

REVIEW OF THE PERFORMANCE OF THE GHANA ROAD FUND FROM 2000 – 2008

BY

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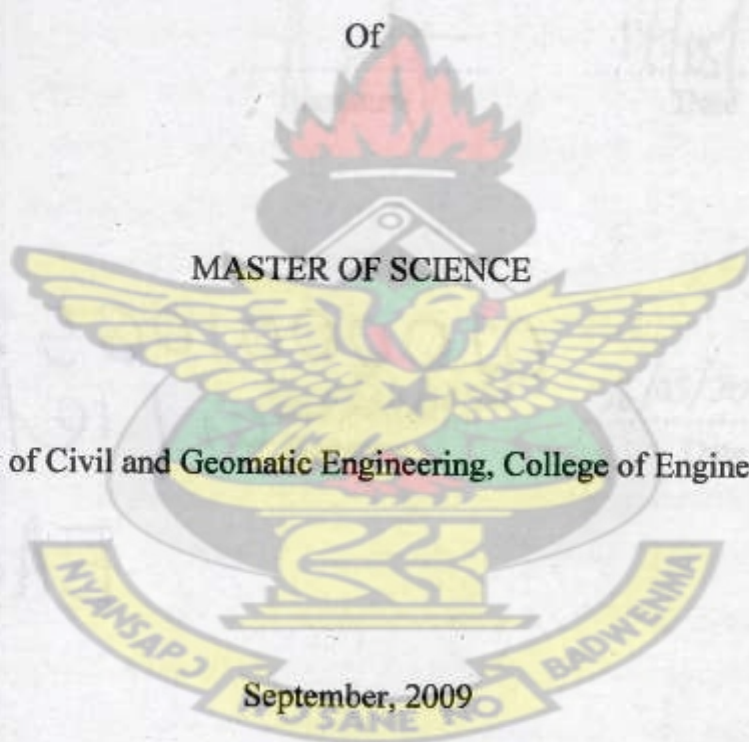
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DECLARATION

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ABSTRACT

The Ghana Road Fund was set up under the Road Fund Act (Act 536) of 1997 to generate sustainable funding for road maintenance. Sources of revenue for the fund were specified in the law to include levies of fuel (both diesel and petrol), road and bridge tolls, international transit fees, road user fees and vehicle registration fees. Over the years, several millions of dollars have been disbursed by the fund. However, the continuing poor state of vast sections of the road network would suggest that more needs to be done. This study was designed to assess the overall performance of the fund during the period 2000-2008 in relation to the revenues, procedures for disbursement to agencies, disbursement, agency budgets and budget compliance. The main data collection was done through questionnaire survey of Road Agency's Heads and from staff of the Ministry of Roads and Highways as well as officers of the Road Fund Secretariat. Analysis was carried out using the SPSS software. The results showed that a total of US\$ 661.25M had been mobilized over the period 2000-2007, out of which US\$524.89M were disbursed directly to the agencies for road maintenance works with the rest of the amount being used for road safety and other operational expenses of the Board. The amount translates into annual revenue of US\$82.66M. In real terms actual amount has remained relatively stable with all the revenue generating instruments declining with the exception of the fuel levy which has seen a consistent growth over the period. The single most important revenue source of the Road Fund is the fuel levy which accounts for over 93% of the entire Road Fund revenue. Although the law requires that disbursement of the funds to road agencies should be based on the condition of the road network, maintenance requirement, length of the road network and traffic, there is no clear cut objective criteria for the disbursement of funds to the agencies. Generally, disbursement of funds can cater for less than 70% of the funding requirement of the road agencies which means that over 30% of the maintenance needs of the road agencies are not being catered for. Overall, while it can be said that the coming into being of the RF Act in 1997 has brought about a certain degree of stability in the funds for road maintenance, it is obvious that more work needs to be done by RF administrators and the Road Agencies because of the large sections of poor roads in Ghana.

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LIST OF ABBREVIATIONS

DFR	Department of Feeder Road
Dir.	Director
DUR	Department of Urban Road
DVLA	Driver Vehicle License Authority
ER	Eastern Region
Exe.	Executive
F/A	Finance and Administration
GHA	Ghana Highway Authority
GRFS	Ghana Road Fund Secretariat
HDM-4	Highway Development and Management Tools
LPG	Liquefied Petroleum Gas
MPBS	Maintenance Performance Budgeting System
MRT	Ministry of Road and Transport
MT	Monitoring Team
Mtce.	Maintenance
NRB	National Roads Board
PMMP	Pavement Management Maintenance Programme
Reg.	Regional
RED	Road Economic Development Model
RF	Road Fund
RFA	Road Fund Administrators
RFB	Road Fund Board
RMF	Road Management and Financing
RMI	Road Maintenance Initiative
RMLF	Road Maintenance Levy Fund
RPM	Road Prioritization Methodology
RSDP	Road Sector Development Programme
SPSS	Statistical Package for the Social Scientist
SSA	Sub-Saharan Africa
SSATP	Sub-Saharan African Transport Programme

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CHAPTER ONE

INTRODUCTION

1.1 Background to the establishment of the Ghana Road Fund

The Ghana Road Fund was first established in 1985 with the goal of creating a secured source of funding for road maintenance. Until January 1997, the Fund was managed by the Ministry of Finance as part of government revenue. As a result of difficulties arising from the management of the fund (primarily related to weak capacity, absence of user participation, and lack of public support for user charges), the government, under the Highway Sector Investment Program, restructured the Fund so that it could operate "according to sound accounting principles", involving road users in Fund management, providing a comprehensive legal framework by an appropriate Act of Parliament and providing a professional Secretariat (Kumar, 2000).

In August 1997, the Parliament of Ghana established the Road Fund Act (Act.536) to regulate the conduct of the Road Fund. Under this law, the primary objective of the fund is "to finance routine, periodic maintenance and rehabilitation of public roads in the country". Under the Act, a management Board for the Fund known as the Road Fund Management Board was established to manage and administer the Fund. A permanent Road Fund Secretariat was put in place, effective from January 1997, as part of the Road Fund Board organization. The Thirteen-member Board established under the law has five members from the public sector and eight members from the private sector.

1.2 Problem Statement

From the period 2000-2007 the Ghana Road Fund Board generated more than US\$661.25M which were disbursed to the Road Agencies for road maintenance activities. Despite the increase in resource allocation to the Road Agencies:

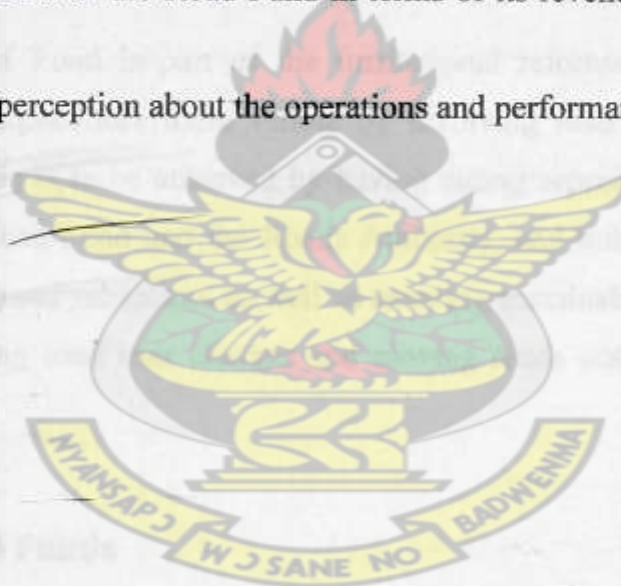
Target road condition mix set by the Ministry of Roads and Highways for the three (3) road Agencies (DFR, DUR and GHA) from 2000 to 2008 were not met.

The purpose of the review was therefore to identify the significant problem(s) among the reasons cited for the poor road network condition in Ghana despite the increase in resource allocation to the Road Agencies by the Road Fund over the period under review.

1.3 Research Objectives

The overall objective of the study was to review the performance of the Ghana Road Fund between 2000 and 2008. The specific objectives were;

1. To review the funding requests of the different Road Agencies, the basis of the requests and the extent to which they were met by the Road Fund in the period 2000- 2008.
2. To assess the performance of the Road Fund in terms of its revenue base and expenditure over the period of review.
3. To seek stakeholders' perception about the operations and performance of the Ghana Road Fund.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The creation of the Road Fund is part of the institutional reforms aimed at making the road maintenance needs and expenditure more visible by involving road users in the ownership and management of roads. This is to be achieved by having strong representation of road users in the oversight boards of the Road Fund and the Roads Authority, and informing the general road user about development in the road subsectors as well as ensuring sustainable flow of resources for road maintenance by introducing road user charges and moving roads outside the budget and treating them like a business.

2.2. Evolution of Road Funds

Most of the First Generation Road Funds were setup during the 1960s and 1970s in Africa, Asia and Latin America. More recent ones were set up in Eastern Europe during the early 1990s. The term "first generation road fund" generally refers to road funds which have no oversight board, rely on earmarked revenues not always related to road use, are typically managed by the national road agency, have no published financial rules and regulations, and are not subject to independent technical and financial audits. As a result, most of these earlier Road Funds have actually closed down e.g. in Russia or had their institutional and managements reviewed e.g. Gabon, Madagascar and Burundi (Kumar, 2000).

The Road sector reforms championed by the Road Management and Financing towards the end of 1980s were intended to address these weaknesses as well as to enhance road management efficiency (Brushett, 2005). Under the umbrella of the Road Management Initiative (RMI), the notion of a Road Fund was brought back into focus, but this time as part and parcel of a comprehensive approach to road sector reform under which roads were to be managed like a business and where

users would play a much stronger role than hitherto in the management of road maintenance. It was proposed that users actually pay on a fee-for-service basis for the use of roads, the argument being that users might even be prepared to pay a higher charge (compared to equivalent taxes) if they could be certain that the funds generated would be used for road maintenance (not a guarantee under the 'first generation' Road Fund).

Emerging from this process is the so called "second generation" Road Fund. A critical dimension of this form of Road Fund was the creation of a specific legal and institutional framework which would assure proper management of the funds and accountability to users and government. "Second Generation" Road Funds are thus governed by specific legislation which sets out the roles and responsibilities of a Representative Management Board to oversee operations and a secretariat to manage the business of the Road Fund on a day-to-day basis. The legislation has generally sought to set up an institution, which has a unique mandate for securing resources and channeling these funds to mandated road agencies. The Second Generation Road Fund has become a significant feature of sector reform programs and strategies for improving road maintenance in at least a half of the countries of SSA (Kumar, 2000).

2.3 Key characteristics of the second generation Road Fund

The key characteristics of the second generation Road Fund as presented by Heggie and Vickers, (1998) include the following:

1. Sound legal basis- separate Road Fund Administration, clear rules and regulations.
2. Agency which is a purchaser not a provider of road maintenance services.
3. Strong oversight- broad based private/public board.
4. Revenue incremental to the budget, coming from charges related to road use and channeled directly to the Road Fund bank account.
5. Sound financial management systems, lean efficient administrative structure.
6. Regular technical and financial audits.

2.3.1 Sound Legal Basis

The design stage of road funds is critical in meeting the main criteria of second-generation road funds and the six criteria stated above should be used as the guiding principles when drafting the road fund legislation. The reviews of a database on road funds legislation produced under the 2004

RMF/SSATP work program show that a number of road funds were poorly designed and are far from meeting second generation road funds conditions (SSATP, 2004). The legislation falls short in addressing the following principals.

- i. Administration autonomy
- ii. Financial autonomy
- iii. Regular auditing

More autonomy is one of the cornerstones of a more commercial approach to road management and financing. Road Funds and Road Agencies' managers cannot behave commercially until they are able to operate without interference in day-to-day management. The first step to achieve this is usually to amend the road sector legislation to enable the Road Fund to operate at arm's length from government.

2.3.2 Agency which is a purchaser not a provider of road maintenance services

The separation between the purchaser (the Road Fund) and the service providers (Road Departments and Agencies) is fundamental when developing sound road sector reforms. This principle is often ignored and sometimes deliberately so when drafting the Road Fund legislation. The main reason for wanting to do this is Road Fund Boards tend to accumulate too many conflicting responsibilities, which often include funding, planning and managing road works. In such cases, they act both as the customer for the services provided, as well as the provider of those services. This creates an obvious conflict of interest, which weakens financial discipline and compromises efforts to control costs and maintain quality.

2.3.3 Strong oversight board

The Road Fund should have a Road Fund Board, where users' representatives constitute the majority of members. Board members are nominated by their constituencies who intend elect an independent chairperson. It is also recommended that there should be procedures for adjusting the road user fees to cover the expenditure needs and the Board should be able to recommend such changes to policy makers. The Board should eventually have powers to set its own tariff within guidelines laid down by the Ministry of Finance.

2.3.4 Revenues incremental to the budget and coming from road user charges

Second generation Road Funds are in principle expected to depend on road user charges for their revenues and to be largely independent of direct treasury funding (general taxation). In practice, this has not always proved to be the case and for a number of road funds such as in Ethiopia and Benin road user charges are less than 50% of all resources. Fuel levy has normally been the most important and consistent source of user funding, though the returns from some countries in SSA as shown in Table 2.1 suggest that efforts to diversify towards vehicle license fee, transit fees, overloading fines and road tolls are having some effect (Kumar A., 2000)

Table 2.1 Breakdown of Road User Charges (%)

Country	Fuel levy	Road tolls	Transit fee	Vehicle license fee	Overloading fees	Total
Chad	61	6.5	32	0	0.5	100
Benin	52	43	5	0	0	100
Namibia	75	0	5	20	0	100
Burundi	60	24	0	16	0	100
Lesotho	67	25*	0	8	0	100
Mali	75	0	25	0	0	100
Rwanda	62	2	36	0	0	100

Source: RMI-Matrix, 2006

**Includes revenue collected at tollgates on all vehicles leaving Lesotho and short-term permit fee on foreign trucks entering Lesotho.*

2.3.5 Sound financial management systems, lean efficient administrative structure

The chairman should be a person of standing and the Board should be supported by a small secretariat headed by a Manager appointed by the Board. The secretariat is responsible for the day-to-day management of the Fund along commercial lines. The Road Fund should be managed according to sound commercial principles. It should have clear disbursement procedures and funds disbursed should be subject to an independent financial audit and a selective technical audit.

2.3.6 Regular technical and financial audits.

Most Road Funds carry out independent technical and financial audits but the audits are not always budgeted for internally and not undertaken regularly. There are still road funds that rely on external funding to carry out financial and technical audits. The terms of references of audits cover in general the review of the appropriateness of financing and operating procedures and the daily management of road funds .

As part of the literature review, this report also looked at the operations of Second Generation Road Funds in Benin, Ethiopia, Kenya, and Zambia. The choice of countries was influenced by:

- i. Continuity in the existence of second-generation Road Funds for at least five years, even though the institutional arrangements in some of these countries are still evolving.
- ii. Diversity in the institutional arrangements presenting an instructive comparison and
- iii. Availability of data

While all countries have not moved at the same pace, they have progressed to various stages to introduce institutional and financial reforms, in the spirit of the RMI. The specific circumstances faced by each country defy generalizations and make it necessary to evaluate the progress in the context of the original design, national priorities, and objective achievements.

The review is conducted in three (3) sections. First, the institutional and management structure of the Road Funds in each of these countries is evaluated. Second, the revenue generation instruments are analyzed including adequacy, stability and performance monitoring of the flow of funds. Third, the objective achievements are evaluated, as measured by the impact of the fund.

2.4 Experience of Road Fund Management in Other Countries

2.4.1 Benin

2.4.1.1 Institutional/Management Structure

The Road Fund (RF) in Benin was established by a decree in August 1996 as a separate “government entity for road maintenance funding”. The RF is legally and financially autonomous and has a separate account. The Road Fund Board (Management Committee) is composed of nine members, of which four are from Central Ministries, three represent user groups (Agricultural

Chamber, Commercial Chamber and Transport Organization) and two represent transport operators (Driver organization). The Board president and vice president are appointed from among the committee members for two years; the current president is from the public sector. The Road Fund Board is accountable to the Supreme Management Administration (Review Council, "Conseil de Revue") consisting of one representative from the Ministry of Planning and Economic Restructuring and two Donor Representative (Kumar, 2000).

The Road Fund (RF) Board is supported by a Secretariat consisting of three professional staff—Director contracted by the Board for a three years renewable period, Accountant and Management Controller selected and contracted by the Director also for a renewable three year period. The primary function of the Board is to:

- i. Implement RF global policy as laid down by the Review Council
- ii. Receive financial evaluation reports
- iii. Propose and justify changes to RF levels
- iv. Manage controls, audit and inspections

The Director is responsible for executing decisions made by the Review Council and Management Committee on a day to day basis and manages RF disbursement.

2.4.1.2 Revenue Generating Instruments

The sources of the RF are:

- i. Allocated resources
 - Vehicle use tax
 - Gasoline tax
 - Road tax
 - Value Added Tax(customs)
 - Agricultural and mines products tax
- ii. Own resources
 - Concessions payments(tolls and weight control)
 - Investment returns
- iii. Subventions
 - From the state

- From donors
- iv. External contributions
- v. Grants
- vi. Local loans

The fuel levy is set currently at US cent 5/litre for both petrol and diesel.

2.4.1.3 Impact of the fund

The RF has provided a secured and stable flow of funds to the Central Road Agency. Coverage of routine maintenance is 100% whilst coverage of total maintenance is 59%. The partitions of funds among the various Road Agencies are:

Main Roads-96.4%,

Rural Roads-1.3% and Urban Roads-0.3%.

2.4.2 Ethiopia

2.4.2.1 Institutional/Management Structure

The Ethiopian RF Administration (RFA) was established by proclamation as an autonomous body in March 1997 with the goal of financing road maintenance work of Road Agencies. The primary function of the RFA include: administer the fund, issue directives to define collection and disbursement procedures, review annual road maintenance programmes of the Road Agencies and offer advice on coordinating design of the programmes, submit annual proposals to the government of programmes to be financed by the fund and allocate the funds, review management reports of the Road Agencies, initiate financial and technical audits and road safety related activities, make recommendations to the government for additional revenue sources and level of tariff required to finance road maintenance programmes and advise government on policy matters (Kumar A. 2000).

The RF consists of fifteen members—the chairperson and four members are federal government representatives, six are regional and municipality representatives and four are from the private sector. The Board members are selected by appointment for a fixed term of two years. They hold regular quarterly meetings and are governed by the Board's directive on procedures and code of

conduct. The current chairman is the Minister of Works and Urban Development. The private sector is represented by a freight transport owner's representative, liquid cargo transport owners' representative, and passenger transport owners' representative.

2.4.2.2 Revenue Generating Instrument

The revenue generation instruments of the RFA consist of the following:

- i. Government budget
- ii. Fuel levy
- iii. Vehicle license renewal fee
- iv. Overloading fine and
- v. Other road tariffs

The fuel levy is set currently at US cent 8.8/litre for petrol and US cent 6.8/litre for diesel.

