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Ing. Ludwig Annang Hesse, F-GhIE (President)

53RD PRESIDENTIAL ADDRESS

Theme: Do It Well, Do It Right: A Focus on Roads in Ghana

PROLOGUE

“So, as the Holy Spirit says: “Today, if you hear his voice, do not harden your hearts as you did in the rebellion, during the time of testing in the wilderness, where your ancestors tested and tried me, though for forty years they saw what I did. That is why I was angry with that generation; I said, ‘Their hearts are always going astray, and they have not known my ways.’ So I declared on oath in my anger, ‘They shall never enter my rest.’” See to it, brothers and sisters, that none of you has a sinful, unbelieving heart that turns away from the living God. But encourage one another daily, as long as it is called “Today,” so that none of you may be hardened by sin’s deceitfulness.”

Hebrew 3:7-13



ACKNOWLEDGEMENT

On behalf of the Ghana Institution of Engineering (GhIE), I extend my sincere appreciation to our distinguished guests, partners, and members whose presence and support have made this 53rd Presidential Address a success.

I acknowledge, with deep gratitude, the collaboration and commitment of the Ministry of Roads and Highways, the Ghana Highway Authority, the Department of Urban Roads, and the Department of Feeder Roads. Your stewardship in the planning, development, and maintenance of Ghana's road infrastructure remains central to national growth and economic transformation.

I further recognize the Engineering Council, our regulatory bodies, industry leaders, consultants, contractors, academia, and development partners for their sustained commitment to strengthening engineering practice and upholding the highest professional standards in Ghana.

I wish to specially acknowledge my wife, Mrs. Rose Sowakai Hesse, for her unwavering support, as well as all who participated in the Presidential Luncheon and associated events.

Special appreciation is extended to our sponsors and corporate partners for their invaluable support. Your partnership reflects a shared commitment to quality, accountability, and sustainable infrastructure delivery.

I commend the Council, Past Presidents, the Executive Director, Technical Divisions, Branches, Chapters, and the Planning Committee of the Institution for their leadership and diligent efforts in organizing this Address. Your service continues to advance the mission and strategic direction of GhIE.

I also extend special thanks to the following individuals whose dedication, professionalism, and hard work contributed significantly to the success of this Presidential Address: Ing Dr. Patrick Amoah Bekoe, Ing Sophia Tijani, Ing Dr. Enyonam Kpekpena, Ing Abbey Sam, Ing Godwin Brocke, Ing Dr. Addo Abedi, Ing Samuel Akuoko, Ing James Amoo Gottfried, Ing Joseph O. Lamptey, Ing Akua Sakyibea Vander-Pallen, Ing Kwaku Osei Bonsu, Ing Dr., Michael Ankamah Bekoe, Ing Dr. Lucy Adjepong, Ing George Debrah, Ing Dr. Adjei Boateng, Ing Efua

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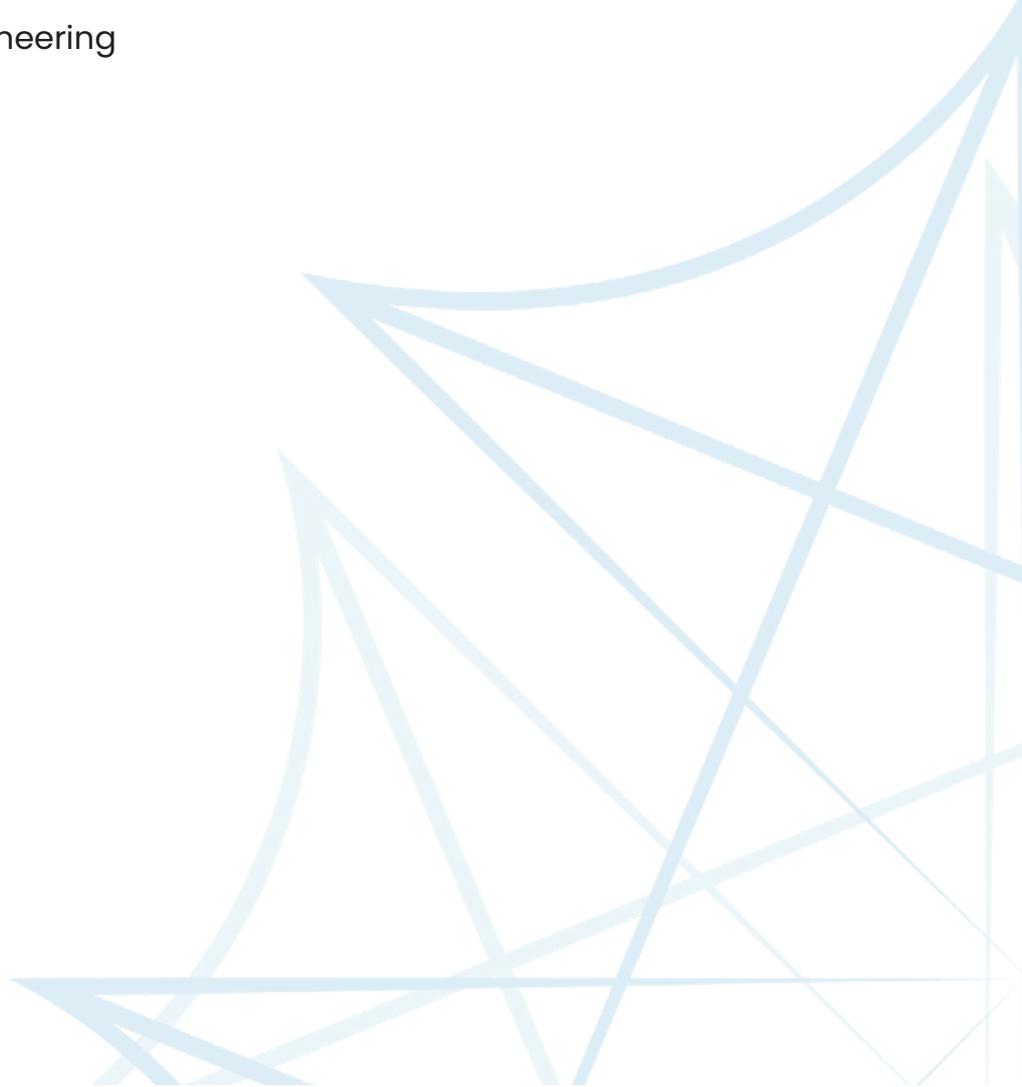
The theme of this Address “Do It Well, Do It Right: A Focus on Roads in Ghana” reaffirms our collective responsibility to deliver infrastructure that is safe, durable, efficient, and aligned with our national aspirations. It underscores our obligation as engineers to uphold integrity, technical competence, and excellence in every undertaking.

To all who have supported this occasion and to every member of the Institution, I convey my sincere thanks. May this Address reinforce our resolve and inspire decisive action toward delivering road infrastructure that truly serves the people of Ghana.

Ing. Ludwig Annang Hesse, F-GhIE

President

Ghana Institution of Engineering



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LIST OF ACRONYMS

ABEDA – Arab Bank for Economic Development in Africa

AFD – Agence Française de Développement

AfDB – African Development Bank

AMA – Accra Metropolitan Assembly

BDID – Belgian Development Agency

BOST – Bulk Oil Storage and Transportation Company

BRRI – Building and Road Research Institute

BRT – Bus Rapid Transit

CBD – Central Business District

CPESD – Coordinated Programme of Economic and Social Development

CRIPP – Corridor Renovation and Improvement Project Package

DANIDA – Danish International Development Agency

DFR – Department of Feeder Roads

DVLA – Driver and Vehicle Licensing Authority

EC – European Commission

EI – Executive Instrument

ERP – Economic Recovery Programme

GEF – Global Environment Facility

GHA – Ghana Highway Authority

GHS – Ghana Cedi

GIS – Geographic Information System

GoG – Government of Ghana

GPHA – Ghana Ports and Harbours Authority

GPRS – Ghana Poverty Reduction Strategy

GTAC – Ghana Transport Advisory Council

GUMAP – Greater Accra Metropolitan Area Plan

HDMIV – Highway Development and Management Model IV

IDA – International Development Association

IRI – International Roughness Index

ITP – Integrated Transport Plan

JBIC – Japan Bank for International Cooperation

JICA – Japan International Cooperation Agency

KfW – Kreditanstalt für Wiederaufbau (German Development Bank)

KIA – Kotoka International Airport

KOICA – Korea International Cooperation Agency

LI – Legislative Instrument

MDA – Ministry, Department and Agency

MMDA – Metropolitan, Municipal and District Assembly

MMRU – Metropolitan/Municipal Road Unit

MMA – Metropolitan/Municipal Assembly

MMSA – Metropolitan/Municipal and Special Assembly

NDPC – National Development Planning Commission

NTP – National Transport Policy

OPEC – Organization of the Petroleum Exporting Countries

PEA – Project Evaluation and Appraisal

PFM – Public Financial Management

PIAD – Public Investment Analysis Division

PIP – Public Investment Programme

PMS – Pavement Management System

PMMP – Periodic Maintenance Management Plan

PPP – Public Private Partnership

RMTF – Road Maintenance Trust Fund

RSDP – Road Sector Development Programme

SDR – Special Drawing Rights

SWKP – Sector-Wide Key Performance Indicators

TMP – Transport Master Plan

TMA – Tema Metropolitan Assembly

TSIP – Transport Sector Improvement Project

TSM – Traffic Systems Management

TSSN – Transport Sector Strategy Note

VLTC – Volta Lake Transport Company

CHAPTER 1: INTRODUCTION

1.1 How We Got Here

I grew up in a large family in my grandfather's house at Osu, here in Accra. I was the fifth among eight surviving children. Like most boys, I also did not like taking my bath and will usually take refuge with our neighbours to avoid my mother insistence that I do so.

Today would have been my mothers 96th birthday if she was alive. She passed three years ago, and I know she rests peacefully in the Lord. I believe you are at this moment looking down upon us and cheering me on. Keep cheering Yomo, we will also join you when our work here is done.

My leadership experience started when I became a Children's Service Teacher at Osu Eben-Ezer Presbyterian Church in 1976, whilst I was still in secondary school. This nurture has been continuous, rising to chair the National Council on Children's Ministry and serving on the General Assembly Council of the Church. I am grateful to God for this preparation.

I was elected President-Elect at the 2023 AGM and became the 53rd President of the Institution at my investiture on 27th March 2025, following in a well trodden and sturdy path laid down by 52 illustrious Past Presidents, some of whom are here to cheer me on.

Article 13.1.1 (e) of the GhIE Constitution states, "*He/she (the President) will deliver the Presidential Address, on a topic of his/her choice but with significance to the science and practice of engineering, in the first year of his/her term in office.*"

It is this obligation that I fulfil today. And the theme I have chosen is, "*Do it Well, Do it Right – A Focus on Roads in Ghana.*"

1.2 Do it Well, Do it Right

At my investiture in March 2025, I announced the theme for my two-year term in office as, "*Engineering Our Future - Do It Well, Do It Right.*"

Engineering is not only about building bridges and systems, but about building nations; and not only about solving today's problems but laying the paths for future generations. A future shaped by the decisions we make today, the standards we set today and the courage we show today.

Engineers must therefore be at the table in government, in industry, in education, innovating, helping our societies move from where we are to where we must be. And above all, we must insist that how we build matters as much as what we build. Integrity must be our foundation, accountability our compass, and the public good our purpose. As we engineer our future, we must do it well and do it right.

This is what has informed the choice of the theme for my presidency and the foundation for this Presidential Address.

1.3 A Focus on Roads in Ghana

Why do I focus on roads in Ghana?

Simply put, that is where I have my strengths.

My association with the road sector started in 1985 when I transferred from the PWD to do my second-year national service with the Ghana Highway Authority. I became a fulltime staff in 1986 until I resigned in 2009. I was seconded to the Department of Urban Roads in 1988 when it was set up and it is there that I had most of my public service experience.

Before I left the Public Service in 2009, I had been the deputy director for planning and development in the Department of Urban Roads, where I also acted as director for a one-year period between 1999 and 2000. I was also the director of planning in the Ghana Highway Authority in 2007.

I have since 2012 been a Director with SADL Engineering Limited, a consulting engineering firm based in Accra which specializes in the study, design and construction supervision of road projects.

I served on the Road Fund Management Board and the Ministerial Advisory Council of MRH from 2017 to 2021 and contributed as an expert on Transportation in developing the Ghana Infrastructure Plan for the National Development Planning Commission (NDPC) that was recently launched by the President.

My intention is to use the experience and insights I have gained to document the evolution of the road sector from its PWD days post independence, through the establishment of the Ghana Highway Authority in 1974 to its status today.

I intend to focus on the performance markers in the area of sector policy, planning, organization, management, and service delivery and attempt to trace the path we have trod till date. I will also suggest a few things we can do better in our quest to engineer our future in the spirit of, “do it well, do it right.”

1.4 My Objective

Our country, Ghana, 69 years after independence is still wallowing in the wilderness just like the Israelites did for 40 years after their liberation from Egypt. Sin has kept us in the wilderness, the sin of corruption, nepotism, stealing, unproductive rivalry, greed and the like.

Of the 35 million persons living in Ghana today, less than 3% were born before independence and that does not include me. Most of them have perished in the wilderness.

It is the duty of those of us who have been part of the wilderness experience since our birth to motivate the Joshua generation of today to do it well and to do it right, so that life in the promised land will become more pleasant than our experience in the wilderness, even if some of us may not be there to experience it. This is my duty today.

“So, as the Holy Spirit says: “Today, if you hear his voice, do not harden your hearts as you did in the rebellion, ...” Hebrews 3:7

1.5 Acknowledgement of Inputs for this Address

My approach to this address at the onset was to base it on verifiable data and opinion of experts, past executives and current executives of the road sector. I have achieved this largely with the support of a few individuals.

I had one on one interviews with some of our past executives of the road sector and I am grateful for their input. They include Ing. Kwesi Abbey Sam, Ing. Joseph Odartey Lamptey, Ing. Dr. Fredrick Addo-Abedi, Mr. Alex Twumasi-Boakye, Ing. Steve Amoaning-Yankson and Ing. Osei-Bonsu.

I organized a luncheon 29th December 2025 with a cross-section of past and current executives of the road sector where a focus group discussion was facilitated to solicit their general views on the performance of the sector through the period to date. I am grateful to all who attended and have offered input into this address.

With the assistance of Ing. John Richardson of the World Bank, I obtained a library of project preparation and implementation reports prepared by the transport sector of the World Bank since 1973. These have provided great input into this address. I am grateful.

I have been assisted by a few persons to receive and review reports, policies and documents on the sector. Some even contributed write ups as input. This was coordinated by Ing. Dr. Micheal Ankamah Bekoe. I am grateful to the team. The full list is provided in the acknowledgement section of the report.

CHAPTER 2: NATIONAL DEVELOPMENT PLANNING

2.1 General

National development planning has been with us since independence. The famous seven-year development plan of Kwame Nkrumah launched in 1964 that is referred to by commentators with nostalgia acknowledges that it was preceded by two development plans. Also, the 1992 Constitution of Ghana established the National Development Planning Commission under Article 86 and 87.

This chapter will trace the history and current framework for national development planning in Ghana to establish the planning ecosystem for the transport sector with a focus on the road sub-sector.

2.2 1964 Seven-Year Development Plan

Chapter 6 of the Ghana Seven-Year Development Plan¹, approved by Parliament in March 1964, for the period 1963-1970, focused on infrastructure. It acknowledged that the preceding two development plans had spent 44% of its expenditure on infrastructure and was considered more than adequate for the state of economic development at the time.

With the priority given to agricultural development, the seven-year plan focused on connecting all farming and rural industrial areas with trunk roads and feeder roads. The share for the road sector in the Transport and Communication budget was 56%. in the plan.

The Seven-Year Plan already envisaged the extension of the railway line to Sunyani and to Akosombo and a consideration for its electrification based on the abundant power from Akosombo.

Water transport was identified as the cheapest means of moving passengers and cargo, an important benefit from the Volta Project. A well coordinated Volta lake transport with the trunk road network was envisaged at the time.

¹ Ghana Seven-Year Development Plan, Approved by Parliament on 16th March 1964

Ghana Airways was already in operations and the extension of the Accra International airport and the development of air strips for internal travel was planned.

On the maritime front, Tema Harbour had been completed by 1961 and the planned envisaged its expansion to include a fishing harbour.

2.3 Current National Development Planning System

In line with Articles 86 and 87 of the 1992 constitution of Ghana, the National Development Planning Act, 1994, (Act 479), formally established the National Development Planning Commission (NDPC) under the office of the President.

The National Development Planning (System), Act, 1994, (Act 480) makes NDPC the national coordinating body of the newly established Decentralized Development Planning System in Ghana. The national development planning system is made up of:

- i. District Planning Authorities at the District level;
- ii. Regional Coordinating Councils at the Regional level; and
- iii. Sector Agencies, Ministries and the NDPC at the National level.

The NDPC produces the National Development Plan that guides the sector Agencies and Ministries to produce sector development plans and the District Assemblies to produce district development plans.

2.4 National Development Plans

The major function of the NDPC is to advise the President on economic development. As part of its functions to produce a National Development Plan, the commission produced the following long-term development plans: the Ghana Vision 2020 (1996-2020); the 7-Year Development Plan (2009-2015); and the draft 40-Year Development Plan (2018-2057).

The commission has also led in the development of medium-term plans such as Ghana Poverty Reduction Strategy (2003-2005); Growth and Poverty Reduction Strategy (2006-2009); Ghana shared Growth and Development Agenda 1 (2010-2013), Ghana Shared Growth and Development Agenda 2 (2014-2017), National Medium Term Development Plan 1 (2018-2022); and National Medium Term Development Plan 2 (2023-2025).

The major issue had been the extent to which these development plans are binding across political changes in government.

2.5 Sector Development Plans

Each Sector is expected to prepare a sector development plan within the framework provided by NDPC. The preparation of the sector plans is coordinated by the Policy, Planning and Budgeting directorates of the sector ministries. The sector plans are submitted to the NDPC to ensure that they have been done within the goals of the National Plan and for monitoring and evaluation.

There has not been one transport sector plan over the years, but sub-sector medium development plans based on the ministerial structure of the time.

2.6 Public Investment Program (PIP)

As far back as 1985, in a Transport Sector Strategy Note (TSSN, Report No. 5737-GH, June 1985) prepared by the World Bank and agreed with the Government, the basic policy and institutional reforms included the preparation of a three-year Transport Investment Plan². This is akin to the Public Investment Program (PIP) prescribed by the Public Financial Management (Public Investment Management) Regulations, 2020 (LI 2411).

The Public Investment Program (PIP) contains the rolling list of priority programs and projects to be implemented within the Medium-Term Expenditure Framework by the government, government owned and controlled entities, and entities with significant government interest.

The Public Investment and Assets Division (PIAD) of the Ministry of Finance, through its three units Public Investment Program (PIP), Public Private Partnership (PPP), and Public Entities and Assets (PEA), among others has the responsibility to:

- i. Establish and facilitate the implementation of a robust regulatory and policy framework to guide public investment management;

² World Bank, *Project Appraisal Document, Ghana Transport Rehabilitation Project (1858-GH)*, 1987

- ii. Support the MDAs by providing guidelines, templates and manuals to guide the pre-investment process and ensure compliance with regulations;
- iii. Maintain a comprehensive and reliable electronic database on public infrastructure projects (referred to as the Integrated Bank of Projects) to facilitate project prioritisation and budgeting;
- iv. Review project documentation referred to the Ministry including prefeasibility and full feasibility studies to ensure that projects meet the requisite quality criteria for the granting of a seal of quality by the Minister, including value for money, affordability, financial viability, bankability and appropriate transfer of risk; and
- v. Monitor and report on the implementation of the PIP and priority projects and document lessons to feedback into project design, preparation and dissemination.

A visit to the website of the Ministry of Finance, did not show any portal where guidelines, templates and manuals to guide the pre-investment process; the Public Investment Plan (PIP); and the Integrated Bank of Projects (IBP) has been published.

This gives the impression that we are not implementing a comprehensive investment program in Ghana as required by LI 2411.

CHAPTER 3: THE TRANSPORT SECTOR

3.1 General

This chapter will provide an overview of the transport sector of Ghana within which the road transport sub-sector is located. It will trace the historical trajectory of transport policy and planning, highlight the most recent policy and planning documents of the whole sector and touch briefly on each of the sub-sectors of the transport system.

3.2 National Transport Policy

3.2.1 An Early 1970s Evaluation of the Transport Sector

A World Bank Appraisal Report in 1973³, referred to a Transport Sector Study in 1969-70 undertaken by Robert R. Nathan Associates, Inc. (US) with financing from USAID.

The verdict of the report at the time was, *“Transport infrastructure is generally adequate to support a much higher level of economic activity than at present, but considerable renovation must be affected, and a greater maintenance effort applied. Highways represent the most important mode, accounting for about 70% of total freight transport, and 90% of passenger movements. Railways are used almost exclusively for transporting timber, cocoa, and mineral ores. Internal air transport accounts for probably less than one percent of total passenger movements. Coastal shipping and river transport are negligible, and Volta Lake transport is of only local significance.”*

The Appraisal Report also concluded that transport planning was weak and suffers from lack of coordination. The report, however, noted that a Transport Planning and Budget Division had been created in the Ministry of Transport and Communications and saw this as a positive step towards the evolution of a transport policy and an improved planning process.

