirical Literature

Several studies have empirically examined the relation between road transport and economic growth. In this study, an attempt was made to review studies that deal generally with infrastructure stock and growth, transport and growth before looking specifically at the studies that deal with relations between road transport and growth.

Road being a public good, is usually provided for in the government annual budgets but the efficiency and effectiveness of government spending on the development of road infrastructure determines to a large extent output on this roads in terms of their quantity

and quality. A number of studies on the effectiveness and efficiency of government spending were also reviewed in this study.

2.4.1: Nexus between Road Transport and Growth

One of the earlier attempts to investigate the role of infrastructure in development processes is Aschauer (1989). In a seminal work based on research done in the United States, the author argues that non-military public investment is far more important in increasing aggregate productivity than military spending. This study concludes that core infrastructure such as street lights, highways, airports, etc., contributes more to productivity than other forms of infrastructure (Ogun, 2010).

Serven and Calderon (2004) evaluated the impact of infrastructures on economic growth and income distribution using a large panel data set for 100 countries from 1960- 2000 and found that economic growth is positively related to infrastructure stock while income inequality declines with higher infrastructure quantity and quality. This they did using a variety of generalized-method-of-moments to account for potential endogeneity of infrastructure. Canning and Pedroni (1999) found that telephone lines and paved roads are provided at the growth maximizing level on average but under supplied in some countries while electricity generating capacity is under provided on average based on the assumption of the theoretical growth model of Baro (1960).

Ogun (2010) investigated the impact of infrastructure development on poverty reduction in Nigeria with data from the first quarter of 1970 to the fourth quarter of 2005, using the structural autoregressive method, findings show that infrastructure development leads to poverty reduction; social infrastructure explains a higher proportion of the forecast error in poverty indicators relative to physical infrastructure while Hulten (2004) found that investment in infrastructure networks does not have an

effect on the pattern of economic growth and that the impact may depend on the stage of economic development.

On the other hand, Akinyosoye (2010) used simple statistical correlation between the contribution of Asian countries infrastructure to GDP vice-a-verse economic growth rates and compare that with Nigeria's, he found that Nigeria's infrastructure contributes a meager 1.9% per annum to GDP over the last decade as against the Asian development bank report which suggests that a country's infrastructure development should amount to a minimum of 6% of GDP to attain a reasonable level of sustainable development.

However, on the contribution of transport capital to growth, two different data sets for a sample of Sub Saharan African (SSA) countries and also for developing states (SIDS) using both cross sectional and panel data for analysis, result show that in both sample cases, transport capital has been a contributor to the economic progress of these countries. Analysis further revealed that in the SSA country case, the productivity of transport capital stock is superior as compared to that of overall capital. Such is not the case for the SIDS where transport capital is seen to have the average productivity level of overall capital stock (Boopen, 2006).

Decisions made regarding investment in public transportation and how various aspects of the economy are affected was studied by Weisbrod and Reno (2009), using descriptive statistics, the study showed that public transportation investment can have significant impacts on the economy and thus represent an important public policy consideration. Ajiboye and Afolayan (2009) in another study found that improved transportation will encourage farmers to work harder and be more productive, add value

to products, reduce spoilage and wastages, empower farmers, have positive impact on productivity, income, employment and reduce poverty level in the rural areas.

Umoren *et. al* (2009) carried out a study on the development of road infrastructure as a tool of transforming Ibiono Ibom local government area, the idea behind the study was to reveal the importance of development of road infrastructure as a panacea for socio-economic advancement in the rural areas. Using the Gamma index in the analysis of the road network in the three zones selected, results show low connectivity in each of the zones which implies low profit, reduced mobility and increased cost of transport while a correlation coefficient of 0.87 indicates a strong positive relationship between road infrastructure and socio-economic activities.

Inoni (2009) investigated the effect of road infrastructure on Agricultural output and income of rural households in Delta State using data from twenty one local government areas. A multi-stage random sampling technique was used to draw samples for the study and the ordinary least squares technique was used to estimate the relevant parameters. Findings revealed that rural roads have significant positive effect on agricultural output, reduce transport cost, stimulate demand for rural labour and improve rural income. The study also found that road infrastructure promotes inter-sectoral linkages between the agriculture and non-farm sector that enhances income diversification strategies among rural households.

2.4.2: Efficiency and Effectiveness of Government Spending on Transport Infrastructure

The analysis of efficiency and effectiveness is about the relationships between inputs, outputs and outcomes. In 1957, Farrell already investigated the question of how to measure efficiency and highlighted its relevance for economic policy makers. "It is important to know how far a given industry can be expected to increase its output by simply increasing its efficiency without absorbing further resources". Since that time, techniques to measure efficiency have improved and investigations of efficiency have become more frequent, particularly in industry. Nevertheless, the measurement of efficiency and effectiveness of public spending remains a conceptual challenge (Mandl et. al, 2008).

Adesoye *et. al* (2010), in a study that covered the period 1977-2006 examined the linkages between government spending and economic growth in Nigeria. Three variants of Ram (1986) model were developed; regressing Real GDP on Private Investment, Human Capital Investment, Government Investment and Consumption Spending at absolute levels, using a panel data of 115 countries including both developed and underdeveloped countries, the study found that both private and public investment have significant effect on economic growth during the period under review.

Hite (2006) did a measure of inefficiency in government spending on infrastructure, and further provided insight on regional variation in political corruption across Germany. The index was calculated as the ratio of physical quantities of public roads over the normalized, cumulative capital stock spent on roads. Findings reveal that a greater prevalence of political corruption is believed to exist in regions where the ratio of the physical infrastructure to spending is low. The study emulates the indexing

procedure used by (Golden and Picci 2005), who measured overall infrastructure over aggregate public spending to proxy political corruption in Italy. However, this study focuses specifically on roads and controls spending data more extensively.

Santosa and Joewono (2005), in a study evaluated the effectiveness of road network performance in twelve provinces located in Sumatra, Kalimantan and Sulawesi Island from 1999-2002. They used four performance indicators such as Road Performance, Road Availability, Traffic Load and Road Services and found that there is a specific pattern of outputs (road index) and outcomes (Gross Regional Domestic Product – GRDP) for each Island. Findings also show that provinces with high road performance correlate with high output and outcome and that there are provinces with high road index but produce either low outcome or low output and outcome.

The OECD (2004) used its surveillance of public expenditures within the context of its country reviews to identify three institutional determinants of efficiency. First, the budget process could improve the allocation of funds, for instance by making use of fiscal rules or performance information. Second, modern management practices, such as performance budgeting, can simplify the budgetary process and enhance its output. Finally, the use of market instruments in the provision of public services may improve the provision of public services via voucher schemes, open tendering etc. These results were confirmed by OECD (2007), which stressed the value added of using performance information in decision-making to enhance efficiency. Nevertheless, the OECD also made the point that there is no blueprint for enhancing public sector efficiency (OECD, 2004 and 2007).

Kalakech, 2009 investigated the growth effects of government expenditure in Lebanon over a period from 1962 to 2007, with a particular focus on sectoral expenditures and

using a multivariate cointegration analysis to examine the effect of each sector on economic growth. Four sectors have been taken into account: defense, education, health, and agriculture. Findings revealed that government spending on education has a positive effect on growth in the long-run and negative impact in the short-run. While spending on defense has a negative effect on economic growth in the long run and insignificant impact in the short-run. While health spending is found to be negatively correlated to growth in the long-run and there was insignificant linkage in the short-run. Finally, spending on agriculture is found to be insignificant in both cases.

“Empirical analysis of the federal government of Nigerian budget over the period 2000 to 2004 reveals some undesirable features which persisted in spite of the reform measures and prevented the budget from achieving the desired objectives. These include the dominance of recurrent over capital expenditure, lopsided structure of the budget both in terms of composition and functional distribution and deviation of actual budget from estimates, dependency on oil revenue and preponderance of debt-related expenditure prior to 2005 when Nigeria was granted debt relief. Available data indicate that in 2002, the federal capital budget was N477.36 billion while actual expenditure was N321.4 billion. The deviation was 32.67%. In 2004, there was not only a decline in capital budget, but also there was considerable deviation. The capital budget stood at N349.8 billion while actual expenditure was N314.8 billion giving a deviation of about 10 %” (Aderibigbe, 2009).

CHAPTER 3: METHODOLOGY

3.1: Conceptual Framework

Government budget is the major tool for the successful implementation of fiscal policy designed for attaining specific objectives. Financial operations of the government are properly planned and administered through budgeting. The budget provides a scientific and systematic way of presenting items of public expenditure and revenue (Shrestha, 2008).

The Fiscal Responsibility Act 2007 (“FRA” or “Act”) is made as an Act to provide for the prudent management of the nation’s resources, ensure long-term macroeconomic stability of the national economy; secure greater accountability and transparency in fiscal operations within a medium term fiscal policy framework and the establishment of the Fiscal Responsibility Commission (“FRC”) to ensure the promotion and enforcement of the nation’s economic objectives, and for related matters (Onyekpere, 2010).

The Act *inter alia* provides for budget preparation, implementation and reporting process and seeks to open up the fiscal management and budgetary process to greater transparency and accountability whilst streamlining the rules. As part of the budgetary reform measures, steps were taken in 2005 to develop a medium-term expenditure framework which places emphasis on multi-year (three years) budgeting. The revenue estimates were also based on a Medium Term Revenue Framework (MTRF) (Aderibigbe, 2009).

MTEF is a strategic policy and expenditure framework which balances what is affordable (in the aggregate) against policy priorities of the government. It provides

for deficits, focused more on the oil economy, reduced capital expenditure and projected minimal real GDP growth (Taliercio, 2002).

The current judicial framework is shown in figure 3.1. The MTEF is expected to provide the framework and data for the Budget and other things being equal, the budget will influence actual expenditure which in turn impacts on output and through it, outcomes.

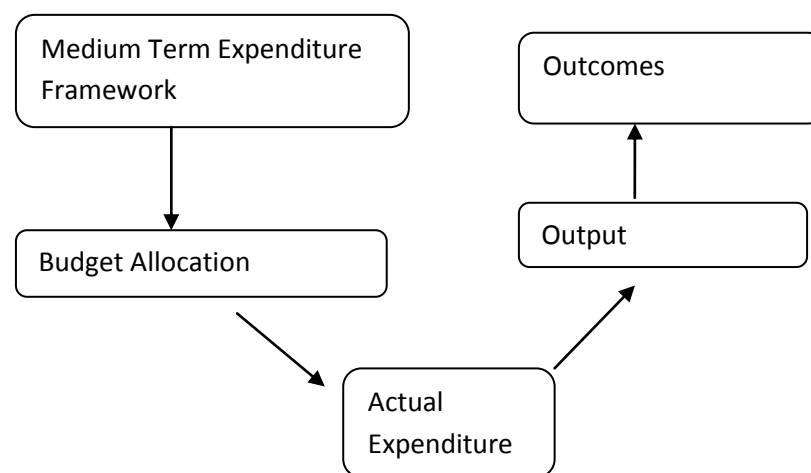


Figure 3.1: Medium Term Expenditure Framework and the Flow Chart

Source: Garba, 2007

The financing of Nigerian roads is exclusively dependent on allocations from the public treasury, which are sourced through the budget allocation to the Federal Ministry of Works.