2.4.2.3 Impact of the fund

The funds available to the RFA allow the entire road network in the country to be routinely maintained, though not with the same frequency and intensity as planned by the Road Agencies. This is a considerable improvement from the past when most of the road network suffered from a neglect of routine maintenance. Coverage of routine maintenance is 100%.

2.4.3 Kenya

2.4.3.1 Institutional/Management Structure

The Board was established in July 2000 and consists of a chairman and an executive director, five Permanent Secretaries of the relevant ministries and seven members nominated from: the Institution of Engineers of Kenya, the National Chambers of Commerce and Industry, the Institute of Certified Public Accountants of Kenya, the Automobile Association of Kenya, the Institute of Surveyors of Kenya, the Kenya National Farmers Union, the Kenya Association of Tour Operators, and the Kenya Transport Association. The chairman was appointed from the private sector. (Kumar, 2000).

The Board shall review, individually, the annual roads programme which, after approval of the Roads Minister and the Minister of Finance shall form the basis of funds allocation and auditing of

works by the Board. At least three months prior to commencement of each financial year, the Board is expected to prepare estimates of the revenue and expenditures of the Board for that year. Within four months from the end of each financial year, the Board is expected to submit to the Auditor-General the accounts of the Board. The Board is expected to keep the public informed of its activities and operations through regular publications.

2.4.3.2 Revenue Generating Instrument

In order to raise the revenue required for funding the maintenance of the road network, a Road Maintenance Levy Fund (RMLF) was enacted in 1993 and introduced in June 1994. The fund derives its revenue from a levy on the sale of diesel and gasoline as well as charges levied of foreign registered transit vehicles. The levy fund replaced the system of road tolls. The fuel levy is currently set at US cent 8.0/ litre for both petrol and diesel.

2.4.3.3 Impact of the fund

Traditionally, periodic maintenance works were executed by contract (70%) and force account (30%) and routine maintenance was carried out by force account units of the department, using equipment-intensive methods. Inadequate funding over the past decade has caused substantial deterioration in the performance of force account maintenance establishment, with the gangs not having the necessary equipment, materials, tools, and transport to be effective. Coverage of routine maintenance is 50% whilst coverage of total maintenance is 55%. The partitions of funds among the various Road Agencies are Main Roads-57%, Rural Roads-28% and Urban Roads-10%.

2.4.4 Zambia

2.4.4.1 Institutional/Management Structure

The National Roads Board (NRB) was established in 1994 by regulation under a Ministerial Order to administer and manage the Road Fund for maintenance and rehabilitation of roads. NRB is composed of eleven members, of whom seven are from the private sector and road user's groups, representing the Chartered Institute of Transport, Chambers of Commerce and Industries, Engineering Institution, Automobile Association, Transporter's Associations, National Farmers' Union and University. Permanent Secretariat or their nominees represent the public sector from

Ministries of Communications and Transport, Work and Supply, Local Government and Housing, and Finance and Economic Development. The representatives of government ministries have no vote and the Board chooses its own chairman and vice-chairman, currently represented by the Chartered Institute of Transport and Zambia Chambers of Commerce and Industries respectively. The Board of Directors of NRB is appointed by the Minister of Communications and Transport. The Board reports to a Committee of Ministers comprising the Minister of Transport and Communications (chairperson), Minister of Works and Supply, Minister of Local Government and Housing, and Minister of Energy and Water Development.

The NRB is supported by a Secretariat, consisting of eight staff in the functional areas of administration, procurement, engineering, and finance. The Secretariat is assisted by the Management Support Service team, consisting of two permanent consultants and two part-time consultants. The Secretariat is headed by the executive secretary, who is a fellow of the Chartered Institute of Transport, with over 30 years of experience. The salary structure of the Secretariat staff is competitive with the private sector. The National Roads Board (NRB) was established with the specific objective of administering the RF. The key functions of the NRB include the following:

- i. Ensuring public roads are maintained and rehabilitated as required at all times
- ii. Raising the required funds for adequate maintenance and rehabilitation of public roads and
- iii. Advising the Committee of Ministers on, inter alia, the preparation and efficient implementation of annual roads programme

The NRB recommend road tariff, allocate funds to executing agencies, and provide advice on setting standards, classifying roads and advising on creation of highways authorities to act as executing agencies for the work funded by the RF. (Kumar, 2000).

2.4.4.2 Revenue Generating Instruments

The main revenue generation instruments of the NRB are:

- i. Fuel levy
- ii. Vehicle license fee
- iii. International transit tolls
- iv. Weight bridge fees/fines

The fuel levy is currently set at US cent 7.65/litre for petrol and US cent 8.30/litre for diesel.

2.4.4.3 Impact of the fund

The NRB has instituted procedures for contract management, monitoring contract proposals and disbursement. The adopted policy is to carry out normal or "steady state" maintenance on all roads that are in good or fair condition and for those roads in the network not considered to be in good or fair condition, routine maintenance will be applied to keep these roads in motorable condition. Through participation of local contractors in tendering for road works, average cost per kilometer has been reduced by more than 20% over the last three year.

In addition, a community initiated cost sharing road improvement scheme has been introduced to involve local communities in the management of road networks for their own development. One important development during 1999 was the launching of road maintenance projects through community cost-sharing initiative. Coverage of routine maintenance is 100% whilst coverage of total maintenance is 30%. The partitions of funds among the various Road Agencies are Main Roads-50%, Rural Roads and Urban Roads-50%.

2.5 The Ghana Road Fund Law (Act 536)

The Road Fund Act (Act 536) was passed by the parliament of Ghana in 1997 to establish the Road Fund Board with the main aim of addressing the shortfall in the financing gap in the Road Maintenance through the development of local capacity to fund maintenance on a sustainable basis in Ghana.

The object of the Road Fund law (Act 536) of 1997 is to finance routine and periodic maintenance and rehabilitation of public roads in Ghana. The Fund is also to be used to assist the Metropolitan, Municipal and District Assemblies in the exercise of their functions relevant to public roads under any enactment.

2.5.1 The Charges on the Road Fund

The Road Fund Law (Act 536) of 1997 Section 11 says that "charges on the Fund shall be disbursed on:

1. Routine and periodic maintenance of road and related facilities.

2. Upgrading and rehabilitation of roads.
3. Road safety activities.
4. Selected road safety projects and
5. Such other relevant matters as may be determined by the board.

2.5.2 The Composition of the Board

The Ghana Road Fund Board is composed of the following persons appointed by the president.

1. The Minister for Roads and Highways or his representative who shall be the chairman.
2. The Minister for Finance or his representative.
3. The Minister for Mines and Energy or his representative,
4. The Accountant-General or his representative.
5. The Minister for Local Government and Rural Development or his representative.
6. Two persons nominated from outside the Ministry of Roads and Highways by the minister and
7. One representative from each of the following organizations nominated by the organization concerned;
 - a. The Association of Road Contractors.
 - b. The Ghana Private Road Transport Union.
 - c. The Ghana Private Enterprise Foundation.
 - d. The Ghana Road Haulage Association.
 - e. The Ghana Institute of Engineers and
 - f. The Ghana National Association of Farmers and Fishermen (Crops).

The Chief Director of the Ministry of Roads and Highways is secretary to the board. The secretariat is located at the Head Office Complex of the Department of Urban Roads, Accra.

It is headed by a Director who is supported by a Deputy Director Finance and Administration, three engineers, three Accounting and financial staff, two administrative staff, four drivers and one office assistant.

2.5.3 The Revenue Generating Instruments of the Road Fund

Prior to 1985, road maintenance was funded from the Consolidated Fund. The level of funding was so inadequate that roads continued to deteriorate due to irregular and insufficient releases and inadequate financial management system.

2.5.4 Data Collection

In 1997, a second generation Road Fund came into being through a Road Fund Law (Act 536). This established a Board with private and public sector participation. The Act specified the derivation of funds from levy on fuel (petrol and diesel), road use fees, road tolls, bridge tolls, ferry tolls and international transit fees. By the end of 2008, the fuel levy for both diesel and petrol in Ghana stood at US cents 6.39 per liter.

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CHAPTER THREE

METHODOLOGY

3.1 Data Collection

The data collection consisted of the collection of both primary and secondary data.

3.1.1 Primary Data Collection

1. The primary data collection involved the administration of questionnaires to both Senior Road Managers of the three Road Agencies (DUR, DFR and GHA) as well as Road Fund Administrators at the Ministry of Roads and Highways (MRH). Funding for road infrastructure in Ghana is mainly driven by the Central Government. Fourteen (14) different set of questionnaire were design and administered to the above stakeholders who are the key drivers in the road industry in Ghana. The objective was to solicit their views on the management of the Road Fund as it impacts on the activities of the road agencies. Sample of the questions which were administered to the Road Agencies included:
 2. Are the Routine and Periodic Maintenance programmes of your Road Agency driven by any strategic objective?
 - a. Yes
 - b. No
 3. Is the strategic combination of the Routine and Periodic Maintenance programmes of your Road Agencies Informed By any management tools?
 4. If the Answer to Question 3 is Yes, state the management tool (s) used by your Road Agency for the purpose of this combination. ?

Sample of the questions which were administered to the Road Fund Administrators included:

5. Reasons for the lack of update of rates of the revenue generating instruments
6. How is the annual budget allocation to the various Road Agencies decided and
7. Causes of budget overruns on the part of the various Road Agencies.

The questionnaires were administered using purposive sampling. That is, the sampling was done with a purpose in mind and with specific predefined groups. The criteria for the sampling were based on technical know-how.

Tables 3.1 and 3.2 show the breakdown of sample size for both Road Fund Administrators and Road Agencies from the ten regions and other senior policy makers of the MRH.

Table 3.1 Composition and sample of interviewees of Road Fund Administrators

Targeted Persons	No. of Persons
Chief Director(MRH)	1
Director (Road Fund Board)	1
Dep. Director F/A (Road Fund Board)	1
Engineers	3
Accounting Staff	3
Immediate Former Director(Road Fund Board)	1
Immediate Former Minister for Road and Highway	1
Total	11

Table 3.2 Composition and sample of interviewees of Road Agencies

Road Agency & MRH	Targeted Persons	No. of Persons	Head Quarters	No. of Persons
DFR	Reg. Manager	10	Director	1
			Dep. Dir. Planning	1
	Dep. Reg. Manager	10	Dep. Dir. Dev.	1
			Dep. Dir. Mtce.	1
			Principal Eng(s).	4
DUR	Metro Engineer	10	Director	1
	Dep. Metro Engineer	10	Dep. Dir. Plan/Dev.	1
			Dep. Dir. Mtce.	1
			Principal Eng(s).	2
GHA	Reg. Director	10	Chief Exe.	1
	Mtce. Manager	10	Dep. Chief Exe. F/A	1
			Dep. Chief Exe. Dev.	1
			Dep. Chief Exe. Mtce	1
			Principal Eng(s).	1
MRH	Director Monitoring Evaluation	1		
	Director Human Resource	1		
Total		62		18
Grand Total	62 + 18 = 80			

3.1.2 Secondary Data Collection

The secondary data collection was done through:

- i. Review of published documents including programmes and expenditure and of the three Road Agencies (DFR, DUR and GHA) and audited accounts of the Ghana Road Fund from 2000-2007.

3.2 Data Entry Using SPSS

After collecting the data from the various Road Agencies and Road Fund administrators, the SPSS (Statistical Package for the Social Scientists) tool was used to analyze the questionnaire.

The first window which displays upon launching the software is the Data Editor Window, which is the window that holds all the data for the various analyses to be done. In this window, are two views: the Variable View and the Data View.

Coding of the questionnaire questions is done in the Variable View and the responses for each of the questions in the questionnaires are entered into the Data View section of the Data Editor Window. In the variable view of the Data Editor Window, are columns representing the variable Name, the Type, the Width, Decimals, Label, Values, Missing, Columns, "Align" and Measure. The variable "Name" section holds the unique ID to the particular question; a phrase or word which represents the question.

The "Type" displays the mode of entry in the data view section. Numeric is usually chosen for responses coded in the numeral system with the width displaying the extent to which a response could be. The "Decimals" allows the configuration of the decimal place values of the responses with the "Label" being a longer description of the question unlike the Variable "Name". The "Values" column allows one to code the responses and the Missing; for assigning numbers to missing responses in the questionnaires. Align indicates the position while measure allows one to choose the level of measurement of the particular data; be it Nominal (categorical), Ordinal (ranking) or Scale (interval or ratio). Once the data is entered as described above, the analysis can then begin. The SPSS displays the statistic table which indicates the distribution of the responses for that variable and further graphs or charts.

CHAPTER FOUR

RESULTS AND DISCUSSION

Findings from the literature review including results of data collected show that many of the challenges facing the road sector in Ghana are inter-related. Consequently, a review of the adequacy of the Ghana Road Fund in terms of its funding requirements alone will not be sufficient without a comprehensive improvement in the organization of the road management services provided by agencies.

This section therefore presents the findings of the study under the following five key headings;

- i. Revenue and expenditure
- ii. Budget approval
- iii. Tools and data for programming and
- iv. Institutional/Management Structure (Governance Issues)
- v. The Funding Requirements and Programmes of the Road Agencies

4.1 Revenue and expenditure (Analysis of secondary Data)

By international practice, products in the petroleum sector are benchmarked in US Dollar. This makes it easier to compare prices of different countries on a common platform. Due to this, all comments and discussions preceding charts will be made using the US Dollar as a bench mark.

4.1.1 Fuel Levy

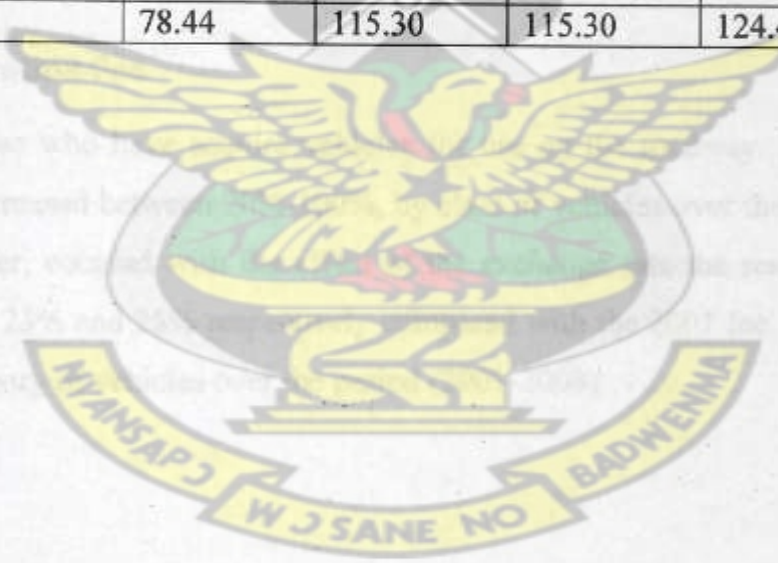
The fuel levy on petrol and diesel constitutes the main source of road user charge for the maintenance of roads in Ghana accounting for over 93% of the total revenue of the Ghana Road Fund (MRT 2007). Fuel consumption is a direct indicator of road use. The fuel levy was therefore introduced as a user charge to partly cover the cost of road maintenance. In 2005, the government increased the fuel levy by the equivalent of 2.0 US cents. However, there was no increase in 2006, 2007 and 2008. In Ghana the fuel levy is a fixed charge per liter. There has been a consistent increase in the revenue accrual from the fuel levy in US Dollar since the establishment of the Road Fund Act in 1997 despite the changes in the macroeconomic environment. Tables 4.1 and Figure 4.1

shows total Road Fund Revenue (including the fuel levy) for the periods 2002-2007 and the dollar equivalent of the fuel levy for the period 2000-2007..

4.1 Details of Road Fund Revenue (2002- 2007)

Source	2002 US \$ Mil	2003 US \$ Mil	2004 US \$ Mil	2005 US \$ Mil	2006 US \$ Mil	2007 US \$ Mil
Fuel Levy	46.48	72.42	78.40	108.8	111.28	116.95
Road Tolls	0.85	1.18	1.15	1.15	1.09	1.04
Bridge Tolls	0.42	0.66	0.56	0.63	0.62	0.62
Ferry Tolls	0.000045	0.0087	0.014	0.027	0.046	0.013
Road Use Fees	1.21	1.36	1.39	1.45	1.57	1.83
Vehicle Reg. Fees	1.52	1.64	1.95	2.14	2.38	2.97
Int. Transit Fees	0.61	1.17	1.01	1.10	1.07	1.01
Total	51.15	78.44	115.30	115.30	124.43	124.43

Source: (MRT, 2007)



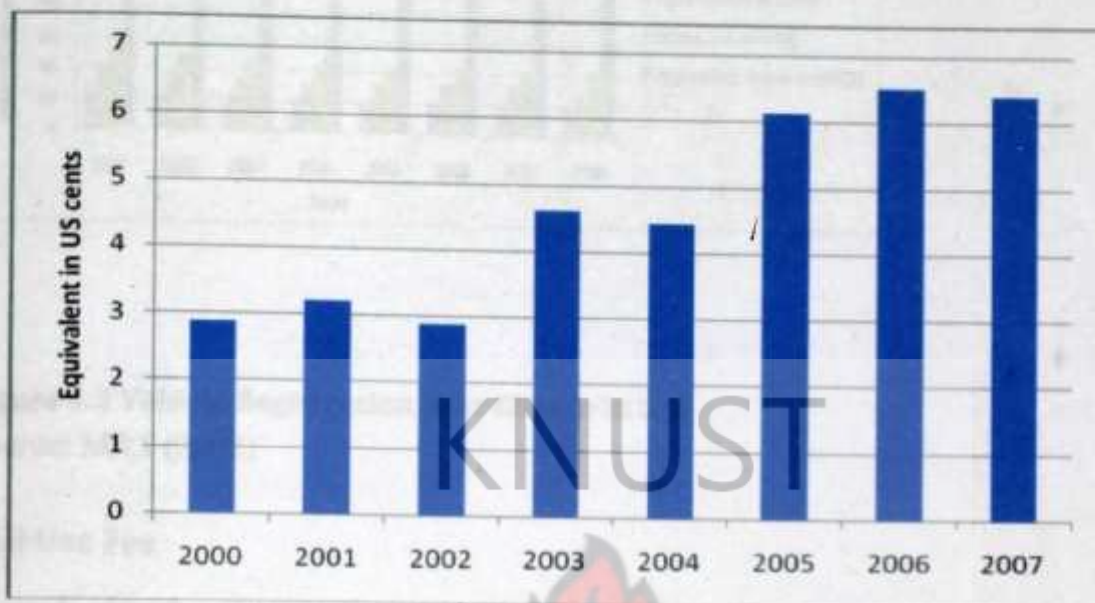


Figure 4.1 Equivalent fuel levies (per liter) in US cents

Source: MRT (2007)

4.1.2 Vehicle Registration Fee

It is entry fees for those who have acquire vehicles for use on the roadway. In 2001, the vehicle registration fee was increased between 20%-100%, by class of vehicles over the 2000 levels. Due to non-increment thereafter, coupled with the effect of the exchange rate the real value in 2006 and 2007 has decreased by 23% and 25% respectively compared with the 2001 fee. Figure 4.2 gives the details of fees per category of vehicles over the period (2001-2008)

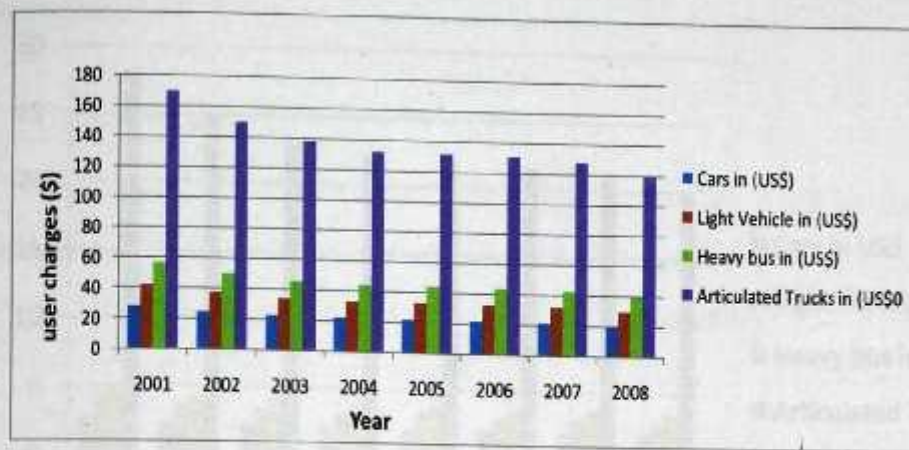


Figure 4.2 Vehicle Registration User Charge in US\$

Source: MRT (2008)

4.1.3 Road Use Fee

The road use fee is a fee charged for the continuous use of the road network and this is paid during time of renewing a car's road worthiness certificate. This is linked to the category of vehicles and the fees are graduated according to the weight of the vehicle. The 2008 value is about 25% of the 1998 value as a result of the depreciation of the cedi. The lack of review of these rates over long periods adversely affects effective revenue generation for road maintenance and resulted in early deterioration on some of the main roads in Ghana. Figure 4.3 shows the details of the road use fee from 2001 to 2008.