Based on additional studies undertaken by SWKP and Crown Agents the Appraisal report further concluded that there was the need for restoration and better maintenance of the existing infrastructure and that the Government had already taken this on board in the 1972/73 budget

³ World Bank, *Appraisal Report of a First Highway Project Ghana (76a-GN)*, 1973

estimates. The budget prioritized trunk and feeder road rehabilitation and maintenance; planned for improved railway operations; a sound financial policy for the various state corporations engaged in transport operations; and encouraged investment in commercial passenger transport rather than in private cars.

The report also concluded that far more economic analysis is required in the decision-making process, noting that investment decisions had been taken in the past despite economic analysis demonstrating that certain projects were of low priority.

Transport agencies were also cited as not keeping up-to-date financial and statistical information on their activities.

3.2.2 The 1985 Transport Sector Strategy Note (TSSN)

The genesis of transport policy reforms is captured in a World Bank project appraisal document of 1987⁴ which discussed the major issues facing the transport sector in Ghana as captured in a Transport Sector Strategy Note (TSSN, Report No. 5737-GH, June 1985) prepared by the World Bank and agreed with the Government. The 1985 TSSN is reported to have focused on the country's main transport problems and policy issues and presented a strategy for tackling them over the short and medium terms.

The importance attached to the transport sector was reflected in the fact that close to 50% of projected available foreign exchange resources under the 1984-86 ERP, were allocated to physical infrastructure, mainly transport; the 1986-88 investment program also assigned an equally high share for transport sector; and the rehabilitation of transport infrastructure had been one of the areas of concentration of international assistance to Ghana.

The basic policy and institutional reforms agreed by Government in the 1985 TSSN included:

- i. Preparation of three-year transport investment plans;

⁴ World Bank, *Project Appraisal Document, Ghana Transport Rehabilitation Project (1858-GH), 1987*

- ii. Reorganization of public sector port agencies on commercial lines, adequate cost recovery in ports, and an increased role for the private sector in port activities;
- iii. Increased share for private sector contractors in road maintenance using open competitive tendering process and ensuring improved supervision and auditing;
- iv. Phased reduction of excess staff in the road, rail and port agencies;
- v. Reorganization of the Ministry of Roads and Highways; and
- vi. The establishment of a Road Fund based on new taxes on fuel to finance road maintenance.

The 1996 World Bank Project Appraisal Document for the Highway Sector Investment Program⁵ reviewed progress on the 1985 TSSN as follows, “Achievements of the GOG-Bank dialogue since 1985 include: (a) establishment of a Road Fund (fuel levy based) which finances a proportion of maintenance work and reduces dependence on general revenues; (b) increased use of the private sector, including the promotion of local contractors through training in competitive bidding and site organization; (c) large reductions in personnel at GHA (from 8,400 in 1985 to 4,650 in 1994) and DFR (from 2,000 in 1985 to 700 in 1993), due to the shift from force account to contracting; (d) introduction of a labour-intensive rural road rehabilitation program; (e) systematic reduction of foreign technical assistance requirements at MRH, GHA, DFR and DUR through the training and promotion of local engineers; (f) increased reliance on local consultants for engineering design and construction supervision; and (g) improved traffic safety through vehicle inspection and licensing, and training of drivers and mechanics.”

It is interesting to note that the achievements at time included an increased reliance on local consultants for engineering design and construction supervision. Today, this achievement is under threat, apart from one firm have managed to grow and become a lower-middle size firm, its counterparts of the 1970s/1980s struggle. The firms are not being supported with regular workflow and are not paid for work done. Recently, under the GHs 10 billion big push road projects, MRH has relied on inhouse designs and supervision without the involvement of consultants,

⁵ World Bank, Project Appraisal Document, Ghana Highway Sector Investment Program (14572-GH), 1996

an apparent reversal of the age-old thinking of relying on consultants for design and supervision.

3.2.3 The 2001 Policy Letter on the Road Sub-Sector

In a policy letter of the Ministry of Roads and Highways dated 29th March 2001 addressed to the President of the World Bank⁶, the Government outlined its sub-sector policies for road transportation. The letter reiterated the principal policy objective for the sub-sector that had been communicated in an earlier policy letter in 1996 that “*the subsector will continue to focus on improving the road network condition mix to 70% good, 20% fair and not more than 10% poor by 2005 and manage the road network on a sustainable basis.*” It then continued to outline the following specific objectives:

- i. Develop in-country capacity for government institutions and the private sector to coordinate and manage the road network efficiently;
- ii. Ensure sustainable funding for the road sub-sector programme;
- iii. Base road sub-sector investment decisions on sound socio-economic and environmental principles that are sustainable;
- iv. Enhance the operational efficiency of the road network to promote economic growth and the delivery of social services;
- v. Reduce gender, regional and socioeconomic disparities in access to transport to help achieve poverty reduction, national integration, unity and stability;
- vi. Integrate the road network with other modes of transport, which aims at an efficient transport system;
- vii. Develop a comprehensive road safety programme to reduce a transport fatality; and
- viii. Mitigate the negative environmental and social impact of road related activities.

The letter further outlined detailed policy actions to be undertaken by the sub-sector to achieve these policy objectives. This included a commitment under Objective 1 to decentralize the maintenance and operations of DUR and DFR to Metropolitan, Municipal and District Assemblies, and a commitment to improve the existing Contract

⁶ World Bank, Annex 12 of Project Appraisal Document, Ghana Road Sector Development Program (22233-GH), 2001

Management Systems within the sub-sector to ensure effective supervision, monitoring and control of road contracts.

3.2.4 2007 Policy Letter on Urban Transport Policy

As part of the preparation of the Urban Transport Project (UTP) in 2007, the Government issued a policy letter to the World Bank on Ghana Urban Transport Policy⁷.

The policy letter was developed as a collaborative effort between the Ministry of Transportation (MOT), Ministry of Local Government, Rural Development and Environment (MLGRDE) and Ministry of Finance and Economic Planning (MOFEP) and summarized the various policy measures that the Government was pursuing to improve the urban environment.

The policy was a component of an overall National Transport Policy and Urban Development Policy that was then under consideration by Government and was embedded in the Ghana Poverty Reduction Strategy II (GPRS II, 2005) which had a broad objective to *“ensure the provision, expansion and maintenance of appropriate transport infrastructure which strategically links the rural production and processing centres to the urban centres while ensuring the provision of an affordable and accessible transport system that recognizes the needs of people with disabilities.”*

The National Transport Policy which would later be outdoored in 2008 had been developed on the following principles:

- i. Government will create the appropriate policy, governance and institutional frameworks for the sector and provide the required leadership in specified areas;
- ii. The private sector will take advantage of Government policy and invest in the provision of infrastructure and services and comply with transport regulations;
- iii. Civil society will engage Government and the private sector to ensure a fair and equitable development of transport infrastructure and services;
- iv. The framework for governance and management of institutions is set out along the policy formulation, regulation, asset management, and service provision functional framework, and

⁷ World Bank, Annex 16 of the Project Appraisal Document, Ghana Urban Transport Project (39750-GH), 2007

- coordinated within a framework of the decentralization policies of government;
- v. Government will continue to invest in infrastructure development to support its economic growth and social integration policies. Where there are commercial returns, the government will encourage the private sector to invest in both infrastructure and services. Where there are social and environmental benefits, government will subsidize the operation of transport services.
 - vi. Government through its regulatory agencies will regulate transport service delivery. Where appropriate and covered by the necessary legislation, this function will be decentralized.
 - vii. Government will create an appropriate performance led governance framework for institutions, organizations and personnel to ensure clear lines of responsibility and the achievement of strategic goals. This will be set within an appropriate remuneration and reward framework and a system for monitoring and evaluation.

With these principles in view, the objectives for the urban transport policy were adopted as follows:

- i. Develop an urban transport system that supports the Goal of making Ghana the transport hub for West Africa.
- ii. Create an accessible, affordable, reliable and efficient Transport system that supports the competitiveness of the city.
- iii. Integrate urban transport planning, infrastructure development and service provision with urban planning and a strategic urban development framework.
- iv. Create a vibrant investment and performance based urban environment that ensures adequate returns for public and private investment in urban transport infrastructure and services.
- v. Develop and implement a decentralized institutional and regulatory framework for urban transportation.
- vi. Ensure sustainable development of the urban transport sub-sector to minimize its adverse environmental and social impact.
- vii. Develop adequate human resources and apply new technology for urban transport delivery.

The policy outlined policy action to achieve these goals.

3.2.5 National Transport Policy, 2020

3.2.5.1 A Review of NTP 2008 and ITP 2010

The 2008 National Transport Policy (NTP 2008) and 2010 Integrated Transport Plan (ITP 2010) were reviewed, and a revised National Transport Policy was published in 2020 (NTP 2020)⁸. The review noted, among many other issues, the following:

- i. “One of the most significant gaps in Ghana’s planning framework is the lack of integration between transport planning and land use planning. This is particularly acute at the urban level where congestion has multiplied due to uncontrolled spatial development. Any future policy must retain this as a key policy objective as well as highlight mechanisms that will ensure its achievement.
- ii. One of the most significant areas where NTP/ITP objectives have not been achieved is in urban transportation and the reforms proposed as part of the Ghana Urban Transport Project. A future policy must retain this as a key policy objective including the objective to create competent transport authorities equipped to plan and regulate transport services in their locality.
- iii. Despite its dominance in the sector as a whole and despite the many challenges identified in the Terms of Reference (ToR), the road sector appears to be the most disconnected from the objectives set out in the NTP. Most of the challenges with road maintenance persist. Issues related to the sustainable environment with road maintenance activities are yet to be addressed. The recommendations from institutional reform study were not implemented. DUR and DFR are yet to be fully decentralised. Apart from the road sector all the modal transport systems have developed long term Master Plans guiding medium- and long-term investments.
- iv. Perhaps the most pervasive transport sector issue affecting people throughout Ghana is the backlog of road maintenance which continues to grow despite attempts, since the commencement of the World Bank’s RSDP in 2000, to arrest the situation. A future policy must ensure commitments from government are locked in to implement road maintenance practices that are tried and tested throughout sub-Saharan Africa. Legal measures, such as gazetting the Annual Road Maintenance Programme, must be explored to ensure implementation.

⁸ Ghana, *National Transport Policy, 2020*

- v. There continues to be an urgent need to analyse the Decentralization Law to establish the opportunities and challenges with respect to the Department of Feeder Roads (DFR) and Department of Urban Roads (DUR). This will ensure DFR and DUR are properly assimilated into the Local Governance System.”

3.2.5.2 Policy Principles

The policy principles adopted for NTP 2020 were derived from Government policies for its socio-economic development plan as described in the Coordinated Programme of Economic and Social Development Policies (CPESD) 2017-2024. These were similar to the principles outlined in NTP 2008.

3.2.5.3 The Policy (NTP 2020)

The policy vision under which the policy goals were derived is, “*An integrated, efficient, cost-effective and sustainable transportation system responsive to the needs of society, supporting growth and poverty reduction and capable of establishing and maintaining Ghana as a transportation hub of West Africa.*”

Ten thematic areas were defined for policy formulation with the following goals:

- i. “Create an accessible, affordable, reliable, safe and secure transport system for all users.
- ii. Establish Ghana as a transport hub within the West African sub-region.
- iii. Provide transport infrastructure and services without compromising the integrity of society, environment, health and the climate.
- iv. Increase private sector investment and improve utilisation of public financing.
- v. Create an integrated and harmonized transport planning framework.
- vi. Develop and adopt a legal mandate and institutional framework for implementation of transport sector policies and plans.
- vii. Enforce standards, regulations and rules in the transport sector.
- viii. Develop and implement a research and development system to support effective policy formulation, planning and implementation.
- ix. Develop adequately skilled human resources for executing all aspects of the transport sector mandate.

- x. Apply new and appropriate technology and innovations to transport infrastructure and service delivery.”

These are an updated version of the NTP 2008. Each thematic area or goal is further elaborated by providing the strategic context, the transport issues addressed, and policy objectives. Strategies for implementation were elaborated for each of the policy objectives.

3.2.5.4 Policy Implementation Plan

In line with the Implementation plan in the document, Government was to issue a White Paper to adopt the policy. It is not clear if this was ever issued.

The ministries responsible for transportation were to immediately constitute an Inter-Ministerial Working Group to provide joint leadership for an integrated approach for the implementation of the policy and to:

- i. Mandate the Transport Planning Group of the sub-sector Ministries and the demand-side sectors to facilitate implementation, monitoring and evaluation of the policy.
- ii. Set up a multi-sector steering group to guide and oversee the development of the proposed Transport Master Plan.
- iii. Set up a joint working group with the Ministry of Finance and NDPC to formulate new procedures and guidelines for integrated transport, spatial and development planning.
- iv. Establish joint working groups in selected metro and municipal assemblies to act as case studies for the establishment of collaborative working relations and development of joint procedures for integrated transport and spatial planning at the MMDA level.

An Action Plan was provided to aid implementation.

3.2.6 Status of Implementation of NTP 2020

Implementation of key actions of NTP 2020, especially as they relate to the road sector, are evaluated in Appendix 1.

3.3 National Transport Plan

3.3.1 Integrated Transport Plan for Ghana

It is expected that each sector will undertake sector development studies that model the growth of each sector in conformance with the socio-economy goals for national development and within the framework of national and sector policies, to inform both the preparation of both national and sector development plans.

After the production of NTP 2008, the transport sector ministries and agencies proceeded to produce the Integrated Transport Plan in 2010 (ITP 2010)⁹.

ITP 2010 was the first in Ghana to utilise an integrated socio-economic and transport planning methodology to identify investment priorities based on the future demand for transport.

The Plan included strategies and actions to be undertaken between 2011 and 2015 for all modes of transport including many institutional and regulatory measures aiming to improve performance and bring about better integration throughout the sector. Unfortunately, this plan has not been updated since, not even after the preparation of NTP 2020.

ITP 2010 modelled, analysed and prioritised existing and future transport improvements based on the following framework:

- i. Strengthen and support Government's strategy-led approach to development planning.
- ii. Reflect the growth expected in key socio-economic factors (such as GDP, population, urbanisation, etc) and key commodities produced in Ghana.
- iii. Target investments into strategic projects that satisfy the future demand for transport.
- iv. Identify the optimum national transport network in the plan period (selecting from rail, road, inland water and air options).
- v. Evaluate projects using a multi-criteria evaluation process ensuring due consideration of government's economic, social and environmental objectives at an early stage in the process.

⁹ *Integrated Transport Plan for Ghana, Volume 1: Integrated Transport Plan 2011-2015, June 2010*

- vi. Identify constraints in each transport mode and key cross-cutting issues and propose various regulatory and institutional measures needed to address those constraints and continuously improve performance of the sector through better governance including policy formulation, planning, management, maintenance, supervision, monitoring and reporting.
- vii. Include realistic financing option.

The modelling was done for the medium-term period 2011-2015 and it was expected this will become the framework for continuous update and preparation of all future transport plans for the sector.

The transport model used was limited to a selected national network of transport infrastructure and did not access the last mile to rural communities normally offered through the feeder roads and small boats and canoes on rivers, and intra-urban traffic movements within large urban areas.

The need to undertake similar transport planning for large urban area was recommended by the study.

3.3.2 Inter-Modal Transport Plans

3.3.2.1 General

In 2009, during the preparation of the Transport Sector Project (TSP) by the World Bank¹⁰ it was noted that “Ghana’s planning and decision making in the transport sector continues to focus almost exclusively on improving individual modes, with very little attention paid to how improvements in one mode affects others.”

However, this planning shortcoming was dealt with in the preparation of the Integrated Transport plan in 2010 (ITP 2010) discussed in section 3.3.1 above.

The establishment of an inter-modal framework where road, rail, inland water and pipeline transport and logistics services co-exist and complement each other will provide a broader range of options to shippers and users.

¹⁰ World Bank, *Project Appraisal Document for a Ghana Transport Sector Project (47324-GH)*, 2009

3.3.2.2 The Case of Volta Lake Transport

An example of where some form of inter-modalism had been developed by 2009, as reported in the Project Appraisal Document for the TRP¹¹, at the time was on the Volta Lake, that involved the transfer of freight from truck to barge and pipeline to barge. Bus-ferry transfer facilities were also considered in the design.

It was reported that, a 50 km pipeline transported petroleum products from Tema to the Volta Lake port at Akosombo and transferred by barges to the port of Buipe in the Northern Region and then transferred into trucks to Tamale and other places in the north. A pipeline from Buipe through Tamale to Bolgatanga, it was reported, had just been completed.

This inter-modal transport route was expected to reduce road deterioration caused by petroleum tanker trucks and cut transport costs, congestion, and accidents while mitigating the carbon footprints of the transport system.

The Tema – Akosombo pipeline was out of operations from 2013 to 2022. Since resuming operations in 2023 to the end of 2025 the pipeline has transported 195,003,276 litres of fuel from Tema to Akosombo. The barges however, continued their operation and transport almost 400 million litres of fuel from Akosombo to Buipe from 2016 to the end of 2025. When the pipeline is not operating, fuel is transported by road to Akosombo. The Buipe – Bolgatanga pipeline also continued to operate.

3.3.2.3 Status of the Inter-Modal Plans

ITP 2010 envisaged in the short to medium term (by 2016) to have established and started implementing an intermodal framework that formalised modal integration (ports/stations) in key locations to improve linkages. How this framework has been developed and implemented is assessed as follows:

- i. **Inter-Modal Framework:** It is not clear if such a framework was ever developed

¹¹ World Bank, *Project Appraisal Document for a Ghana Transport Sector Project (47324-GH)*, 2009

- ii. **Tema Port:** The rail services that existed in the 1980s that provided cargo services to the Tema Port is currently non-existent. All cargo delivery to the port is via road.



- iii. The main road links are:
 - a. **Accra – Tema Coastal Road:** Work was started to improve this link but has been suspended since 2023.
 - b. **Akosombo Road (Tema Port – N1):** Improved to a dual carriageway more than 20 years ago but has been allowed to fall into extreme disrepair, especially in the southern section close to the port.
 - c. **The Eastern Corridor (N2):** This section starts from the N1 through Akosombo in the Eastern Region, providing vital linkages to the Volta, Oti, Northern, North East and Upper East Regions and to land-locked countries north of Ghana. This corridor has been in a state of construction for the past 20 years and vital sections are in a poor condition.
 - d. **National Routes N1 & N6:** The N1 links Ghana eastern border with Togo in the south to its western border with Ivory Coast also in the South. It is part of the Abidjan – Lagos trans-national route. It provides vital linkages to National Routes

N2, N4, N6 all within the Greater Accra Region, and the N8 and close to the Tema Port. The N6 is the main road link between the capital city of Accra and Kumasi, the second largest city in Ghana and currently carries significant portion of traffic to the northern territories and beyond. Though this central route from the Tema Port has been dualized and improved in the last 20 years, many sections have deteriorated and reconstruction and further expansion is ongoing on various sections, generating significant congestion, discomfort, cost of transportation and ease of access to the Port.

- iv. **Takoradi Port:** The roads accessing the Takoradi Port; Sekondi Road, Cape Coast Road and Axim Road have recently been improved. The Takoradi-Agona Road is under construction but the recently reconstructed Agona-Junction – Tarkwa Road has deteriorated due to overloaded trucks transporting manganese and bauxite that could have been transported by rail if it was operational.
- v. **Boankra Inland Port:** The Ghana Shippers Authority (GSA) in partnership with the Ghana Ports and Harbours Authority (GPHA) is working with the private sector to establish the Boankra Inland Port near Kumasi in the Ashanti Region. This very important infrastructure would link the ports of Tema and Takoradi to the middle and northern parts of the country as well as the landlocked countries of Burkina Faso, Mali and Niger. This project conceived more than 25 years is still under construction. However, the vital linkages by rail to the Takoradi and Tema Ports do not exist and the touted benefits of reduced cost of transportation, reduction of truck traffic from roads in the southern regions and increased exportation of produce such as cola nuts, shea-butter, cocoa and cocoa products, wood and wood products, cannot be realized.
- vi. **Akosombo and Buipe Ports:** BOSTEnergies network of pipelines from Tema to Akosombo and Buipe to Bolga allows them to transport fuel using barges on the Volta Lake. The 12,000 cubic meters depot capacity at Akosombo and 51,000 cubic meter depot at Buipe, helps to receive fuels from the pipeline and load barges at Akosombo and receive fuels from the barges, transfer to pipelines and market at Buipe. The Tema – Mpakadan Railway line does not have a terminal at Akosombo.
- vii. **Kotoka International Airport (KIA):** There is currently no rail link to the airport. The road links are congested with urban traffic. There is potential to invest in the network to mitigate the congestion impact.
- viii. **Urban Rail Stations:** The urban rail services have all but collapsed on the Eastern and Western line and there is no need for the investment.

3.3.3 Urban Transport Plans

3.3.3.1 Urban Transport Studies

The 1st Urban transport planning study undertaken in Ghana was the Accra District Traffic Management and Improvement Study in 1987/88. This was part of the Accra District Rehabilitation Project sponsored by the World Bank. The study was later extended to cover a larger zone within Accra, Kumasi and Sekondi-Takoradi. The urban transport studies undertaken in Ghana are listed in Appendix 4.

3.3.3.2 Case Study: Transportations Master Plan, Greater Accra Region, December 2016¹²

The project was sponsored by Korean International Cooperation Agency (KOICA) under the Ministry of Transport. The final report was completed in December 2016.