The Nigerian budget framework is given by equations 3.1- 3.5. The framework for this study has the budget allocations and actual expenditures as primary and the links to output and outcomes are secondary. Therefore, just the models on budget allocation and actual expenditure are specified.

Government revenue (GR) minus government expenditure (GE) equals budget balance, while total government expenditure is comprised of government expenditure to the federal ministry of works and other government expenditures (GE_O) to the remaining MDAs. This implies that the more government allocates/spends funds for building and maintenance of roads, the less would be available to the other agencies of government.

$$GR - GE = BB \quad \text{_____} \quad (3.1)$$

$$GE = GE_{MW} + GE_O \quad \text{_____} \quad (3.2)$$

$$GE_{MW} = PC + OH + CE \quad \text{_____} \quad (3.3)$$

Where GR = Government Revenue

GE = Government Expenditure

BB = Budget Balance

GE_{MW} = Government Expenditure to the Federal Ministry of Works

GE_O = other government expenditure

PC = Personnel costs, OH = Overhead costs

CE = Capital Expenditure

Total government expenditure in each budget year is distributed among all the fifty one Ministries, Departments and Agencies (MDAs), this is given by equation 3.4

$$GE = GE_1 + GE_2 + \dots + GE_{51} \quad \text{_____} \quad (3.4)$$

The relative share of Federal Ministry of Works which has the mandate over development of roads is shown in equation 3.5 below:

$$\frac{GE_{RT}}{GE} = \frac{GE - OGE}{GE} = 1 - \frac{OGE}{GE} \quad \text{_____} \quad (3.5)$$

The difference between budget allocations and actual expenditure are shown in equations 3.6 below:

$$\Delta GE_{MW} = GE_{MW}^B - GE_{MW}^A \quad (3.6)$$

Where:

ΔGE_{MW} = deviations of actual expenditure of Ministry of Works from its budget allocation

GE_{MW}^B = budget allocation or estimates to the Federal Ministry of Works

GE_{MW}^A = actual budget expenditure by the Federal Ministry of Works

Budget allocation and the actual expenditures are composed mainly of both capital and recurrent expenditures, such that budget allocation equals to recurrent and capital expenditures.

Which are composed of:

$$GE_{MW}^B = RGE_{MW}^B + CGE_{MW}^B \quad (3.7)$$

$$GE_{MW}^A = RGE_{MW}^A + CGE_{MW}^A \quad (3.8)$$

Where:

RGE_{MW}^B = government recurrent expenditure for the Federal Ministry of Works

CGE_{MW}^B = government capital expenditure for the Federal Ministry of Works

RGE_{MW}^A = actual government recurrent expenditure for the Federal Ministry of Works

CGE_{MW}^A = actual government capital expenditure for the Federal Ministry of Works

The deviations for recurrent and capital expenditures respectively for the Federal Ministry Works are given below:

$$\Delta RGE_{MW} = RGE_{MW}^B - RGE_{MW}^A \quad (3.9)$$

When the budgeted government recurrent expenditure is greater than the actual recurrent expenditure, it means that there would be surplus which implies that more funds would be for other (capital) expenditures. However, the reverse is the case when the recurrent budget allocation is smaller than the actual.

$$\Delta CGE_{MW} = CGE_{MW}^B - CGE_{MW}^A \text{ _____} \quad (3.10)$$

When funds budgeted for capital expenditures for the Ministry of Works under which both road provision and maintenance are provided for is greater than the actual spending on road provision and maintenance for a period, it means there would be a deficit which implies that some projects would be left undone.

Where:

ΔRGE_{MW} = change in government recurrent expenditure for the Federal Ministry of Works

ΔCGE_{MW} = change in government capital expenditure for the Federal Ministry of Works

3.2: Empirical Framework

3.2.1: Analysis of Budget Allocations and Actual Expenditure

The budget process consists of budget estimates (approximation of cost of projects and sources of finance) and actual spending (amount actually realized as revenue and what was actually spent). This study undertook trend analysis of both budget allocation and actual expenditure (capital projects) of the Federal Ministry of Works, showing the growth rates over the periods between 1999 and 2011 using descriptive statistics in the form of graphs and tables.

Since it is possible that the actual spending may differ from the budget estimates, an analysis of the deviation of actual and budget allocations on highway construction and rehabilitation for the periods 1999 to 2011 was also carried out.

3.2.2: Case Study

Road network provision starts with government expenditure which is an input, which produces physical road infrastructure (the output). The usage of this infrastructure produces outcome in free flow of traffic and lower cost of transportation. The effectiveness and efficiency of this road creates an impact on the environment and community. This scheme is shown in Figure 3.2 below.

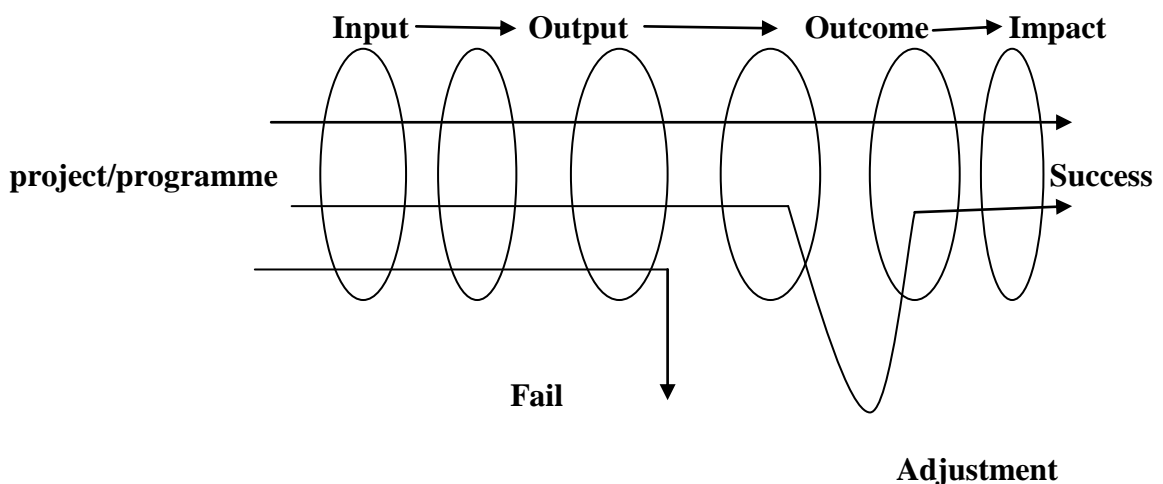


Figure 3.2: Schematic diagram of the progress of a project (Dickey, 1984 cited in Joewono and Santosa, 2005).

To analyse the link between government expenditure, road infrastructure and outcomes, Bida-Sacci-Nupeko-Pategi federal road was chosen. The choice is because there is adequate data on government funding on the road from 2000 to 2011. First, we documented the expenditure and the progress on the road (input-output relations). Then, we studied the outcomes using the survey method which focused on the responses of road users on the effectiveness of the road infrastructure. A travel on the road also provided better insight on the present condition of the road.

3.3: Sampling Procedure and Sample Size

The survey method was used to derive the sample size for this study based on the estimated number of passengers, drivers and others (who make up the population) that travel on Bida-Sacci-Nupeko-Pategi road. Purposive sampling was used to select the road users whose responses represented that of the estimated population of road users who travel on the road. The choice of the sampling procedure was because of the fact that road users are not made up of drivers alone but also passengers and others whose probability of being selected is not equal due to their heterogeneous features. Hence, a sample size of thirty was selected.

3.4: Sources of Data

This research used both Primary and Secondary data respectively. The secondary data was gotten from budget office of Nigeria, Ministry of Finance (MOF) and Federal Ministry of Works. The primary data was derived from a field survey of a sample of road users on Bida-Sacci-Nupeko-Pategi federal road with the aid of structured questionnaire administered to them.

3.5: Analysis and Presentation of Data

Processing of data from Secondary sources was carried out. The trends, frequencies and percentages were generated to analyze data. Presentations were made in the form of tables, graphs, charts and figures for analysis and better understanding of variables.

The primary data was processed with the help of statistical package for social science (SPSS). Responses from the study sample were coded using coding sheet and thereafter, information was fed into the SPSS package and the results of the frequencies

and percentages were presented in tables. Data was analysed using simple statistical tools such as frequencies and percentages. A tour of the case study (Bida-Sacci-Nupeko-Pategi Road) was also undertaken and graphical evidence from the visit was compared with secondary data from the Federal Ministry of Works on budgetary allocation and spending on the Federal Road.

CHAPTER 4: DATA PRESENTATION, RESULTS AND ANALYSIS

4.1: Analysis of Budget Allocations and Actual Expenditure on the Nigerian Federal Roads Since 1999 to 2011

The budget process consists of budget estimates (approximation of cost of projects and sources of finance) and actual spending (amount actually realized as revenue and what was actually spent). This study did a trend analysis of both budget allocation and actual expenditure of the federal ministry of works on highway infrastructure, showing the growth rates over the periods between 1999 and 2011 using descriptive statistics in the form of graphs, charts and tables. Frequencies and percentages were also used to analyse results.

An analysis of the deviation of actual and budget allocations on highway construction and rehabilitation for the periods 1999 to 2011 was carried out, since it is possible that the actual spending may differ from the budget estimates. A case study of Bida-Sacci-Nupeko-Pategi Federal Road was carried out to analyse output and outcomes from budget and releases to the road.

Table 4.1 below presents total government budget and total government releases on highway infrastructure in Nigeria from 1999 to 2011. The total deviation in Table 4.1 shows the numerical and percentage difference between what the federal government budgets for road construction and rehabilitation annually for the period 1999 to 2011 and what was actually released for spending. It can be observed from Table 4.1 above that total government budget as well as total actual spending on federal roads from 1999 to 2011 is erratic. The Table shows persistent under releases ranging from -0.79% to -59.13% while average under releases is -19.47%. Total under releases amounted to 215.9 billion Naira from 1999 to 2011.