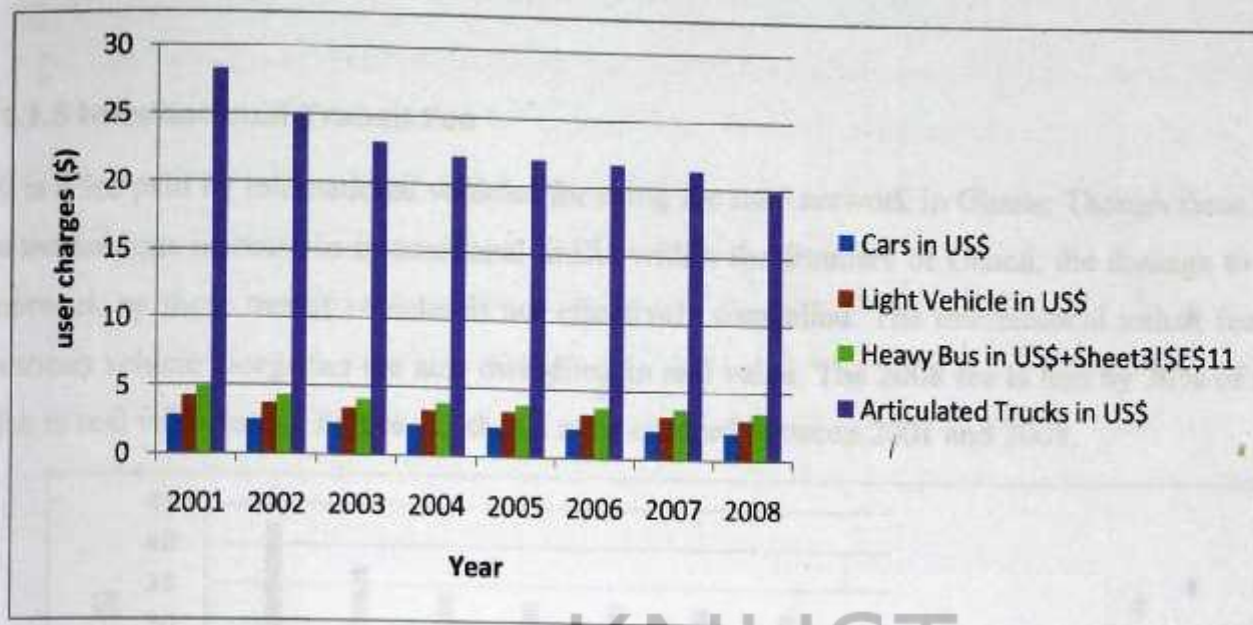


Figure 4.3 Road Use Fee in US\$

Source: MRT (2008)

4.1.4 Road, Bridge and Ferry Tolls

It is only a contribution to a direct charge for using a specific facility. Since 1998, the road and bridge tolls have also not been increased. The real value as of 2008 is only 30% of the 2001 values due to exchange rates fluctuation. Figure 4.4 shows the toll profile as at 2008.

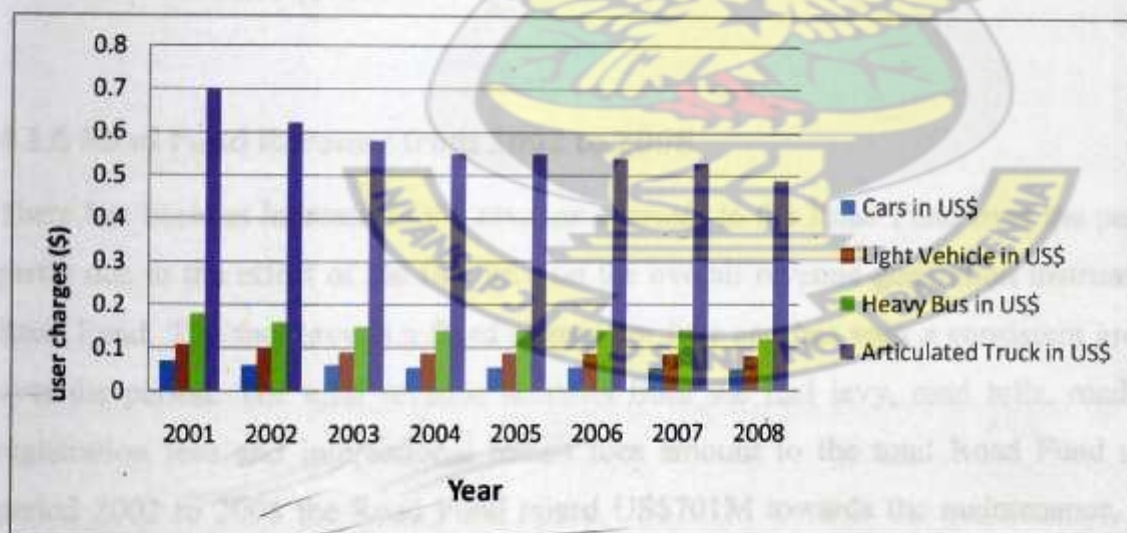


Figure 4.4 Road and Bridge Tolls in US\$

Source: MRT (2008)

4.1.5 International Transit Fee

It is a fee paid by international vehicles for using the road network in Ghana. Though there has been a tremendous increase in international traffic within the frontiers of Ghana, the damage to the road network by these transit vehicles is not effectively controlled. The international transit fees for the various vehicle categories are also dwindling in real value. The 2008 fee is less by 30% of the 2001 fee in real value terms. Figure 4.5 shows rates charged between 2001 and 2008.

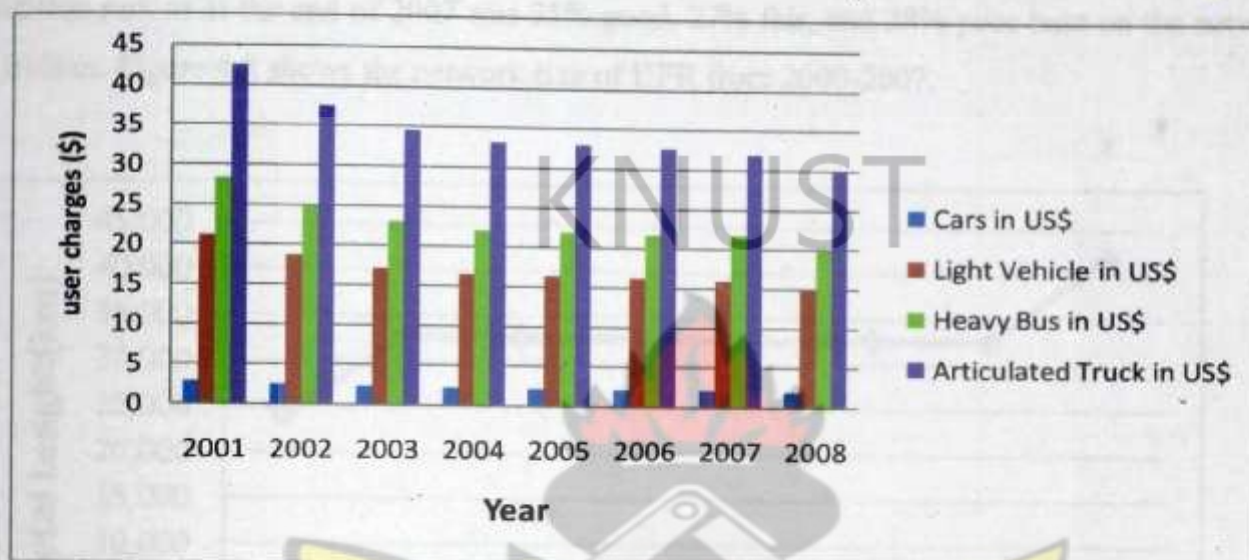


Figure 4.5 International Transit Fee in US\$

Source: MRT (2008)

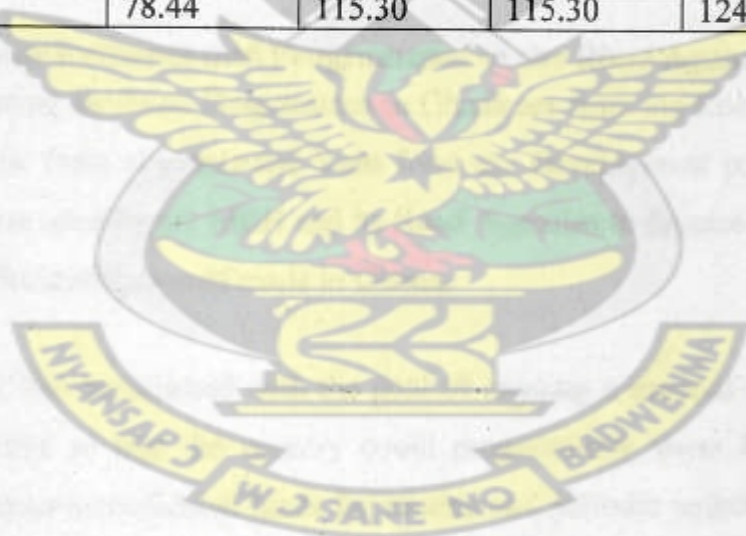
4.1.6 Road Fund Revenue from 2002 to 2008

There has been an increase in the revenue accruals to the Road Fund over the period 2002 to 2008 partly due to the effect of the fuel levy on the overall revenue generation instruments of the Ghana Road Fund. The fuel levy is a fixed charge per liter and has seen a consistent growth in real terms over the period. The total revenue accruals from the fuel levy, road tolls, road use fees, vehicle registration fees and international transit fees amount to the total Road Fund revenue. Over the period 2002 to 2008 the Road Fund raised US\$701M towards the maintenance, rehabilitation and upgrading of roads in Ghana (MRT 2007). Tables 4.6a and Figure 4.6 shows the total revenue of the Road Fund for the period 2002 to 2007 and the Road Fund revenue growth trend respectively for the period 2002-2008.

4.6a Details of Road Fund Revenue (2002- 2007)

Source	2002 US \$ Mil	2003 US \$ Mil	2004 US \$ Mil	2005 US \$ Mil	2006 US \$ Mil	2007 US \$ Mil
Fuel Levy	46.48	72.42	78.40	108.8	111.28	116.95
Road Tolls	0.85	1.18	1.15	1.15	1.09	1.04
Bridge Tolls	0.42	0.66	0.56	0.63	0.62	0.62
Ferry Tolls	0.000045	0.0087	0.014	0.027	0.046	0.013
Road Use Fees	1.21	1.36	1.39	1.45	1.57	1.83
Vehicle Reg. Fees	1.52	1.64	1.95	2.14	2.38	2.97
Int. Transit Fees	0.61	1.17	1.01	1.10	1.07	1.01
Total	51.15	78.44	115.30	115.30	124.43	124.43

Source: (MRT, 2007)



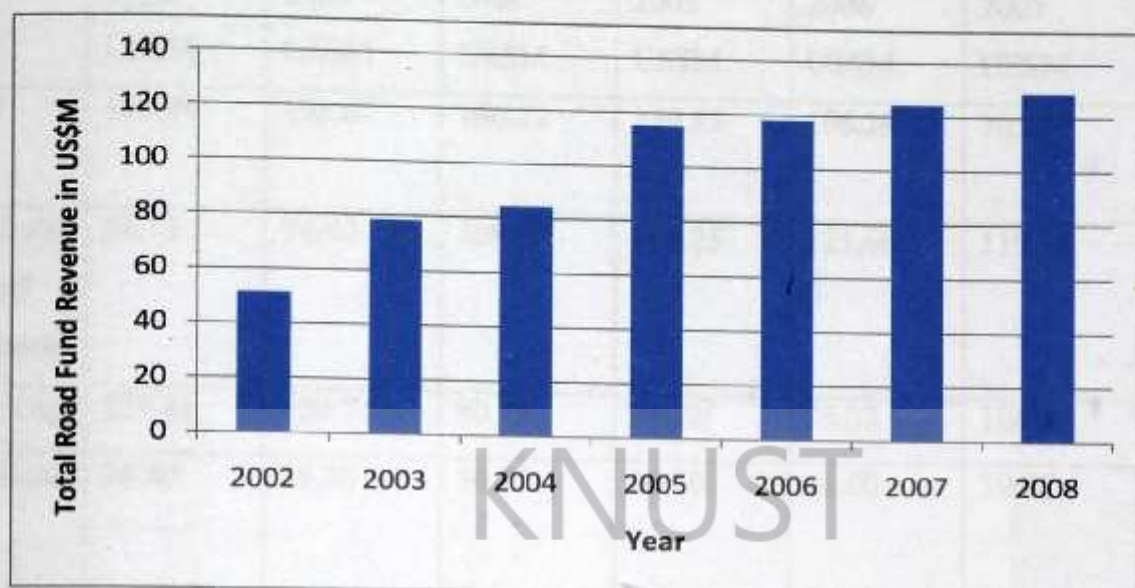


Figure 4.6 Total Road Fund revenue growth trend for the period 2002-2008
Source: MRT (2007) and (2008)

Note: Figure for 2008 is unaudited figure.

4.1.7 The Funding Requirements and Programmes of the Road Agencies

The main sources of funding for Road Programmes in Ghana are from the Road Fund, Consolidated Fund and assistance in the form of grants and loans from our Development partners. The resources from the above sources are used by the MRH and its Road Agencies to finance the Routine, Periodic Maintenance and Major Rehabilitation of roads in Ghana.

However the Road Fund was established with the goal of creating a secured source of funding for road maintenance activities so that the country could progressively wean itself off from donor support and the use of direct consolidated funds for routine and periodic maintenance activities. But from table 4.1, it can be deduced that the Road Fund contribution to the overall maintenance activities of the Road Agencies has been inconsistent ranging from 26.8% in 2002 to 39% in 2007 (MRT 2007).

Table 4.1: Approved Maintenance Programme Using 2002-2007 Strategic Plan

Activity	2002 US\$M	2003 US\$M	2004 US\$M	2005 US\$M	2006 US\$M	2007 US\$M	Average US\$M
Planned Cost	191.94	195.67	186.72	179.53	196.39	303.43	189.85
Road Fund (Releases) Contribution	51.13	74.93	105.97	108.25	121.06	119.14	
Funding Gap	139.81	120.74	80.75	71.28	75.33	184.29	97.58
% of Road Fund Contribution	26.80	38.30	56.75	60.30	61.60	39.26	53.66

Source: MRT (2007)

Routine maintenance works are activities carried out at least once every year on the road network. These activities consist of patching of potholes, light grading, grass cutting, tree and bush clearing along the roadside, cleaning of gutters, drains and culverts and minor repairs of slopes. Periodic maintenance works on the other hand include minor rehabilitation, minor upgrading, resealing, regravelling, spot improvement, repairing and resurfacing of short stretches of paved roads, repair of drains, culverts and slopes.

Major rehabilitation, reconstruction and major upgrading consist of improving paved and unpaved roads (from gravel to bitumen surface or from deteriorated bituminous treated surface to asphaltic-concrete surface), repair and construction of bridges, culverts and other structures.

4.1.7.1 The Ghana Highway Authority (GHA)

In accordance with the medium term strategic plan, the Ghana Highway Authority required an annual average of about US\$184 million to execute the 2002-2007 medium-term programme as shown in Table 4.2.

Table 4.2: Trunk Road Programme for 2000-2007

Activity	2002		2003		2004		2005		2006		2007	
	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil
Routine Mtce,	11600	14.0	11600	14.0	11600	14.0	11600	14.0	12657	14.0	12657	15.0
Periodic Mtce & Rehab.	1324	54.0	1100	71.0	1100	71.0	1100	71.0	750	26.5	780	27.5
Upgrading	56	7.0	200	22.0	120	13.0	120	11.0	100*	20	125*	25.0
Reconstruction & Construction	253	139.0	160	84.0	150	80.0	150	76.0	145	83**	140	80**
Bridges/Culverts	-	6.0	-	6.0	-	6.0	-	6.0	-	7.0	-	4.0
Admin.	-	10.0	-	10.0	-	10.0	-	10.0	-	9.0	-	12.0
Total	-	230.0	-	166.0	-	194.0	-	188.0	-	159.5	-	163.5

Source: MRT (2007)

*Includes minor rehabilitation

**Include traffic management and safety, consultancy services environmental and social management

The GHA in its 2001-2005 strategic plans proposed to achieve a road network condition of 70% good, 20% fair, and not more than 10% poor on its network size of 11,177km. As at the end of 2007, the road condition mix for the GHA was 57% good, 26% fair, and 17% poor as against the RSDP required road condition mix of 59% good, 26% fair and 14% poor. The Trunk Road Network Size during the period fluctuated as a result of some administrative procedures which allow GHA to transfer some of its roads to DFR and DUR (MRT 2007). Figure 4.7 shows the Trunk Road Network Size of GHA from 2000.