In its overview of the urban conditions in the region, the report concluded among others that, *“Currently, no high-level plans (including national transport plans, land-use plans, urban development plans, etc.) were established and the existing plans are much outdated. Thus, GAMA government should establish socio-economic indicator databases and prepare land-use plans, and the transport master plan and the short-term project report should be included in a down-top approach. This master plan report should be prepared to be utilized as a major reference when establishing transport policies, and the short-term project report should be used when implementing the transport projects to be implemented later.”*

The study collected both secondary and primary data to establish the conditions of the transport system. It undertook traffic demand forecasting for the area using a transport model; and tested various strategies to improve the transport system and developed a transport master plan for the area.

¹² KOICA, *Transportations Master Plan, Greater Accra Region, December 2016*

The study analysed eight scenarios drawn from the combination of four transport development scenarios and two urban development scenarios over a 20-year development period. The conclusions drawn included:

- i. Convert the trotro-centred transport system into an arterial and feeder bus systems. The trotro will provide the feeder service to the Arterial bus network.
- ii. Establish an urban railway network as a principal arterial public transport in the long-term. Priority was given to reconstructing the Accra-Nsawam and Accra-Tema lines into standard double-track lines and the construction of a subway system on the Adenta corridor.
- iii. The Transport Master Plan (TMP) will contribute to achieving the SDGs and ultimately lead to the reduction of traffic crashes, enhancement of transport energy efficiency, reduction of carbon dioxide emissions, improvement of citizens' health, and a more accessible and sustainable transport system.
- iv. It is expected that traffic improvements will be implemented on a step-by-step basis.

3.3.3.3 *The Short-Term Plan (STP)*

The study at the end proposed what it called the Short-Term Plan (STP) for the period 2016-2020, which included the following Components:

- i. **Corridor Renovation and Improvement Project Package (CRIPP):** This included the construction of BRT infrastructure along the CBD-Achimota-Ofankor-Amasaman and CBD-Airport-Madina-Adenta BRT route, BRT service delivery, and the related improved traffic management systems.
- ii. **Railway Improvement:** Reconstruction of the Accra-Amasaman (24.9km) and Achimota-Asoprochona (23.7km) to 2-line standard gauge system with six stations at Circle, Achimota, Dzorwulu, Shangrila, Adogonor and Queensland.
- iii. **Road Network Building:** Expansion and Construction of 29 roads sections (192.5 km).
- iv. **Congestion Management:** Mainly along the N1 from Apenkwa to Mallam Junction, including the construction of 2 interchanges.

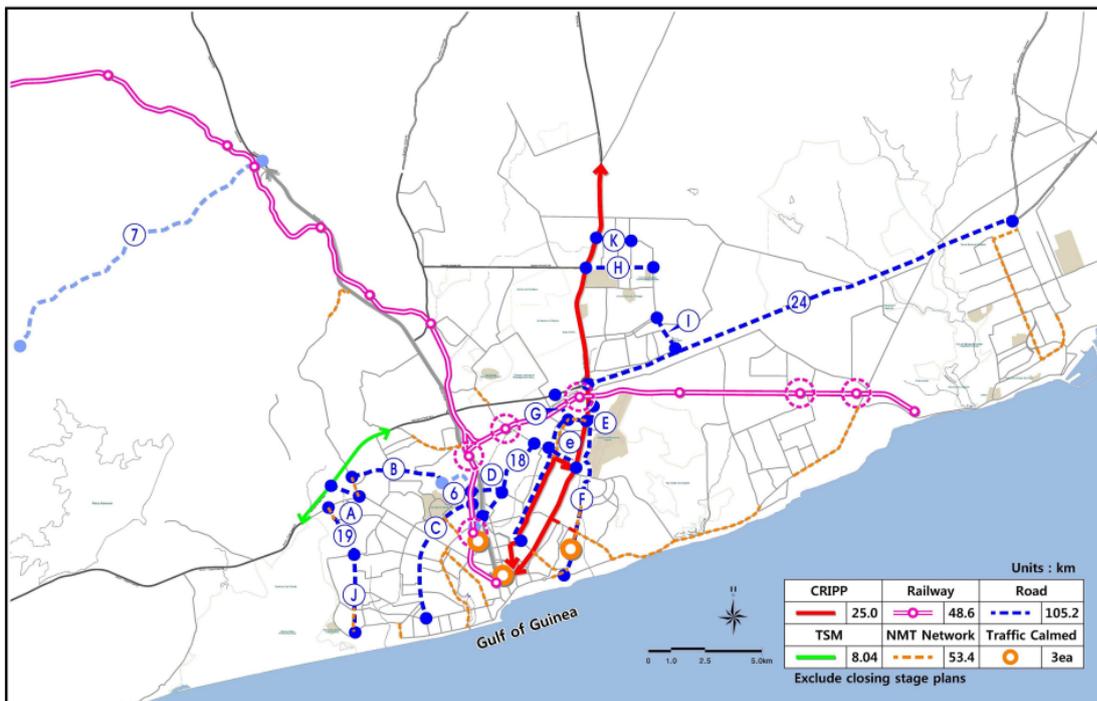


v.

vi. **Non motorized Transport (NMT):** including 53.4km of network and links and traffic calming at three locations.

These priority projects are shown in the Figure 2-1.

Figure 3-1: TMP Short-Term Projects¹³



<Figure 6-1> Short-term Period Projects in Transport Master Plan

3.3.4 Status of Implementation of Transport Plans

3.3.4.1 ITP 2010

The ITP 2010¹⁴, in Chapter 5 of Volume 1, proposed an Action Plan for implementation of the plan. It defined short-term as action required within a year, medium term of up five years and long-term as action required beyond 5 years, with a focus on the national transport network.

The extent of implementation of some of the actions that are related to the road sub-sector is evaluated in Appendix 2 of this address.

3.3.4.2 GAMA Short-Term Plan 2016-2020

The extent of implementation STP 2016 of the TMP 2016 for the GAMA is evaluated in Appendix 3 of this address. The recommendation has not been implemented.

¹⁴ *Integrated Transport Plan for Ghana, Volume 1: Integrated Transport Plan 2011-2015, June 2010*

3.4 The National Transport System

3.4.1 Road Transport

The road transport system will be discussed in more details under Chapter 4.

3.4.2 Railway Transport

From the 1960s to the 1970s, railway transport in Ghana was run by the semi-autonomous Ghana Railway and Ports Corporation, with oversight provided by the then Ministry of Transport and Communications. The railway network was about 1,280 km including 953 km main line, and all but 31 km was single-track. The physical plant, particularly rolling stock, track, and signalling and telecommunications equipment, were considered aging and generally in poor condition by the beginning of the 1970s.



From the 1970s to date, the management of the railway system in Ghana has gone through phases and is now run by two agencies under the Ministry of Transport:

- i. **Ghana Railway Company Limited (GRCL)** with responsibility for providing passenger and freight services; and
- ii. **Ghana Railway Development Authority** with the responsibility for developing and managing the railway infrastructure.

Though rail transport remains a major alternative to roads for the movement of bulk commodities around the country, the rail network bequeathed to Ghana after independence had not been extended prior to 2020. Despite the heavy investment made from the 1980s to improve its management and operations, only 134 km of the 1,280 km rail line was in operation as of 2012. This included the southern part of the eastern line (Accra - Nsawam & Accra - Tema) for urban passenger services; and a part of the Western line used for manganese export shipments. In 2012, the system carried less than 1,000,000 passengers and just over 600 Tonnes of manganese¹⁵.

However, construction commenced in July 2018 of the 96.7 km Tema-Mpakadan standard gauge railway line to connect the Harbour in Tema to Mpakadan, a town in the Eastern Region of Ghana. The project was officially inaugurated on 25 November 2024 by President Nana Addo Dankwa Akufo-Addo.

The operation of services on the line has been met with challenges since then and it is not clear what strategic purpose it is expected to serve whilst the eastern and western lines which have demonstrable returns still lie in ruins. This line was not even mentioned in the ITP 2010 as a priority nor in the railway masterplan of 2013.

3.4.3 Maritime Transport

By the early 1970's, Ghana had two major ports, Takoradi and Tema, which together handled about 5 million tons of goods per year. Almost all the country's bulk exports, such as bauxite, manganese and timber, were

¹⁵ NDPC, *Transport Sector Infrastructure Plan (TSIP 2013-2020)*, Ludwig Annang Hesse, 2013

shipped through Takoradi, while Tema received most of Ghana's imports. Tema then was a new and modern port, but Takoradi was already over 40 years old. Both were well connected by road and rail. No port extension was required in the then foreseeable future, except for the development of fishing ports.

The Ghana Ports and Harbours Authority (GPHA) was established as a statutory corporation under the PNDC Law 160 of 1986 to build, plan, develop, manage, maintain, operate and control all ports in Ghana. It operated under the supervision of the Ministry of Transport.

The GPHA by 2017 still managed the two main deep-sea ports on the Atlantic Ocean at Tema and Takoradi but both were undergoing expansion and upgrading to accommodate the increasing trade volumes and to maintain their competitive position for regional traffic.

The cargo throughput had grown significantly from the mere 5 million tons in 1973. The Tema Port was handling 94 percent of the country's container volumes, is strategically located close to the country's main consumption centres reaching 870,000 TEUs in 2014 and was projected to grow by 5% until to 2030¹⁶. Tema had become the gateway to the landlocked countries in the regions (Burkina Faso, Mali, and Niger).

The Port of Takoradi, on the other hand handled 4.3 million tons of cargo (75,000 TEUs) in 2014, and it remained Ghana's primary export port, accounting for about 70 percent of outbound seaborne trade, partly because it is the major port for bulk cargoes and is located closer to Ghana's main export producing areas (cocoa, gold, bauxite, manganese, and oil)¹⁷.

Because of the almost defunct nature of rail transport, almost all the port traffic had to be carried by road.

3.4.4 Inland Water Transport

Ghana's rivers, important before the development of the road and rail systems, carried negligible traffic by the early 1970's. The Volta Lake had severed main road links, thus causing problems of north-south movement

¹⁶ *Project Appraisal Report for a Transport Sector Improvement Project, World Bank, 2017*

¹⁷ *Project Appraisal Report for a Transport Sector Improvement Project, World Bank, 2017*

in the country, and of communication for communities surrounding the Lake. The Volta River Authority ran a limited boat service on the Lake. More ambitious schemes were then not feasible for lack of demand.

Inland water transportation on Volta Lake by 2016 was still operated by the Volta Lake Transport Company (VLTC), owned by the Volta River Authority. It is reported that in 2012, the VLTC was providing services on six main routes over a total waterway of 738 km, and its ferries transported 41,470 vehicles, 137,163 Tonnes of cargo and 653,863 passengers¹⁸. This traffic may well constitute only 20% of activity on waterways in Ghana.

But the World Bank Project Appraisal Report for the Transport Sector Improvement Project of 2017¹⁹ had reported that “*The freight and ferry services of the VLTC deteriorated significantly over time due to insufficient investment and maintenance.*”

There are no precise data on the performance of VLTC in the last five years. It is however estimated that as of 2023/2024, VLTC was operating at approximately 26% of its North-South capacity. The lake's total estimated annual cargo is roughly 255,000 tons, with VLTC responsible for the bulk of petroleum and cement (approx. 131,000 tons). Though the installed capacity for petroleum products is 135,000 m³, it is estimated that, on average only 75,000 m³ is transported annually.

The major challenges include: an aging fleet with most vessels over 30 years old, leading to frequent breakdowns and reduced "turn-around" times; low market share of the "South-to-North" freight route as local companies prefer road haulage; and limited port facilities and the presence of tree stumps in the lake continue to hinder full-scale cargo expansion.

3.4.5 Air Transport

Up to the early 1970s, the Department of Civil Aviation of the Ministry of Transport and Communications was responsible for maintaining and operating airfields. Maintenance of runways was delegated to the PWD. Only the international airport in Accra could accommodate long-distance

¹⁸ NDPC Transport Sector Infrastructure Plan (TSIP 2013-2020), Ludwig Annang Hesse, 2013

¹⁹ Project Appraisal Report for a Transport Sector Improvement Project, World Bank, 2017

jets; and the airports in Kumasi, Temale, and Takoradi had adequate facilities for medium-sized two-engine turbo prop aircrafts. These were the only airports used by scheduled carriers, and their capacity was said to more than enough for traffic at the time.

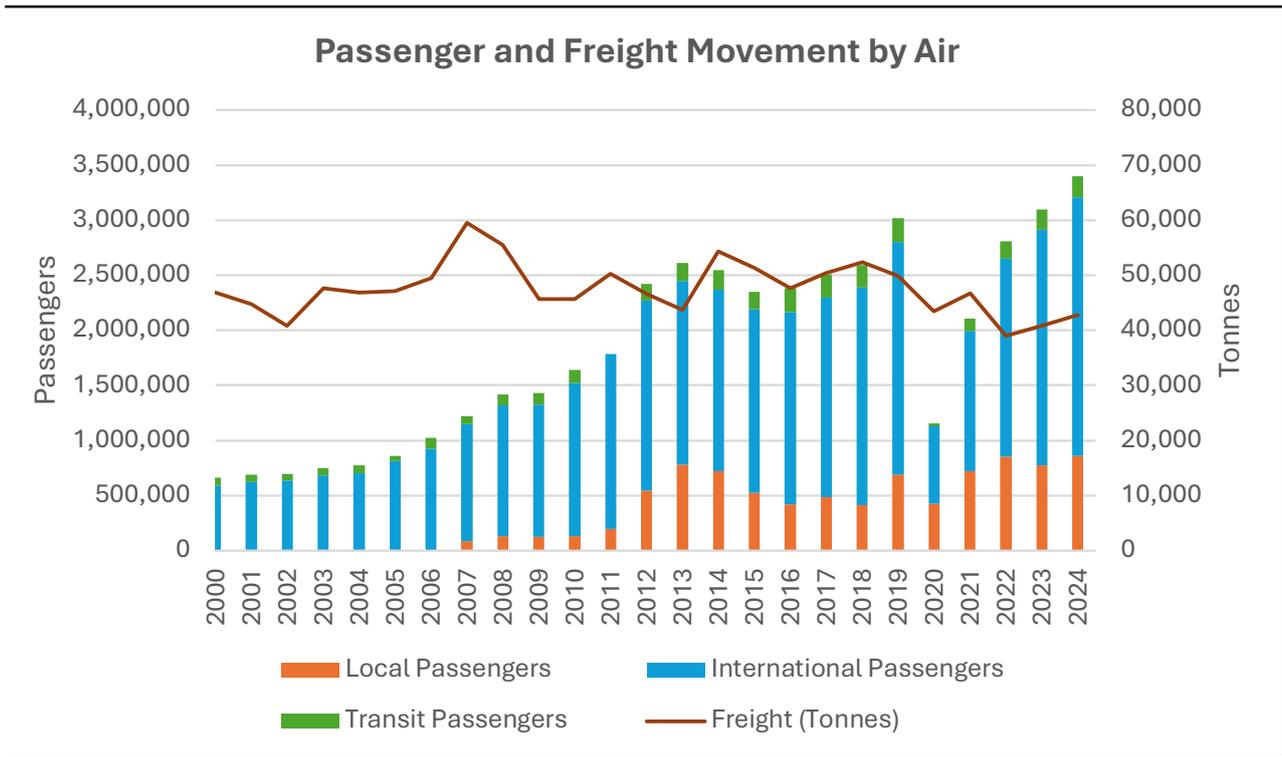
The Ministry of Transport today continues to provide policy cover and supervision for the aviation sector that is structured as follows:

- i. **Aircraft Accident and Incident Investigation and Prevention Bureau (AAIB):** The AAIB established within the Ministry of Transport pursuant to Section 25 of the Ghana Civil Aviation Act 2004 (Act 678). The Ministry provides the administrative functions with respect to investigation of accident and serious incidents in Ghana.
- ii. **Ghana Airports Company Ltd (GACL):** GACL is responsible for planning, developing, managing and maintaining all airports and aerodromes in Ghana.
- iii. **Ghana Civil Aviation Authority (GCAA):** GCAA is responsible for regulating the air transport industry in Ghana and provides air navigation services within the Accra Flight Information Region.

Air passenger traffic has seen a steady growth from about 650,000 passengers in 2000 to over 3.4 million in 2024. Despite a heavy dip in 2020 due to COVID 19, it has steadily recovered and exceeded the 2019 high. Domestic air travel has also followed a similar trend since 2007 with a passenger throughput of just over 85,000 to a high of almost 863,000 in 2024.

Freight traffic, on the other hand has been stable over the years, showing gentle decline from the peak of almost 60,000 tonnes in 2007 to under 43,000 tonnes in 2024.

Figure 3-2: Air Traffic Trends in Ghana



CHAPTER 4: A FOCUS ON THE ROAD SUB-SECTOR

4.1 General

This chapter has largely been put together from review of Staff Appraisal Reports and Project (Implementation) Completion Reports of various World Bank projects for the Road and Transport sector since the early 1970's. A Schedule of these projects is provided in Appendix 5.

This has been supplemented by various reports of the sub-sector and interviews with both past and current road sector executives.

4.2 The Road Network

4.2.1 General

Roads, which provide direct access to most settlements in Ghana and account for more than 95% of trips undertaken, are considered fundamental for economic development, social integration, safety and national security.

4.2.2 The Pre-Independence Network

Ghana's road network prior to independence in 1957 was not extensive. Management of the network was based on a road and bridge register, which provided details such as the cost of the road, the contractor etc. Works were all undertaken using forced account (direct labour) by the Public Works Department (PWD).

4.2.3 The Network in the 1960s

The period immediately after independence saw a massive investment in the road network and was seen as one of the best networks in Africa.

The World Bank in its appraisal report for the 1st Highway Project in 1973²⁰ had stated thus, *“The national road network of Ghana was at one time probably the best in West Africa. All essential sections have been built, and no major new links are needed at this time. However, the roads have now deteriorated considerably because of poor maintenance, and because construction standards (particularly for the pavements) were too*

²⁰ World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973*

low for present-day loads. Highway investment over the next three or four years is therefore expected to concentrate on restoring trunk roads and strengthening maintenance; rehabilitation work should be considered as particularly urgent to avoid future increases in vehicle operating costs and major reconstruction.”

The trunk road system, built over the preceding 20 years was described as extensive but constructed at low cost to standards that were adequate for that time. No major expansion of the trunk road network was required at the time.

To satisfy the continuing need to support agricultural production, the report further provides that 3,200 km of feeder roads had been constructed or improved since 1966 under the National Feeder Road Program.

The total inventory of the road network by 1973 was 32,000 km with 4,160 km paved, 10,080 km gravelled and the rest as earth roads.

4.2.4 Road Network Improvement Projects

4.2.4.1 Objectives for Road Improvement Projects

In addition to an engineering credit for US\$1.5 million in 1969 for the preparation of road projects, the World Bank had assisted the Government to finance the development of road transport sub-sector through several projects up to 2017.

The overarching objectives of these projects were to remove the road infrastructure constraints facing the Ghanaian economy and reduce transportation costs by:

- i. Strengthening road sub-sector agencies;
- ii. Strengthening capacity of indigenous consultants, contractors and service providers;
- iii. Sustaining development by implementing cost recovery self financing policies;
- iv. Improving financial management and control.
- v. Improving road maintenance operations;
- vi. Reducing the maintenance backlog through rehabilitation and reconstruction works;

- vii. Facilitating rural transportation by promoting appropriate low-cost technologies;
- viii. Improving transport planning; and
- ix. Rationalizing transport policies.

4.2.4.2 Road Sub-Sector Performance Indicators

The Government, in preparing for the Road Sector Development Program (RSDP) in 2001, for the first time, departed from the usual project approach for previous donor assisted projects, to a program approach. RSDP presented an integrated approach to road maintenance, construction, and management by the Ministry of Roads and Highways (MRH) and the three road agencies, the Ghana Highway Authority, the Department of Urban Roads, and the Department of Feeder Roads.

Key performance indicators were also introduced for the first time as follows:

- i. Road network condition mix improved from 35% good, 45% fair, and 20% poor in 2000 to 70% good, 20% fair, and not more than 10% poor by 2005.
- ii. Average travel time between district capitals reduced by at least 15%.
- iii. Ratio of all road works (Components 1-3) carried out in the 4 northern regions over the grand total at least maintained over the 4-year period.
- iv. Percentage of communities within 10 km of a maintainable road increased by 10%.
- v. The part of the feeder road network not maintained reduced by half.
- vi. Compliance with axle load limitations increased by 20%.
- vii. Number of vehicles inspected annually increased to 80% of total number of vehicles registered.

Similar key performance indicators were also included in the Transport Sector Project (TSP) preparation document of 2009. This was taken a step further in preparing the Transport Sector Improvement Study (TSIP) in 2017, where a multi-year result framework was provided.