Table 4.1: Budget allocation and actual spending on highway infrastructure

	Total budget on Highways(#)	Total spending on Highways(#)	Deviation naira(#)	Deviation percentage (%)
1999	5,414,731,668.91	3,346,192,410.74	-2,068,539,258.17	-38.20
2000	18,254,855,467.85	18,111,530,510.15	-143,324,957.70	-0.79
2001	31,960,000,000.00	29,680,792,388.95	-2,279,207,611.05	-7.13
2002	45,659,841,385.65	35,301,407,324.31	-10,358,434,061.34	-22.69
2003	41,659,841,385.65	17,861,412,162.74	-23,798,429,222.91	-57.13
2004	37,629,545,761.08	36,887,337,824.05	-742,207,937.03	-1.97
2005	59,147,794,161.62	57,147,794,161.62	-2,000,000,000.00	-3.38
2006	65,082,944,794.83	57,652,597,924.30	-7,430,346,870.53	-11.42
2007	118,149,981,842.21	98,356,579,109.71	-19,793,402,732.50	-16.75
2008	98,356,172,482.21	84,357,847,191.21	-13,998,325,291.00	-14.23
2009	142,415,411,985.00	132,098,796,806.01	-10,316,615,178.99	-7.24
2010	191,809,701,865.73	86,207,636,804.44	-105,602,065,061.29	-55.06
2011	101,033,110,921.14	83,705,257,088.93	-17,327,853,832.21	-17.15
Total Average	956,573,933,721.88	740,715,181,707.16	-215,858,752,014.72	-22.57

Source: Federal Ministry of Works, Highway Construction and Rehabilitation Projects, Financial Information on Highway projects, 1999-2011.

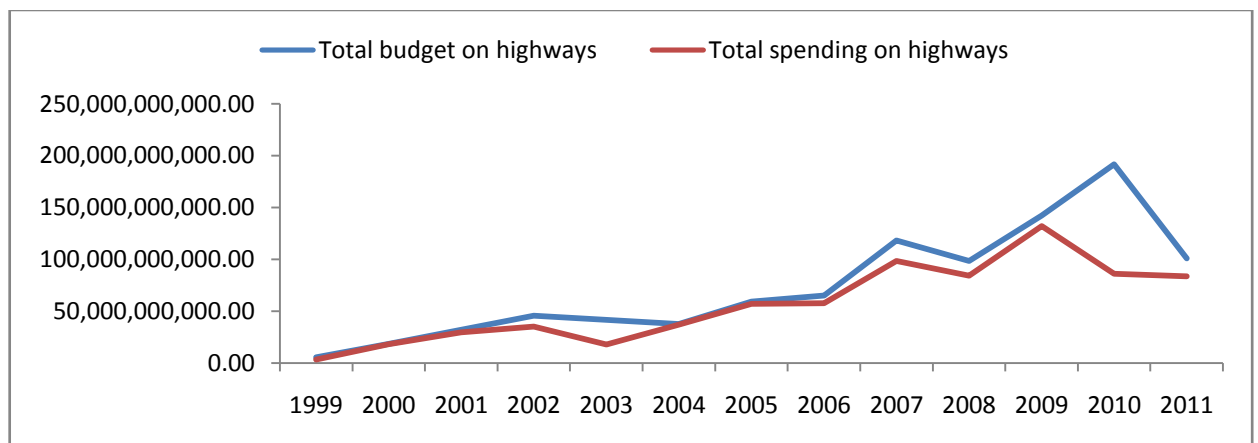


Figure 4.1: Trend showing, budget allocation and actual spending on highway construction and rehabilitation

The graph in figure 4.1 above shows the trend analysis for both total budget estimates and actual budget for the period 1999 to 2011 which clearly demonstrates that there has been increased spending on highway infrastructure over the period of this study.

The erratic nature of the budget projections and budget releases are likely to: a) increase project costs, b) reduce quality of output and c) increase risk of project abandonment.

Table 4.2 below shows the number of highway projects in the six geopolitical zones of Nigeria. A total of more than three hundred and seventy eight contracts for the construction and rehabilitation of highways across the country were awarded in 1999 to 2011. It is important to note that not all projects that were budgeted for received funds for work. The case study of this research work is illustrative of this problem.

4.2: Budget Estimates and Budget Releases for Highway Projects in the Geopolitical Zones

Table 4.2: Distribution of Federal Road Projects from 1999 to 2011 to each of the Six Geopolitical Zones of Nigeria

ZONE	NUMBER OF PROJECTS
NORTH CENTRAL	52
NORTH EAST	63
NORTH WEST	68
SOUTH EAST	57
SOUTH SOUTH	64
SOUTH WEST	74
TOTAL	378

Source: Federal Ministry of Works, Highway Rehabilitation and Construction, 1999 to 2011

The pattern of budget and fund releases to the six geopolitical zones of Nigeria namely North Central, North East, North West, South East, South South and the South West are

presented in Table 4.3. Budget allocation, budget releases, deviation between budget and releases and their percentage differences for each the zones are presented in Table A1 to Table A6 accordingly from the North Central zone to the South Western zone in appendix two of this work. Table 4.3 below provides a summary of items contained in Table A1 to Table A6. The South South zone received the highest budget allocation and budget releases of 485.4 billion Naira and 454.6 billion Naira. This implies that it has the lowest deviation. The South East zone received the least budget allocation and budget releases of 99.5 billion Naira and 82.3 billion Naira respectively. The regional average deviation range from -6.34% (South South) to 26.41% (North East). The data in Table A1 to A6 in appendix 2 also show that the budget allocation and budget releases do not show systematic pattern required for efficient completion of projects. Therefore, the likelihood of delays, high costs and incomplete projects is high.

Table 4.3: Summary of Total Budget Allocation, Budget Releases and Deviations between the two for Projects in the Geopolitical Zones from 1999 to 2011

Zones	Total budget(N)	Total releases(N)	Deviation(N)	Deviation (%)
North Central	117,542,370,632.57	104,500,622,381.32	-13,041,748,2421.25	-11.10
North East	193,127,307,977.20	142,126,862,860.29	-51,000,445,116.91	-26.41
North West	116,944,223,779.86	94,510,475,477.11	-22,433,748,302.75	-19.18
South East	99,472,188,386.89	82,288,848,528.58	-17,183,339,858.31	-17.14
South South	485,410,409,167.10	454,645,696,520.93	-30,764,712,646.17	-6.34
South West	102,412,525,047.90	75,841,660,938.11	-26,570,864,109.79	-25.94

Source: Federal Ministry of Works, 2012

4.3: Analysis of Output and Outcomes

In 1999, a total of 5,414,731,668.91 Naira was budgeted for the construction and rehabilitation of highways in Nigeria by the federal government and 3,346,192,410.74 Naira was released for spending and the physical road infrastructure in Nigeria as at that period was 194,394 km (NGA_Country_Meta_Data, 2011). In year 2011 however, 101,033,110,921.14 Naira was budgeted and 83,705,257,088.93 Naira was spent for highways construction and rehabilitation whereby road networks increased from 194,394 km to 198,000 km (Chidoka, 2011). One would expect the total road network to have grown more than 198,000 km between the two periods 1999 and 2011 when funds spent on projects are compared. The case is that, overall, the Nigeria road network is grossly inadequate and is in poor shape. From Table 4.1, of the 956.57 billion Naira budgeted, 740.72 billion Naira was released. The expansion in the road network in the period does not justify the budgetary releases. The poor state of some of the roads such as the Bida-Sacci-Nupeko-Pategi, Benin-Shagamu and Lagos-Ibadan roads suggest that many roads may have deteriorated between 1999 and 2011.

Therefore, the aggregate expenditure on roads infrastructure provision in Nigeria can be said to be unproductive. A case study of Bida-Sacci-Nupeko-Pategi federal road was chosen to show the manner in which funds were budgeted and released for spending and to ascertain the output and outcomes.

Table 4.4 below reveals that a total of 8.51 billion Naira was budgeted for the construction and rehabilitation of Bida-Sacci-Nupeko-Patigi highway from year 2000 to year 2011. However, only 2.14 billion Naira was released for spending.

It is also observable from Table 4.4 that although money was budgeted for the construction and rehabilitation of this particular federal road every year from year 2000

to 2011, fund was released for spending only from year 2002 to 2008. There was no spending for work on the road for years 2000 and 2001 and from year 2009 to 2011 respectively. The implication is that projects cost could increase, the quality of road is reduced and increase the risk of project abandonment. From the evidence, shown in the figures 4.3 to 4.13, the road is currently in very poor conditions and that the project has been abandoned.

Table 4.4: Actual spending and budget allocation on highway construction and rehabilitation, the case of Bida- Sacci- Nupeko- Pategi Road

	Total Budget (₦)	Total Spending(₦)	Total Deviation (%)
1999	0	0	0
2000	1,111,795,032.00	0	-100
2001	500,000,000.00	0	-100
2002	200,000,000.00	371,373,333.78	85.89
2003	400,000,000.00	250,000,000.0	-37.5
2004	350,000,000.00	463,658,722.92	32.47
2005	196,998,148.00	196,394,985.56	-0.31
2006	432,705,000.00	164,929,204.54	-61.88
2007	150,000,000.00	149,999,999.53	-3.13
2008	700,000,000.00	541,680,202.01	-22.62
2009	500,000,000.00	0	-100
2010	214,473,463.16	0	-100
2011	3,750,000,000.00	0	-100
Total	8,505,971,643.16	2,138,036,448.34	-

Source: Federal Ministry of Works, Highway Construction and Rehabilitation

Projects, Financial Information on Highway projects, 2012.

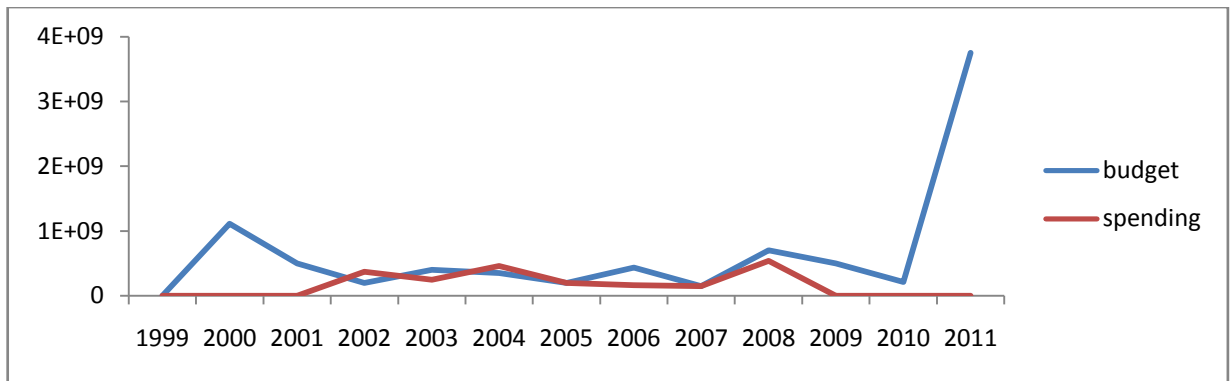


Figure 4.2: Actual spending and budget allocation to Bida-Sacci-Nupeko-Patigi federal highway

Source: Federal Ministry of Works, Highway Construction and Rehabilitation Projects, Financial Information on Highway projects, 2012.