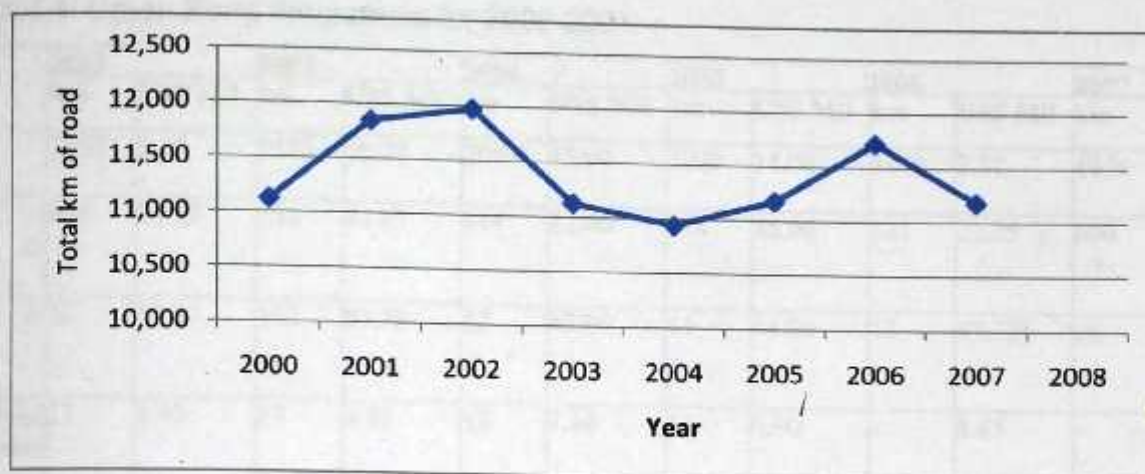


Figure 4.7 Trunk Road Network Size in km against the years

4.1.7.2 The Department of Feeder Roads (DFR)

The Department of Feeder Road developed a medium term programme in line with the Ministry of Roads and Highway strategic plan. It forms the basis for planning, budgeting and programming for the feeder road network. The average annual financial annual outlay predicted for the programme was about US\$104 million. Table 4.3 shows the Feeder Road Programme for 2002-2007.

Table 4.3: Feeder Road Programme for 2002-2007

Activity	2002		2003		2004		2005		2006		2007	
	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil
Routine Mtce,	12400	10.58	13900	12.22	15300	13.51	17100	14.35	26600	14.84	27600	15.48
Periodic Mtce & Rehab.	4285	57.62	4645	64.01	4590	62.49	5010	67.61	4712	62.59	5010.5	69.99
Reconstr.	20	0.60	20	0.60	20	0.60	20	0.60	20	0.60	20	0.60
Bridges/Culverts	40no	12.22	20no	12.59	24no	14.85	16no	9.79	97no	42.37	85no	29.92
Admin.		2.30		2.13		2.01		1.87		3.00		3.16
Training/Consultancy		5.07		3.60		2.03		0.88		5.84		3.48
Total		88.39		95.15		95.49		95.10		129.24		122.63

Source: MRT (2007)

In 2002 before the commencement of the RSDP the DFR had a network size of about 32,600km. As per the RSDP, DFR should have carried out routine maintenance on 13,900km, periodic maintenance on 4,332km and reconstruction on 20km at a total of 18,252km. The engineered network was to have increased from 17,820km in 2005 to 19,420km in 2006, an average of 1,600km annually (MRT 2007). Based on this average, the engineered network in 2007 should have been 21,020km. However, it has been established that, from the maintenance strategy adopted by DFR, the engineered network in 2007 was 26,600km out of a total network size of 42,010km. The road condition mix as at the end of 2007 was 35% good, 27% fair, and 38% poor base on the network of 42,010km. Figure 4.8 shows the network size of DFR from 2000-2007.

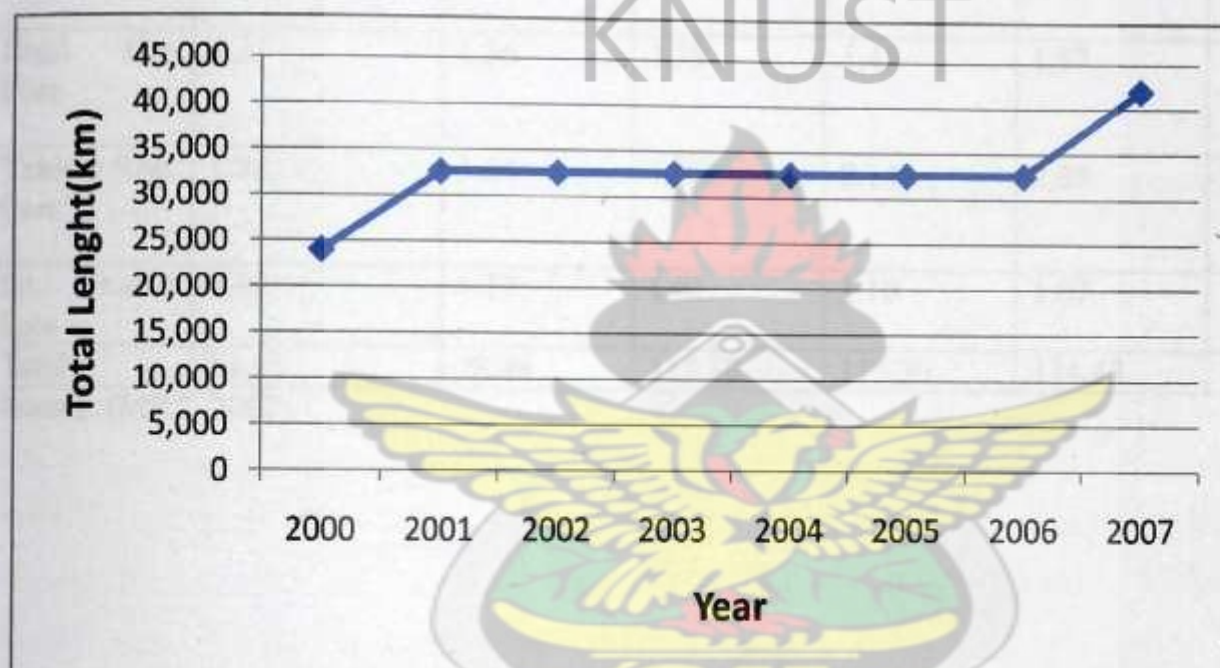


Figure 4.8 Network size of DFR from 2000-2007

4.1.7.3 The Department of Urban Roads (DUR)

Table 4.4 shows the Urban Roads programme for the period 2000 – 2007. The objective of the programme (RSDP) was to maintain and preserve roads which have recently been improved while reconstructing those which have deteriorated and/or are operating at full capacity. About US\$111 million was required annually for executing the programme.

Table 4.4: Urban Road Programme for 2000-2007

Activity	2002		2003		2004		2005		2006		2007	
	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil	km	US\$ Mil
Routine Mtce.	1750	9.45	1916	10.77	2083	12.00	2200	14.00	3449	7.57	4024	8.42
Periodic Mtce & Rehab.	666	34.19	753	37.87	814	41.00	874	46.00	521	23.35	600	27.4
Reconst. & Major Rehab.	76	59.30	102	67.30	45	43.00	45	44.00	13	47.52*	16	54.42*
Traffic Mgt & Road Safety	11	4.40	11	4.80	12	7.40	11	6.90	-	8.65	-	9.34
Admin.		8.21		6.72		9.10		10.91		2.40	-	2.15
Total		115.55		127.46		112.50		121.81		89.50		101.73

Source: MRT (2007)

- Unavailable information as of the time of preparation of this report

*Includes consultancy services and in-house service provision

The DUR has seen appreciable expansion from 2001 to 2007. Two new road units; Cape Coast and Koforidua were added to the portfolio of the network which changed the coverage from 3,737km to 4,064km in 2002 after the commencement of the RSDP. Eight (8) new cities namely Ho, Wa, Bawku, Bolgatanga, Techiman, Obuasi and Sunyani were also added, which drastically changed the road network to about 5,583km in 2005. Road condition survey conducted has revealed that the department has responsibility for about 9,765km length of roads. The condition mix does not follow any particular trend due to the progressive additions of new Municipal Assemblies to the department's jurisdiction. Figure 4.9 shows the network size of DUR from 2002-2007

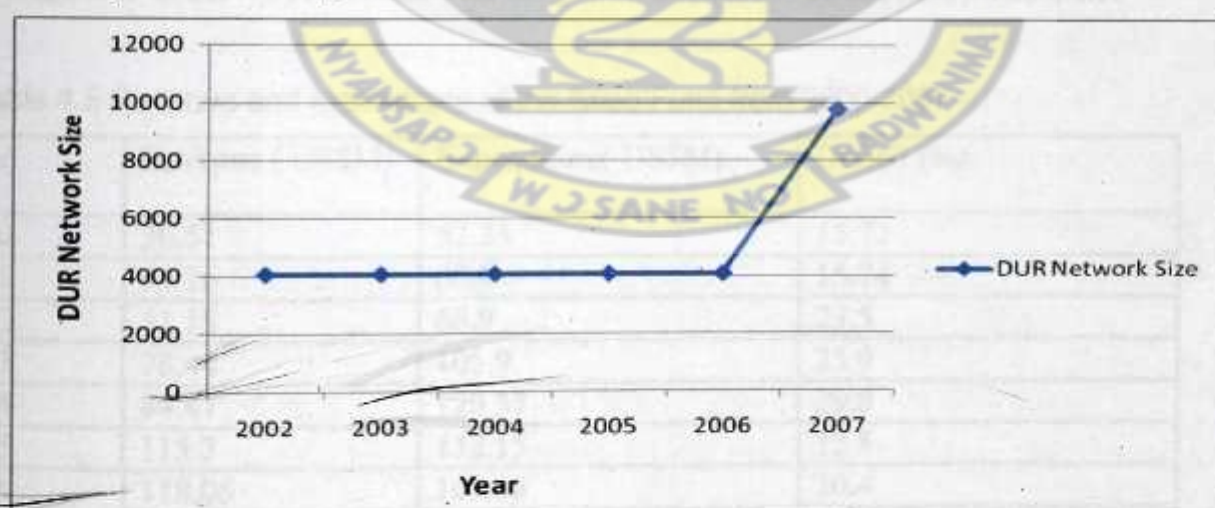


Figure 4.9 Network size of DUR from 2002-2007

RESULTS FROM QUESTIONNAIRES SURVEY FOR BOTH ROAD AGENCIES MANAGERS AND ROAD FUND ADMINISTRATORS

All the 65 Road Agencies managers who responded to the questionnaire survey agreed that in the implementation of their approved programmes agencies' always exceeded their budgetary ceilings as agreed with the Road Fund Board in contravention of subsection 12(1) of the Road Fund Act. It was also established from the survey that both revenue and expenditure increased over the period 2000-2007 as showed by Figure 4.10

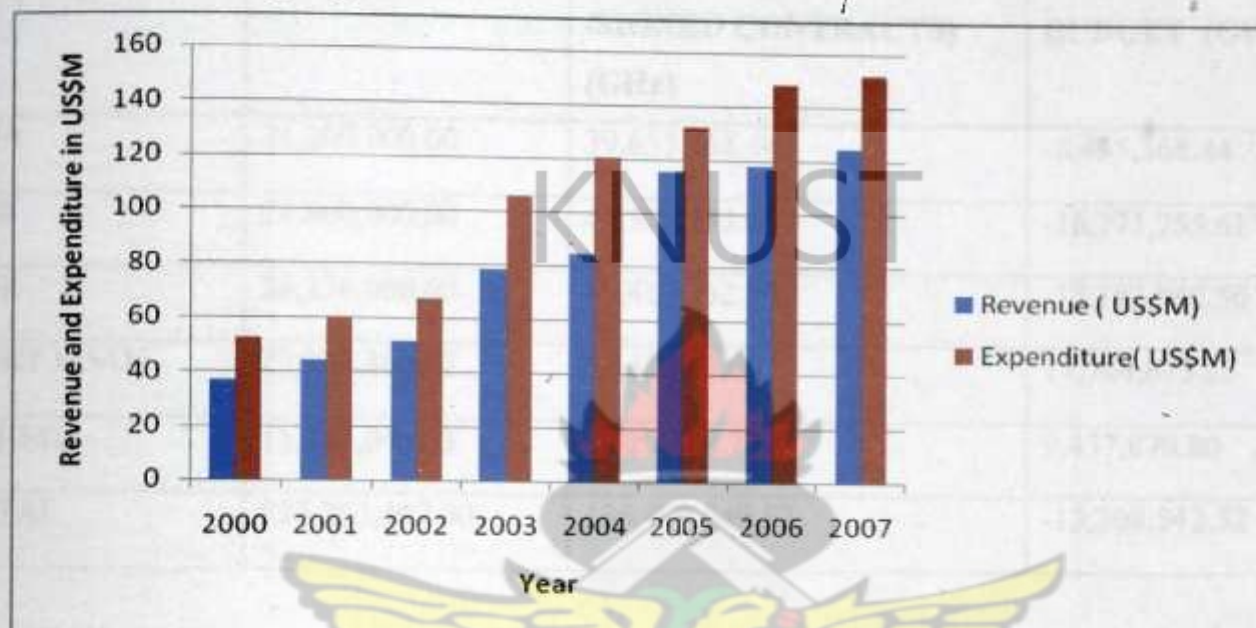


Figure 4.10 Revenue and Expenditure of the Road Fund against the years (2000-2007)

However, the rate of increase in expenditure outstripped the rate of increase in revenue generation at an average rate of 21.4% per annum over the period 2000-2007 as shown by Table 4.5.

Table 4.5 Revenue and expenditure of the Road Fund from 2000-2007

Year	Revenue (US\$M)	Expenditure(US\$M)	Deficit (%)
2000	36.51	52.23	15.72
2001	44.26	60.0	15.74
2002	51.15	66.9	23.5
2003	78.44	105.9	25.9
2004	84.47	120.37	29.8
2005	115.3	132.15	12.8
2006	118.06	148.36	20.4
2007	124.43	151.77	27.34
		Average % deficit	21.4

This pattern of growth (expenditure higher than revenue generation) by the Road Fund has led to a situation whereby the commitment in term of arrears and signed contracts by the Road Agencies as at the end of 2008 was higher than the entire budget of the Road Fund for the year 2009 as shown by Table 4.6. (MRT 2009)

Table 4.6 Budget for 2009 and commitment as at the end of 2008

AGENCY	BUDGET (GH¢)	COMMITMENT (ARREARS /SIGNED CONTRACTS) (GH¢)	AVAILABLE BUDGET (GH¢)
GHA	31,200,000.00	39,635,368.44	-8,435,368.44
DFR	28,800,000.00	45,571,755.61	-16,771,755.61
DUR	28,236,000.00	43,419,962.50	-15,183,962.50
SSNIT LOAN	23,288,366.47	5,543,693.00	17,744,673.23
OTHERS	11,758,040.53	2,320,169.73	9,437,870.80
TOTAL	123,282,407.00	136,490,949.52	-13,208,542.52

In practice, what this means is that, if the Road Fund Board did not approve of any new contract for the three Road Agencies for the year 2009, the entire 2009 budget will still not be able to pay for its commitments in terms of arrears and signed contracts that had accumulated by the end of the year 2008.

This situation of expenditure being higher than revenue generation by the Road Fund has arisen partly because rates of revenue generating instrument had not been reviewed to cope with the increases in expenditure by the Road Agency. Available data show that, fuel levy which accounts for 93% of the total revenue of the Ghana Road Fund was last increased in 2005 whilst the other levies i.e. International Transit Fee, Road & Bridge Tolls, Road Use Fee and Vehicle Registration Fee have not seen any increment in their rates as far back as 1998 and 2001 respectively. Figure 4.11 shows the changes in fuel levy rates (per liter) in equivalent US cents over the period. However to a large extent it has also to do with budget indiscipline by the agencies; they commit to projects outside their approved budgets without reference/approval from the Board.

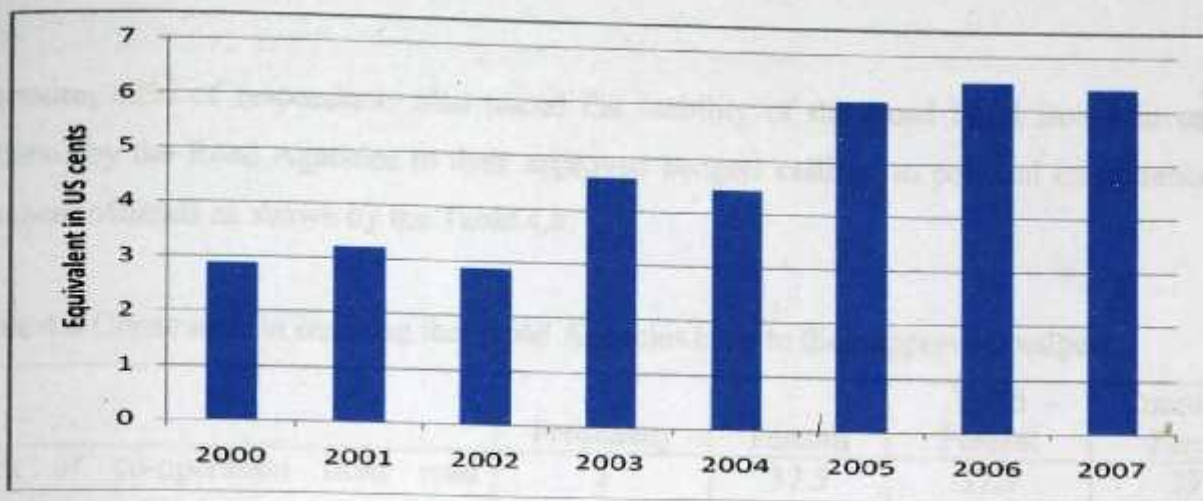


Figure 4.11 Fuel levy rates in US cent against years

Source: (MRT, 2007)

As shown in Table 4.7, 75% of respondents of the questionnaire survey attributed budget over runs by the Road Agencies to pressure from politicians on Road agencies Heads to commit projects that are not in agencies' budget.

Table 4.7 View on budget overruns on the part of road agencies

	Frequency	Percent	Valid Percent	Cumulative Percent
Pressure from politicians and other opinion leaders on road agency heads to award contracts	6	75	75	75
Inadequate consultation between agency, politicians and other opinion leaders	2	25	25	100
Insufficient allocation of Funds to the Road Agencies By the Road Fund Board				
Indiscipline By Road Agency Staff				
Total	11	100	100	

Furthermore, 62% of respondents also traced the inability of the Road Fund Board in ensuring compliance by the Road Agencies to their approved budgets ceilings to political interference from government officials as shown by the Table 4.8.

Table 4.8 Constraints in ensuring that Road Agencies keep to their approved budgets.

	Frequency	Percent	Valid Percent	Cumulative Percent
Lack of co-operation from road agencies	3	37.5	37.5	37.5
Political interference	5	62.5	62.5	100
Board not adequately empowered by the law				
Inadequate information flow between agencies and Road Fund secretariat				
Total	11	100	100	

Again, 75% of Road Fund Administrators who were interviewed attributed the inability of the Board to update the rates of the revenue generation instruments to lack of political will by successive government in Ghana as shown in the Table 4.9.