4.2.4.3 Sub-Sector Performance After RSDP (2008)

The Implementation Completion Report of the RSDP in 2008²¹ assessed the performance of the sector against targets set for the project. A summary of some of the outcomes were as follows:

- i. **Indicator 1:** Improve road condition mix from 29% Good, 27% fair and 44% poor in April 2001 to 59% Good, 27% fair and 12% poor by June 2006:
 - a. Achievement: A condition mix of 39% good, 29% fair and 32% poor by June 2008.
 - b. Comments: Was considered moderately satisfactory. The main network (trunk roads?) achieved target at 57% good, 26% fair, and 17%. DFR and DUR expanded their network to improve accessibility.
- ii. **Indicator 2:** Increase in fuel levy from Cedis 230/litre in April 2001 to Cedis 600/litre at end of project by June 2006 (Cedis 10,000 = GHs 1):
 - a. Achievement: Cedis 600/litre at end of project by June 2008
 - b. Comments: 100% achievement of the expected target.
- iii. **Indicator 3:** Increase in the maintainable network of feeder roads by 2000 km annually, i.e. from 11,500 km in June 2001 to 16,220 km by June 2006.
 - a. Achievement: 18,000 km achieved by June 2008
 - b. Comments: About 110% of the target was achieved.
- iv. **Indicator 4:** A decline in accident fatality rate from 27 fatalities per 100,000 population in June 2001:
 - a. Achievement: 22 fatalities per 100,000 population by June 2008
 - b. Comments: The accident rate in the country declined by about 20%.
- v. **Indicator 5:** Targeted routine maintenance carried out annually by the respective agencies:
 - a. GHA: Increase from 8,848 km in 2001 to 11,600 km in 2006. Achieved 13,000 km in 2008.
 - b. DFR: Increase from 11,782 km in 2001 to 13,900 km in 2006. Achieved 18,000 km in 2008.

²¹ World Bank, *Implementation Completion and Results Report, RSDP (ICR 0000806), 2008.*

- c. **DUR:** Increase from 986 km in 2001 to 1,750 km in 2006. Achieved 3,600 km in 2008.
- d. **Comments:** Target achieved was 120% to 200%.

The results indicated that though the key target for the condition mix for the entire network was missed, the target was met on the trunk roads managed by the GHA.

4.2.5 Road Network

The road network had grown steadily from the 32,000 km reported in 1973. The World Bank appraisal report for the Transport Sector Improvement Project (TSIP) of 2017²² stated that, “*The road network grew considerably from 47,824 km in 2002 to 72,381 km in 2016, of which about 23.7 percent is paved. It provides good national coverage, consisting of 14,873 km of trunk roads, 15,463 km of urban roads, and 42,045 km of feeder roads. Farm roads, providing the last mile connections between the feeder road network, farms, and villages, are poorly developed with little network-wide data available.*”

The MRH MTEF 2025-2028²³ provides the 2024 road network information in Table 4-1 This puts the total network as 94,203 km that has not changed since 2021.

Table 4-1: Ghana’s Road Network (2024)

Type	Length (Km)
Trunk Roads	14,948
Urban Roads	28,480
Feeder Roads	50,775
Total	94,203

Data from the three road agencies from their 2024 reports provide a rather different picture:

- i. **Ghana Highway Authority²⁴:** The total network is quoted as 15,358 km. Of the 12,491 km of the network that was surveyed, 76% was

²²World Bank, Project Appraisal Document, Transport Sector Improvement Project (PAD1721), 2017

²³MRH Medium Term Expenditure Framework, 2025-2028, www.mofep.gov.gh

²⁴Ghana Highway Authority, Road Condition Report, Year 2024

paved (cement concrete, asphaltic concrete and surface dressed) and 24% gravel. A total of 2,637 km (17%) of the network was described as under construction and were not surveyed, and another 229 km (1.5%) was described as missing links.

- ii. **Department of Urban Roads (DUR)²⁵:** The length of network as quoted in the executive summary is 28,480 km the same as quoted in the ministry's report. However, it is stated in section 5: Maintenance and Operations of the report that a yet to be validated partial inventory puts the network at almost 60,169 km. This is based on the premise that all roads within every Metropolitan and Municipal Assembly area, except for the trunk roads, are classified as urban roads and should be under the jurisdiction of Urban Roads. This may well mean the inventory of roads classified as feeder roads will reduce. The breakdown to surface types is not provided.
- iii. **Department of Feeder Roads (DFR)²⁶:** The total length of feeder roads is quoted as 46,652 km, a 2.4% increase over 2023. This is made up of 30,290 km (65%) of engineered roads, 6,869 km (15%) of partially engineered roads and 9,493 km (20%) of non-engineered roads. It is further classified by surface type as 5,040 (11%) Bituminous, 28,425 km (61%) Gravel and 13,187 km (28%) Earth.

It is noted with grave concern that strange that an inventory project for DUR which had a provisional report in 2022 has not been finalized by the close of 2024 for the proper rationalization and for jurisdictional issues to be sorted out. This is an indication that the ITP 2010 strategic objective to improve the data base of the road network by harmonizing and integrating the GIS and road inventory systems used by GHA, DUR and DFR and coordinated through regular monthly meetings and reports is not happening.

4.2.6 Road Condition

4.2.6.1 General

By the early 1970's many roads had reached the end of their service life and were structurally deficient for the traffic loading of the time. The roads required increased maintenance and rehabilitation to avoid increases in vehicle operating costs and major reconstruction.

²⁵ Department of Urban Roads, Annual Report 2024

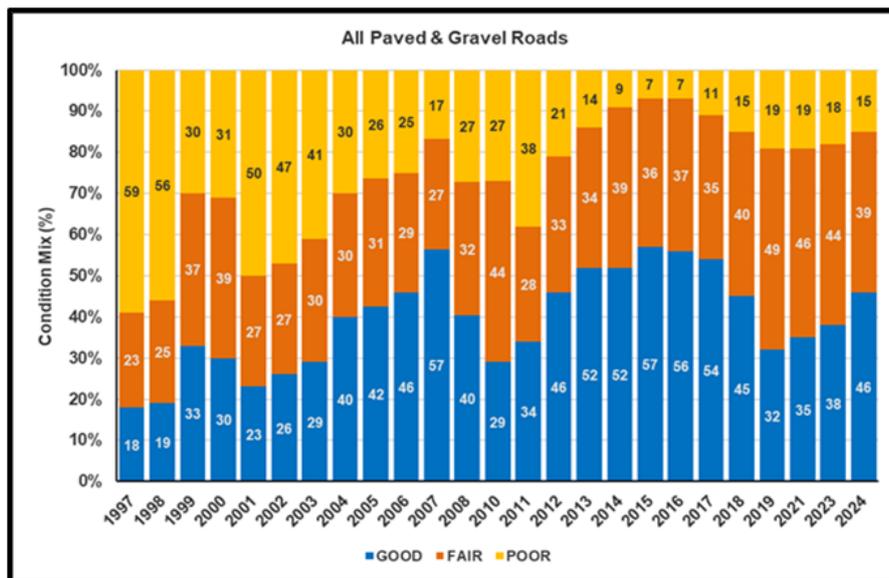
²⁶ Department of Feeder Roads, 2024 Road Network and Condition Survey

But it was not until 1985, that the road sub-sector started setting road condition mix targets as part of the preparation of the Road Rehabilitation and Maintenance Project in 1985. The Condition Mix in January 1985 was recorded as 15% Good, 39% Fair and 46% Poor²⁷ for Trunk Roads with a target to improve this to 35% Good, 23% Fair and 42% Poor by January 1989.

4.2.6.2 Condition of Trunk Roads

GHA uses a Pavement Maintenance Management Programme (PMMP) as its Pavement Management System (PMS) tool. The PMMP is a performance assessment and a decision supporting tool and it includes a framework for undertaking a condition survey of the network. The 2024 assessment was based on a visual road condition survey of pavement distresses. The International Roughness Index (IRI) component of the framework was not deployed. The expectation is that this survey is undertaken annually, though it has been missed in a few years like 2020 and 2022.

Figure 4-1: Trunk Road Condition History (Condition Survey Report 2024²⁸)



The outcome demonstrates the impact of road maintenance, upgrading, rehabilitation, reconstruction and other related activities undertaken within the period of 2021 – 2024. As demonstrated in Figure 4-1. There was a steady improvement of the network conditions from a low in 2019 when the 32% of the network was in good condition to 46% in 2024. It is

²⁷ World Bank, Staff Appraisal Report, Road Rehabilitation and Maintenance Project (1601GH / A-1GH), 1985

²⁸ Ghana Highway Authority, Road Condition Report, Year 2024

also observed that the condition of the network peaked in the period 2013-2015, reaching 57% Good and less than 10% Poor. Beyond this period the percentage of the network in poor condition has remained in 11% - 19% range.

GHA has the most stable network, and it is expected that with an effective maintenance program, the marked variations in the results of the condition survey over the years will not be the case.

My information is that GHA has not been able to fully utilize the PMMP to prioritize and budget for network preservation due to heavy political influence in decision making and budget provision. There is enough evidence that we would have achieved the desired 70/20/10 network condition target we set ourselves for the trunk road network in the 1990s if we have allowed the engineers at GHA to provide the technical direction for the management of the network.

4.2.6.3 Condition of Urban Roads

DUR states that the condition mix of the urban network is 37% Good, 17% Fair and 46% Poor in their 2024 Annual Report²⁹. When asked what methodology was used for the survey, officers at DUR stated that the GHA PMMP methodology was used for the paved roads and the DFR speed driveable methodology was used for gravel roads. It is not clear in the report when the survey was undertaken.

4.2.6.4 Condition of Feeder Road

The 2024 network and condition report of DFR³⁰ reports that the condition mix of feeder roads is 35% Good, 34% Fair, and 31% Poor. The Condition of feeder roads in Good condition has varied between 27% to 37% since 2007 without any pattern of increase or decrease. This means that all the investments into feeder roads within the period has only managed to stabilize the condition mix but not improve it.

²⁹ Department of Urban Roads, Annual Report 2024

³⁰ Department of Feeder Roads, 2024 Road Network and Condition Survey

4.2.6.5 Overall Network Condition

The overarching goal in the late 1990s was to achieve a road condition mix of 70% Good, 20% Fair and not more than 10 % Poor by 2005. This has eluded the sector over the years. It has almost become a mantra without conviction and any concerted effort to achieve this.

A compilation of the national road condition mix and targets from 2021 to 2028 from the MRH-MTEF documents for 2023-2026³¹ and 2025-2028³² is provided in Table 4-2. This does not indicate the contributions of the three road categories, trunk, urban and feeder roads but it appears inconsistent with the reports from the agencies. GHA had the percentage of roads in good condition of 47% in 2024 yet the MRH data is showing 47% Good for 2022, 2023 and 2024. These embarrassing inconsistencies must be avoided by our colleagues in the road sub-sector.

Table 4-2: Road Condition Mix Trends and Target

Indicator	2021 Actual	2022 Actual	2023 Actual	2024 Actual	2025 Target	2026 Target	2027 Target	2028 Target
Road Length (km)	94,203	94,203	94,203	94,203	94,203	94,203	94,203	94,203
% Good	44%	47%	47%	47%	48%	50%	55%	60%
% Fair	34%	32%	32%	32%	31%	28%	24%	20%
% Poor	22%	21%	21%	21%	21%	22%	21%	20%

4.3 Road Traffic

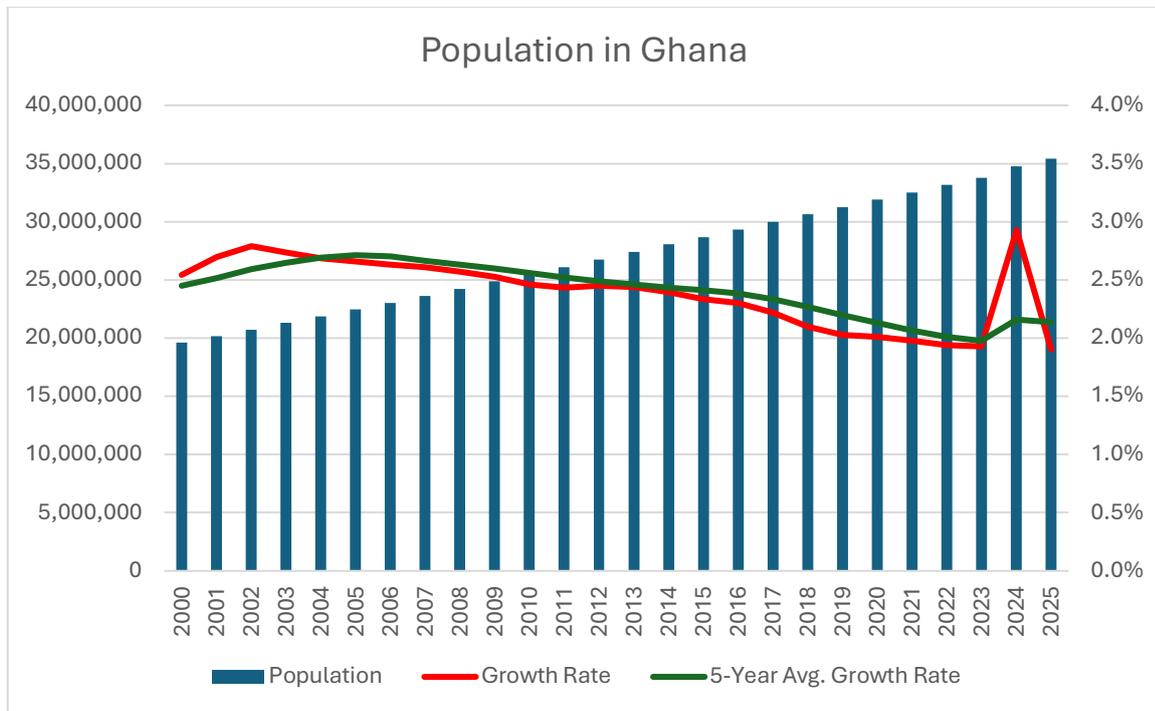
4.3.1 Population Growth

Ghana's population in 2025 is estimated to have reached 35.4 million with a growth rate of 1.9% per annum. As can be seen in Figure 4-2, though the population has been growing steadily from 2000, the annual growth rate has been declining from 2.4% 5-year moving average in 2000 to 2.1% in 2025.

Figure 4-2: Ghana's Population Trend Since Year 2000

³¹ MRH Medium Term Expenditure Framework, 2023-2026, www.mofep.gov.gh

³² MRH Medium Term Expenditure Framework, 2025-2028, www.mofep.gov.gh



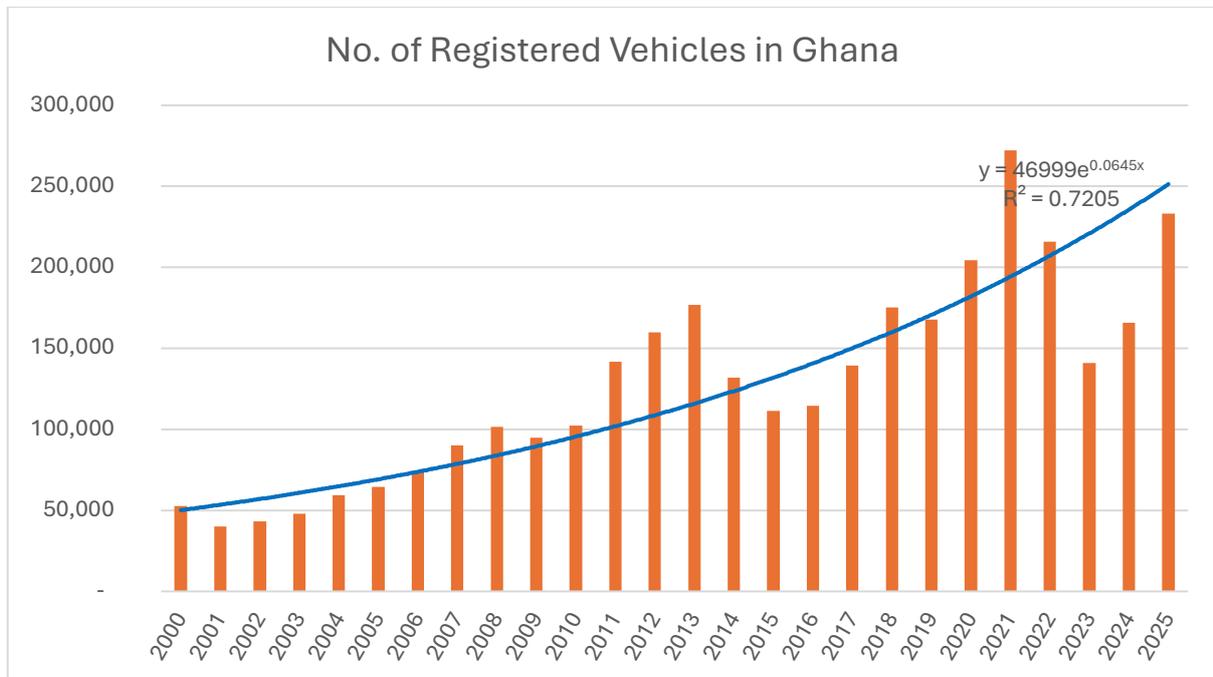
4.3.2 Registered Vehicles

Vehicle Population in 1973 was estimated at 56,000 vehicles, growing at 3-4% per annum³³. 50% of these were private car, 30% trucks (including mammy wagons), and 20% buses & special purpose vehicles. There was a policy to discourage the importation of private cars and Government was investing in large public conveyance vehicles.

Recent trend in registered vehicle population is shown in Figure 4.2. The records show that 233,336 vehicles were registered in 2025. There is an exponential trendline that best fits the data which indicates an underlying annual compounded growth rate of registered vehicle of 8% per annum. This is far higher than the population growth rate which has been in 1.9% - 2.8% range in the last 20 years. This is an indication that there is a growing rate of motorisation in Ghana.

Figure 4-2: Registered Vehicle Trend (source of data DVLA)

³³ World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973*



4.3.3 Annual Daily Traffic

Traffic volume on the Ghana roads was reported in 1973³⁴ to be highest on Accra-Kumasi-Takoradi area (Golden Triangle) between 1,000 to 3,500 vehicles per day (vpd). Less than 1,000 km of the 32,000 km network had more than 600 vpd and roads outside the inter urban routes in the south had less than 350 vpd.

A traffic study conducted as part of the Ghana Urban Mobility and Accessibility Project (GUMAP) in 2021³⁵, recorded traffic volumes between 50,000 to 90,000 vpd on the major arterial and national roads radiating out of Accra. Traffic growth rates per annum for some of the sections based on 2016 data was generally in the 2.5% - 5.0% range with a few sections showing rates of more than 10%.

Another set of traffic data collected along the Accra -Kumasi Road (N6)³⁶ in February 2024 generated AADTs between 7,300 to 9,800 within the Apedwa – Konongo section and almost 22,000 near Ejisu that has almost become part of the greater Kumasi Metropolitan Area. Unfortunately, this study did not have any reliable historical data to allow an estimate of the underlying traffic growth rate within the section.

³⁴ World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973*

³⁵ GUMAP, *Consulting Services for Study of Freight Transport in Greater Accra Metropolitan Area, July 2021*

³⁶ GHA, *Apedwa Junction – Ejisu Road (41.8KM), Traffic Study Report, 2024*

Focusing on traffic on Trunk Roads near Accra and on the Accra Kumasi road it can generally be said that traffic growth has increased 7 to 10 folds along the Accra -Kumasi Road (N6) and about 20 folds on the main networks nearer Accra since the early 1970s.

The GHA used to have a program of collecting traffic flow data regularly on the trunk road network. This system has collapsed since the early 2000s. So, as it stands there is no annual traffic data collection system in place in Ghana for the purposes of network modelling, planning and design.

4.3.4 Axle Load Control

In the 1960s, goods vehicles mostly had five-ton payload capacity. However, with the expectation of higher payloads, the 1970 Road Traffic Regulations imposed a maximum gross load limitation for a motor vehicle or trailer as 16 tons. Further, payloads were specified for 3-axle articulated trucks as 24 tons and 4 or more axle articulated trucks as 32 tons.

The issue at the time was that the regulation did not specify maximum permissible axle loads that were estimated could reach 12 tons on a single axle and 20 tons on tandem axles, considered excessive for the highway system. There were discussions then to revise the regulation to impose a 10-ton limit for a single axle.

Currently, the regulatory axle load limit in accordance with the Road Traffic Regulations 2012 (LI 2180) is 11.5 Tonnes per axle. However, by policy, the MRH designs has a 13-tonne ceiling for pavement design.

Despite axle load enforcement stations dotted around the country, trucks are still excessively overloaded in Ghana. For instance, out of over 2,400 axles weighed in an axle Load survey conducted in July 2024 on the Accra – Nsawam Road at Achimota, 19% of all the axles exceeded the regulatory limit of 11.5 Tonnes and 12% the design policy limit of 13 Tonnes.

Another survey on the Accra – Kumasi Road³⁷ reported that, “*Vehicles on the northbound direction recorded a higher percentage of vehicles carrying more than 13 tonnes on at least one axle (54%) than the southbound direction (39%).*”

Observation on the Agona - Takoradi observed that loaded vehicles plying this route, especially extra heavy truck trailers, routinely raise three axles for majority of the journey. This trend has been observed over the years on major trunk roads within the country. A sample of trucks weighed with the lifted axles in the Agona-Tarkwa Road³⁸ study reported that, “*Extra Heavy Truck Trailers now have a more than double the truck factors when compared with the measured.*”

Obviously, we need to do more on enforcing axle load limits to preserve our roads and reduce the investment requirement for maintenance and reconstruction. Recently, the Minister for Roads and Highways had announced a tenfold increase in the maximum penalty for infringing the axle load regulations from GHs 5,000 to 50,000 as a positive step to enforce the regulations.