Where: $4E + 09$ is 4×10^9

$3E + 09$ is 3×10^9

$2E + 09$ is 2×10^9

$1E + 09$ is 1×10^9

A tour on the road provided this study with information on the nature and condition of the road. Below are some graphics that were captured by the researcher during the field survey.



Figure 4.3: Journey begins on the road from Bida town in Niger State, heading toward Sacci-Nupeko –Patigi in Kwara state.



Figure 4.4: Out of Bida town, way to Sacci in Lavun local government area of Niger State



Figure 4.5: A very dilapidated portion of the road that requires complete rehabilitation



Figure 4.6: Abandoned working equipments said to belong to contractors found along the road



Figure 4.6: Dilapidated building said to have been dumped by workers on the road



Figure 4.7: A continuing decay of the pavement of the road



Figure 4.8: A small bridge found along the road that is almost submerged in water



Figure 4.9: Still on the way out of Sacci area of lavun local government of Niger state



Figure 4.10: A worsening situation seen on the road despite government's knowledge of the road shown by its consistent budget allocation to it.

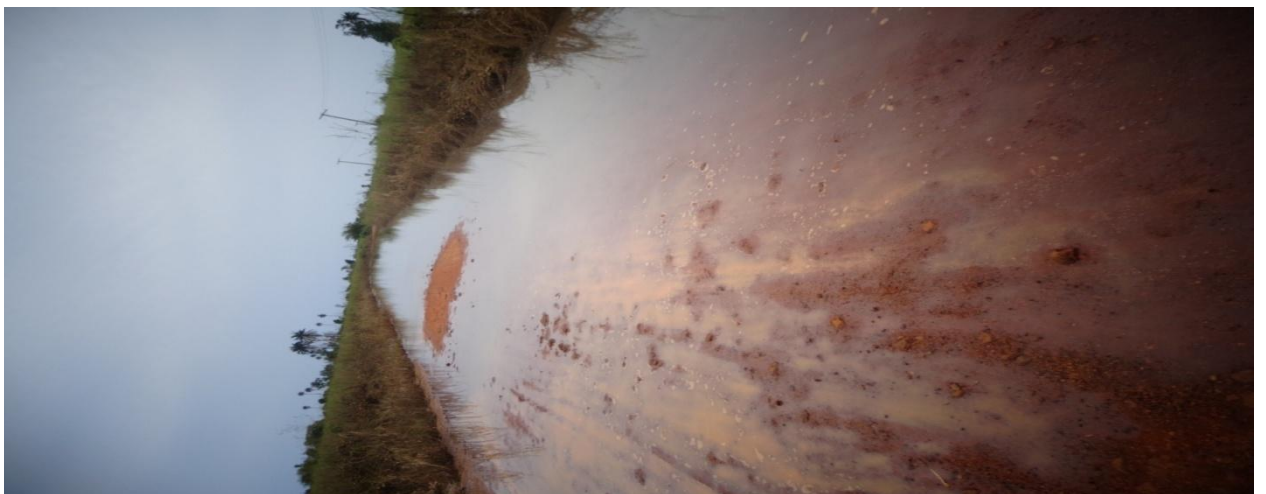


Figure 4.11: A major part of the road, being a marshy area gets gradually submerged in water at the start of the raining season.

At this junction, the road is heading towards Nupeko area but vehicles cannot be used any more.



Figure 4.12: As the rain continues to increase, the area, including the road and settlements around it get flooded with water.



Figure 4.13: When this happens, travelers as well as residents around this road find other means of transportation other than motor cycles, vehicles etc.

4.2.1: Evaluation of the Road (Bida-Sacci-Nupeko-Pategi) by a sample of Road Users

In order to have views of road users that travel on this road about its condition, questionnaires were administered on some of them. Thirty road users were sampled for this study, therefore, thirty questionnaires were issued and administered and all were returned and completed, giving 100% response information. However, there were a few no responses to some questions by some respondents. The data obtained is therefore presented in tables 4.4 to 4.10 below and analyzed to achieve the second objective of this study.

Tables 4.4, 4.5 and 4.6 show the socio-economic characteristics of the sample

Table 4.4: Socio-economic characteristics of Respondents

1. Income of respondents		
Variables	Frequency	Percent
No response	2	6.7
Less than #18, 000	11	36.7
#18, 000 to #30, 000	10	33.3
#31, 000 to #50, 000	6	20.0
#81, 000 to #120, 000	1	3.3
Total	30	100.0
2. Age of respondents		
	Frequency	Percent
No response	1	3.3
18-25yrs	6	20.0
26-35yrs	11	36.7
46-55yrs	10	33.3
above 55yrs	2	6.7
Total	30	100.0

Source: Field Survey, 2012

Majority of respondents (37%) earn below 18,000 Naira per month while about 37% fall within the economically active segment of the population, which is between 26-35 years old respectively. This is shown in table 4.4 above.

Table 4.5: Number of times travelled and purpose of travelling on the road

1. Number of times travelled on the road in a month		
	Frequency	Percent
not more than once	2	6.7
1-3 times	7	23.3
4-7 times	9	30.0
8-10 times	3	10.0
More than 10 times	9	30.0
Total	30	100.0
2. Purpose of traveling		
	Frequency	Percent
No response	2	6.7
Business/work	20	66.7
Visiting relatives/friends	5	16.7
Shopping	1	3.3
Sightseeing/ leisure	1	3.3
Others	1	3.3
Total	30	100.0

Source: Field Survey, 2012

Table 4.5 shows that in a month, 30% of the respondents travel as many as four to seven times while another 30% travel more than ten times in a month mostly for work or business purposes which covers about 66.7% of the respondents.

Table 4.6: Categories of vehicles used

	Frequency	Percent
No response	1	3.3
Trailer/truck/tanker	1	3.3
Bus	10	33.3
Taxi	8	26.7
Private car	5	16.7
Motorcycle	5	16.7
Total	30	100.0

Source: Field Survey, 2012

Table 4.6 shows that all categories of vehicles listed in the options made available to the respondents travel on the road. Most of the respondents were traveling either on a bus (33.3%) or a taxi (26.7) while others were travelling with their private cars and motorcycles. Only 3.3% used trailer/truck/tanker.

However, Tables 4.7, 4.8 and 4.9 show assessment of the road by a sample of road users

Table 4.7: Condition of the road, travelling time and delay in time experienced

1. Condition of the road		
	Frequency	Percent
Improved substantially	1	3.3
Improved marginally	1	3.3
Remained the same	6	20.0
Declined	18	60.0
Substantially declined	4	13.3
Total	30	100.0
2. How about travelling time on the road		
	Frequency	Percent
Reduced marginally	1	3.3
Remained the same	7	23.3
Increased	18	60.0
Increased substantially	4	13.3
Total	30	100.0
3. Delay in time		
	Frequency	Percent
1-30 minutes	10	33.3
31-60 minutes	14	46.7
1-2 hours	5	16.7
More than two hours	1	3.3
Total	30	100.0

Source: Field Survey, 2012

When asked about **the condition of the road** over the past five years, 60% of the respondents agreed that the condition of the road has not improved, rather it has declined thereby increasing their travelling times. Majority of respondents totaling 60% noted that **travelling time** has increased by about 36.7%. This result to **delay in time** of about 31-60 minutes experienced travelling to their various destinations according to 46.7% of the respondents.

Table 4.8: Quality of road surface and maintenance cost

1. Robbery or Theft incidences		
	Frequency	Percent
No response	1	3.3
Never	9	30.0
Rarely	16	53.3
A few times	1	3.3
Often	3	10.0
Total	30	100.0
2. How do you feel about the condition of the road?		
	Frequency	Percent
Fairly satisfied	6	20.0
Dissatisfied	17	56.7
Highly dissatisfied	7	23.3
Total	30	100.0
3. Quality of the road surface		
	Frequency	Percent
No response	1	3.3
Fair	5	16.7
Poor	19	63.3
very poor	5	16.7
Total	30	100.0
4. Maintenance cost of vehicles		
	Frequency	Percent

No response	1	3.3
Substantially decreased	1	3.3
Remained the same	4	13.3
Increased	11	36.7
Substantially increased	1	3.3
Total	18	60.0
System	12	40.0
Total	30	100.0

Source: Field Survey, 2012

Table 4.7 shows that, although accidents or armed robbery incidents rarely occur along this road, 56.7% of the respondents are dissatisfied with the condition of the road because of the insufficient road capacity. When the respondents were asked about the quality of the road, 46.7% attested to the fact that though the road is free from congestion, 63.3% of the respondents feel the road is of poor quality, another 53.3% feel the road has poor safety design which has increased the maintenance cost of their vehicles by about 36.7%.

Table 4.9: Construction or Rehabilitation works on the road

1. Have you seen any kind of road work on this road?		
	Frequency	Percent
no response	25	83.3
No	5	16.7
Total	30	100.0
2. Do you remember any sign explaining that there was work in progress?		
	Frequency	Percent
no response	25	83.3
No	5	16.7
Total	30	100.0

Source: Field Survey, 2012

Since the Federal government has been allocating funds for construction and rehabilitation of this road over the past ten years, respondents were asked if they have ever seen in the last five years any kind of road work or any sign explaining that there was work- in- progress, 16.7% of the respondents said they have not seen any sign explaining that there was work-in-progress or any kind of road work along the road. A larger percentage of the population chose not to respond to this question.

Table 4.10: Ways to improve on the road as suggested by the sample

	Frequency	Percent
No response	7	23.3
There should be checks and balances by the government to evade the menace of budget without implementation	2	6.7
Ensure proper execution of projects	3	10.0
Construct bridges at the water section of the road	3	10.0
Ensure adequate maintenance and contractors should resume site	6	20.0
Re-award contract to more competent contractors	5	16.7
Government should stop playing politics with the project and award contract to a better contractor	1	3.3
Put in place safety designs	2	6.7
Government should send supervision team to see the condition of the road	1	3.3
Total	30	100.0

Source: Field Survey, 2012

The poor condition of the road amidst consistent government budget and spending for the construction and rehabilitation of this yet to improve road, respondents were asked for opinion on what should be done and they suggested the following:

- i. Six point seven percent (6.7%) of the respondents suggested that there should be checks and balances by the government to evade the menace of budget without implementation.