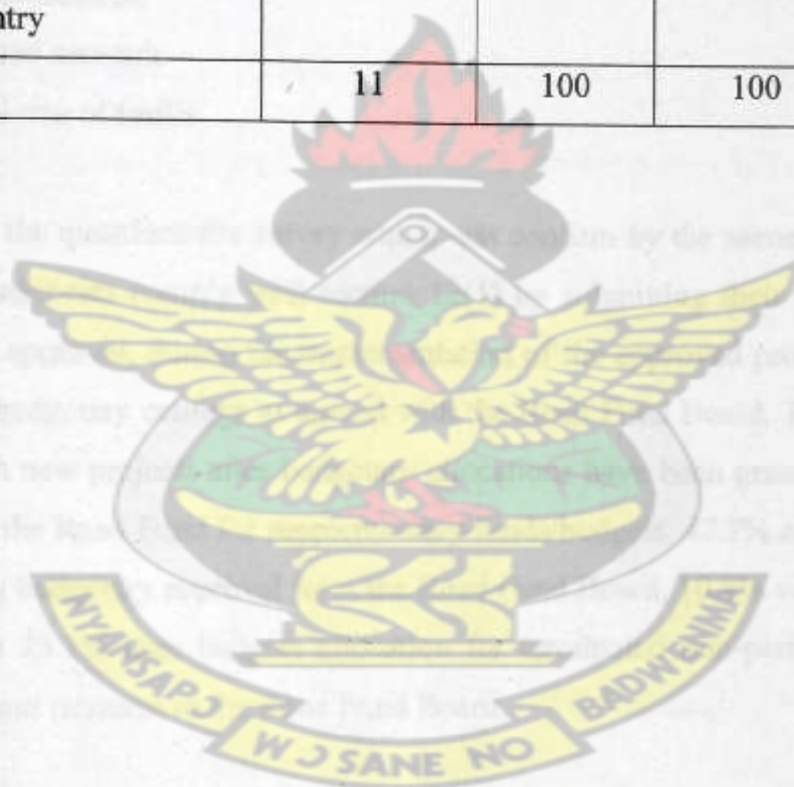
Table 4.9 Reason for lack of update of rates of the revenue generation instruments

	Frequency	Percent	Valid Percent	Cumulative Percent
Lack of political will by successive governments	6	75	75	75
Board not empowered to do that	2	25	25	100
Political pressure on governments to reduce taxes on fuel products				
Lack of awareness on the part of the government				
Total	11	100	100	

Finally, 75% of Road Fund Administrators who were questioned considered taxes on LPGs for vehicles as an alternative revenue generating instruments that should be pursued as indicated in the Table 4.10.

Table 4.10 Alternative forms of revenue generation instruments

	Frequency	Percent	Valid Percent	Cumulative Percent
Taxes on LPG for vehicles	6	75	75	75
Through revenues generated from car parking schemes	2	25	25	100
Fines imposed on motor traffic offenders				
Taxes on sign boards on all road corridors in the country				
Total	11	100	100	



4.2 Budget approval

Section 12(1) of the Road Fund Act states: "There shall be prepared annually at least three months before the end of each financial year for the consideration and approval of the Board, an Annual Road Programme and Annual Expenditure Programme in respect of the next financial year by the departments and bodies charged with the implementation of the road policies of the Ministry" Therefore the Road Fund Act 536 states clearly that the RFB is responsible for approving programmes.

Again section 12(3) of the Road Fund Act states that the following will be considered in allocating funds to the Road Agencies:

1. Condition of the road network.
2. Maintenance requirement.
3. Length of the road network.
4. The relevant volume of traffic.

However, results from the questionnaire survey which was confirm by the secondary data collected show that while road agencies comply with section 12(1) by submitting their programmes to the Road Fund Board for approval, during the implementation of the approved programmes, agencies do not adhere to their budgetary ceilings as agreed with the Road Fund Board. Table 4.11 indicates how agencies deal with new projects after budgetary allocations have been granted. Only 18.5% of Agencies goes back to the Road Fund for supplementary funds/budgets, 47.7% awards new projects without supplementary budgetary approval from the Road Fund Board, 10.8% vies budget for other planned projects while 23.1% uses budgets allocation for terminated non-performing projects to fund new projects without recourse to the Road Fund Board.

Table 4.11 Dealing with new projects after budgetary allocation from RF has been granted

	Frequency	Percent	Valid Percent	Cumulative Percent
Goes back to the Road Fund for supplementary funds/budgets	12	18.5	18.5	18.5
New projects are awarded without budgetary approval from the Road Fund Board	31	47.7	47.7	66.2
Vie budget for other planned projects	7	10.8	10.8	76.9
Using budgets allocation for terminated non-performing projects	15	23.1	23.1	100.0
Total	65	100.0	100.0	

This attitude by the Road Agencies is partly responsible for the widening gap between revenue and expenditure as shown by Figure 4.12.

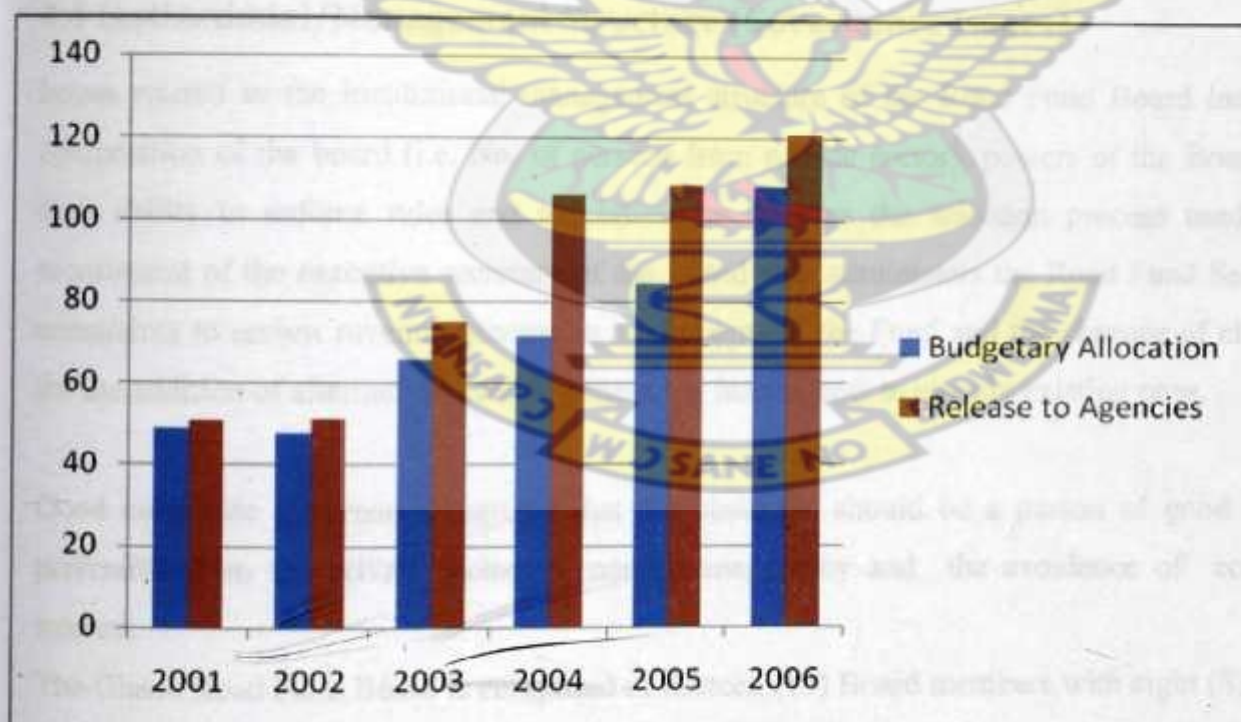


Figure 4.12 Budgetary allocation and releases to Road Agencies

Furthermore, results from data collected also show that the Road Fund Board has no objective criteria for the disbursement of funds to the Road Agencies as stipulated by section 12(3). Instead allocation of funds to agencies is done based on historical trend. This implies that, if an error was committed in the first disbursement, the error is perpetually carried over.

4.3 Tools and data for programming

Theoretically, the objective of the routine and periodic maintenance programmes of the road agencies under the Ministry of Roads and Highways is to attain a certain road condition mix at a specified time. However, results of data collected show that several factors have made the attainment of this objective difficult by the agencies. This includes the use of different tools for planning and prioritization in the same road agencies. Despite increasing efforts by the Ministry to validated HDM-4, different prioritization tools continue to be used by the Agencies. As a result, data for effective programming and prioritization is not standardized. There is therefore the need for firm proposals for coordinated and consistent collection of data for monitoring, evaluation and planning.

4.4 Institutional/Management Structure (Governance Issues)

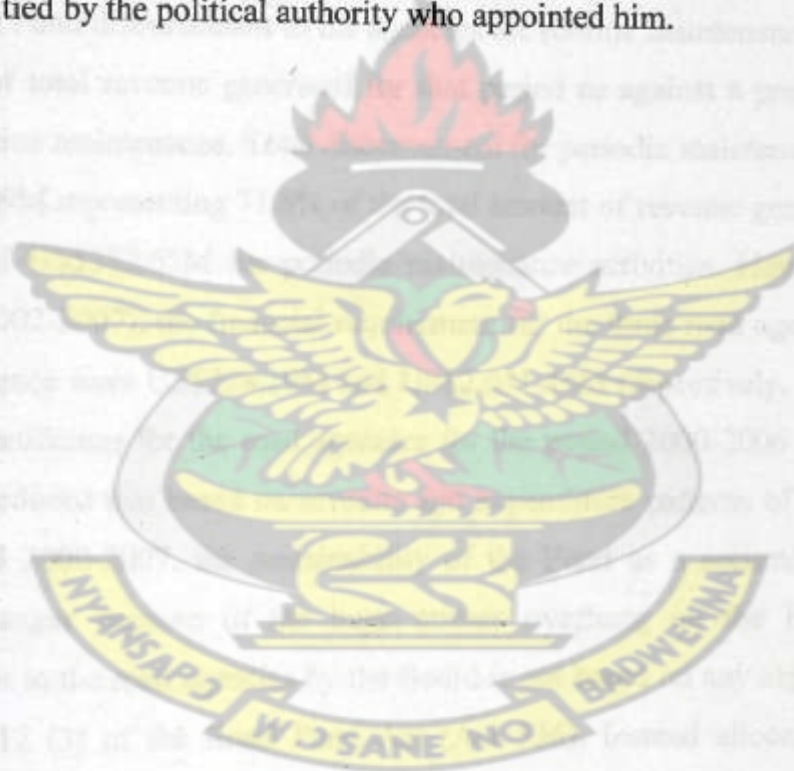
Issues related to the institutional management structure of the Road Fund Board include the composition of the board (i.e. No. of persons from private sector), powers of the Board as per their ability to enforce rules and regulations as well as the selection process used for the recruitment of the executive secretary of the Board who administers the Road Fund Secretariat, constraints to review revenue generation instruments of the Fund and the absence of clear rules for the addition of alternative revenue generating instruments to already existing ones.

Good cooperate governance requires that the chairman should be a person of good standing preferable from the private sector to ensure transparency and the avoidance of conflict of interest.

The Ghana Road Fund Board is composed of thirteen (13) Board members with eight (8) persons from the private sector. The rest are either appointed by the president or the Minister for Roads and Highways who is the chairman of the Board. By virtue of his position, the Minister for

Roads and Highways is in charge of all the Road Agencies and for that matter all the works and programmes that are executed under the Road Fund budget. The position of the sector minister as chairman of the Board also makes him the final authority for payment. This does not promote accountability and good corporate practice.

One of the constraints affecting the management of the Ghana Road Fund is the selection process used for the recruitment of the Director of the Road Fund Secretariat who oversees the day to day activities of the Secretariat. While good corporate practice require that the Director of the secretariat is selected through an open competition, the current Road fund Act still makes the chief director of the MRH who is the secretary to the Board, the appointment authority of the Road Fund Director. This practice favors political interferences in the day-to-day management of the road funds and the allocation of resources to non-planned activities since the Director of the Road Fund hands are tied by the political authority who appointed him.



CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Based on the information gathered from the literature review as well as analysis of the primary and secondary data collected, the following conclusions have been drawn:

5.1.1 Revenue and Expenditure

Over the period 2000-2007, the Ghana Road Fund generated total revenue of US\$661.25M.

However, the total expenditure for the same period was US\$837.68. This translates into expenditure outstripping revenue generation by 21.4% per annum. Out of the total US\$661.25M revenue generated, US\$524.88M representing 79.4% was disbursed directly to the three road agencies. Total Road Fund disbursement to the agencies for routine maintenance was \$186.56M representing 28.2% of total revenue generated for that period as against a projected budget of US\$191.91M for routine maintenance. Total disbursement for periodic maintenance for the same period was US\$419.09M representing 71.8% of the total amount of revenue generated as against a projected budget of US\$382.63M for periodic maintenance activities. However, as per the RSDP programme (2002-2007), the financial requirement for the three road agencies for routine and periodic maintenance were US\$228.19M and US\$2,031.49M respectively. The total arrears in terms of unpaid certificates for the road agencies for the period 2000-2006 were \$141.99M. Therefore it can be deduced that based on revenue and expenditure patterns of the Ghana Road Fund over the period 2000-2007, the sustainability of the Fund as a secured source of road maintenance is in danger because of the huge arrears overhang on the Fund. Again the disbursement of Funds to the road agencies by the Board is not based on any objective criteria as stipulated by section 12 (3) of the Road Fund Act (Act 536). Instead allocation of funds to agencies is based on historical trend.

5.1.2 Poor Management of Resources by Road Agencies

Analysis of data collected showed that road agencies in Ghana uses different tools for planning and prioritization in the same road agencies. There is therefore the need for firm proposals for coordinated and consistent collection of data for monitoring, evaluation and planning in order to ensure same standards.

Again analysis of data collected shows that during the implementation of their approved programmes, agencies do not adhere to their budgetary ceilings as agreed with the Road Fund Board; they commit to projects outside their approved budgets without reference/approval from the Board. This is a major contributing factor to expenditure outstripping revenue and has contributed greatly to the Board's inability to meet the expenditure needs of the road agencies.

5.1.3 The Funding Requirements and programmes of the Road Agencies

In its current form the programmes of the three road agencies are largely not driven by any strategic objective.

5.1.4 Stakeholders' Perception of GRF Operation and Performance

There is also no clear timeline as to the release of funds for the payments of works done by contractors.

5.2 Recommendations

In order to improve upon the performance of the Ghana Road Fund, the following actions are recommended based on the following key outlines:

5.2.1 There is the need to empower the Ghana Road Fund Board to enforce Compliance of budget ceilings by road agencies to avoid budget overruns

5.2.2 There is the need to empower the Board to fix rates and also to recommend new sources of revenues within guidelines laid down by parliament

5.2.3 Further studies should be conducted to come out with a more scientific criterion for the disbursement of funds to the road agencies.

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APPENDIX 1

Appendix 1.1 Road fund budgetary allocation to agencies in 1999

ROAD FUND BUDGETARY ALLOCATION FOR 1999				
AGENCIES	ROUTINE ₡'Bn	PERIODIC ₡'Bn	TOTAL ₡'Bn	SHARE %
Ghana Highway Authority(GHA)	30.0	80.0	110.0	50.2
Dept. Of Feeder Roads (DFR)	15.0	34.0	49.0	22.4
Department of Urban Roads	12.0	44.0	56.0	25.6
National Road Safety Committee	-	0.5	0.5	0.2
Ministry of Roads & Transport	-	3.5	3.5	1.6
TOTAL	57.0	162.0	219.0	100

Appendix 1.2 Road fund budgetary allocation to agencies in 2000

ROAD FUND BUDGETARY ALLOCATION FOR 2000				
AGENCIES	ROUTINE ₡'Bn	PERIODIC ₡'Bn	TOTAL ₡'Bn	SHARE %
Ghana Highway Authority(GHA)	45.0	106.0	151.0	49.8
Dept. Of Feeder Roads (DFR)	24.0	48.0	72.0	23.8
Department of Urban Roads	18.0	58.0	76.0	25.1
National Road Safety Committee	-	0.5	0.5	0.2
Ministry of Roads & Transport	-	3.5	3.5	1.2
TOTAL	87.0	216.0	303.0	100

Appendix 1.3 Road fund budgetary allocation to agencies in 2001

ROAD FUND BUDGETARY ALLOCATION FOR 2001				
AGENCIES	ROUTINE c'Bn	PERIODIC c'Bn	TOTAL c'Bn	SHARE %
Ghana Highway Authority(GHA)	45	107	152	42.1
Dept. Of Feeder Roads (DFR)	28.1	75.1	103.2	28.6
Department of Urban Roads	18.8	71.3	90.1	25.0
National Road Safety Committee	-	0.3	0.3	0.1
Ministry of Roads & Transport	-	15.3	15.3	4.2
TOTAL	91.9	269	360.9	100.0

Appendix 1.4 Road fund budgetary allocation to agencies in 2002

ROAD FUND BUDGETARY ALLOCATION FOR 2002				
AGENCIES	ROUTINE c'Bn	PERIODIC c'Bn	TOTAL c'Bn	SHARE %
Ghana Highway Authority(GHA)	45.0	107.0	152.0	38.3
Dept. Of Feeder Roads (DFR)	35.0	117.0	152.0	38.3
Department of Urban Roads	30.0	47.3	77.3	19.5
National Road Safety Committee	-	0.7	0.7	0.2
Driver & Vehicle Licensing Authority (DVLA)	-	0.3	0.3	0.1
Ministry of Roads & Transport	-	15.0	15.0	3.8
TOTAL	110.0	287.3	397.3	100.0

Appendix 1.5 Road fund budgetary allocation to agencies in 2003

ROAD FUND BUDGETARY ALLOCATION FOR 2003				
AGENCIES	ROUTINE c'Bn	PERIODIC c'Bn	TOTAL c'Bn	SHARE %
Ghana Highway Authority(GHA)	60.3	149.7	210.0	33.7
Dept. Of Feeder Roads (DFR)	50.0	110.2	160.2	25.7
Department of Urban Roads	60.0	140.0	200.0	32.1
National Road Safety Committee	-	2.0	2.0	0.3
Driver & Vehicle Licensing Authority (DVLA)	-	1.5	1.5	0.2
Ministry of Roads & Transport	-	49.6	49.6	8.0
TOTAL	170.3	453.0	623.3	100.0

Appendix 1.6 Road fund budgetary allocation to agencies in 2004

ROAD FUND BUDGETARY ALLOCATION FOR 2004				
AGENCIES	ROUTINE c'Bn	PERIODIC c'Bn	TOTAL c'Bn	SHARE %
Ghana Highway Authority(GHA)	148.6	132.4	281.0	39.1
Dept. Of Feeder Roads (DFR)	50.0	109.0	159.0	22.1
Department of Urban Roads	72.0	133.0	205.0	28.5
National Road Safety Committee	-	4.5	4.5	0.6
Driver & Vehicle Licensing Authority (DVLA)	-	4.0	4.0	0.6
Ministry of Roads & Transport	-	65.8	65.8	9.1
TOTAL	270.6	448.7	719.3	100