The ministry may consider the following additional interventions:

- i. Explore the use of a PPP arrangement for axle load enforcement;
- ii. Ensure that the ports and heavy industries install and use axle load weigh bridges in accordance with the regulations. It is recommended that they are required to issue a certificate of compliance with axle load regulations for every loaded truck the leaves their premises.

4.3.5 Road Safety

Though the World Bank started supporting highway improvements in 1973, it was only in 1987, in preparing the Transport Rehabilitation Project (TRP) that road safety was mentioned as an issue.

Annex 3-6 of the TRP Project Appraisal Document³⁹ devotes 12 pages to discuss the road safety program. Discussing the scale of the road traffic accident problem in Ghana, the report states, “*Road accidents, fatalities and injuries rose steadily from 1965 onwards, and only in relatively recent*

³⁷ GHA, *Apedwa Junction – Ejisu Road (41.8KM), Traffic Study Report, 2024*

³⁸ GHA, *Pavement Investigation Report on the Reconstruction of Tarkwa – Agona Nkwanta Road (66.0km), 2025*

³⁹ World Bank, *Project Appraisal Document, Ghana Transport Rehabilitation Project (1858-GH), 1987*

years have the trends been reversed. During the 20-year period 1965-1984, over 16,000 persons were killed and over 204,000 persons received injuries which in many cases will handicap them for the rest of their lives. Road accidents now result in over 700 persons being killed and around 7,000 persons being injured every year in Ghana (based on 1984 data)."

In comparison with our peers and the developed world, the report states, "Ghana (in terms of deaths/10,000 vehicles) has consistently had one of the highest fatality rates in developing countries. The 1984 rate, for example, at 112 is also more than 35 times as high as the equivalent rates in more industrialized countries (e.g., rates for UK and USA are currently around three deaths/10,000 vehicles)."

The report traces the issues affecting road safety in the areas of road safety administration; accident data collection, storage and analysis; highway authorities and hazardous location improvements; traffic policing and enforcement; and vehicle inspection and registration. For each, the existing situation and major improvements required was discussed.

The action proposed then were designed to achieve three main objectives: (a) key strategic improvements to bring about immediate benefits in the road safety sector in Ghana; (b) the commencement of systematic and methodical analysis of road accident data so that the true characteristics and nature of the problem can be properly defined so that appropriate remedial measures can be devised and implemented; and (c) institution building and manpower development to increase the capability of Ghanaian personnel and institutions to tackle road safety problems more effectively in the future.

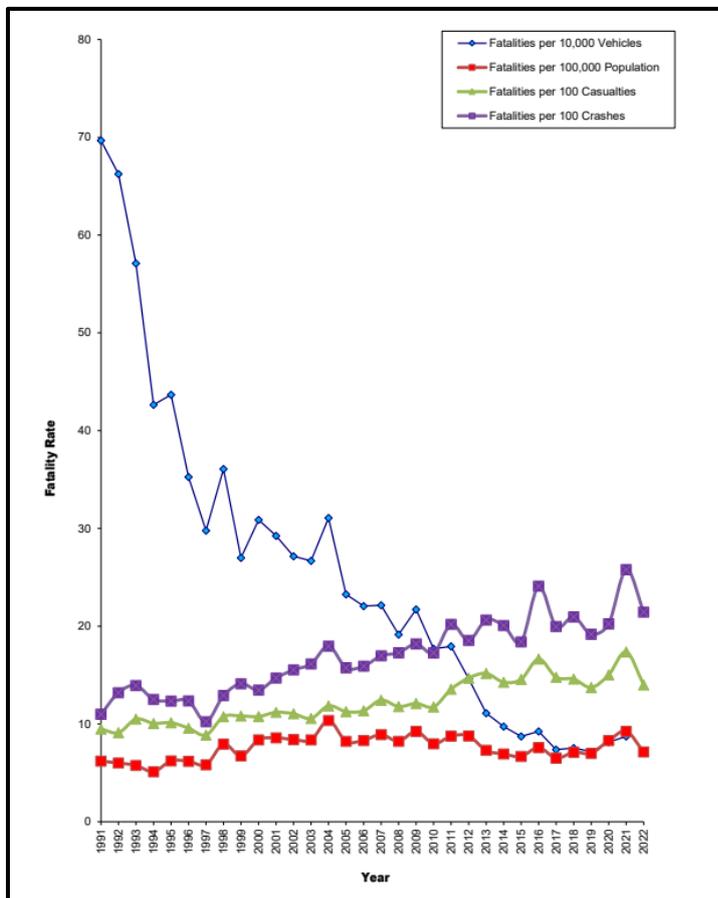
Today, the National Road Safety Authority (NRSA) which leads in the delivery of road safety in Ghana is empowered to promote, develop, coordinate, implement and enforce road safety policy and standards. There is an accident database managed by BRRI on behalf of the NRSA with primary data collected by the police and annual analytical reports prepared by the BRRI. The 2022 Road Crashes in Ghana Statistics⁴⁰ is the

⁴⁰ NRSA, *Road Traffic Crashes in Ghana, Statistics 2022, Draft Final Report, 2024*

last to be issued and provides the trend in fatality rates in Ghana as shown in Figure 4-3.

As can be seen, the fatality rate per 10,000 vehicles trended downwards from 70 in 1991 and hit a trough at about 5 in 2018 but it is on an upward trend since then. It appears that we have stagnated at an average of 5 fatalities as far fatalities per 100,000 population is concerned and trending upwards in terms of both fatalities per 100 crashes and fatalities per 100 casualties, an indication that the casualty severity is increasing. These trends are worrying when worldwide, Monaco had no road fatalities in 2021 and countries like Singapore, Japan, Norway and Sweden were achieving 2.1 fatalities per 100,000 inhabitants between 2019 and 2022.

Figure 4-3 Trends in Fatality Indices

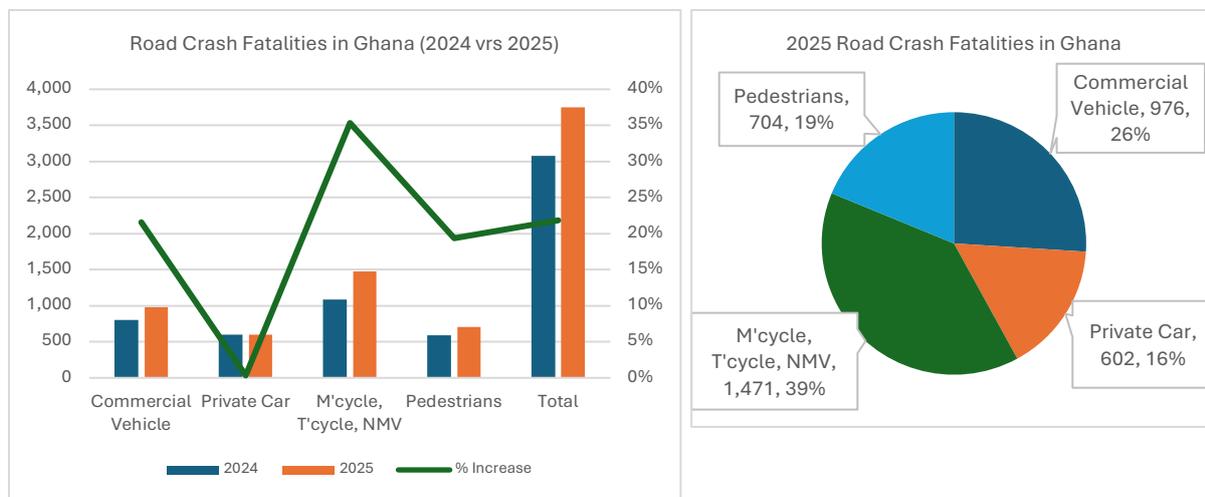


Unpublished data obtained from BRR for 2025 shows that 14,743 crashes were reported in 2025 (9.30% over 2024), 2,471 (36%) being fatal. There was a total of 3,653 fatalities representing a 21.5% increase over 2024 as shown in Figure 4-4. 1,471 (39%) of people killed were riding motorcycles tricycles, bicycles and pushing carts and the fatality grew by more than

35% from 2024. Most of the fatalities (over 90%) were from the motorcycle riders.

Year by year the number of deaths recorded by motorcycle riders keeps increasing and it is a phenomenon we must do something about. Recently, the commercial use of motorcycles to carry passengers have been legalized by amending the road traffic regulations. If this politically motivated move is not matched by an equal venom of enforcement of the regulation relating to proper licensing, obedience of traffic regulations and the wearing of helmets, then we are no close to resolving this menace.

Figure 4-4: 2025 Road Fatalities in Ghana (Source BRR)



4.4 Road Sector Management

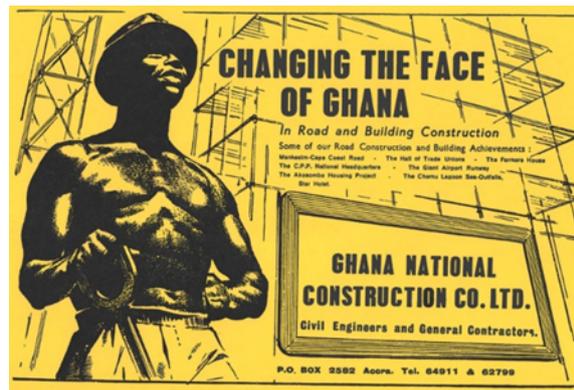
4.4.1 Evolution of Road Sector Management

4.4.1.1 The Beginnings

Prior to independence, the limited network of roads was managed by the Public Works Department (PWD). Most of the works were all undertaken using forced account (direct labour).

After independence, the road network size increased and the Public Works Department (PWD) was merged with an Israeli construction

company, Solel Boneh, to create the Ghana National Construction Company (GNCC) that took responsibility for the management and construction of roads in the country.



However, after the 1966 change in Government, PWD was restored and retained its responsibility for the management of roads. GNCC was renamed State Construction Corporation (SCC) as a Government owned construction company that could compete with other privately owned companies for construction works, including roads.

The PWD was a classic centralized organization with a strong Head Office which included the usual departments for engineering, construction, maintenance, and administration; and a hierarchical field organization of regional and district offices.

Larger projects were the responsibility of Headquarters. The regional offices executed the annual maintenance program and small projects. However, its capacity was seriously hindered by a shortage of qualified personnel at all levels.

4.4.1.2 1969 Decentralization Program

As part of the Government decentralization plan in 1969, the nine regional offices of the PWD, each headed by an engineer, were strengthened and given some autonomy. The regional engineers were placed administratively under the Regional Chief Executive but were expected to take technical advice from PWD Headquarters.

Funds were channelled through the Regional Administration without any proper control of expenditures by PWD Headquarters.

Feeder roads suffered particularly from this situation, as responsibility for their construction and maintenance was assigned to various agencies which did not necessarily have the required competence or capacity.

Though budgetary allocation for roads increased in 1969/70 for maintenance and rehabilitation, the results were disappointing for the trunk road network that continued to deteriorate.

PWD lacked the staff and equipment necessary for much of the deferred maintenance on the trunk roads and had to resort increasingly to using small local contractors who operated without enough technical and financial control.

The results were similar for the feeder road program where some of the roads, inadequately maintained to withstand heavy rains and flooding, were washed away within two or three years of construction.

4.4.1.3 Further Reorganization by New Military Government

The additional measures included:

- i. Continuing the decentralization policy and regrouping all highway responsibilities within each region under the PWD regional office.
- ii. Establishing the Engineering Department of PWD as an autonomous National Consultancy Corporation.
- iii. Concentrating PWD activities on the planning, construction, and maintenance of highways, and divesting the Department of most of its non-highway responsibilities (building maintenance, housing, hydrology, etc.) with the consideration of converting it into an autonomous Highway Authority.
- iv. This was expected to lead to a strengthening of PWD's role in highways, and as such, it appears to be a move in the right direction.

4.4.1.4 Main Organizational Issues

The major challenges and issues at the time included the need to:

- i. Improve the planning and supervision of highway investment;
- ii. Clarify the allocation of responsibilities for secondary and feeder roads;
- iii. Maintain sufficient central authority to coordinate and supervise highway maintenance and plant management;
- iv. Exercise sufficient financial and technical control over the region's highway maintenance operation;
- v. Recruit and train qualified personnel at all levels – a third of the 300 professional staff establishment were vacant, attributed mainly to

poor salaries offered by PWD compared with those outside the public sector.

4.4.2 Road Transport Institutions

4.4.2.1 General

The responsibility for the management of the public road network has evolved since the PWD days after the Ghana Highway Authority was formed in 1974. Now the road network is administered by the Ghana Highway Authority (GHA), Department of Urban Roads (DUR), Department of Feeder Roads (DFR), and the Road Maintenance Trust Fund, under the policy direction of the Ministry of Roads and Highways.

Though the National Roads Authority Act, 2024 (Act 1118) was passed and assented to by the President that merged the GHA, DUR and the DFR into one entity, a statement issued by the MRH on 7th February 2025 suspended its implementation over concerns raised by various groups to allow for further consultations.

Road transport services, driver and vehicle licensing, and road safety are administered by different agencies under the policy direction of the Ministry of Transport.

The Local Government Instrument, 2009 LI 1961 that commenced the establishment of the Departments of the District Assemblies under the Local Government Act gives responsibility for the day-to-day administration of the urban and feeder road network within their jurisdiction to the District Assembly.

4.4.2.2 Ministry of Roads and Highways (MRH)

The Ministry of Roads and Highways was first established in 1982 by the PNDC Government to focus, in the short to medium term, on improving the road infrastructure that had deteriorated despite the implementation of the first, second and third highway projects supported by the World Bank.

In 1997, a new Ministry of Roads and Transport was created out of the then Ministry of Roads and Highways and Transport and Communication to take oversight responsibility of all the transport modes.

In 2003, however, a separate Ministry of Ports, Harbours and Railways was created for the maritime and rail sub-sectors therefore leaving the Ministry of Roads and Transport for only the road and air transport. This was later split into two in 2005 as the Ministry of Road Transport and Ministry of Aviation.

The Ministry of Roads and Highways was re-instated in 2009, after a change in government with a specific responsibility for road infrastructure. The responsibility for road transport services, road safety and driver and vehicle licensing was left under the jurisdiction of a separate Ministry of Transport.

The MRH, since its creation, and in its various forms within the period has retained ministerial oversight for the three road agencies and the road fund.

The Ministry, with a Minister of State as its political head and a Chief Director as its administrative and technical head, undertakes its responsibilities through its eight directorates: Finance; General Administration; Human Resources; Monitoring and Evaluation; Policy, Planning and Budget; Public Investment; Procurement; and Research, Statistics and Information Management (RSIM).

The Ministry publishes on its website (mrh.gov.gh), the following: Monthly Cost Indices; Schedule of Rates; Contractor Classification; Annual Performance Report; Statistical Report.

4.4.2.3 Ghana Highway Authority

The Ghana Highway Authority (GHA) was established under the National Redemption Council Decree (NRCD 298) of December 1974 with responsibility for the administration, control, development, and maintenance of all public highways and related facilities in Ghana, taking over the responsibility from the Public Works Department (PWD). The Authority operated under the policy direction of the Ministry of Works and Housing until the establishment of the Ministry of Roads and Highway in 1982.

The Ghana Highway Authority Act, 1997 (Act 540) repealed NRCD 298 and continued the existence of the Ghana Highway Authority to ensure the effective and efficient management of trunk roads and related matters.

The Authority has the responsibility under Act 540, among others, to: plan, develop, maintain, protect and administer trunk roads and related road works; control vehicle usage on trunk roads; classify and lay down design standards for trunk roads; undertake research related to its object; maintain and update lists of roads designated as trunk roads; and negotiate concession agreements with private sector entities to enable them finance, build and operate selected trunk roads.

The Authority has a governing Board of Directors. A Chief Executive is appointed who is responsible for the day-to-day business of the Authority and implementation of the decisions of the Board.

The Authority is currently organized under three deputy chief executives with responsibility for Administration, Development and Maintenance. The deputies are supported by directors with responsibility for various functional departments.

4.4.2.4 Department of Urban Roads (DUR)

The Department of Urban Roads was established in 1988 under the Ministry of Roads and Highways and had the mandate to set up Road Units in the Municipal and Metropolitan Assemblies and supported them to construct, maintain and manage traffic on the urban road network. This work started in the then Metropolitan Assemblies of Accra, Kumasi, Tema and Sekondi-Takoradi.

L.I. 1961 of 2009, in accordance with section 164 of the Local Government 1993 (Act 462), gave effect for the establishment of a Department of Urban Roads in each Metropolitan and Municipal Assembly. This position has since been consolidated by the Local Governance Act 2016 (Act 936).

As it stands now:

- i. **The Department of Urban Road** as it exists under the Ministry of Roads and Highways, and its sixteen Regional Offices, only exist to: Provide inputs into policy formulation of the road sector; Develop standards and guidelines for effective functioning of the urban road network; Monitor, evaluate and provide quality assurance for programmes and projects; Initiate and implement human resource and capacity building programmes; and supervise the provision of some road network and transport related infrastructure.
- ii. **The Road Department of the Metropolitan and Municipal Assemblies** are responsible for the day-to-day administration of

the road network within their jurisdiction under the direct control of the Assembly. They will do this with guidance (policy, standards, guidelines, etc,) from the MRH through DUR. They may also receive additional financial resources from Central Government through the same channel. As it stands today there must be Roads Departments in all 126 Metropolitan and Municipal Assemblies.

4.4.2.5 Department of Feeder Roads (DFR)

The Department of Feeder Roads was established in 1982 under the Ministry of Roads and Highways and had the mandate to superintend over the feeder road network in the country.

L.I. 1961 of 2009, in accordance with section 164 of the Local Government 1993 (Act 462), gave effect for the establishment of a Department Works in each District Assembly whose responsibility include the administration of road network within the Assembly. Similar to the DUR this position has since been consolidated by the Local Governance Act 2016 (Act 936).

As it stands now:

- i. **The Department of Feeder Road** as it exists under the Ministry of Roads and Highways, and its sixteen Regional Offices, only exist to: Provide inputs into policy formulation of the road sector; Develop standards and guidelines for effective functioning of the feeder road network; Monitor, evaluate and provide quality assurance for programmes and projects; Initiate and implement human resource and capacity building programmes; and supervise the provision of some road network and transport related infrastructure.
- ii. **The Works Department of the District Assemblies** are responsible for the day-to-day administration of the road network within their jurisdiction under the direct control of the Assembly. They will do this with guidance (policy, standards, guidelines, etc,) from the MRH through DFR. They may also receive additional financial resources from Central Government through the same channel. As it stands today, the Works Department of 135 District Assemblies must be managing the road network in their Districts.

4.4.2.6 Road Maintenance Trust Fund (RMTF)

Ghana established a Road Fund under administrative arrangements in 1985, one of the first in Africa. The road fund operated under the MRH. The Road Fund Act, 1997 (Act 536) later established the Road Fund. Road Fund amendment Act 2016 (Act 909) amended Act 536 to make the Fund

a body corporate and changed the Chair from the Minister to a person appointed by the President.

Act 536 has since been replaced by the Road Maintenance Trust Fund Act 2025 (Act 1147) passed by Parliament and assented to by the President on 14th August 2025.

The object of the Fund is to provide sustainable financing for the maintenance and rehabilitation of public roads, bridges and related infrastructure in the country.

The governing body of the Fund is a Board of Trustees chaired by the Minister, or a person nominated by the Minister to exercise general oversight responsibility for the strategic direction of the Fund and ensure the efficient performance of the Fund, among others.

A full time Administrator of the fund shall be appointed to manage the day-to-day administration of the Fund and implementation of the decisions of the Board of Trustees.

4.4.2.7 *The sourcesKoforidua Training Centre (KTC), MRH*

is a centre for the training of professionals (engineers, contractors, consultants, administrative staff, etc.) in the transport sector.

4.4.2.8 *Ministry of Transport*

To put all the transport sector under one ministerial control, the Ministry of Transport and Communication was merged with the MRH in 1997 and became the Ministry of Roads and Transport.

The sector has since seen several splits and amalgamation, but the Ministry of Transport has always retained responsibility for road transport policy and regulation with oversight responsibility for:

- i. **Driver and Vehicle Licensing Authority (DVLA):** Established by the DVLA Act, 1999 (Act 569) as a body corporate. The object of the Authority is to promote good driving standards in the country and ensure the use of road worthy vehicles on the roads and in other public places.
- ii. **National Road Safety Authority (NRSA):** Established by the NRSA Act, 2019 (Act 993) as a body corporate and a successor to the erstwhile National Road Safety Commission established in 1999. The object of the Authority is to reduce the incidence of road traffic

crashes, fatalities and injuries through the promotion of road safety, development and coordination of policies in relation to road safety, and Implementation and enforcement of standards for road safety.

- iii. **Intercity STC Coaches:** Started in 1909 as a government Transport Department to cater for the needs of the central government and made a body corporate by L.I. 414, 1965 as State Transport corporation (STC) to run commercial passenger services. A haulage division was added in 1968. It was incorporated in June 1995 as a Limited Liability Company as State Transport Company Limited but renamed Intercity STC Coaches Limited since 2003 October. It provides intercity passenger transport services in competition with several private sector companies.
- iv. **Metro Mass Transit Limited (MMT):** Establishment in 2002 and incorporated in March 2003 as a limited liability company as a public-private partnership between the Government of Ghana holding 45% of the shares and six Institutional investors holding 55% of the shares combined. Though set up to provide intra-city services, the company has diversified its operations to include shuttle services, rural-urban services and inter-city services in competition with several private operators.