- ii. Ten percent (10%) of the respondents suggested proper execution of projects.
- iii. Another 10% suggested construction of bridges at the water section of the road.
- iv. Twenty percent (20%) of the respondents suggested that adequate maintenance should be carried out on the road while contractors should also resume site.
- v. Sixteen point seven (16.7%) of respondents advised re-award of contract of the road to more competent contractors.
- vi. Three point three (3.3%) of the respondents argued that government should stop playing politics with the project and award contract to better contractors.
- vii. Another 3.3% of the respondents suggested that government should send a supervision team to see the condition of the road.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study evaluated the trend of government budget and spending on Nigeria's Federal roads from 1999 to 2011. This is to check for prudence in the administration of funds meant for the purposes of construction and rehabilitation of federal highways. Input-output-outcomes relation was used to check for the efficiency and effectiveness of government budget and spending. The analysis of the government expenditure on roads rehabilitation and construction for the period 1999 to 2011 showed that overall, actual spending always fell short of the budget estimates. The pattern of under releases of fund is erratic at project levels, at geopolitical levels and nationally.

The physical road infrastructure which is the output shows a national increase from 194,394 km to 198,000 km. A case study of Bida-Sacci-Nupeko-Pategi federal road which had had allocations in the annual budget consistently from year 2000 to 2011 showed actual releases only in 2003 to 2008. With the aid of structured questionnaire administered on road users travelling on Bida-Sacci-Nupeko-Patigi road and a personal tour on the road to get a better insight of the present situation on the road, findings revealed that as at 2012, the road was in a very bad state and apparently the project has been abandoned.

5.2 Conclusion

Inefficiencies in government budget allocation and spending, therefore, affects efficiency in provision of physical road infrastructure as well as effectiveness of outcomes. The weakness in the budgetary process weakens the input-output and output-outcome relations. The erratic releases and under releases tend to increase project cost, reduce project quality and increase risk of project abandonment.

5.3 Recommendations

Given the very important place of road transportation in our everyday life, the state of road infrastructure needs to be kept in good condition. Budgetary allocations as well as actual spending on highway construction and rehabilitation need to be efficient and effective. The study recommends an improvement in the budget process; this could be done by specifying the spending plans for road infrastructure projects and budget discipline in fund releases. This study also recommends further studies in the area of evaluation of public spending on capital projects. The Federal Ministry of Works and all the stakeholders involved in road provision should ensure proper monitoring and evaluation of projects awarded yearly to ensure efficient and complete execution. This can be done through supervision of project sites by professionals in the field of road building at regular intervals until works are completed. This is to curtail the problem of spending without results. This would also check substandard use of materials.

REFERENCES

- Abdulkareem, Y. A. and Adeoti, K. A. (2004). Road Maintenance and National Development NSE "Technical Transactions, A Publication of the Nigerian Society of Engineers (NSE) Vol. 35 No. 3, July - Sept. Edition Lagos, Nigeria.
- Aderamo, A. J. and Magaji, S. A (2010). Rural Transportation and the Distribution of Public Facilities in Nigeria: A Case of Edu Local Government Area of Kwara State. *J Hum Ecol*, 29(3): 171-179 (2010)
- Aderibigbe, S. O. (2009). Strategies and Consequences of Budgetary Reforms in Nigeria. Nigerian Institute of Social and Economic Research (NISER), Ibadan
- Adesoye, A. B., Maku, O. and Atanda, A. (2010). Dynamic Analysis of Government Spending and Economic Growth in Nigeria. *Journal of Management and Society Vol.1, No. 2, pp. 27-37, 2010 Edition*
- Adewakun, A., Ayomide, O., Gbola S., Shola, A., Dachi, M. and Dele, A. (2010). Poor State of Roads and the 1.438 trillion Expenditure, Nigerian Tribune web team. <http://www.tribune.com.ng/index.php/complete-business-package/8705-poor-state-of-roads-and-n1438-trn-expenditure>. © 2004 - 2011. African Newspapers of Nigeria Plc
- Akinbobola, T. O. and Saibu, M. O. O. (2004). Income Inequality, Unemployment, and Poverty in Nigeria: A Vector Autoregressive Approach'. *Policy Reform*, 7 (3): 175-83.
- Akinsoye, M. (2010). Infrastructure Development in Nigeria Road Map To Sustainable Development. Working Paper.
- Apu, O.J.R. and Owoicho, J.A. (1998). The Trainer, *Journal of the Nigerian Institute of Transport Technology (NIIT) Zaria. Vol.1, No.3.*
- Aschauer, D.A. (1989). Is Public Expenditure Productive? Unpublished, Federal Reserve Bank of Chicago, March 1988.
- Ahmed, M. (2010). "Infrastructure Development for Nigeria- "The PPP Imperative", Africa Investor Infrastructure Projects Awards
- Ahmed, M. (2011). "Addressing Infrastructure Deficit in Northern Nigeria". Infrastructure Concession Regulatory Commission (ICRC)
- Ajiboye, A. O. and Afolayan, O. (2009). The impact of transportation on Agricultural production in developing country: *a case of Kola-nut production in Nigeria*". *International Journal of Agricultural Economics and Rural Development*
- Bamidele, S. A. quoted in John, O. E. (1998). Rural Road Transport: The Nigeria experiences in Transport a developmental Catalyst, published by TRANEC Nig ltd May 1998

- Bertrand, C., Gilbert, C. and Christophien, H. (2009). Network effects and Infrastructure Productivity in Developing Countries. World Bank Policy Research Paper 3808.
- Bhatia, H.L. (2002). Public Finance, 25th Edition, Vikas Publishing House, PVT Ltd, India.
- Boopen, S. (2006). Transport Infrastructure and Economic Growth: Evidence from Africa Using Dynamic Panel Estimates. *The Empirical Economics Letters*, 5(1): (January 2006) ISSN 1681 8997.
- Bouygues Travaux Publics, 2011. Infrastructure Funding Model & Experiences.
- Budget Office of Nigeria, Federal Ministry of Works, 1999 to 2012. Twitter @ budgIT, You Can Request for Budget Files.
- Canning, D. and Pedroni, P. (1999). Infrastructure and Long-Term Economic Growth. Consulting Assistance on Economic Reform II Discussion Papers Discussion Paper 57
- Carolyn, O. (2003). Linkages between Infrastructure and Economic Growth. Pinnacle Research, prepared for the Ministry of Economic Development.
- Central Bank of Nigeria Infrastructure Finance Conference 2010 Ladi kwali hall, Sheraton Hotels & Towers, Abuja, Nigeria 6th-7th December, 2010.
- Central Bank of Nigeria (2003). Highway Maintenance in Nigeria: Lessons from Other Countries. Research Department Occasional Paper, No. 27. www.cenbank.org/out/publication/re-2003
- Calderón, C. and Servén, L. (2004): “Trends in Infrastructure in Latin America”, World Bank Policy Research Working Paper 3401.
- Cesar, C., Enrique, M. and Luis, S. (2011). Is Infrastructure Capital Productive? A dynamic heterogenous approach, The World Bank 1818 H street NW, Washington DC 20433, USA Bank of Spain.
- Chidoka, O. (2011). Successes and Challenges of a Lead Agency and the Multisectoral Nature of Road Safety.
- Chris, O. (2011). FERMA targets N10 billion revenue annually from IVTC, ©2012 Vanguard Media.
- Concord City, 2012. Performance Based Budgeting. City of Concord 1950 Park Side Drive Concord, CA94519 (925) 671-3178.
- Darrin, G. and Mervyn, K. L. (2000). Evaluating the Risk of Public Private Partnership for Infrastructure Projects, *International Journal of Project Management Volume 20 (2002) 107-118*.

- David, C. (1999). Infrastructure and long-run Economic Growth. Consulting Assistance on Economic Reform II Discussion paper 57” Experts’ Meeting: Promoting and Financing Transport.
- Ebenazar-Uzor, S. (2011). Nigerian Road Infrastructure: Options for Transformation. *Zenith Economic Quarterly, Application of Zenith Bank Plc, Volume 6 No.1, Jan. 2011.*
- Engel, E., Ronald, F., Alexander, G., Yale and NBER U. de Chile U. de los Andes (2009). “On the Efficient Provision of Roads” Paper prepared for the Project Development Workshop on Varieties of Governance: Effective Public Service Delivery, that was held in Kuwait.
- Federal Government of Nigeria Draft National Transport Policy, 2010.
- Federal Ministry of Works, Highway Construction and Rehabilitation Projects, Financial Information on Highway Projects 1999 to 2011.
- Federal Roads Maintenance Agency (FERMA) (2012). Historical Background © 2012 Federal Roads Maintenance Agency (FERMA).
- Filani, M. (2002) quoted in Oni S. I. (2009). Nigeria’s Transport Infrastructural Development: an integral part of the National Economic Empowerment and Development Strategy (NEEDS).
- Francis, G. I. O. and Andrew, G. O. O. (1995). Transportation and the Nigerian Space Economy, Published by the *Benin Social Science Series for Africa*, page 29.
- Frischmann, M. B. 2005: “An Economic Theory of Infrastructure and Commons Management Bepress Legal Series paper no. 609, Loyola University Chicago, School of Law.
- Garba, A. G. (2007). The Implications of the Fiscal Responsibility Act for Sub-National Governments. Draft Paper1 Prepared for the Fiscal Policy Capacity Building Initiative Governors’ Retreat on the Theme Interactive Policy Retreat on Pro-Poor Fiscal Policy and Budget Management, Held At Sheraton Hotel and Towers Abuja, Nigeria.
- Getachew, N. (2005): “Analysis of Medium Term Expenditure Planning and Budget Allocation in Ethiopia” A Thesis Submitted to the Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirement for the Degree of Master of Arts in Regional and Local Development Studies (Rlds).
- Glen, W. (2007). Models to Predict the Economic Development Impact of Transportation Projects: Historical Experience and New Applications. published in *Annals of Regional Science*.
- Heller, P. S. (2009). Do Demographic Factors Influence Investment in Infrastructure? Conference paper on Population, Reproductive Health, and Economic Development in Dublin.