Appendix 1.7 Road fund budgetary allocation to agencies in 2005

ROAD FUND BUDGETARY ALLOCATION FOR 2005				
AGENCIES	ROUTINE €'Bn	PERIODIC €'Bn	TOTAL €'Bn	SHARE %
Ghana Highway Authority(GHA)	148.62	158.88	307.50	29.47
Dept. Of Feeder Roads (DFR)	50.0	199.80	249.80	23.94
Department of Urban Roads	72.00	137.2	209.20	20.05
National Road Safety Committee	-	6.00	6.00	0.57
Driver & Vehicle Licensing Authority (DVLA)	-	7.50	7.50	0.72
Ministry of Roads & Transport	-	263.59	263.59	25.25
TOTAL	270.62	772.97	1,043.59	100

Appendix 1.8 Road fund budgetary allocation to agencies in 2006

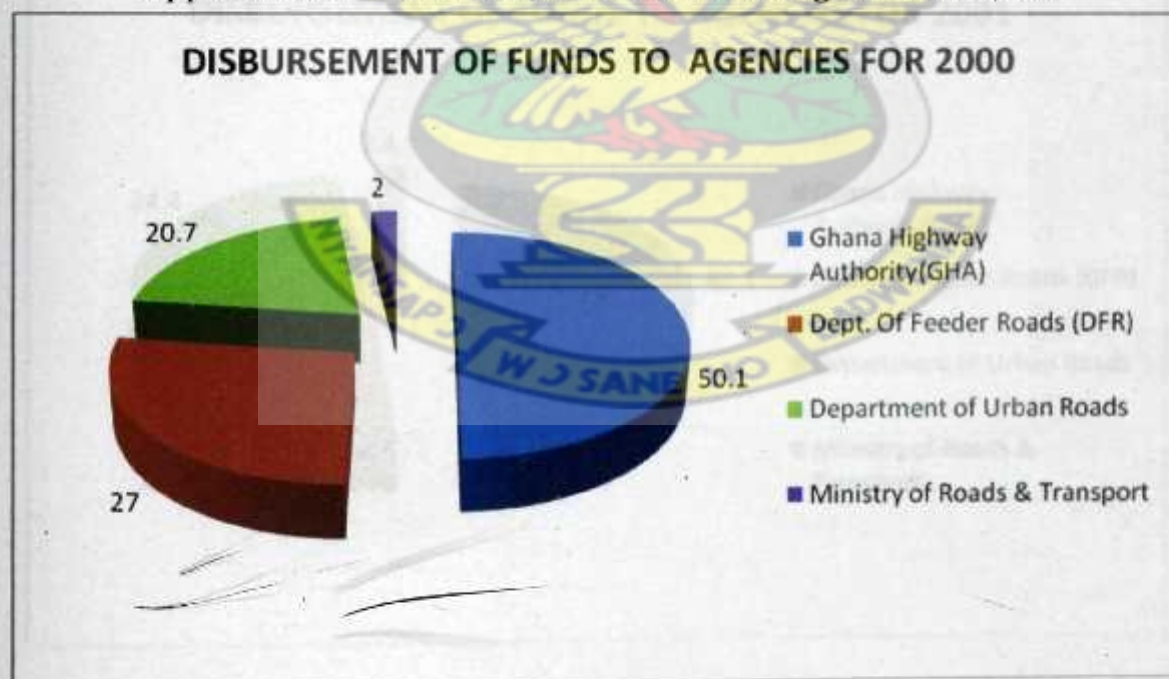
ROAD FUND BUDGETARY ALLOCATION FOR 2006		
AGENCIES	Budget €'Bn	% Allocation
Ghana Highway Authority(GHA)	366.66	30.43
Dept. Of Feeder Roads (DFR)	312.16	25.91
Department of Urban Roads	313.80	26.04
National Road Safety Committee	5.00	0.41
Driver & Vehicle Licensing Authority (DVLA)	4.00	0.33
Ministry of Roads & Transport	203.37	16.88
TOTAL	1,204.99	100

APPENDIX 2

Appendix 2.1 Disbursement of funds to agencies for 2000

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2000				
AGENCIES	ROUTINE ¢'Mn	PERIODIC ¢'Mn	TOTAL ¢'Mn	%
Ghana Highway Authority(GHA)	26,894.6	101,250.4	128,145.1	50.1
Dept. Of Feeder Roads (DFR)	20,182.1	48,817.4	68,999.5	27.0
Department of Urban Roads	13,585.8	39,216.6	52,802.4	20.7
Sub Total	60,662.5	189,284.4	249,946.9	97.8
National Road Safety Committee	-	300.0	300.0	0.1
Driver & Vehicle Licensing Authority (DVLA)	-	300.0	300.0	0.1
Ministry of Roads & Transport	-	5,000.0	5,000.0	2.0
TOTAL	60,662.5	194,884.4	255,546.9	100.0

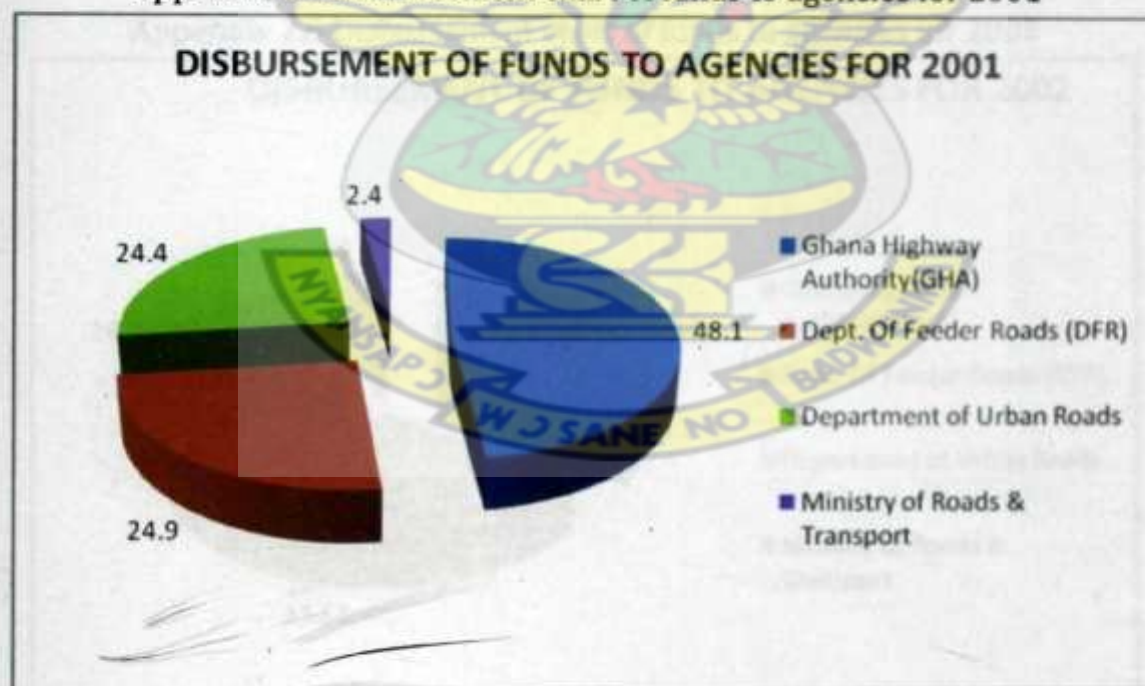
Appendix 2.2 Disbursement chart of funds to agencies for 2000



Appendix 2.3 Disbursement of funds to agencies for 2001

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2001				
AGENCIES	ROUTINE ¢'Mn	PERIODIC ¢'Mn	TOTAL ¢'Mn	%
Ghana Highway Authority(GHA)	32,522.3	118,251.9	150,774.2	48.1
Dept. Of Feeder Roads (DFR)	15,431.2	62,503.3	77,936.5	24.9
Department of Urban Roads	21,695.0	54,808.6	76,503.6	24.4
<i>Sub Total</i>	<i>69,648.5</i>	<i>235,565.9</i>	<i>305,214.4</i>	<i>97.5</i>
National Road Safety Committee	-	304.0	304.4	0.1
Driver & Vehicle Licensing Authority (DVLA)	-	161.0	161.0	0.1
Ministry of Roads & Transport	-	7,500.0	7,500.0	2.4
TOTAL	69,648.5	243,530.9	313,179.4	100.0

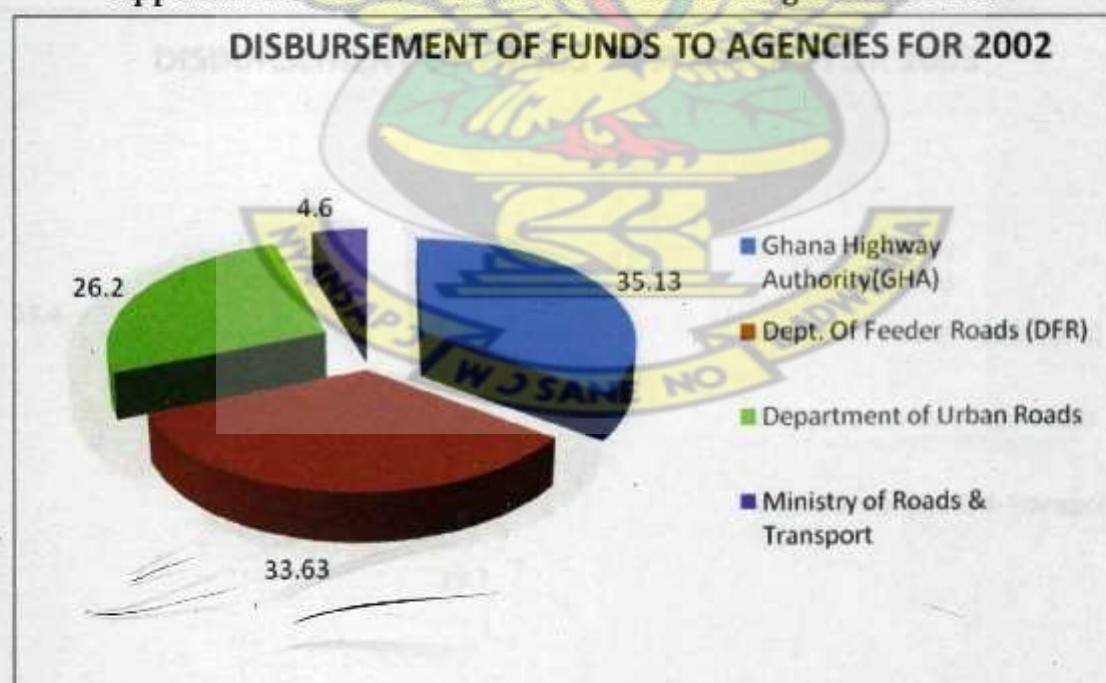
Appendix 2.4 Disbursement chart of funds to agencies for 2001



Appendix 2.5 Disbursement of funds to agencies for 2002

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2002				
AGENCIES	ROUTINE ¢'Mn	PERIODIC ¢'Mn	TOTAL ¢'Mn	%
Ghana Highway Authority(GHA)	44,195.30	99,738.95	143,934.25	35.13
Dept. Of Feeder Roads (DFR)	21,087.30	116,687.18	137,774.48	33.63
Department of Urban Roads	39,204.70	68,131.36	107,336.06	26.20
<i>Sub Total</i>	<i>104,487.30</i>	<i>284,557.49</i>	<i>389,044.79</i>	<i>94.96</i>
National Road Safety Committee	-	807.00	807.00	0.20
Driver & Vehicle Licensing Authority (DVLA)	-	1,008.90	1,008.90	0.25
Ministry of Roads & Transport	-	18,853.58	18,853.58	4.60
<i>Sub Total</i>	<i>-</i>	<i>20,669.48</i>	<i>20,669.48</i>	<i>5.04</i>
TOTAL	104,487.30	305,226.97	409,714.27	100.00

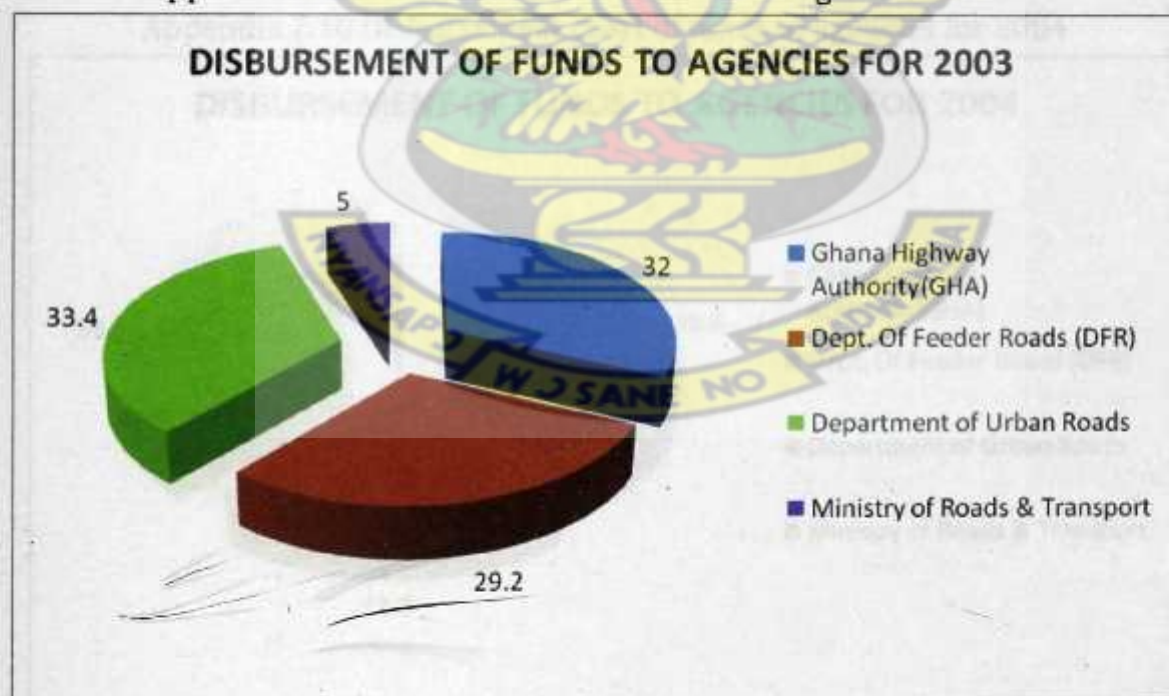
Appendix 2.6 Disbursement chart of funds to agencies for 2002



Appendix 2.7 Disbursement of funds to agencies for 2003

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2003				
AGENCIES	ROUTINE ¢'Mn	PERIODIC ¢'Mn	TOTAL ¢'Mn	%
Ghana Highway Authority(GHA)	73,817.4	134,655.1	208,472.5	32.0
Dept. Of Feeder Roads (DFR)	39,300.9	151,167.7	190,468.6	29.2
Department of Urban Roads	56,338.3	161,080.8	217,419.1	33.4
<i>Sub Total</i>	<i>169,456.6</i>	<i>446,903.6</i>	<i>616,360.2</i>	<i>94.6</i>
National Road Safety Committee	-	1,967.0	1,967.0	0.3
Driver & Vehicle Licensing Authority (DVLA)	-	779.7	779.7	0.1
Ministry of Roads & Transport	-	32,387.9	32,387.9	5.0
<i>Sub Total</i>	<i>-</i>	<i>35,134.6</i>	<i>35,134.6</i>	<i>5.4</i>
TOTAL	169,456.6	482,038.2	651,494.8	100.0

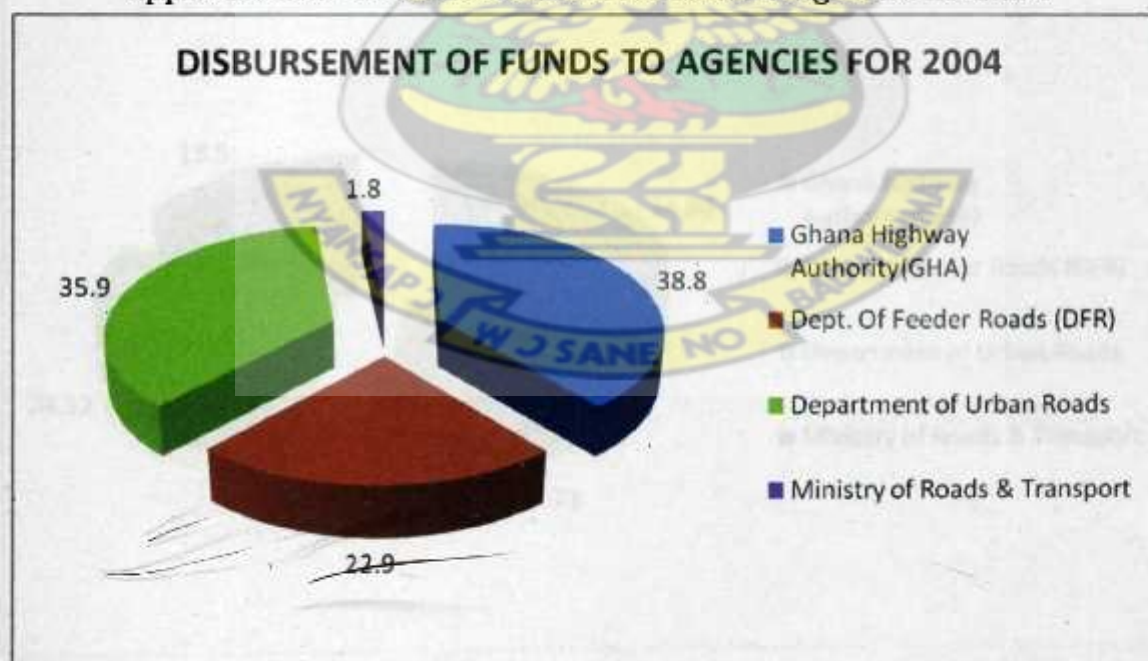
Appendix 2.8 Disbursement chart of funds to agencies for 2003



Appendix 2.9 Disbursement of funds to agencies for 2004

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2004				
AGENCIES	ROUTINE ¢'Mn	PERIODIC ¢'Mn	TOTAL ¢'Mn	%
Ghana Highway Authority(GHA)	126,619.1	245,755.6	372,374.7	38.8
Dept. Of Feeder Roads (DFR)	81,645.6	137,986.9	219,632.5	22.9
Department of Urban Roads	80,781.0	264,075.6	344,856.6	35.9
Sub Total	289,045.7	647,818.1	936,863.8	97.6
National Road Safety Committee	-	4,495.1	4,495.1	0.5
Driver & Vehicle Licensing Authority (DVLA)	-	1,184.3	1,184.3	0.1
Ministry of Roads & Transport	-	17,591.6	17,591.6	1.8
Sub Total	-	23,271.0	23,271.0	2.4
TOTAL	289,045.7	671,089.1	960,134.8	100