4.5 Road Sector Planning

The policy and planning sections discussed under Chapter 2 and 3 equally apply to the Roads Sub-Sector.

Planning in the road sub-sector has been one of the big issues confronting the sector from the 1960s. All the World Bank projects have recognized this and put in the investment to build institutional capacity.

The Policy, Planning and Budget Directory of the MRH coordinates planning in the sub-sector and the road agencies (GHA, DUR and DFR) have their own planning units.

Despite the capacity built over the period, the road sub-sector has been cited as the least responsive in in the NTP 2020 in the implementation of the measures in the NTP 2008 and ITP 2010.

The major issues confronting the sector today include the following:

- i. There is no process in place for updating ITP 2010 which expired as far back as 2016. No staff has been trained and put in charge of the model.

- ii. There is no road transport data collection, storage and analysis system. As such it is difficult to update or run the ITP model introduced in 2010.
- iii. GHA and to some extent DFR have been collecting road inventory and conditions data on their network. The DUR process appears to have frozen in time. The MRH has not been able to coordinate a harmonized database on road inventory and condition and resolve the jurisdictional issues of the three agencies.
- iv. There are virtually no maintenance planning and budgeting though the agencies have the tools (e.g. GHA's PMMP) to do this. Political expediency has taken over.
- v. Transport master plans prepared for the Greater Accra Metropolitan Area (GAMA) and the Greater Kumasi Metropolitan Area (GKMA) have not been factored adequately into ongoing development projects.

4.6 Road Sector Financing

4.6.1 General

Government has generally funded road construction and maintenance from its own resources until 1969 when the World Bank granted its first Credit (S7-GH, US\$1.5 million, 1969) to finance the design of two highways between Accra and Kumasi, and between Kumasi and Takoradi. Thereafter there has been an active participation of the World Bank and other Development Partners in financing the transport sector in Ghana. A full list of World Bank funded projects in Ghana is provided in Appendix 5.

The Project Appraisal Document for the First Highway Project had indicated the priority that government at the times gave to roads, stating, *“Further, there was clear priority for funding for maintenance, rehabilitation and for feeder road. For instance, the budget allocations for highways increased substantially from a low ₵ 8.5 million in 1968/69 to about ₵30 million in 1972/73; and for maintenance alone, from about ₵ 2.1 million in 1968/69 to roughly ₵10.5 million in 1969/70. Road user charges during the period 1963-68 as reported was about twice the amounts spent on highways. However, the increases in investment thereafter had closed the gap by 1972/73 budget year.”*

4.6.2 Funds for the Roads Sub-Sector

The sources of fund for government expenditure include funds accruing the Consolidated Fund (GoG), Internally Generated Funds (IGF) by MDAs, and Donor Funds and Funds from other sources (Statutory & ABFA).

The funds are allocated to fund Compensation of Employees, Goods and Services, Capital Expenditure (Capex) for the various arms of Governments.

Expenditure for the Ministry of Roads and Highways is classified under Infrastructure, and its expenditures is financed as follows:

- i. **Compensation of Employees:** From the Consolidated Fund (GOG);
- ii. **Goods and Services:** From the Consolidated Fund (GoG), Internally Generated Funds (IGF) and Donor Funds;
- iii. **Capital Expenditure:** From the Consolidated Fund (GoG), Internally Generated Funds (IGF), Road Maintenance Trust Fund (A statutory Fund) and.

4.6.3 The Consolidated Fund (GoG)

Compensation for employees is fully paid for by GoG and is never in arrears. Payment for goods and services is usually inadequate and suffers from delayed release by GoG.

The biggest challenge is for capital expenditure. It was announced in the 2025 Budget Statement by the Minister for Finance to Parliament that the Road Sector arrears alone is GHs 21 billion (excluding the GHs 5.75 billion owed by the Road Fund). This situation is likely to have aggravated by the end of 2025 because of delays in release of funds to pay contractors. Further an additional GHs 4.35 billion of Cocoa Roads liability of COCOBOD has been transferred to GoG by a recent cabinet decision.

Further, the value of ongoing road contracts was estimated to be over GHs 120 billion.

If these are set against the fact that less than GHs 5.2 billion was appropriated for capital expenditure in the 2026 budget, then something drastic will be required to deal with this financial situation.

4.6.4 Road Maintenance Trust Fund

As has been noted earlier Ghana established a Road Fund under administrative arrangements in 1985, and consolidated it with the Road Fund Act, 1997 (Act 536), which has been replaced with the Road Maintenance Trust Fund Act, 2025 (Act 1147).

The source of funding include: (a) moneys approved by Parliament; (b) a road maintenance levy on petroleum products as determined by Cabinet with the approval of Parliament; (c) tolls collected on public roads and bridges; (d) vehicle registration and inspection fees; (e) transit fees from foreign carriers; (f) axle-load penalties; and (g) donations, grants and gifts.

Funds shall be allocated accordance with an allocation formula comprising road condition index; length of network; traffic load; climate and terrain vulnerability; equity and access index for underserved regions; and institutional performance including audit and utilization compliance.

was an engineering Credit (S7-GH, US\$1.5 million, 1969) which helped finance the design of two highways between Accra and Kumasi, and between Kumasi and Takoradi. Though the design was completed in 1971, the construction was deferred by government because the estimated cost of construction was higher, the rates of traffic growth lower than expected, and there were improvements (proposed or underway) to existing roads along the two corridors.

The Fuel provides between 90% to 95% of the Fund's revenue. The levy by 1984 was equivalent 1.8 US¢ per litre and rose in the 1990s steadily from 2.8 US¢ in 2002 to 6.39 US¢ in 2007.

In 2016, the levy was significantly raised from GHs 0.073 to GHs 0.40 and later to GHs 0.48 in 2019. This is equivalent to 4.36 US¢ today (US\$ 1 = GHs 11) far less than the 6.39 US¢ achieved in 2007. Steps need to be taken to restore the real value of the levy.

The use of the Fund has been abused over the years and has been overloaded with works which were beyond its scope. In 2016 alone over GHs 8 billion of works were awarded against the Fund when it could gross only about GHs 1.3 billion. A loan of GHs 1.3 billion was taken by the Fund to finance these projects. By 2017 when the loan repayments started

there was barely enough funds to fund the projects and arrears started building. Another GHs 1.2 billion was contracted in 2020 to help clear the arrears. The total cost of these loans to the fund was over GHs 1.25 billion, exceeding 50% of the principal.

As at the end of 2024, GHs 5.75 billion was owed by the Fund to contractors with contract commitments more than GHs 21 billion. No payments were made from the Fund in 2025, and I am reliably informed that the indebtedness has risen to about GHs 10 billion by the end of 2025. GHs 3.0 billion has been appropriated for the Fund in 2026.

This position poses a great risk to implement an effective maintenance program for roads as fund required for maintenance will be used to pay for arrears and the deterioration of the network will accelerate.

4.6.5 Donor Funds

The First Highway Project supported by the World Bank started in 1974. According to the project appraisal report of 1973⁴¹ the World Bank funded US \$13.0 of the US\$ 19.5 million project for the rehabilitation of about 552 km of roads. An economic return of 12% to 36% (22% weighted average) were assessed for the project.

The project was accompanied by the implementation of measures for strengthening highway planning and for better control of road maintenance expenditures, as well as for improving weight control of vehicles.

Construction contracts and procurement of equipment were to be awarded based on international competitive bidding in accordance with Bank/IDA guidelines. The PWD was the implementing agency, assisted by the consultants who prepared the engineering for the four-year project.

4.6.5.1 Subsequent Donor Supported Projects

The First highway project was followed by many other road and transport sector donor projects funded by the World Bank (see Appendix 5) amounting to US\$ 1.8 billion (including co-financing from other donors). Other multi-lateral and bilateral foreign donors have also actively

⁴¹ World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973*

participated in the sector. These include AfDB, BADEA, DANIDA, BDID, EC, AFD, Netherlands, GTAC, JBIC, JICA, KfW, OPEC Fund, Fonds CEDEAO, etc.

The donor Funds has largely been used for capital expenditure, though a significant amount has been used to support the goods and services, mainly for institutional capacity building and training.

4.6.6 Public Private Partnership

Public-Private Partnerships (PPPs) options are actively explored in the roads sector. The World Bank had supported the feasibility studies under the PPP project for several projects including the expansion of the Accra-Tema Motorway, the Accra-Takoradi Road, Boankra Inland Port, and the Eastern Railway Line within the inter-modality framework within 2015-2020 period. Government has not been able to close a concession agreement on any of these because the traffic levels and potential tariff levels meant Government had to provide a high viability gap financing and/or provide revenue assurance levels that Government was not prepared for.

The government has recently floated a special purpose vehicle AT Expressway that have signed a Concession Agreement with the Ghana Highway Authority for the Development of the Accra Tema Motorway. Government has provided an initial investment US\$ 352 million into the construction of section 1 of the project which is currently ongoing. It is expected that AT Expressway will use this as leverage to attract investors for sections 2 and 3 and to operate it as a toll road. We wait to see how this turns out.

4.7 Engineering and Construction

4.7.1 Consulting Services

4.7.1.1 The Beginnings

In the 1960s and 1970, pre-investment studies for large projects were normally undertaken by international consultants and designs of smaller road projects at the time were undertaken by local consulting firms that had been established mainly for structural engineering. The issues at the time were the lack of transparency in the selection of the consultant, lack of supervision by the PWD and remuneration of the consultants. The

Ministry of Works and Housing was tasked to work with the GhIE to resolve these issues.

It was at this time that Government conceived the idea to set up a local consulting organization which can handle large projects and culminated in creation of the Architectural and Engineering Services Corporation (AESC) in the 1970s⁴². Today, the AESL has no role in the design and supervision of road works.

4.7.1.2 The Consulting Industry Today

The Consulting Engineering landscape in Ghana is made up of small to medium firms. There are about 250 consulting engineering firms registered in Ghana, with not more than 80 firms practicing in the road sector. About 60 of these firms are registered with the Ghana Consulting Engineers Association (GCEA), which is the official mouthpiece of consulting engineering practice in Ghana and a member of the FIDIC Africa and FIDIC Global bodies. Some International firms still operate in the industry but mostly do not register with either GhIE nor GCEA and by extension the Engineering Council.

There has not been a conscious effort to build the capacity of the road engineering consultants. There is no pipeline of projects that are available to them on a continuous basis to help them retain experience staff and invest in human resource development, technology and modern equipment to improve their service offerings. This is made worse by the practice where consulting firms who manage to secure jobs are not paid their fees as scheduled.

The above situation has led to the proliferation of designs from mostly Chinese contractors who hire Chinese consultants to solicit for projects or to undertake projects awarded to them. Even when Ghanaian consultants are hired to undertake designs, their work is undermined by alternate design offered by these contractors. This development is undermining the ability to grow indigenous firms which will in the long run prove costly for the country. Teeming engineering graduates from our universities need projects to train them and enhance their skills in engineering practice.

⁴² World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973*

For instance, under the current Big Push agenda where it is reported that up to about GHs 10 billion of works have been awarded, there has been limited involvement of consultants in the design of the works. It is only after the works have started that some consultants are being engaged for supervision.

There must therefore be a conscious effort to develop the capacity of the consulting firms and individuals, through targeted efforts and a pipeline of projects to ensure the industry remains active and vibrant.

4.7.2 Construction Industry

4.7.2.1 The Beginnings

The PWD which was responsible for the management of the major road network in the 1960s did practically no force account construction work as was common for maintenance and minor works. Major contracts were normally awarded after competitive bidding.

To be eligible to tender for Government works, contractors were required to register with the Government. Nearly 200 contractors were registered to do road works in one of four classes, namely: (i) exceeding ₵250,000; (ii) ₵100,000 - ₵250,000; (iii) ₵25,000 - ₵100,000; and (iv) below ₵25,000. There were seven or eight indigenous firms in the highest class (the largest being the autonomous SCC), and six or seven foreign contractors, only one of which was active. Most contractors in the other classes were mainly building contractors who were not equipped for high quality roadworks, and whose activity was thus limited to regravelling and construction of small drainage structures⁴³.

PWD supervised the works, but it was reported that its control was seriously hampered by inadequate staffing and equipment. Workmanship was poor on the repair and maintenance works.

4.7.2.2 The Construction Industry Today

The MRH has a well set out system for classifying and certifying contractors to execute road contracts. It is a well tested and tried system

⁴³ World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN)*, 1973

and has not significantly changed in the last 25 years. The list of certified contractors is updated monthly on the MRH website.

The certification process however faces periodic challenges linked to changes in Government. At every time the governing party changes, there is a rush for new contractors to be certified. Most of the time the new applicants do not have adequate resources and experience as road contractors. The tendency has always been to lower the standards and let them in. This pattern has been observed after the change in government in 2025.

The MRH in 2021 decided to abandon the existing list of certified contractors because it had lost all credibility and re-register all contractors. By 7th September 2021 there were over 7,970 registered contractors with 723 classified as A1B1. A1B1 contractors can take up an unlimited number of projects at a time with no financial limits.

A new classification committee was formed, and they requested contractors to reapply for classification and registration. They went through a painstaking process to verify all the information provided by the applicants before classifying and certifying them. After four years of this process, they had registered close to 1,413, 96 of whom were in the class of A1B1 by 27th November 2024,

Then government changed, and after 13 months, the list has grown to 3,553, including 358 A1B1 contractors by 3rd February 2026. The cycle has started again, and we are on our way to destroy the credibility of the register again. The question is, how is it possible, for 262 firms to within 13 months period be able to acquire the resources and experience to become A1B1 contractors when they were unable to do so in the preceding four years.

If we must engineer our future, we must do it well and do it right.

Table 4-3: Data on Certified Road Contractors

Date Published	A1B1	A2B2	A3B3	A4B4	Total
07-Sept-21	723	1,000	3,507	2,740	7,970
27-Nov-24	96	110	295	912	1,413
30-Dec-25	342	325	1,151	1,645	3,463
03-Feb-26	358	340	1,171	1,684	3,553

4.7.3 The Project Execution Process

4.7.3.1 General

After a project is selected for execution from the planning and feasibility processes, it now starts the project execution processes. The process entails (i) Selection of Design and Supervision Consultants; (ii) Design; (iii) Selection of Contractor; (iv) Works Execution

4.7.3.2 Selection Consultants

This stage is required for projects that require the services of a consultant. Normally routine maintenance and most periodic maintenance can be prepared inhouse if the inhouse capacity exist. It is advised that more extensive periodic maintenance works and all rehabilitation works should be given out to consultants. As a mater of policy all major projects for expanding or upgrading sections of the network must be designed and supervised by Consultants.

For political expediency, these days there is no space between project identification and execution, so consultants are not used and sub-standard designs a prepared by inhouse teams. Normally, a 2-year lead time is required between project selection and commencement of construction. This will not be a problem if the LI 2411 process is utilized at the planning stage. If a project is admitted into the PIP in Year 3 at the design stage, then there will be adequate time to prepare for construction.

The selection of consultants must be through open competitive process as required by the Public Procurement Act and Regulations. The selection processes could be limited to Consultants whose operational regimes are within predetermined regions. The PPA should use its registration processes to have consultants a limited number of regions or zone for such purposes.

4.7.3.3 Design

Design is crucial. Engineers and other experts have all the time to investigate all technical issues, run all tests, undertake all studies and provide appropriate designs for a project. An Environmental Impact Assessment can be done and an Environmental Certificate obtained from EPA; All project Affected Persons (PAP) can be identified, consulted and an appropriate resettlement plan drawn and executed; and a Safety Audit can be undertaken reduce the risk of crashes after construction and provide appropriately for the needs of vulnerable road users. The Road Agency will have time for to review the designs with the involvement of the relevant stakeholder prior to finalization and costing.

Based on the above cost estimates can be prepared having taken all issues into account prior to tendering and the feasibility of the project can be confirmed. This may call for revision of budgetary cost and/or reduction of scope or aspects of the project to stay within budget.

Again, these days little attention is paid to design. The design processes are short circuited, and this comes with surprises at the end of the process.

A typical example is the Construction of bypasses on the Accra – Kumasi Road. Contracts were awarded and signed without designs survey, engineering studies and designs; Construction started without designs, without Environmental Permits, without Resettlement Action Plan, without payment of compensation to PAPs and without contracts for the supervision Consultants. It is not surprising that the projects are at a standstill halfway through and the contract amounts have more than doubled.

4.7.3.4 Selection of Contractors

It has become fashionable for contractors to be selected for road projects using Single Source processes. The Public Procurement Authority is happy to approve single source procurement when obviously there are several local contractors with the capacity to execute the project.

Contractors abound and there is no reason why open competitive processes would not be used to select a contractor. There were 342 out of a total of 3,464 contractors registered as A1B1 by the MRH as of November 2025.

The PPA, for no apparent reason, also approve selective tendering process, when it is an open secret that shortlists are prepared in a manner that the other bidders are there only to support a preferred bidder to win the Job.

I am witness to a process, in 2025, where one agency awarded 31 projects at the same time all under selective tendering processes. The tender documents took out all the post qualification criteria in the standard documents and did not post qualify for awarding multiple projects under the pretence that the bidders were A1B1 contractors and did not have any financial limits. It is the common practice that the MRH classification is only used as a Responsiveness criterion and not for Post-Qualification.

If we must engineer our future, then we must endeavour to do well and to do it right.

4.7.3.5 Works Execution

During works execution the expectation is that the works will be completed by the selected contractor according to the scope defined in the drawings and bill of quantities and quality specified in the specifications, within the stated contract amount, and within the period stated in the contract.

The contract document allows for the supervision of the works by an engineer, who together with his team ensures that the contractor executes the works according to his contract and that the completed works are certified for payments.

The biggest issue with road works in Ghana is the quick deterioration of the works after it is completed. This is the bane of the road sector. Most projects are not completed, and if completed beyond the cost and time in the contract and often with questionable quality.

The other issue that bothers the public is the inadequate traffic management during construction. Our local contractors have the attitude that says, “we will complete soon, and you will enjoy a good facility so be patient.” This is unacceptable.

This where we must rise as a people and as an Institution. We must hold Government to account and demand the road projects are executed timeously with the right attitude and to the highest standard.

If we must engineer our future, then we must do it well and do it right.

4.7.3.6 **Project Execution Process – The Case of DUR**

A case study of the Contract Management Section of the 2024 Annual Report of DUR aptly illustrate the extent of the problem with the project execution process in the Roads Sector.

- i. **Project Preparation:** *“The data collected for project preparation are by taking inventory from site visits, some previous information available or a full assessment of a condition survey conducted on various road networks.”* Design is not mentioned here at all neither was the use of consultants mentioned.
- ii. **Tendering Processes:** *“Upon the receipt of the necessary approvals from the MRH, the department then commences the procurement process through the preferred methods.”* Nowhere in this report is the preferred method explained even though they had 862 projects, 105 of which were signed in 2025 in their portfolio.
- iii. **Contractor Workload Analysis:** 359 Contractors are executing the 862 projects. A few are inundated with emergency works forcing them to spread their resources amongst many projects.
- iv. **Consultant Workload:** 25 Consultants are supervising 42 of the 688 projects. *“There is the need to procure additional supervising and design consultants to support the department on some major projects that are being executed.”*
- v. **Contract Management:** *“The data collected from reports submitted for the year, from each region, shows that most contractors are not working.”* Out of the 862 projects 95 are substantially completed; 486 are ongoing; 263 have been abandoned; and 42 are yet to commence. The Department goes on to list the associated problems:
 - a. Investments are being washed into the drains because the stages of most of these projects, especially earthworks, have either been washed away by rains;
 - b. Erosions created because of drainage structures constructed above the existing road level awaiting gravel works to be placed on the roadway;
 - c. Increase in health hazards because of dust pollution; and
 - d. Increase in the plight of commuters to and from those communities.
- vi. **Variation Orders:** In recent times, request for Variation Orders and Extension of Time have become the order of the day. Some Variations are stand-alone projects which could add to the number

of projects rather than Variations. The department has in its custody, a total of 246 VOs on 148 projects.

These problems cut across the agencies.

If the government says its on a RESET Agenda, then it must give attention to quality delivery of road works. My reading is that a 2025 report from DUR will not be different from this, the scale may be bigger with all the Big Push projects that have started.

4.8 Maintenance

As far back as 1972 a highway maintenance study undertaken by Crown Agents recommend a four-year highway maintenance program including⁴⁴:

- i. Measures for increasing staff levels and training the labour force necessary to carry out a sufficient volume of work;
- ii. Renewal and expansion of the equipment fleet, and reconditioning of workshops and stores as necessary; and
- iii. Elimination of the existing backlog of deferred maintenance of gravel roads.

Today, as the road network keeps increasing the investment into network preservation and maintenance has not received adequate attention. The 2016 almost 8-fold increase in the fuel levy for the Road Fund did not provide the needed impetus to routine and periodic maintenance. It rather fuelled heavy invest into rehabilitation and construction works far beyond the capacity of the Fund. The fund has now accumulated a backlog of payments of more than GHs 10 billion since then.

The GHA Pavement Maintenance Management Program (PMMP) has not been effectively utilized in a long while to influence their maintenance program and consequently improve the road condition mix.