- Hite, N. (2006). Measuring Regional Variation of Corruption Induced Efficiency in Public Roads Construction, using German Data.
- Hulten, C. R. (2004). Transportation Infrastructure, Productivity and Externalities, University of Maryland and National Bureau of Statistics Research.
- Infrastructure in Africa: Infrastructure Promotion in Africa 2005/2006 edition. OECD Development Centre.
- Infrastructure in Africa, Policy Brief Number 2, 2010.
- Infrastructure Finance Conference, Nigeria, 2010
- Inoni O. E. and Omotor D. G. (2009). Effect of Road Infrastructure on Agricultural Output and Income of Rural Households in Delta State, Nigeria. *Agricultura Tropica Et Subtropica Volume 42 (2) 2009*.
- Ishola, R. A. (2008). Budget and Budgetary Control for Improved Performance: A Consideration for Selected Food and Beverages Companies in Nigeria. *European Journal of Economics, Finance and Administrative Sciences ISSN 1450-2275 Issue 12 (2008) © EuroJournals, Inc. 2008 <http://www.eurojournalsn.com>*
- Jean, P. R. (2011) . Transportation and Economic Development. Copy right 1998-2011. Department of Global Studies and Geography, Hofstra University.
- Jerry, U. (2011). Framework for policy consistency in the budget
- Kabir, A. (2011). “Funding our Major Challenge”. *FERMA Digest Volume. 1 No. 4*
- Kalakkech, K. and Wadad, S. (2009). The nature of government expenditure and its impact on Sustainable Economic Growth.
- Lakshmanan, T. R. and William, P. A. (2002). Transportation Infrastructure, Freight Services Sector and Economic Growth: A Synopsis. Center for Transportation Studies Boston University.
- Luis, S. and Cesar, C. (2004). The Effects of Infrastructure Development on Growth and Income Distribution, World Bank Policy Research working Paper No. 3400.
- Madu, O. (2011). Nigerian Logistics Infrastructure: Challenges & Prospects. Supply chain articles.
- Mamatzakis, E. C. (2002). Public Infrastructure and Private Output: An application to Greece. *Journal of Economic Development, Vol. 27, December, 2002*.
- Marc, R. and Duncan, L., (2009). A Basic Model of Performance Based Budgeting. Technical Notes and Manuals 09/01.
- Muyiwa, A. (2010): Infrastructure Development in Nigeria: Road map to Sustainable Development. Working Paper presented at the Infrastructure Consultancy Firm, Greenhill Technical Services Ltd.
- National Transport Policy Paper, 1993.

- NIGERIA: National Economic Empowerment and Development Strategy (NEEDS), 2004.
- Nigeria Country Meta Data (Nigeria_Country_Meta_Data_en_Excel) 1960 to 2010.
- Nigerian Transport Handbook and who's Who International, Second Edition Published by Media Research Analysts for the Federal Ministry of Transport and Communication.
- Nigeria Vision 20: 2020, 2009. Economic Transformation Blueprint
- OECD (2004). "Enhancing the Effectiveness of Public Spending: Experience in OECD countries", Economic Department Working Papers No 380.
- OECD (2007). "Public Spending Efficiency: Institutional Indicators in Primary and Secondary Education", Economic Department Working Paper No 543.
- Ogun, T. P. (2010). Infrastructure and poverty Reduction: Implication for Urban Development in Nigeria. Working paper No. 2010/43, United Nations University. UNU-WIDER World Institute for Development Economic Research.
- Ohia, U. (2011). Infrastructure Concession in Nigeria: Challenges and Opportunities. Centre for Leadership. A Paper Presented at the 5th National Diaspora Conference 2011 Diaspora Day Held at the Congress Hall, Transcorp Hilton Hotel, Abuja, 25th-27th July, 2011, Accountability & Productivity Owerri, Imo State.
- Oni, S. I. (2004). Nigeria's Transport Infrastructural Development: and integral part of the National Economic Empowerment and Development Strategy (NEEDS).
- Onyekpere, E. (2010). The 2010 Federal Appropriation Bill and the Fiscal Responsibility Act.
- Oseyi, T. A. (2006). Maintenance of Federal Roads in Nigeria Present Status and Future Prospects
- Oyesiku, O.O. 2002. "From Womb to Tomb" 24th Inaugural Lecture, Olabisi Onabanjo University, Ago-Iwoye, Ogun State.
- Peter, J. M. (2011). "Infrastructure services for Private Sector Development". Document of the World Bank, Report Number 53726-NG
- Peter, P. E. (2011). A Map of Nigeria showing Roads and Railways. http://www.waado.org/nigerdelta/nigeria_facts/nigerianmaps/Nigeria_Roads.html.
- Phillips, J. (2007). Line-item Budgeting. World Bank Budgeting Information http://www1.worldbank.org/wbiep/decentralization/Topic10_Intro.htm.
- Pravakar, S. (2010). "Infrastructure Development and Economic Growth in China" Institute of Developing Economies, JETRO.

- Robert, J. S. and Kevin, A. H. (2005). *Healthy Returns: Economic Impact of Public Investment in Surface Transport*.
- Robinson, M. and Last, D. (2009). *A Basic Model of Performance Based Budgeting. Technical Notes and Manuals*.
- Sangwam, S.S. (2010). "Infrastructure for Agricultural Development", National Bank for Agricultural Development and Rural Development, Mumbai.
- Santosa, W. and Joewono, T. B. (2005). *An Evaluation of Road Network Performance in Indonesia, Proceedings of the Eastern Asia Society for Transportation Studies, Volume 5, PP 2418 - 2433, 2005*.
- Satish, P. (2006). "Rural Infrastructure and Growth", A key Note paper in the 66th annual Conference of Indian Society of Agricultural Economics, Nov. 8-10. Meghalaya, India.
- Shrestha, B. (2008). *An Analysis of the Structure and Pattern of Budget of Nepal, a Thesis Submitted to the Central Department of Economics, Tribhuvan University, Kirtipur, Kathmandu, Nepal in Partial Fulfillment of the Requirements for the Degree of Masters of Arts in Economics*.
- Stephen, J. S. (1993). "Transport strategy and policy p.63. Blackwell publishers, 108 Cowley Road, Oxford, OX4 1JF, UK.
- Taliercio, R. and Philippe, L. H. (2002). *Medium Term Expenditure Frameworks: from concept to practice. Preliminary lessons from Africa, African Region Working paper no. 28*.
- The Eddington Transport Study, Main Report, Volume. 15.
- The Global Competitiveness Report 2010-2011.
- The World Bank Group, 2001, 2006.
- Thirlwal, A.P. (1994). *Growth and Development with special reference to Developing Economies. Fifth edition, Macmillan Press Ltd, p.160*.
- Ulrike, M., Adrian, D. and Fabienne, I. (2008): *The efficiency and Effectiveness of Public Spending. ISBN 978-92-79-08226-9 doi: 10.2765/22776 © European Communities, 2008*
- Umoren, V., Ikurekong, E. E., Emmanuel, A and Udida, A. A. (2009). *Development of Road Infrastructure as a Tool of Transforming Ibiono Ibom Local Government Area. Global Journal of Social Sciences Volume 8, No. 2, 2009: 53-59*.
- Vivien, F. and Nataliya, P. (2011). *Nigeria's Infrastructure: A continental Perspective. Policy Research Working Paper No. 5686 of the World Bank, Sustainable Development Department*.

Weisbrod, G. and Reno, A. (2009). Economic Impact of Public Transportation Investment. Report prepared for American Public Transportation Association as part of TCRP Project J-11. Task 7, Transit Cooperative Research Program.

World Bank Project Approval Document, 2011.

http://www.photius.com/countries/nigeria/economy/nigeria_economy_roads.html.

www.dawodu.com/igbuzor1.htm.

<http://www.motherlandnigeria.com/geography.html>.

APPENDIX 1: QUESTIONNAIRE

QUESTIONNAIRE FOR ROAD USERS TRAVELING ON BIDA-SACCI-NUPEKO-PATEGI FEDERAL HIGH WAY

1. Occupation of Respondent a) student b)farmer c)trader/businessmen d) c/servants/public servant e)driver

2. Education of Respondent _____

3. Income of Respondent, what is your monthly income?

(a) Less than #18,000 (b) #18, 000 to #30,000 (c) #31,000 to #50,000 (d) #51,000 to #80,000 (e) #81,000 to #120,000 (f) More than #120,000

4. Age: (a) 18-25 yrs (b) 26-35 yrs (c) 36-45 yrs (d) 46-55 yrs (e) Above 55 yrs

5. Sex: (a) Male (b) Female

6. Category of Vehicle used:

(a) Trailer/ Truck/ Tanker (b) Bus (c) Taxi (d) Private Car (e) Motorcycle (f) Police/ Fire/ Ambulance/ Emergency vehicles (g) Tractor/ Agricultural vehicles (h) Light commercial vehicles (small Lorries, pickup etc) (i) Others (specify_____)

7. Category of respondent

(a) Driver (b) Staff on Vehicle (c) Passenger (d) Owner (e) Owner-cum-driver

8. How many times do you travel on this road in a month?

(a) Not more than once (b)1-3 times (c) 4-7 times (d) 8-10 times (e) More than 10 times

9. What is mainly your purpose of traveling on this road?

(a) Business/ work/ Official/ job-related/ Horticulture/agriculture related movements (b) Visiting relatives/friends (c) Shopping (d) Sight-seeing/ touring/ leisure (e) others

10. In your opinion has the condition of this road improved in the last five years?

It has...

(a) Improved substantially (b) Improved marginally (c) Remained same (d) Declined somewhat (e) substantially declined

11. During the last five years, has traveling time between particular places you travel to frequently on the road reduced or increased?

(a) Substantially reduced (b) Reduced marginally (c) remained same (d) Increased somewhat (f) Increased substantially

(Q12 & Q13 are not for passengers)

12. Due to the condition of this road, has the fuel consumption of your vehicle declined or increased?

(a) Substantially decreased (b) Decreased somewhat (c) remained same (d) Increased somewhat (e) substantially increased

13. Due to the condition of this road, has overall maintenance cost of your vehicle increased or decreased?

(a) Substantially decreased (b) Decreased somewhat (c) remained same (d) Increased somewhat (e) substantially increased

14. How satisfied are you with the condition of this road?

(a) Highly satisfied (b) Somewhat satisfied (c) Fairly satisfied (d) Somewhat dissatisfied (e) Highly dissatisfied

15. How congested is this road? (Congestion means reduced traffic- speed due to overcrowding of vehicles)

(a) Absolutely free from congestion (b) Somewhat free (c) Not free

16. What do you think about the width of this road? Is it adequate for traffic plying on the road?

(a) Very adequate (b) Adequate (c) fairly Adequate (d) Inadequate (e) Very inadequate

17. Have you seen any kind of roadwork (road construction, maintenance etc) (*if no, go to question Q19 and if yes to Q18*),

(a) Yes (b) No

18. Do you remember any sign explaining that there was a work-in-progress?

(a) Yes (b) No

19. What do you think about the quality of road-surface, smoothness and surface appearance on this road?

(a) Very good (b) Good (c) fair (d) Poor (e) Very poor

20. How often do accidents occur on this road? (a) Daily (b) very often (c) often (d) rarely

21. What are the causes in your opinion? (a) Recklessness of the driver (b) pot holes (c) drug abuse (d) bad condition of the vehicle

22 How convenient is it to access the settlements like work places/ residence/ shops/ schools/ hospital etc with `the help of this road?