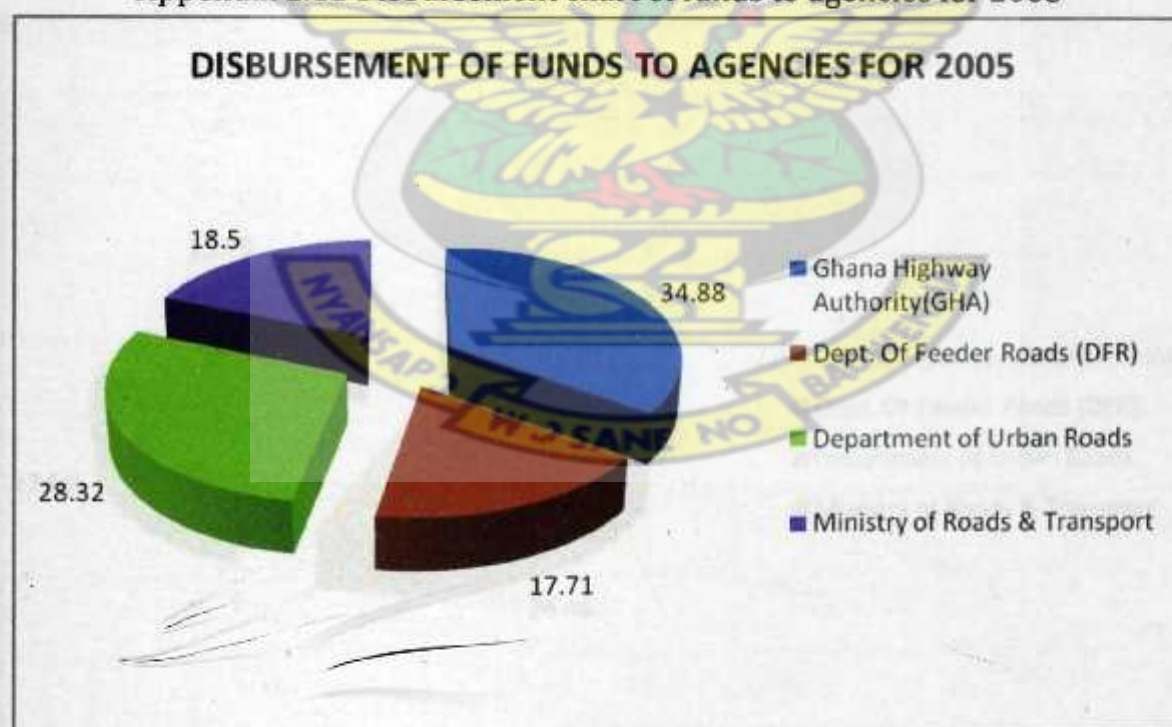
Appendix 2.10 Disbursement chart of funds to agencies for 2004



Appendix 2.11 Disbursement of funds to agencies for 2005

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2005				
AGENCIES	ROUTINE ₵'Bn	PERIODIC ₵'Bn	TOTAL ₵'Bn	%
Ghana Highway Authority(GHA)	118.49	225.83	344.32	34.88
Dept. Of Feeder Roads (DFR)	74.85	100.01	174.86	17.71
Department of Urban Roads	79.44	200.17	279.61	28.32
National Road Safety Committee	0	4.5	4.5	0.46
Driver & Vehicle Licensing Authority (DVLA)	0	1.3	1.3	0.13
Ministry of Roads & Transport	0	182.63	182.63	18.50
TOTAL	272.78	714.53	987.22	100

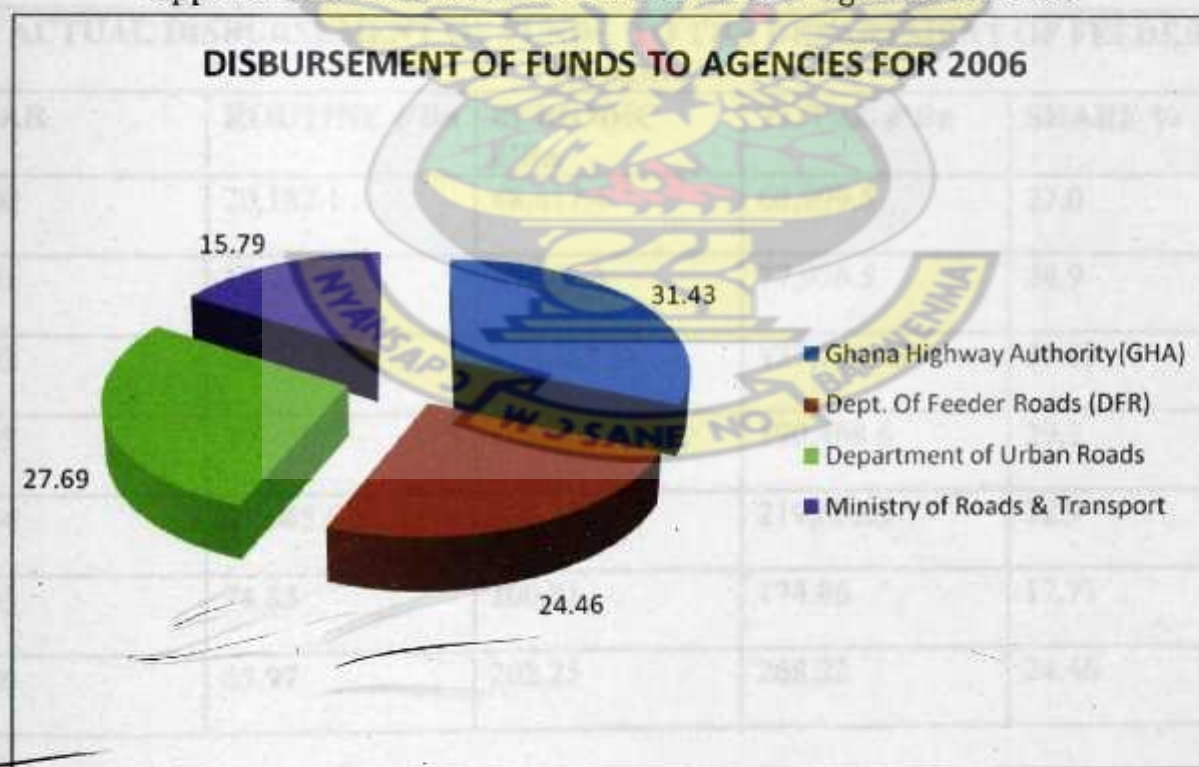
Appendix 2.12 Disbursement chart of funds to agencies for 2005



Appendix 2.13 Disbursement of funds to agencies for 2006

DISBURSEMENT OF FUNDS TO AGENCIES FOR 2006				
AGENCIES	ROUTINE ₵'Bn	PERIODIC ₵'Bn	TOTAL ₵'Bn	%
Ghana Highway Authority(GHA)	131.55	213.04	344.59	31.43
Dept. Of Feeder Roads (DFR)	65.97	202.25	268.22	24.46
Department of Urban Roads	96.30	207.34	303.64	27.69
National Road Safety Committee	0.00	4.79	4.79	0.44
Driver & Vehicle Licensing Authority (DVLA)	0.00	2.14	2.14	0.20
Ministry of Roads & Transport	0.00	173.12	173.12	15.79
TOTAL	293.82	802.68	1,096.51	100

Appendix 2.14 Disbursement chart of funds to agencies for 2006



Appendix 2.15 Actual disbursement of funds to the Ghana Highway Authority (2000 – 2006)

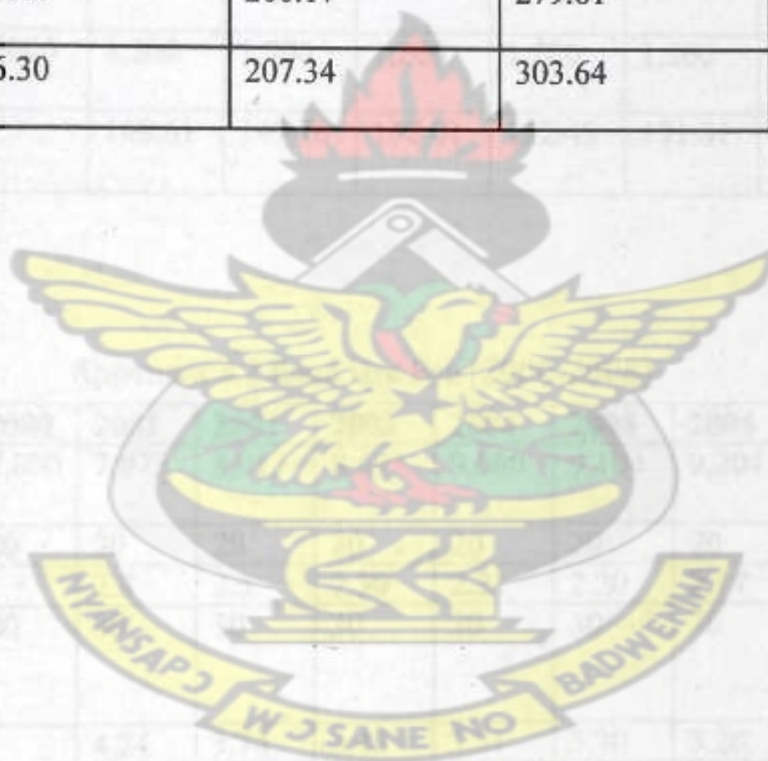
ACTUAL DISBURSEMENT OF FUNDS TO THE GHANA HIGHWAY AUTHORITY				
YEAR	ROUTINE ₵'Bn	PERIODIC ₵'Bn	TOTAL ₵'Bn	SHARE %
2000	26,894.6	101,250.4	128,145.1	50.1
2001	32,522.3	118,251.9	150,774.2	48.1
2002	44,195.30	99,738.95	143,934.25	35.13
2003	73,817.4	134,655.1	208,472.5	32.0
2004	126,619.1	245,755.6	372,374.7	38.8
2005	118.49	225.83	344.32	34.88
2006	131.55	213.04	344.59	31.43

Appendix 2.16 Actual disbursement of funds to the Department of Feeder Roads (2000 – 2006)

ACTUAL DISBURSEMENT OF FUNDS TO THE DEPARTMENT OF FEEDER ROADS				
YEAR	ROUTINE ₵'Bn	PERIODIC ₵'Bn	TOTAL ₵'Bn	SHARE %
2000	20,182.1	48,817.4	68,999.5	27.0
2001	15,431.2	62,503.3	77,936.5	24.9
2002	21,087.30	116,687.18	137,774.48	33.63
2003	39,300.9	151,167.7	190,468.6	29.2
2004	81,645.6	137,986.9	219,632.5	22.9
2005	74.85	100.01	174.86	17.71
2006	65.97	202.25	268.22	24.46

Appendix 2.17 Actual disbursement of funds to the Department of Urban Roads (2000 - 2006)

ACTUAL DISBURSEMENT OF FUNDS TO THE DEPARTMENT OF URBAN ROADS				
YEAR	ROUTINE ₦'Bn	PERIODIC ₦'Bn	TOTAL ₦'Bn	SHARE %
2000	13,585.8	39,216.6	52,802.4	20.7
2001	21,695.0	54,808.6	76,503.6	24.4
2002	39,204.70	68,131.36	107,336.06	26.20
2003	56,338.3	161,080.8	217,419.1	33.4
2004	80,781.0	264,075.6	344,856.6	35.9
2005	79.44	200.17	279.61	28.32
2006	96.30	207.34	303.64	27.69



APPENDIX 3

Appendix 3.1 Vehicle Registration Fees (2000-2008)

User Charge	2000	2001	2002	2003	2004	2005	2006	2007
Exchange Rate in ¢ per US\$ 1	7,000	7,075	8,013	8,695	9,060	9,104	9,204	9,391
Cars(¢)(in'000)	100	200	200	200	200	200	200	200
Cars (US\$)		28.27	24.96	23.00	22.08	21.97	21.72	21.30
Light Vehicle(¢)(in '000)	260	300	300	300	300	300	300	300
Light Vehicle (US\$)		42.4	37.44	34.50	33.11	32.95	32.59	31.95
Heavy Bus(¢)(in'000)	300	400	400	400	400	400	400	400
Heavy Bus (US\$)		56.54	49.92	46.00	44.15	43.94	43.46	42.59
Articulated Truck(¢)(in'000)	1000	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Articulated Truck (US\$)		169.61	149.76	138.01	132.45	131.81	130.38	127.78

Source: MRT (2007)

Appendix 3.2 Road Use Fee (2000-2008)

User Charge	2000	2001	2002	2003	2004	2005	2006	2007	2008
Exchange Rate in ¢ per US\$ 1	7,000	7,075	8,013	8,695	9,060	9,104	9,204	9,391	10,044
Cars(¢)(in'000)	20	20	20	20	20	20	20	20	20
(US\$)		2.8	2.5	2.30	2.21	2.20	2.17	2.13	1.99
Light Vehicle(¢)(in '000)	30	30	30	30	30	30	30	30	30
(US\$)		4.24	3.74	3.45	3.31	3.30	3.26	3.19	2.98
Heavy Bus(¢)(in'000)	35	35	35	35	35	35	35	35	35
(US\$)		4.94	4.37	4.03	3.86	3.84	3.8	3.73	3.48
Articulated Truck(¢)(in'000)	200	200	200	200	200	200	200	200	200
(US\$)		28.26	24.96	23.00	22.08	21.97	21.73	21.30	19.91

Source: MRT (Review Report-2007)

Appendix 3.3 Road and Bridge Tolls (2000-2008)

User Charge	2000	2001	2002	2003	2004	2005	2006	2007	2008
Exchange Rate in ₦ per US\$ 1	7,000	7,075	8,013	8,695	9,060	9,104	9,204	9,391	10,044
Cars(₦)(in'000)	500	500	500	500	500	500	500	500	500
(US\$)		0.07	0.06	0.06	0.055	0.055	0.054	0.053	0.049
Light Vehicle(₦)(in '000)	800	800	800	800	800	800	800	800	800
(US\$)		0.11	0.10	0.09	0.088	0.088	0.087	0.085	0.079
Heavy Bus(₦)(in'000)	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1300
(US\$)		0.18	0.16	0.15	0.14	0.14	0.14	0.14	0.12
Articulated Truck(₦)(in'000)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
(US\$)		0.70	0.62	0.58	0.55	0.55	0.54	0.53	0.49

Source: MRT (Review Report-2007)

Appendix 3.4 Actual Fuel Levy Levels for the Period 2000-2008

Year	Fuel Levy (Per liter)			Actual Consumption (Billion liters)	Actual Revenue	
	Rates in Cedis	Average Annual Exchange Rate	Equivalent in US cents		Billion Cedis	US\$ Million
2000	230.0	7,000	2.87	-	-	-
2001	230.0	7,075	3.23	-	-	-
2002	230.0	8,013.43	2.87	1.615	371.484	46.36
2003	400.0	8,695.04	4.60	1.609	628.450	72.28
2004	400.0	9,060.48	4.42	1.776	710.369	78.40
2005	400/600*	9,104.00	6.12	1.305	728.692	80.04
2006	600.0	9,204.74	6.52	1.707	1,086.76	118.06
2007	600.0	9,390.77	6.39	1.831	1,098.30	116.96
2008	600.0	9090.91	6.6	-	-	-

Source: MRT (2007)

- Unavailable information as of the time of preparation of this report

* From January to February 2005, levy was ₦400 per liter; March onward, levy reviewed to ₦600 per liter

Appendix 3.5 International Transit Fees (2000-2008)

Vehicle Type	2000	2001	2002	2003	2004	2005	2006	2007	2008
Exchange Rate in ¢ per US\$ 1	7,000	7,075	8,013	8,695	9,060	9,104	9,204	9,391	10,044
Cars(¢)(in'000)	20	20	20	20	20	20	20	20	20
(US\$)		2.82	2.5	2.30	2.21	2.2	2.17	2.13	1.99
Light Vehicle(¢)(in '000)	150	150	150	150	150	150	150	150	150
(US\$)		21.20	18.72	17.25	16.56	16.48	16.29	15.97	14.93
Heavy Bus(¢)(in'000)	200	200	200	200	200	200	200	200	200
(US\$)		28.26	24.96	23.00	22.08	21.97	21.72	21.72	19.91
Articulated Truck(¢)(in'000)	300	300	300	300	300	300	300	300	300
(US\$)		42.40	37.44	34.50	33.11	32.95	32.59	31.95	29.86

Source: MRT (Review Report-2007)



APPENDIX 4

Appendix 4.1 Road Fund Releases to Agencies (2001-2007)

Agency	2001 (US \$)	2002 (US \$)	2003 (US \$)	2004 (US \$)	2005 (US \$)	2006 (US \$)	2007 (US \$)
Routine Maintenance							
GHA	4.59	5.52	8.49	13.97	12.99	14.21	11.66
DFR	2.18	2.63	4.52	9.01	8.21	7.13	13.52
DUR	3.06	5.03	6.48	8.92	8.71	10.40	16.65
MOT & Others		-	-	-	-	-	-
Sub-Total	9.84	13.18	19.49	31.09	29.91	31.74	41.83
Periodic Maintenance							
GHA	16.71	12.45	15.49	27.12	24.76	23.02	26.14
DFR	8.83	14.56	17.39	15.23	10.97	21.85	27.39
DUR	7.74	8.36	18.53	29.15	21.95	22.40	20.08
MOT & Others	1.12	2.58	4.04	2.57	20.66	22.05	3.70
Sub-Total	37.87	37.95	55.44	74.07	78.34	89.32	77.31
Totals							
GHA	21.48	17.97	23.98	41.09	37.75	37.23	37.80
DFR	14.57	17.19	21.91	24.24	19.18	28.98	40.91
DUR	12.68	13.39	25.01	38.07	30.66	32.80	36.73
MOT & Others	2.12	2.58	4.04	2.57	20.66	22.05	3.70
Grand Total	50.85	51.13	74.94	105.97	108.25	121.06	119.14

Source: MRT (Review Report-2007)

Appendix 4.2 Road fund budgetary allocation to the Ghana Highway Authority

ROAD FUND BUDGETARY ALLOCATION TO GHANA HIGHWAY AUTHORITY				
YEAR	ROUTINE c'Bn	PERIODIC c'Bn	TOTAL c'Bn	SHARE %
1999	30.0	80.0	110.0	50.2
2000	45.0	106.0	151.0	49.8
2001	45	107	152	42.1
2002	45.0	107.0	152.0	38.3
2003	60.3	149.7	210.0	33.7
2004	148.6	132.4	281.0	39.1
2005	148.62	158.88	307.50	29.47
2006	-	-	366.66	30.43

Appendix 4.3 Road fund budgetary allocation to the Department Of Feeder Roads

ROAD FUND BUDGETARY ALLOCATION TO DEPARTMENT OF FEEDER ROADS				
YEAR	ROUTINE ₦'Bn	PERIODIC ₦'Bn	TOTAL ₦'Bn	SHARE %
1999	15.0	34.0	49.0	22.4
2000	24.0	48.0	72.0	23.8
2001	28.1	75.1	103.2	28.6
2002	35.0	117.0	152.0	38.3
2003	50.0	110.2	160.2	25.7
2004	50.0	109.0	159.0	22.1
2005	50.0	199.80	249.80	23.94
2006	-	-	312.16	25.91