The project appraisal report for the Transport Sector Improvement Project (TSIP)⁴⁵ in 2017 noted that, *“While continued expansion of the network is desirable, more attention needs to be given to improving and maintaining road quality through proper asset management. The current approach of separate rehabilitation/improvement and routine maintenance contracts*

⁴⁴ World Bank, *Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973*

⁴⁵ World Bank, *Project Appraisal Document, Ghana Transport Sector Improvement Project (P151026), 2017*

result in a lack of timely maintenance and, consequently, increased pavement deterioration and higher costs. The project will introduce performance-based contract (PBC) on selected, prioritized sections of the road network and will complete the establishment of a road asset management system (RAMS) for at least the trunk and feeder road networks. These actions will provide opportunities for the establishment of asset management principles as the basis for network management.”

As part of the ongoing TSIP, supported by the World Bank, the MRH has developed a Web-based Integrated Road Asset Management System (WIGRAMS). It includes tools for maintenance planning, budgeting, prioritization, and scheduling modules. It employs high-quality, real-time data collection technologies such as sensors, drones; Geographic Information Systems (GIS); and standardized data formats. The ministry must ensure that the Agencies collect the necessary data and train its staff for its full deployment in the sub-sector.

The other good news is that the new Road Maintenance Trust Fund (RMTF) Act 2025 (Act 1147), appears to have included the need for Road Asset Management Systems (RAMS) and the use of Performance Based Contract (PBC) regimes for financing the maintenance programs.

We urge the RMTF Board to hold the feet of the ministry and its agencies to the fire and ensure that WIGRAMS is fully used by the Road Agencies and Assemblies to plan and budget when they come seeking funding from the Fund and start migrating the contracting regimes towards term-contracts and performance-based contracts.

But the chances of success in this light can be improved if the Government can take the GHs 10 billion debt overhang and the over GHs 20 billion in contracts commitment from the books of the RMTF.

4.9 Road Transport Industry

4.9.1 A 1984 Assessment

An assessment of the road transport industry in 1984 in the project appraisal document for the Road Rehabilitation and Maintenance Project (RRMP)⁴⁶ reported that, the road transport industry was made up of three

⁴⁶ World Bank, *Project Appraisal Document, Road Rehabilitation and Maintenance Project (1601GH /A-1GH)*, 1985

major state-owned companies, one large and some 170 medium-size and small private trucking companies (owning 4-5 vehicles on average), numerous individual truck owners/operators, and a large number of private bus and other passenger transport operators.

Of the three state companies, the State Transport Corporation (STC) provided trucking services for public sector goods and scheduled inter-city passenger bus services while the Omnibus Services Authority and City Express Services, two similar companies which were likely to be merged, provided public passenger transport services in major cities and surrounding rural areas.

Any Ghanaian owning a roadworthy vehicle and valid insurance coverage can operate goods or passenger transport services along any route he chooses without Government licensing. Private and state companies compete for available demand. Transport tariffs were set by MOTC, based on a thorough analysis of vehicle operating costs. Official rates, which were adjusted frequently in line with changes in price levels, are strictly applied by the state companies while private companies frequently charge more.

4.9.2 Current Situation

The situation has generally not changed since 1984. STC is still in operation but with little cargo services. City Express Services and Omnibus Service Authority have been replaced by Metro Mass Services Ltd, jointly owned by the state and few institutional shareholders.

The Greater Accra Public Transport Executive (GAPTE) was created by the MMDAs in the region to operate enhanced bus services along the Nsawam road with some bus priority measures. This experiment, like other state sponsored public transport system in the urban area has collapsed mainly because of congestion on the roads.

The market is otherwise controlled by the private sector led by unions, the most dominant being the Ghana Private Road Transport Union (GPRTU). The Ministry of Transport continues to negotiate with the union to fix passenger fares, which are easily flouted by the single vehicle operators.

The planned introduction of BRT operation in the late 2000s was not successful. The need for an efficient public transport system in the big cities is still an imperative.

Motorbike commercial passenger service (okada) and delivery services have become common. Also, three-wheeler motorised vehicles (aboboya) have also become common for delivery of cargo services. Recent, the road traffic regulations have been amended to legalize the okada services.

4.10 Non-Motorized Transport

4.10.1 General

Non-Motorized Transport (NMT) includes walking and the use of vehicles propelled by human or animal power such as bicycles, push carts and wheelbarrows.

4.10.2 Walking

Walking is the basic means of transportation for all humans. It is healthy and mostly used for short distance travel in both urban and rural trips. There is no out of pocket expense for walking and is equally available for the rich and the poor, and for the young and the old. For some, for both short and long-distance trips, it is the only means of travel.

A 2020 study report by Arroyo is referenced to have found that found that, “Walking and public transport are the main modes of transport in Kumasi, especially for low-income groups, and access to jobs by public transport modes has become increasingly difficult. Walking is the main mode to access jobs, markets, and schools (50 percent) while public transport (minibuses – locally called trotros, taxi, and bus) and private cars constitute around 43 and 5 percent, respectively.” (Arroyo, 2020).

Though 50% of all trips is by walking in a big city like Kumasi, there is very little attention paid to providing safe walkways. And in the few cases where they are provided, are encroached by street vendors, small business structures or are ill-maintained to the disadvantage of the pedestrian. Facilities for safe crossing of roads are limited, and this is

corroborated by the fact that 41.5% of road crash fatalities in Ghana in the three-year period 2020-2022 were pedestrians⁴⁷.

4.10.3 Non-Motorised Vehicle Use

4.10.3.1 General

Non-motorised vehicle use; mainly bicycle use, has been the most popular means of transportation in the northern parts of the country compared to the south.

4.10.3.2 Urban Mobility

The first effort to promote its use in the large cities in the south was through the Urban Transport Project sponsored by the World Bank in 1993. The Implementation completion report of June 2000⁴⁸ states that, *“The main objective of this pilot operation was to contribute to the Government's policy of balanced development of transport modes through the construction of about 50 km of bicycle and push trolley paths, connecting the low- and middle-income residential areas to commercial and business districts. The paths were to form the initial phase of an integrated bike path network for Accra. A study was to be conducted under the project to produce a master plan for the development of a comprehensive network.”*

Although this network was completed and bicycle paths were included on some major road projects in Accra, the masterplan was not developed, and the use of the existing paths is very limited. The exclusive paths have not been maintained or has been taken over in many places by other developments. The roadside paths have become an extension of the walkway or have been encroached by other uses. This attempt to promote non-motorized vehicle use, especially cycling has not been successful.

4.10.3.3 Rural Mobility

Rural mobility has typically been by walking or cycling. Goods have typically been transported by head carriage and behind bicycles.

⁴⁷ NRSA, Road Traffic Crashes in Ghana Statistics 2022, Draft Final Report (BRR), 2024

⁴⁸World Bank, Implementation Completion Report, Ghana Urban Transport Project (20660), 1993

The first effort to support intermediary means of transport by government was through the National Feeder Roads Rehabilitation and Maintenance Project in 1991⁴⁹. The project sort to learn from the experience of the Amasachina NGO in Tamale to provide a long-term revolving fund for bringing more intermediate means of transport (IMIT) vehicles into the rural transport system. The initial proposal was to supply some 40 sets of cycles, trailers and farm vehicles, in two tranches to each of 100 NGOs and cooperatives in Brong-Ahafo, Volta and Northern Regions at a cost of US\$1.8 million.

In recent time motorised options have become more available, especially with the advent of okada (motorbike commercially services and aboboya (tricycle trucks commercial services)).

4.11 Safeguards

A study of the World Bank report on its activities in the road sub-sector did not have any goals on environmental and social assessment of the projects until 1996 during the preparation of HSIP. Even the HSIP did recognize it as a goal but as a capacity building for GHA where it stated in project appraisal document that, *“Environmental units will be established within the Planning Division of GHA and in MIRH to supervise future preparation of environmental impact assessments, spearhead the development of training programs in environmental aspects of road projects in all agencies, assist in developing environmental regulations, and oversee ongoing monitoring and maintenance of construction activities.”*

Today, each of the road agencies have well established units and have developed expertise in preparation of Environmental and Social Impact Assessment (ESIA) reports and Resettlement Action Plan (RAP) for road projects, and the monitoring and evaluation of projects in this respect. The capacity of consultants has also been created for these services.

The main issue is that whilst these processes are strictly adhered to for Donor Funded projects, the same cannot be said about projects funded by GoG. Several of these projects are started without environmental

⁴⁹ World Bank, Staff Appraisal Report, Ghana National Feeder Roads Rehabilitation and Maintenance Project (9823-GH), 1991

permits and sometimes are completed without one; compensation payments are delayed; and public consultation are not held.

The other issue about paying compensation is the long time that it takes the Land Valuation Division of the Lands Commission to assess and approve compensation claims.

4.12 International Transit Traffic

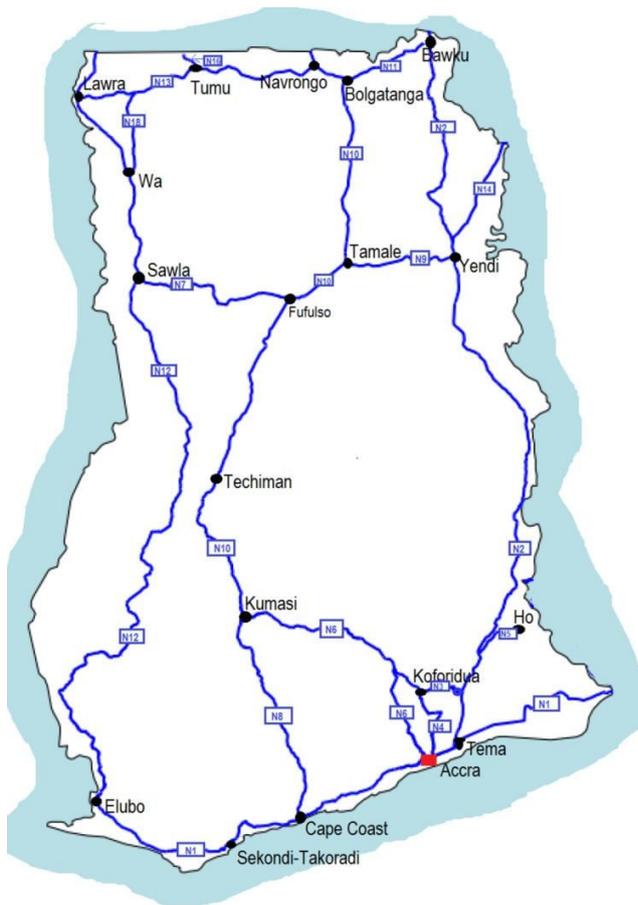
Overall, Ghana is positioning itself as the preferred route for international transit traffic to and from the landlocked countries to its north. Competition comes from the transport corridors and ports in neighbouring Coté d'Ivoire and Togo.

The major routes of concern for the transit trade are:

- i. **The Southern Corridor (N1):** From Ghana Western Border at Elubu to Akanu the eastern boarder with Togo. This southern route provides easy assess to the Port of Tema and the Takoradi Port;
- ii. **The Eastern Corridor (N2):** Which starts in the south in Tema on the N1 and moves northwards via a new route from Asutsuare Junction to Asikuma Junction and continues its northward journey through Yendi and Bawku to the Boarder with Burkina-Faso.
- iii. **The Central Corridor (N6, N8 & N10):** Each of them joining the N1 on its western journey through Kumasi, Techiman, Fulfuso, Tamale, Bolga and Navrongo to the Border with Burkina-Faso.
- iv. **The Western Corridor (N12):** Starting with its intersection with the N1 at Elubo and moving northwards through Enchi, Sunyani, Sawla, Wa and Lawra to the Boarder with Burkina-Faso.

Figure 4-5: National Roads with Regional Significance

Figure 4-5: National Roads with Regional Significance



This network provide access to the land locked countries to the north of the country to ports in Tema and Takoradi. Improving them will greatly enhance the Logistics Performance Index of Ghana higher up the 2.3 – 2.7 range out of a maximum of 5. But the infrastructural improvements will have to combined with improvement in boarder controls and internal security checks.

Works are currently ongoing on all these corridors in a bid to open the country and improve international trade.

CHAPTER 5: SOME CURRENT SECTOR ISSUES

5.1 Public Investment Program (PIP)

In a policy letter of the Ministry of Roads and Highways dated 29 March 2001 addressed to the President of the World Bank⁵⁰, one of the policies outlined was to base road sub-sector investment decisions on sound socio-economic and environmental principles that are sustainable.

This means project prioritization must be data driven within a systematic and transparent framework in which competing and complementary projects can be analysed and the selected the ones that would provide the best socio-economic returns and minimise adverse environmental and social impacts, as well as their carbon footprints.

The Public Investment Program (PIP) prescribed by the Public Financial Management (Public Investment Management) Regulations, 2020 (LI 2411) provides this framework but has not been fully deployed to the advantage of the country.

To do it well and to do it right, I will strongly urge the Minister of Finance to prioritise the implementation of LI 2411.

5.2 Integrated Transport Policy and Plan

In evaluating the transport sector in 1973, the World Bank⁵¹ noted that transport planning was weak and suffers from lack of coordination.

In recognition of this weakness, capacity building components were included in all subsequent projects sponsored by the World Bank. This culminated in the preparation of the first National Transport Policy in 2008 (NTP 2008) and the subsequent production of the first Integrated Transport Plan in 2010 (ITP 2010). The ITP 2010 provided a medium term (2011-2015) plan, but more importantly a framework and methodology for updating and preparing subsequent ITPs.

To do it well and to do it right, the Ministry of Roads and Highways must:

⁵⁰ World Bank, Annex 12 of Project Appraisal Document, Ghana Road Sector Development Program (22233-GH), 2001

⁵¹ World Bank, Appraisal Report of a First Highway Project, Ghana (76a-GN), 1973

- i. **Adopt a Data Management System:** The Minister for Roads and Highways, together with other transport sector ministers must adopt a data management system for the transport sector. A routine process must be implemented to collect, transmit, store, analyse and report on the condition and performance of the transport sector. This must be based on a pre-determined matrix of indicators, methodology and schedule. Priority must be given to funding and coordinating this. This is required to ensure that there is adequate data for the ITP and HDM IV models. The MRH has a Research, Statistics and Information Management (RSIM) Directorate and this must be their major preoccupation.
- ii. **A Harmonized Road Inventory Database:** Set up a harmonized GIS road inventory systems and institute regular meetings to iron out any inter-agency differences to avoid the significant differences and overlaps in the inventory of the road agencies.
- iii. **Adopt a National ITP Methodology:** The Minister for Roads and Highways, together with other transport sector ministers must set up a ministerial team to superintend the implementation of the ITP methodology for transport planning and put in place the structures to implement it. A fulltime modeller must be appointed with the responsibility to regularly improve the calibration data and utilise the model to inform plans.
- iv. **Adopt HDM IV:** Adopt HDM IV as a tool for decision making for road asset development, preservation and maintenance. HDM III (Highway Design and Maintenance) model was introduced as a planning and decision-making tool in the 1990s and has been upgraded to HDM IV. Though several capacity building programs were undertaken, only its project level capabilities have been utilized in the sector, and no real advantage has been taken of its program (network) level and strategic level capabilities. A fulltime modeller must be assigned to keep the network level HDM regularly updated.

5.3 Urban Transportation

5.3.1 Background

Urban population increased nationally from 50.9% in 2010 to 56.7% in 2021 with almost half (47.8%) of the increase coming from the Greater Accra and Ashanti regions. Seven regions in Ghana are urbanized, that is, more than half of the population in those regions live in urban areas.⁵² The rate of urbanization between 2020 – 2025 was estimated at 3.06% per

⁵² Ghana Statistical Service PHC, 2021

annum. It is however estimated to exceed 5% in the major cities⁵³. The United Nations projects that by 2050, about 70% of Ghana's population will live in urban areas.

The 3Ms for managing an urban space have been identified as Movement, Market and Meet. Transportation is the main means by which people move, and its infrastructure defines the structure of the city. It provides the vital links from home to Markets (where people earn and/or spend) and to Meet (for business, social, leisure and cultural interaction). This is the regular interplay between land-use and transportation.

Transportation is also multi-modal and any attempt to solve the transport problem of a city must focus on the coordinated use of the available means of transportation for the movement of people and goods. Most public transport trips made in urban areas in Ghana use roads. Rail transportation, when it is operational contribute insignificantly to the number of trips, though there are opportunities to revamp the existing urban rail systems and to expand it along some corridors.

5.3.2 The Urban Transport Problem

The issue surrounding land-use and transportation in urban areas in Ghana are numerous and interlinked. Some are discussed here:

- i. **Urban Sprawl:** The growth of our urban settlements is characterized by scattered or dispersed development. This is associated with other ills such as low housing density, increasing commuting times and the segregation of socioeconomic groups. The low-income households cannot afford a car-based lifestyle and may choose to live in slumps near the city centres, where there is better access to jobs or commute long distances using transport services largely provided by trotro or okada.
- ii. **Mode of Transportation:** Walking and public transport are the main modes of transport in the urban areas. For instance, in Kumasi, 50% of all trips is by walking and 43% by public transport (trotro, taxi, and bus). Only 5% of all trips are made by private car. Despite this situation, all road improvement works continue to focus on providing more space and free movement for the private car to the detriment of public transportation. Okada, although increasingly popular, represents an insignificant proportion compared to other motorized modes.

⁵³ Ghana Urbanization Demographics, 2021

- iii. **Public Transport:** The public transport fleet is dominated by minibuses, most of which are over-aged and of low carrying capacity. Their large numbers on major routes contribute to congestion. Some state-owned companies that operate large buses are unable to sustain their business.
- iv. **Traffic Management:** The current traffic volumes have outstripped the carrying capacity of the primary traffic corridors and this is worsened by the large number of private cars that account for less than 5% of all trips. This results in congestion. Traffic management along primary corridors in the cities is still rudimentary and there are no traffic priority measures to enhance public transport operations.
- v. **Road Network:** A large section of the road network, especially on the collector road network is in poor condition and is unable to support public transport operation in a sustainable way.
- vi. **Institutional Arrangements:** The public transport sector has been effectively self-regulated and has been so recognized by the authorities. There are ambiguities and a lack of coordination from the multiple government organizations involved in transport infrastructure management in the growing greater metropolitan areas in Ghana. In terms of policy, MoT, MRH & MLGCRA; in terms of regulations, MoT, NRSA, GPS and the Transport Departments of Municipal Assemblies; in terms asset management, DUR and the Roads Department of the Municipal Assemblies; and in terms of transport service delivery, private sector operators, Metro Mass and Aayalolo. There is also no coordination at the greater metropolitan level.
- vii. **Land-Use Management:** Land use management and its coordination with transport planning at the local level is weak. Though this is emphasized in the National Urban Policy, it has not been implemented. In addition, the low capacity of physical planning departments at the municipal level and the lack of coordination with the greater metropolitan area have hindered integrated planning and development.
- viii. **Road Transport Union:** Transport Unions, in particular the Ghana Private Road Transport Union (GPRTU), are effectively established as gatekeepers. This setup provides an effective framework within which new routes can be formed by the grant of a charter (which is effectively a route-operating license) by the union, not by city authorities. Union enforcement of licenses and operations is highly effective because of their control and authority over terminal operations and management. The unions have, however, become a stumbling block for change. Though the unions were extensively engaged in crafting bye-laws to help the Assemblies regulate public transport operations, they have ensured that their power over the

sector is not diluted. They have the most to lose should a mass public transport system be effectively implemented, and they are likely to do anything to retain the status quo and their control over the sector.

- ix. **Pollution and Climate Change:** Rapid urbanization, inadequate urban planning, and increasing congestion are contributing to both an exponential growth of GHG emissions and vulnerability to climate change effects. In Ghana, 80% of air pollution is attributable to transportation. This is compounded by the high average age of a vehicle in Ghana and lack of adequate maintenance that amplifies the GHG emission potential.