(a) Very convenient (b) Convenient (c) fairly convenient

(d) Inconvenient (e) Very inconvenient

23. How satisfied are you with the overall condition and maintenance of this road?

(a) Highly satisfied (b) Somewhat satisfied (c) fairly satisfied (d) Somewhat dissatisfied (e) Highly dissatisfied

24. On an average, how much delay do you experience on this road?

(a) No delay (b) 1-30 minutes (c) 31-60 minutes (d) 1-2 hours (e) More than 2 hours

25. What are the reasons for the delay in time?

a. Volume of traffic b. Accidents c. Road works/ maintenance d. Wrong parking
e. Uncompromising driver's f. Insufficient road capacity/narrow stretches

26. How safe do you feel while commuting on this road?

(a) Very safe (b) Somewhat safe (c) unsafe

(d) Somewhat unsafe (e) Very unsafe

27. (*If response to above is 'd' or 'e'*, ask) why do you feel unsafe on these roads? (**Record Verbatim**)

28. Have you ever experienced theft/ robbery on this road?

(a) Never (b) Rarely (c) A few times (d) Often (e) Very often

29. What do you think about safety design on this road, such as bends?
(a) Very good (b) Good (c) fair (d) Poor (e) Very poor

30. *if the response to above is 'd' or 'e', what should be done to improve this? (Record Verbatim)*

31. How do you find availability and accessibility of police posts/ Police patrolling vehicles on this road?
(a) Very easy (b) Easy (c) Difficult (d) Very difficult

Thank You & Have a Wonderful and Safe Journey

**APPENDIX 2: BUDGET ALLOCATION AND ACTUAL RELEASES TO THE
GEOPOLITICAL ZONES FROM 1999 TO 2011**

Table A1 NORTH CENTRAL ZONE

	North Central Budget	North Central releases	Deviation(₦)	Deviation(%)
1999	547,496,755.60	255,120,663.00	(292,376,092.60)	-53.40
2000	718,770,876.64	509,747,221.05	(209,023,655.59)	-29.08
2001	3,732,000,000.00	5,025,766,752.70	1,293,766,752.70	34.67
2002	5,208,060,000.00	6,004,122,727.55	796,062,727.55	15.29
2003	2,110,000,000.00	3,164,126,584.84	1,054,126,584.84	49.96
2004	7,524,262,777.00	6,574,407,319.79	(949,855,457.21)	-12.62
2005	8,455,671,008.08	8,199,614,565.95	(256,056,442.13)	-3.03
2006	7,535,716,679.00	12,732,718,136.40	5,197,001,457.40	68.96
2007	17,467,946,093.43	19,713,788,769.68	2,245,842,676.25	12.86
2008	9,190,000,000.00	8,039,113,202.90	(1,150,886,797.10)	-12.52
2009	21,227,367,542.00	18,012,334,407.79	(3,215,033,134.21)	-15.15
2010	21,420,656,762.82	6,940,295,426.67	(14,480,361,336.15)	-67.60
2011	12,404,422,129.00	9,329,466,603.00	(3,074,955,526.00)	-24.79
TOTAL	117,542,370,623.57	104,500,622,381.32	(13,041,748,242.25)	-11.10

Source: federal Ministry of Works, 2012

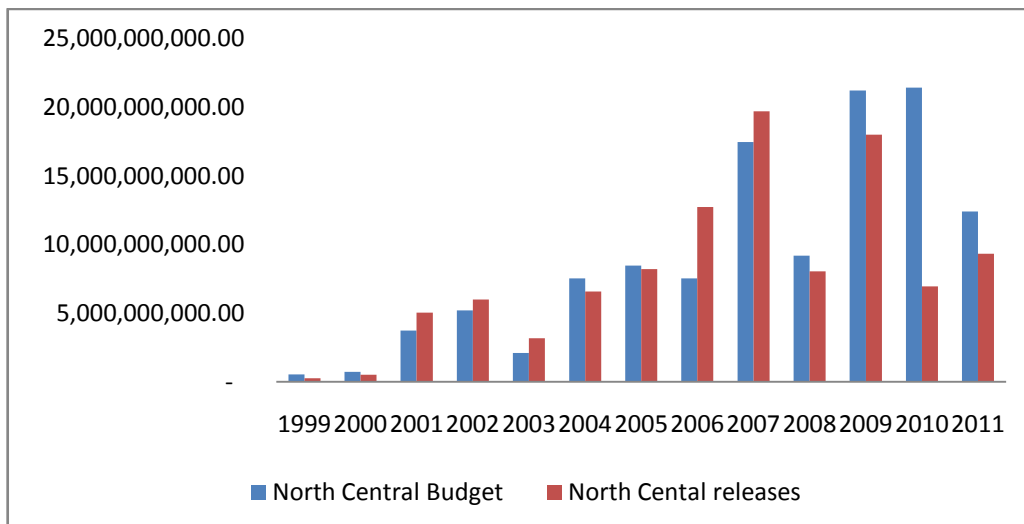


Figure A1

Table A2 NORTH EASTERN ZONE

	North East Budget	North East Releases	Deviation(₦)	Deviation(%)
1999	890,000,000.00	1,273,989,937.51	383,989,937.51	43.14
2000	4,158,279,769.00	3,427,681,671.85	(730,598,097.15)	-17.57
2001	6,925,000,000.00	3,342,495,197.37	(3,582,504,802.63)	-51.73
2002	6,950,000,000.00	3,343,830,112.41	(3,606,169,887.59)	-51.89
2003	5,740,000,000.00	1,634,632,251.63	(4,105,367,748.37)	-71.52
2004	7,589,118,257.00	6,530,883,513.09	(1,058,234,743.91)	-13.94
2005	6,660,396,453.00	7,800,198,545.79	1,139,802,092.79	17.11
2006	10,640,653,495.00	9,845,588,346.10	(795,065,148.90)	-7.47
2007	21,750,220,825.98	18,612,926,272.27	(3,137,294,553.71)	-14.42
2008	13,951,330,511.00	7,712,615,072.27	(6,238,715,438.73)	-44.72
2009	32,579,680,074.00	28,925,231,006.79	(3,654,449,067.21)	-11.22
2010	51,147,284,001.22	31,068,252,646.36	(20,079,031,354.86)	-39.26
2011	24,145,344,591.00	18,608,538,286.85	(5,536,806,304.15)	-22.93
TOTAL	193,127,307,977.20	142,126,862,860.29	(51,000,445,116.91)	-26.41

Source: Federal Ministry of Works, 2012

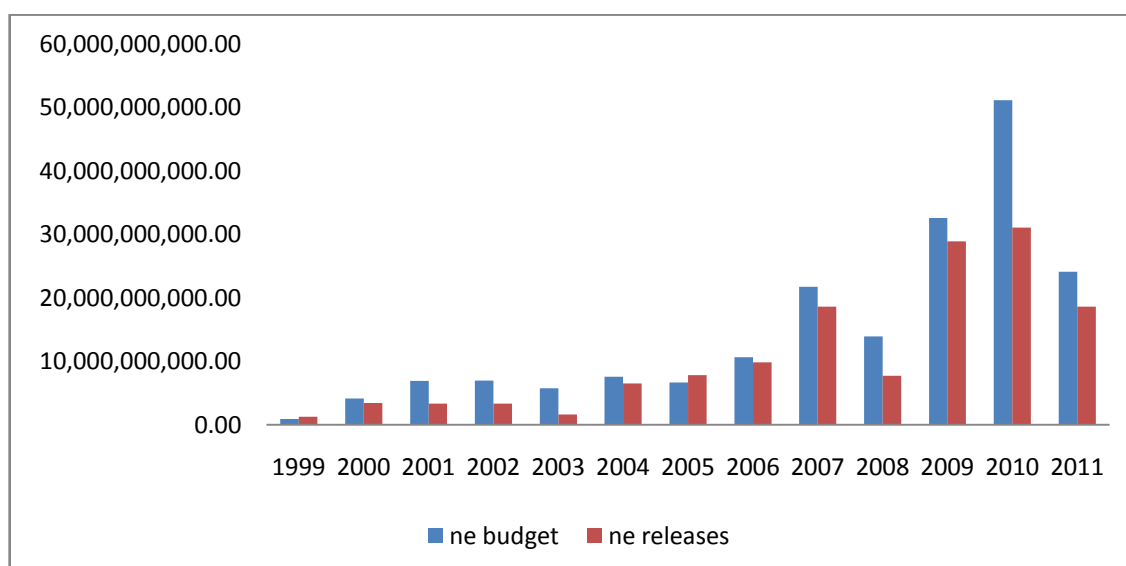


Figure A2

Table A3 NORTH WESTERN ZONE

	North West Budget	North West Releases	Deviation(₦)	Deviation(%)
1999	640,000,000.00	640,000,000.00	-	0
2000	7,014,005,332.31	3,690,000,000.00	(3,324,005,332.31)	-47.39
2001	3,690,000,000.00	4,209,985,973.97	519,985,973.97	14.09
2002	7,918,634,000.00	6,989,322,731.16	(929,311,268.84)	-11.74
2003	3,336,472,953.00	797,693,778.64	(2,538,779,174.36)	-76.09
2004	5,146,128,098.00	4,971,875,210.40	(174,252,887.60)	-3.39
2005	10,622,367,919.02	9,846,687,684.22	(775,680,234.80)	-7.30
2006	11,125,922,679.00	11,018,562,916.89	(107,359,762.11)	-0.96
2007	12,661,274,828.09	11,939,700,642.42	(721,574,185.67)	-5.70
2008	11,091,151,671.00	8,842,810,071.25	(2,248,341,599.75)	-20.27
2009	16,705,759,322.00	15,328,694,682.48	(1,377,064,639.52)	-8.24
2010	18,714,279,797.92	9,170,742,269.89	(9,543,537,528.03)	-51.00
2011	8,278,227,179.52	7,064,399,515.79	(1,213,827,663.73)	-14.66
TOTAL	116,944,223,779.86	94,510,475,477.11	(22,433,748,302.75)	-19.18