Appendix 4.4 Road fund budgetary allocation to the Department Of Urban Roads

ROAD FUND BUDGETARY ALLOCATION TO DEPARTMENT OF URBAN ROADS				
YEAR	ROUTINE ₦'Bn	PERIODIC ₦'Bn	TOTAL ₦'Bn	SHARE %
1999	12.0	44.0	56.0	25.6
2000	18.0	58.0	76.0	25.1
2001	18.8	71.3	90.1	25.0
2002	30.0	47.3	77.3	19.5
2003	60.0	140.0	200.0	32.1
2004	72.0	133.0	205.0	28.5
2005	72.00	137.2	209.20	20.05
2006	-	-	313.80	26.04

Appendix 4.5 Road fund budgetary allocation to the Roads and Highways and others

ROAD FUND BUDGETARY ALLOCATION TO ROADS AND HIGHWAYS AND OTHERS				
YEAR	ROUTINE ₦'Bn	PERIODIC ₦'Bn	TOTAL ₦'Bn	SHARE %
1999	-	4.0	4.0	1.8
2000	-	4.0	4.0	1.4
2001	-	15.6	15.6	4.3
2002	-	16.0	16.0	4.1
2003	-	62.1	62.1	8.5
2004	-	74.3	74.3	10.3
2005	-	277.09	277.09	26.54
2006	-	-	213.37	17.62

Appendix 4.6 Release of Funds (2002-2007) for the Road agencies under MRH
(US\$ Million)

Source	2002 (US \$ Mil)	2003 (US \$ Mil)	2004 (US \$ Mil)	2005 (US \$ Mil)	2006 (US \$ Mil)	2007 (US \$ Mil)	Total/Cum (US \$ Mil)
Donor Fund	32.29	48.81	88.69	90.60	93.05	676.54*	676.54
Road Fund	51.13	74.93	105.97	108.44	121.06	119.14	580.67
Cons'd Fund	25.85	30.94	41.01	73.37	92.73	39.99	303.89
Total	109.27	154.68	235.67	272.41	306.84	835.66	1,561.10

*A number of capital intensive projects were completed in 2007

Source: (MRT, 2007)

Appendix 4.7 Details of Road Fund Revenue (2002- 2007)

Source	2002 US \$ Mil	2003 US \$ Mil	2004 US \$ Mil	2005 US \$ Mil	2006 US \$ Mil	2007 US \$ Mil
Fuel Levy	46.48	72.42	78.40	108.8	111.28	116.95
Road Tolls	0.85	1.18	1.15	1.15	1.09	1.04
Bridge Tolls	0.42	0.66	0.56	0.63	0.62	0.62
Ferry Tolls	0.000045	0.0087	0.014	0.027	0.046	0.013
Road Use Fees	1.21	1.36	1.39	1.45	1.57	1.83
Vehicle Reg. Fees	1.52	1.64	1.95	2.14	2.38	2.97
Int. Transit Fees	0.61	1.17	1.01	1.10	1.07	1.01
Total	51.15	78.44	115.30	115.30	124.43	124.43

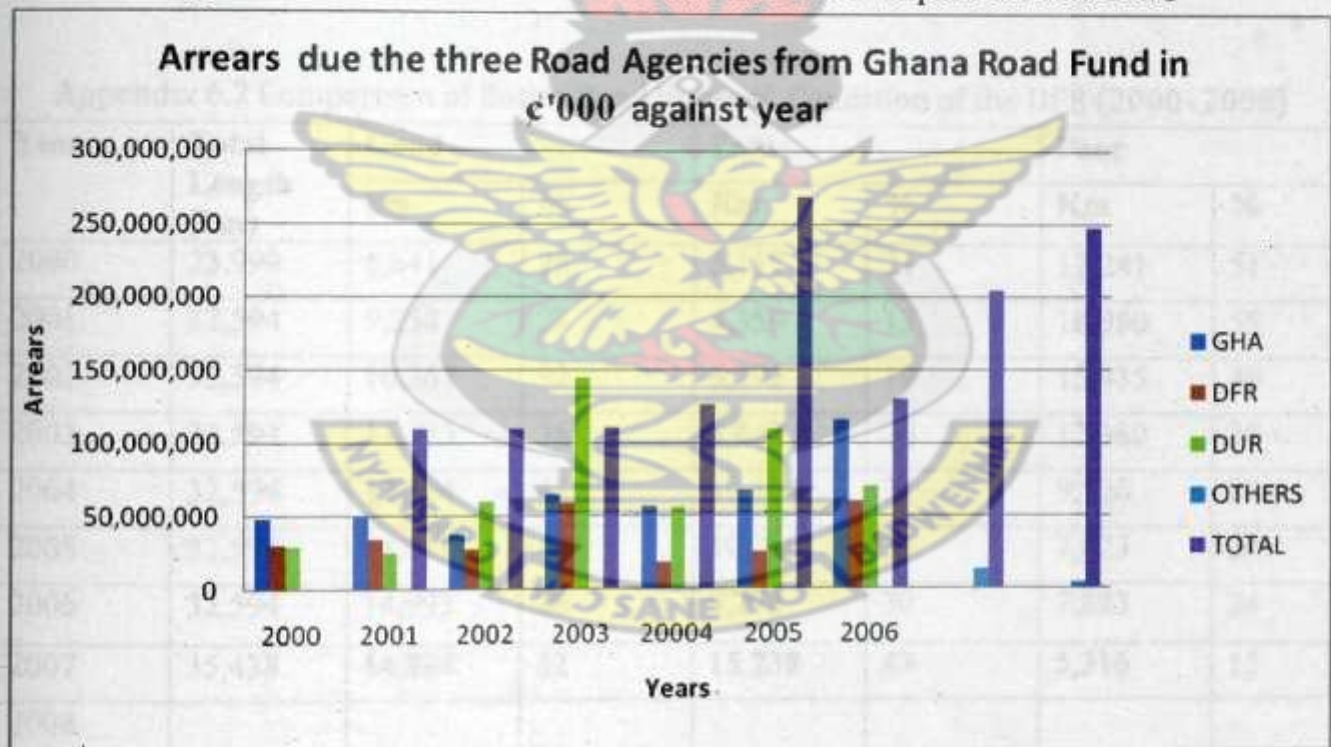
Source: (MRT, 2007)

APPENDIX 5

Appendix 5.1 Arrears for Ghana Road Fund over the period 2000-2006(¢Bn)

	2000	2001	2002	2003	20004	2005	2006
<i>GHA</i>	48,231,800	50,766,920	38,049,590	64,788,660	56,500,210	68,070,100	116,719,797
<i>DFR</i>	31,195,000	34,913,140	28,320,050	59,858,970	18,451,370	26,336,892	60,140,643
<i>DUR</i>	30,260,700	25,372,160	60,476,570	144,979,640	55,534,500	110,324,530	70,976,698
<i>TOTAL</i>	109,687,500	111,052,220	126,846,210	269,627,270	130,486,180	204,731,522	247,837,138
<i>OTHERS</i>	-	-	430,960	354,666	393,066	13,014,055	3,840,193
<i>GRAND TOTAL</i>	109,687,500	111,052,220	127,277,170	269,981,936	130,879,146	217,745,577	251,677,331

Appendix 5.2 Arrears for Ghana Road Fund over the period 2000-2006



APPENDIX 6

Appendix 6.1 Comparison of Entire Road Network Condition of GHA (2000- 2008)

Year	Good		Fair		Poor		Total	
	Km	%	km	%	km	%	km	%
2000	3,381	30	4,293	39	3,448	31	11,121	100
2001	2,726	23	3,152	27	5,984	51	11,850	100
2002	3,069	26	3,244	27	5,639	47	11,972	100
2003	3,272	29	3,316	30	4,540	41	11,128	100
2004	4,410	40	3,294	30	3,250	30	10,942	100
2005	4,739	43	3,510	31	2,928	26	11,177	100
2006	5,403	46	3,397	29	2,924	25	11,723	100
2007	6,344	57	2,970	26	1,866	17	11,180	100
2008								

Source: (MRT, 2007))

Appendix 6.2 Comparison of Entire Road Network Condition of the DFR (2000- 2008)

Year	Total Length (km)	Good		Fair		Poor	
		km	%	Km	%	Km	%
2000	23,999	6,641	28	5,117	21	12,241	51
2001	32,594	9,258	28	4,359	13	18,980	58
2002	32,594	10,367	32	6,292	19	15,935	49
2003	32,594	11,773	36	8,442	26	12,380	38
2004	32,594	13,364	41	10,104	31	9,126	28
2005	32,594	14,015	43	10,756	33	7,823	24
2006	32,594	14,993	46	9,778	30	7,823	24
2007	35,438	14,884	42	15,238	43	5,316	15
2008							

Source: (MRT, 2007)

Appendix 6.3 DUR Road Condition Mix (2000- 2008)

Year	Total Network	Road Type	Good		Fair		Poor	
			km	%	km	%	km	%
2002	4,064.1	Paved	736.0	38	499.0	27	700.1	36
		Unpaved	342.0	16	185.4	9	1,601	75
		Total	1,078.9	27	684.4	17	2,301.7	57
2003	4,064.1	Paved	780.0	40	501.0	26	654.1	34
		Unpaved	400.0	19	192.1	9	1,536.0	72
		Total	1,180.9	29	693.1	17	2,190.1	54
2004	4,064.1	Paved	811.4	42	508.0	26	615.7	32
		Unpaved	418.1	20	172.5	8	1,538.4	72
		Total	1,229.5	30	680.5	17	2,154.1	53
2005	4,064.1	Paved	854.6	43	497.1	25	634.4	32
		Unpaved	369.2	18	197.5	10	1,511.3	73
		Total	1,223.8	30	694.6	17	2,145.7	53
2006	4,064.1	Paved	930.4	47	439.8	22	615.9	31
		Unpaved	453.4	22	1588	8	1,465.8	71
		Total	1,383.8	34	598.6	15	2,081.7	51
2007	9,765	Paved	867	27	53	2	2,250	71
		Unpaved	2,409	36	125	2	4,061	62
		Total	3,276.0	34	178.0	2	6,311.0	64

Source: (MRT, 2007)

APPENDIX 7

Appendix 7.1 Questionnaire for road agency's managers

TOPIC: REVIEW OF THE PERFORMANCE OF THE GHANA ROAD FUND OVER THE PERIOD 2000-2008

QUESTIONNAIRE FOR ROAD AGENCY'S MANAGERS

NAME OF INTERVIEWEE

POSITION:

DATE:

INTRODUCTION:

In order to address the shortfalls in the funding requirements of the Road Agencies in Ghana and also to ensure the sustainability of the resources of the Road Fund, it has become necessary to look at the factors contributing to these shortfalls on the part of the Road Agencies, hence the purpose of this questionnaire.

In each of the following questions below, please select an option(s) when provided that best reflects your opinion. In cases where "other (specify)" is the option, please specify your option. Thank you.

1. What has been your Agency's average annual budget for Routine and Periodic Maintenance over the last three (3) years?

.....
.....

2. What has been your Agency's average annual expenditure for Routine and Periodic Maintenance over the last three (3) years?

.....
.....

3. Are the Routine and Periodic Maintenance programmes of your Road Agency driven by any strategic objective?

c. Yes

d. No

4. If the Answer to Question 3 is Yes, state the objectives

.....
.....

5. What are the type(s) of data that are collected for the purpose of planning for the Routine Maintenance of your Road Agency?

- a. Vegetation control(Grass cutting),
- b. Pot-hole patching,
- c. Desilting of drains and culverts
- d. Traffic characteristic
- e. Major drainage and bridge repairs
- f. Level of deterioration of pavement
- g. Other(Specify):

.....
.....

6. What are the type(s) of data that are collected for the purpose of planning for the Periodic Maintenance of your Road Agency?

- a. Vegetation control (Grass cutting),
- b. Pot-hole patching,
- c. Desilting of drains and culverts
- d. Traffic characteristic
- e. Major drainage and bridge repairs
- f. Level of deterioration of pavement
- g. Other (Specify)

.....

7. What is the frequency of data collection for Routine and Periodic Maintenance by your Road Agency?

.....
.....

8. How does your Road Agency determine the optimum balance between Routine and Periodic Maintenance?.....
.....

9. Is the strategic combination of the Routine and Periodic Maintenance programmes of your Road Agency informed by any management tool?

- a. Yes
- b. No

10. If answer to Question 9 is Yes, state the management tool(s) used by your Road Agency for the purpose of this combination

- a. RED
- b. HDM-4
- c. PMMP
- d. RPM
- e. MPBS
- f. Other(Specify):.....
.....

11. Does your Road Agency always get what they budget for?

- a. Yes
- b. No

12. If answer to Question 9 is No, how does your Agency cater for its budgetary shortfalls?

- a. By limiting scope of works
- b. By reprioritization of routine maintenance over periodic maintenance
- c. By reprioritizing on-going projects
- d. By pro rata by cutting back budget for all activities
- e. Other(Specify):.....
.....

13. How does your Road Agency deal with new programmes that come up for implementation after budgetary allocation from the Road Fund has been granted?

- a. Agency goes back to the Road Fund for supplementary funds/budgets.
- b. New projects are awarded without approval from the Road Fund Board.
- c. Vie budget for other planned projects
- d. By using budgets allocation for terminated non performing projects
- e. Other(Specify):.....

14. Is your Road Agency contemplating using performance contract?

- a. Yes
- b. No

15. If the answer to Question 14 is Yes state the reasons

- a. It will allow for more effective supervision of projects
- b. It will help channel resources to more productive use
- c. It will help Agencies staff to get time for other activities
- c. Other(Specify):.....

THANK YOU



TOPIC: REVIEW OF THE PERFORMANCE OF THE GHANA ROAD FUND OVER THE PERIOD 2000-2008

QUESTIONNAIRE FOR ROAD FUND ADMINISTRATORS

NAME OF INTERVIEWEE

POSITION

DATE

INTRODUCTION:

In order to address the resource constraints of the Ghana Road Fund, it has become necessary to review the performance of the Fund over the period 2000 to 2008 to make it more economic relevant to the needs of the Road Agencies in Ghana, hence the purpose of this questionnaire.

In each of the following questions below, please select an option(s) when provided that best reflects your opinion. In cases where "other (specify)" is the option, please specify your option. Thank you.

8. What has been the average annual budget of the Road Fund for the past three (3) years?

Year	Average Annual Budget
2006	
2007	
2008	

9. How is the annual budget of the Road Fund decided?

.....

10. How is the annual budget allocation to the various Road Agencies decided?

- a. Discretion of the Board
- b. Using historical trend
- c. Through an indicative formula set by the Road Fund Board.
- d. Through a subjective consideration of the network size, traffic and maintenance needs.

e. Following priority of the incumbent government in terms of agency focus

f. Other (specify):

11. Does the Road Fund Board have any mechanism in place to ensure that the existing revenue generation instruments are economically relevant?

a. Yes,

b. No

12. If the answer to Question 4 is Yes, state the mechanism

.....

13. When was the last time the following revenue generation instruments were reviewed?

Fuel Levy

a. 2005

b. 2006

c. 2007

d. 2008

Vehicle Registration Fee

a. 2001

b. 2002

c. 2003

d. 2004

e. 2005

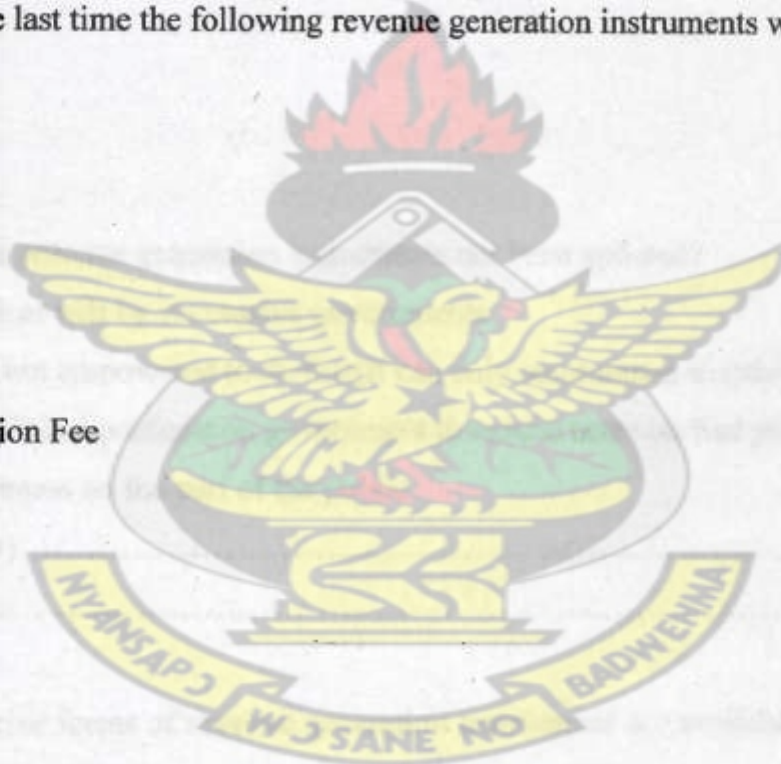
International Transit Fee

a. 1998

b. 1999

c. 2000

d. 2001



- e. 2002

Road Use Fee

- a. 1998
- b. 1999
- c. 2000
- d. 2001
- e. 2002

Road, Bridge & Ferry Tolls

- a. 1998
- b. 1999
- c. 2000
- d. 2001
- e. 2002

14. Why have the revenue generation instruments not been updated?

- a. Lack of political will by successive governments
- b. The Board is not empowered to do that (It can only recommend to cabinet)
- c. Because of political pressure on government to reduce taxes on fuel products
- d. Lack of awareness on the part of the public
- e. Other(specify).....

15. What alternative forms of revenue generation instruments are available for consideration by the Road Fund Board?

- a. Taxes on LPG for vehicles
- b. Taxes on sign boards on all road corridors in the country
- c. Fines imposed on motor-traffic offenders
- d. Through revenues generated from car parking schemes by the Metropolitan/Municipal Assemblies

e. Other(specify):.....

.....

16. There have been reported cases of budget overruns on the part of the various Road Agencies. What are your views about the causes of the budget overruns?

a. Pressure from politicians and other opinion leaders on Road Agency heads to award contracts that are not in the Agency's priority list

b. Lack of consultation between Agency heads, politicians and other opinion leaders at the planning and budgetary stage of projects.

c. Insufficient allocation of funds to the Road Agencies by the Road Fund Board

d. Indiscipline by Road Agency staff

e. Other (specify):

.....

17. What constraints/difficulties does the Road Fund Board face in ensuring that Road Agencies keep to their approved budgets?

a. The Board is not adequately empowered by the law to do that

b. Lack of cooperation from Road Agencies

c. Political interference

d. Inadequate information flow between Agencies and Road Fund Secretariat

e. Other(specify):.....

.....