Source: Federal Ministry of Works, 2012

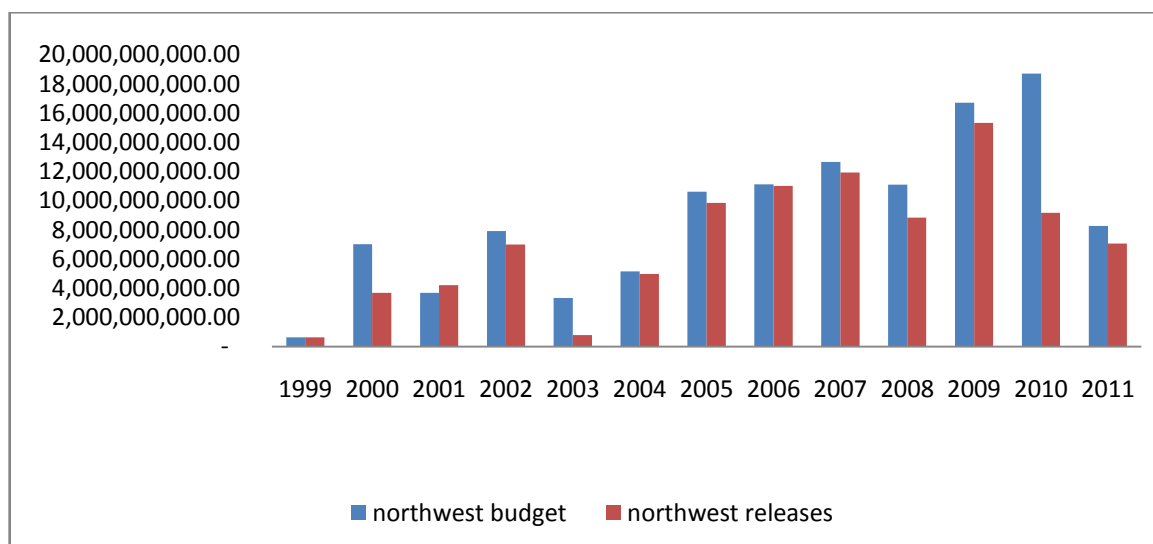


Figure A3

Table A4 SOUTH EASTERN ZONE

	South Eastern Budget	South Eastern Releases	Deviation(₦)	Deviation(%)
1999	1,001,000,000.00	1,001,000,000.00	-	0
2000	2,436,817,219.00	2,806,356,308.28	369,539,089.28	15.16
2001	4,020,000,000.00	4,965,314,334.67	945,314,334.67	23.52
2002	9,653,974,000.00	7,158,550,344.91	(2,495,423,655.09)	-25.85
2003	4,324,467,047.00	4,544,131,723.59	219,664,676.59	5.08
2004	6,283,339,271.34	7,055,828,998.15	772,489,726.81	12.29
2005	12,626,054,982.23	12,074,768,005.77	(551,286,976.46)	-4.37
2006	10,264,916,829.00	9,383,008,501.72	(881,908,327.28)	-8.59
2007	10,967,690,608.06	6,238,648,021.27	(4,729,042,586.79)	-43.12
2008	12,280,447,384.93	7,153,328,407.06	(5,127,118,977.87)	-41.75
2009	14,991,112,533.00	14,965,464,732.96	(25,647,800.04)	-0.17
2010	7,741,100,281.59	2,756,048,596.48	(4,985,051,685.11)	-64.40
2011	2,881,268,230.74	2,320,120,490.31	(561,147,740.43)	-19.48
TOTAL	99,472,188,386.89	82,422,568,465.17	(17,049,619,921.72)	(17.14)

Source: Federal Ministry of Works, 2012

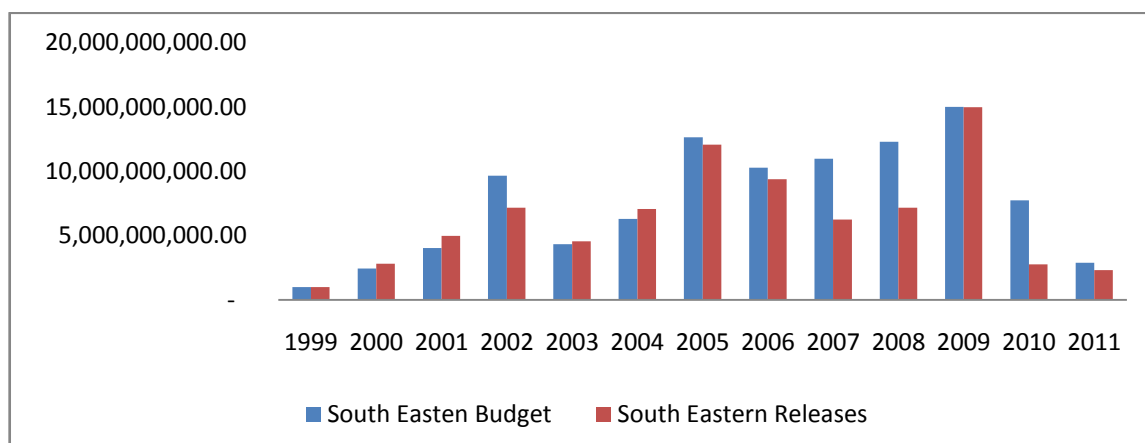


Figure A4

Table A5 SOUTH SOUTH ZONE

	South South Budget	South South Releases	Deviation(₦)	Deviation(%)
1999	1,158,757,058.36	1,158,757,058.36	-	0
2000	5,138,279,769.00	4,284,940,110.08	(853,339,658.92)	-16.61
2001	17,883,599,835.49	20,304,323,670.79	2,420,723,835.30	13.54
2002	27,205,183,772.74	26,077,258,664.03	(1,127,925,108.71)	-4.15
2003	29,152,318,553.95	27,633,611,194.85	(1,518,707,359.10)	-5.21
2004	31,023,730,085.19	30,848,123,035.28	(175,607,049.91)	-0.57
2005	32,703,866,831.26	32,426,805,156.37	(277,061,674.89)	-0.85
2006	35,891,598,909.47	36,332,640,801.50	441,041,892.03	1.23
2007	48,637,171,765.47	60,749,297,616.53	12,112,125,851.06	24.90
2008	77,975,359,188.42	82,819,016,113.65	4,843,656,925.23	6.21
2009	87,708,374,437.62	70,961,268,593.04	(16,747,105,844.58)	-19.09
2010	62,012,880,413.60	36,564,800,362.21	(25,448,080,051.39)	-41.04
2011	28,919,288,546.53	24,484,854,144.24	(4,434,434,402.29)	-15.33
TOTAL	485,410,409,167.10	454,645,696,520.93	(30,764,712,646.17)	-6.34

Source: Federal Ministry of Works, 2012

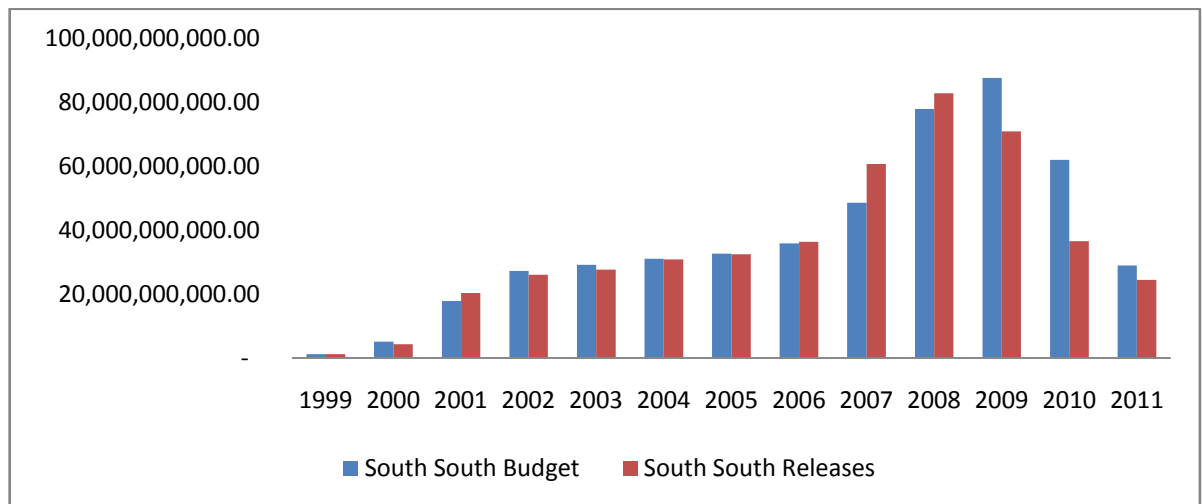


Figure A5

Table A6 SOUTH WEST ZONE

	South West Budget	South West Releases	Deviation(₦)	Deviation(%)
1999	2,309,794,350.56	1,151,037,292.20	(1,158,757,058.36)	-50.1671094
2000	2,289,743,153.00	2,387,772,221.04	98,029,068.04	4.281225513
2001	4,550,000,000.00	3,254,483,233.60	(1,295,516,766.40)	-28.472896
2002	7,160,835,000.00	4,873,175,492.93	(2,287,659,507.07)	-31.9468261
2003	10,195,000,346.00	2,377,188,497.95	(7,817,811,848.05)	-76.6828012
2004	5,414,376,734.74	6,087,337,302.09	672,960,567.35	12.4291419
2005	9,427,870,230.14	9,765,127,966.69	337,257,736.55	3.577242032
2006	11,135,782,961.00	9,888,998,941.95	(1,246,784,019.05)	-11.1961954
2007	12,096,620,001.00	7,192,609,185.03	(4,904,010,815.97)	-40.5403395
2008	8,890,464,681.61	6,574,406,619.23	(2,316,058,062.38)	-26.051035
2009	8,222,915,443.85	5,603,065,058.48	(2,619,850,385.37)	-31.8603591
2010	12,763,592,159.00	9,769,656,087.62	(2,993,936,071.38)	-23.4568453
2011	7,955,529,987.00	6,916,803,039.30	(1,038,726,947.70)	-13.0566656
TOTAL	102,412,525,047.90	75,841,660,938.11	(26,570,864,109.79)	(25.94)

Source: federal Ministry of Works, 2012

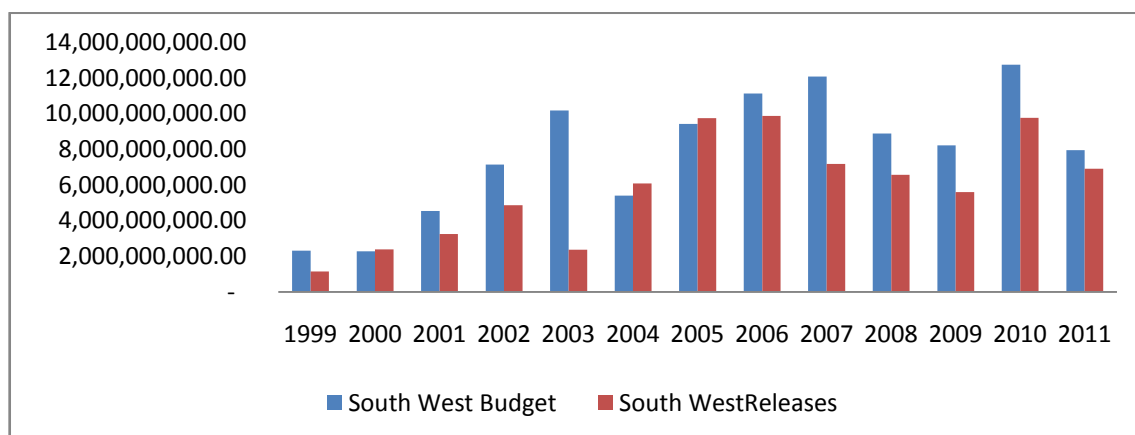


Figure A6