5.3.3 Key Interventions

It is proposed as follows:

- i. **Institutional Measures:** Two critical measures are proposed to advance the course of urban transportation:
 - a. The Local Governance Act 2016 (Act 936) is amended to make provision for the creation of Greater Metropolitan Authorities (GMAs) in the great urban conurbations in Accra, Kumasi, Sekondi-Takoradi, Tamale and Sunyani to take over selected responsibilities of the Assemblies that are best managed at the greater metropolitan level. This will include (i) land-use planning, (ii) asset management of arterial transport infrastructure (roads and rail); (iii) regulation of arterial public transport services; and (iv) asset management and regulation of any other public infrastructure and services best managed at the greater metropolitan level.
 - b. The Centre for Urban Transportation Act 2010 (Act 799) must be reviewed and amended to reactivate the Centre with the object to promote and facilitate, as a centre of expertise and excellence, the adoption and implementation of efficient urban transport systems in Ghana, operating under the Ministry responsible for transport.
- ii. **Public Transport Measures:** The following measures are proposed for consideration:
 - a. **Greater Accra Metropolitan Area (GAMA):** In line with the short-term plan (STP) of the Transportation Master Plan, Greater Accra Region, December 2016:
 - i. Invest in the development and operations of a Bus Rapid Transit (BRT) system along the CBD-Achimota-Ofankor-Amasaman and CBD-Airport-Madina-Adenta BRT route, together with the related improved traffic management systems the related service delivery;

- ii. Invest into the reconstruction of the Accra-Amasaman (24.9km) and Achimota-Asoprochona (23.7km) to 2-line standard gauge rail system with six stations at Circle, Achimota, Dzorwulu, Shangrila, Adogonor and Queensland;
- iii. Undertake a land-use masterplan for the GAMA; and
- iv. Update Transport Masterplan for the next 20 years.

b. Greater Kumasi Metropolitan Area (GKMA):

- i. Government must reverse its decision to stop the feasibility and design of a BRT system in the GKMA and proceed to raise the funding for its implementation;
- ii. Undertake a land-use masterplan for the GKMA; and
- iii. Update Transport Masterplan for the next 20 years for GKMA.

c. Complementary Measures: The above must be accompanied by the following complementary measures:

- i. Ongoing development projects on arterials in Accra and Kumasi must be reviewed to ensure that they are BRT compliant, in accordance with the development plans for the cities.
 - ii. BRT feeder services, safe walking and cycling to access public transport services along the BRT corridor, terminals, and stations must be developed;
 - iii. Road maintenance and traffic management along the BRT corridors should be a priority;
 - iv. Consultation with transport stakeholders, especially the unions, to obtain their buy-in and cooperation;
 - v. Design and implement an enforcement regime for the effective implementation of the new transport regime;
 - vi. Adopt national standard for public transport vehicles including mini, midi, and large buses; and
 - vii. Create an environment that will empower the private sector to invest into transport service provision.
- iii. **Measures in Other Greater Metropolitan Areas:** Wherever a government intends to create a Greater Metropolitan Authority, it must initiate the preparation of a master land-use plan to ensure that municipal level development takes place in accordance with the master plan.
- iv. **Okada Operations:** Okada operation should be banned from arterial bus routes. They may operate as feeder to the Arterial bus stations.

5.4 Road Sector Management

It appears the major issues confronting the management of the road sector has not changed since the early 1960s. The need to reorganize the sector for effective planning and supervision of highway investment with clarity for the responsibility on urban and feeder roads is still imperative.

The review section of the NTP 2020 noted that, the road sector is the most disconnected from the objectives of NTP 2008. It noted that most of the challenges with road maintenance persist and recommendations for institutional reforms have not been fully implemented, including the effective decentralization of DUR and DFR⁵⁴.

The passage of the National Roads Authority Act 2024 (Act 1118) was an attempt to right the above situation but was passed without due consultation with sector stakeholders. It is not surprising that it has become stillborn.

I endorse the ITP 2010 Strategic goal to establish an institutional framework to enable good governance and improved performance based on the separation of functions of: Policy formulation; Regulation; Asset Management; and Service Provision. It is thus recommended as follows:

- i. **Ministry of Transport (MoT):** There must be one Ministry of Transport that superintends the whole transport sector for effective policy formulation, sector planning and coordination. If it is still important to have a separate ministry for the road sub-sector as it is today, then this must be for the whole sub-sector to include all the regulatory authorities for road use. The Ministries must cease to interfere in the planning, design, procurement, financial management and the implementation of the sector agencies, save for policy direction, monitoring and evaluation.
- ii. **National Roads Authority (NRA):** Operating under the proposed MoT, with primary responsibility as the asset managers of the trunk roads and regulatory authority of the Roads Departments of the MMDAs. The NRA must maintain sufficient authority to exercise technical and financial control over operations the Roads Department of the MMDAs. DUR and DFR will cease to exist at the national level. This will call for the review of the Act 1118 as it currently exists.

⁵⁴ Ghana, National Transport Policy, 2020

- iii. **Road Maintenance Trust Fund (RMTF):** Operating under the MoT, as set up by Act 1147 of 2025 with the object to provide sustainable financing for the maintenance and rehabilitation of public roads, bridges and related infrastructure in the country. The funding arrangements must cover allocations in line with its object to the NRA for trunk roads and to the MMDAs for urban and feeder roads. The RMTF and NRA must agree on the framework for monitoring and evaluation of the use of funds allocated to the MMDAs.
- iv. **Roads Department of MMDAs:** All Assemblies must establish Roads Departments as asset managers for urban and feeder roads in accordance with the Local Governance Act 2016 (Act 936). In this light, Act 936 must be amended to have a separate Roads Department to administer district (feeder) roads distinct from the Works Department.
- v. **Road Operators License Agency (ROLA):** Operating under the proposed MoT, ROLA must be set up as recommended by ITP 2010 as a central regulatory body for road transport services. This will include the responsibility to design and implement a road transport monitoring database focused on monitoring operators' compliance with safety and service standards.
- vi. **Driver and Vehicle Licensing Authority (DVLA):** Operating under the proposed MoT as established by the DVLA Act, 1999 (Act 569) to regulate driver and vehicle standards.
- vii. **National Road Safety Authority (NRSA):** Operating under the proposed MoT as established by the NRSA Act 2019 (Act 993) to regulate safe road use.
- viii. **Transport Department of MMDAs:** All Assemblies must establish Transport Departments as regulators of the public transport system within their jurisdiction in accordance with the Local Governance Act 2016 (Act 936).
- ix. **Greater Metropolitan Authorities (GMA):** The Metropolitan Assemblies have now all been split into small Municipal Assemblies and there is nobody responsible for greater metropolitan planning and services delivery. This has a great negative impact on urban transportation. It is recommended that Local Governance Act 2016 (Act 936) is amended to make provision for the creation of GMAs in the greater metropolitan areas in Accra, Kumasi, Sekondi-Takoradi, Tamale and Sunyani to reverse this problem. The GMAs must be funded directly by Central Government.
- x. **Centre for Urban Transportation (CUT):** CUT was established by the Centre for Urban Transportation Act 2010 (Act 799), but it is currently defunct. This Act must be reviewed and amended to reactivate the centre with the object to promote and facilitate, as a centre of expertise and excellence, the adoption and

implementation of efficient urban transport systems in Ghana, operating under the MoT.

- xi. **Road Transport Service Providers:** The policy imperative that road transport service must be provided by the private sector must be affirmed. The operations must be under strict regulation and/or contract term with the ROLA and the Transportation Departments of the MMDAs.
- xii. **Road Works:** The policy imperative that road construction and maintenance works must be provided by the private sector must stand. The design and supervision of major works must be undertaken also by private consultants. This is premised on enforcing strict procurement, monitoring and evaluation controls under strict contract term with the NRA and Roads Departments of the MMDAs.

5.5 Road Asset Preservation and Maintenance

Asset preservation and maintenance activities are required in the lifecycle management of roads. Whilst preservation focuses on preventing asset deterioration to extend the functional life of the road, maintenance is the range of activities undertaken during the life of an assets to prevent, delay, or correct deterioration or damage to assets. The inter linked set of activities are done to ensure that assets perform as they were designed. It must be noted that preservation and maintenance do not enhance the capacity, strength, or performance of an asset beyond its original design.

A general rule of thumb for planning expenditure in the road sector is that 60% of the budget must be used for maintenance of the roads and 40% for new development. This is not the case in Ghana, an unverified assertion by a colleague versed in the affairs of the sector is that in the past couple of years we have been doing something like 4% for maintenance and 96% for new development.

If we must do it well and do it right, then the following spectrum of activities must be undertaken for the effective preservation and maintenance of roads in Ghana:

- i. **Regulation and Enforcement:** The critical activity is axle load enforcement. The process must be modernised using weigh in motion systems, automated with a central data collection and control system. The ministry must also explore the use of a PPP arrangement for enforcement and ensure that the ports and heavy

industries issue a certificate of compliance with axle load regulations for all loaded trucks the leave their premises.

- ii. **Maintenance Planning:** This has become an endangered activity. It is, however, good to learn that MRH has recently developed a Web-based Integrated Road Asset Management System (WIGRAMS) that with the support of the World Bank under the TSIP. It includes tools for maintenance planning, budgeting, prioritization, and scheduling modules. It employs high-quality, real-time data collection technologies such as sensors, drones; Geographic Information Systems (GIS); and standardized data formats. The ministry must ensure that the Agencies collect the necessary data and train its staff for its full deployment in the sub-sector.
- iii. **Performance Monitoring:** A performance management system must be adopted to monitor field performance as was done in the 1980s by GHA. At the time, officers at the head office and regional offices had a regular program of field inspections to ensure that the budget allocated to the Districts were being applied to the intended purpose. Today, a better transportation system and technology should make this easier.
- iv. **Data Management:** A routine process must be implemented to collect, transmit, store, analyse and report on the condition and performance of the road asset. This must be based on a pre-determined matrix of indicators and a method and schedule for collection. Priority must be given to this in funding the maintenance operations.
- v. **Maintenance Funding:** Funding must be based on budgets generated and prioritised through the maintenance planning processes. Fortunately, the Road Maintenance Trust Fund Act, recently passed, make copious provision for this. The payment system for routine maintenance must be decentralized and paid for promptly as a matter of policy.
- vi. **Works Delivery:** Works scheduling must start from the outputs of the maintenance planning framework. Performance based contracting frameworks must be introduced incrementally. Procurement must use open tendering processes as required by law. The following must apply to the three levels of maintenance:
 - a. **Routine maintenance** works must be on term contract basis. Work execution must be supervised by appropriately trained field officers with responsibility for quality and quantity assurance, supported by field inspection from the MMDA, and regional and head office staff of NRA.
 - b. **Periodic maintenance** works must be adequately prepared by the MMDA, regional or head office staff of the NRA, and adequately procured through competitive means. It is a good

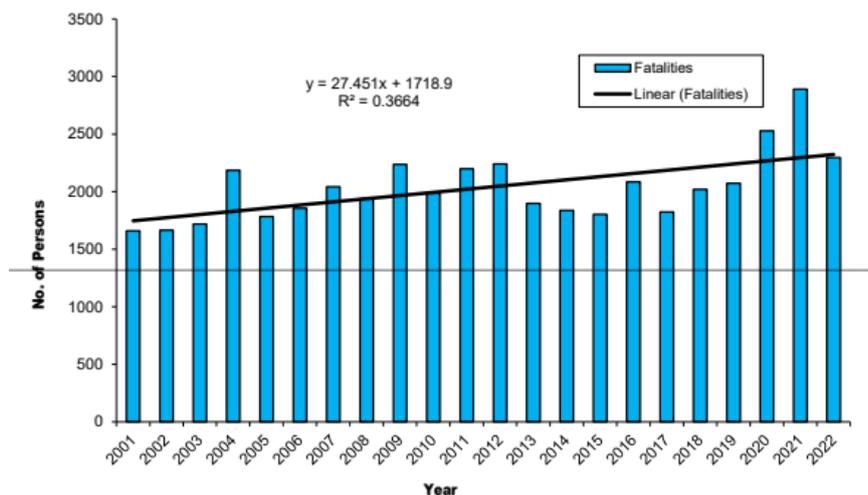
practice to have a set of contractors mobilized within each MMDA or region to be pre-qualified to bid for periodic maintenance works to minimize the cost and time spent on procurement. Engineers based in the MMDAs or regional offices of the NRA should be responsible for the supervision for quality and quantity assurance, supported by field inspection from regional and head office staff. Consultants may be used for bigger jobs for both preparation and supervision where the scope demands.

- c. Rehabilitation works** must be designed and supervised by domestic consultants and executed by domestic contractors selected through competitive tendering processes. MMDA or regional and head office staff of the NRA must review the designs prepared by consultants and undertake regular field inspection to monitor the implementation of the works.

5.6 Road Use and Public Safety

Road use and public safety are fundamental to Ghana's socio-economic development, as our road network remains the backbone of trade, tourism, mobility, and national integration. Yet rising traffic volumes, mixed road use, speeding, overloading, and weak compliance with traffic regulations continue to threaten lives as ten people die a day on our roads in Ghana.

Figure 5-1: Fatality Trend on Roads in Ghana



SDG 3.6 aims to halve the number of global deaths and injuries from road traffic accidents by 2030, but the trend in Ghana (Figure 5-1) shows a steady increase in the number of deaths on our roads. In 2015 the number of deaths on Ghana's road was around 1,800. Data for 2025 indicates it is

over 3,650, more than doubled in ten years when our target is to halve it in 15 years.

We must affirm the value we place on human life, health and wellbeing, and advance Ghana's commitment to reducing road traffic fatalities with decisive actions by the Government. A road accident fatality reduction strategy must be adopted to implement an integrated set of measures that combine sound engineering, intentional road user educations, effective enforcement of rules and regulations, swift emergency response systems and appropriate technology to deliver a road network that is efficient, resilient, and safe for all users, including motorists, cyclists and pedestrians. The integrated measures must include:

- i. **Engineering:** Appropriate standards for road designs must be adopted. All road works must be designed, checked and approved prior to construction. All designs must be subject to a safety audit prior to commencement of works. Safety audits must also be undertaken at critical stages of construction to ensure that safety standards are adhered to for both permanent and temporary works, including management of traffic during construction. A safety audit must be undertaken as part of the Taking Over protocols. We must continue to train road engineers with the requisite skill in safe designs, traffic management design, safety audits, site investigation at hazardous locations and the design and implementation of improvement measures. These activities must be data driven.
- ii. **Education:** The target is to train all road users including children on the rules of road use with appropriate contextual materials and methods. However, education without well maintained and efficient traffic management systems and a strict enforcement of the rules is wasteful and will not achieve the desired results.
- iii. **Enforcement:** Effective enforcement is the bridge between engineering standards and real safety outcomes on our roads. Inconsistent enforcement of speed limits, axle-load controls, vehicle roadworthiness, and driver behaviour erodes infrastructure integrity and increases the risk of crashes. Engineers have a critical role in supporting enforcement through self-enforcing road designs, clear signage, appropriate road geometry, and reliable data systems that guide targeted interventions. Strengthening enforcement is not about punishment; it is about prevention, saving lives, protecting public investment, and fostering a culture of discipline and responsibility among road users. A fair and evidence-based enforcement system directly contributes to SDG 11.2, which calls for a safe, affordable, accessible, and sustainable transport systems for all.

- iv. **Emergency Response:** Engineering, Education and Enforcement are aimed at preventing crashes and the resulting injuries and fatalities. But when a crash occurs, emergency response will be to save life and mitigate the severity and impact of the injuries. The response time is critical, not only for medical intervention but to also secure the site and manage traffic, capture appropriate crash data and clear the crash site. Adequate investment into ambulances, accident recovery vehicles and equipment, data collection instruments are crucial to reduce the impact of a crash on life and property.
- v. **Technology:** In line with SDG 9 that aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation to drive economic growth and societal well-being, we must invest into technology and innovation in all the intervention areas. AI systems rely on data, and the crash data collection systems must be enhanced. intelligent transport systems, automated axle-load controls, speed monitoring, and digital reporting platforms enhance accuracy, efficiency, transparency, and accountability. We must however be contextual and deploy technology in an incremental manner to ensure its adoption and long-term use.

5.7 Road Sector Finance

A summary of the road sector financial burden as reported from various sources (there are slight variations in the reports) as at the end of 2024 is provided in Table 5-1.

The stated workload together as of December 2024 is GHs 141 billion with an outstanding payment to contractors of GHs 31.1 billion. If you set this against an annual appropriation to the road sector of 8.4 billion in 2026, then it will take 4 years to amortise the debt and 17 years to complete and pay for the outstanding works assuming all the appropriation is set against paying the debt and completing ongoing projects.

Without giving any indication of how to deal with this load, government has announced a GHs 10-billion Big Push road project ostensibly with funding from petroleum earnings. The indication is that funding for these projects is assured and will not add to the pressure.

Table 5-1: Road Sector Workload and Indebtedness as of December 2024

Funding Source	Workload (GHs billion)	Outstanding Payments (GHs billion)	2026 Appropriation (GHs billion)
Consolidated Fund	120.0	21.0	5.4
Road Fund	21.0	5.8	3.0
Cocoa Roads	-	4.4	-
Total	141.0	31.1	8.4

Government may want to consider the following recommendations:

- i. The MRH should review all ongoing road projects with the objective of reducing portfolio to a level that can be managed funds allocated through the Appropriation Act.
- ii. The Ministry of Finance should take over all the outstanding payments at a given cutoff date and negotiate with the contractors for its payment so the MRH appropriation can be used for only new invoices.
- iii. The Road Maintenance Trust Fund should be relieved of their workload that does not qualify to be financed under the Fund and outstanding payments so that they can start applying their appropriation to maintenance of the network.
- iv. The fuel levy on fuel must be increased in an incremental manner over the next three years to attain an equivalent of US\$ 0.10 per litre to increase the resource available for road maintenance.

5.8 Procurement

If we must do it well and do it right, then one of the critical areas Government must pay attention to is procurement.

Procurement of most road projects these days are done as though it is an emergency. The default of open competitive tendering process advocated by Public Procurement Act is put aside in favour of single sourcing or selective tendering. The PPA that has the responsibility to police the procurement system has become the biggest ally to the MMDA in this light. It will be interesting to know the number and value of approvals that the PPA has approved in the last 12 months.

Together, with ill prepared and designed projects, the nation is sunk into an abyss of wasted scarce financial resources.

To do it well and to do it right, the reset agenda may want to consider the following:

- i. The President must issue a policy statement that requires that 90% or more of all procurement by MDAs and MMDAs should utilize the default Open Competitive Tendering process.
- ii. In addition to the law, PPA together with Civil Society should craft out guidelines for approval of single source and selective tendering processes. These should include a requirement to publish monthly a schedule of such approvals and that single sourced procurement should also be subject to the review processes prescribed in the Act when procurement award exceeds prescribed thresholds.

5.9 Construction Industry

The MRH has a well set out system for classifying and certifying contractors to execute road contracts. It is a well tested and tried system and has not significantly changed in the last 25 years. The list of certified contractors is updated monthly on the MRH website.

The certification process however faces periodic challenges linked to changes in Government. At every time the governing party changes, there is a rush for new contractors to be certified. Most of the time the new applicants do not have adequate resources and experience as road contractors. The tendency has always been to lower the standards and let them in. This pattern has been observed after the change in government in 2025.

In the spirit of “doing it well and doing it right”, it is strongly recommended that the Minister for Roads and Highways take step to salvage the credibility of the Road Contractor Classification system.

5.10 Quality Management

Quality management of roads focuses on ensuring durability, safety and value for money throughout the planning, design, construction and maintenance stages of road infrastructure. The three implementing agencies of the ministry, in collaboration with consultants and contractors apply engineering standards, materials testing procedures and supervision mechanisms to control workmanship and compliance with specifications.

Despite these structured systems, quality management of roads in Ghana faces challenges including funding constraints, delayed maintenance, axle overloading and inconsistent enforcement of technical standards.

This has resulted in many constructed roads failing before its designed service period.

In 2025, the Ministry of Roads and Highways awarded projects that have been estimated to cost GHs 10 billion. Despite assurance that these projects have been well prepared by the sector minister, one will ask how the dualization of sections of the N1 could be adequately designed in a couple of months? Why were consultants not used? Were all the engineering studies undertaken and all design properly check? Was a safety audit done? Did the EPA issue an environmental certificate? Was there public consultation and was there any peer review?

To assure the total quality management of roads in Ghana, the Ministry of Roads and Highways must place stronger emphasis on project preparation, project management, quality control and project supervision.

- i. **Project Preparation:** The effectiveness of project preparation mostly influences the quality of the constructed roads. This typically involves feasibility studies, traffic forecasting, geotechnical investigations among others. Unfortunately, these extensive preparatory protocols are mostly applied on donor funded projects and neglected on GoG and Road Fund funded projects. The lack or minimal attempt at project preparation are mainly due to issues such inadequate staff strength, inadequate resources, political pressure to package projects. When preparation is weak, roads may suffer from poor alignment, inadequate drainage, or unsuitable pavement structures, which would lead to early deterioration.
- ii. **Project Management:** The effective management of road projects ensure that properly designed and packaged projects are translated into quality infrastructure. This involves effective scheduling, resource allocation, risk management and financial control systems. Over the years, project management for donor funded projects has significantly improved due to the reliance of consultants and the effective collaboration between consultants, contractors and the implementing agencies. However, for many GoG and RMTF funded projects, it is observed that there are huge cost-overruns, compromised workmanship, poor quality delivery, ineffective scheduling, project completion delays and poor safety measures among others. To reverse this course, the ministry of roads and highways should emphasize strict adherence to budget lines, capacity building of its staff and to the use of Consultants.

- iii. **Quality Control:** The quality control provides the technical backbone of total quality management by verifying that construction materials and processes meet required standards. Prompt and frequent laboratory testing of soils, aggregates, asphalt and concrete help detect early defects and enforce compliance. This requires properly trained laboratory officers and well-equipped laboratories across the regions. It is however observed that apart from GHA, which has a central laboratory with aging equipment, and laboratories in its regional offices, DFR and DUR do not boast of any well-equipped laboratories in all its regional offices. This implies that the frequency and promptness of testing during project implementation is often compromised.

Accordingly, it is recommended that the Ministry of Roads and Highways establishes an independent testing regime for all projects by private laboratories across the country to provide ready and independent test results for works done on projects. The system must be put in place to ensure the private their results are independent certified and delivered directly to the Supervising engineer with an automatic copy uploaded into a database.

- iv. **Project Supervision:** Project supervision involves the continuous on-site monitoring and accountability. Competent supervision engineers confirm that construction follows approved drawings, specifications, and safety procedures while documenting progress and enforcing corrective actions when defects arise. Strong supervision strengthens transparency, discourages negligence or corruption and promotes value for money in public investments.

From monitoring reports of the Ministry of Roads and Highways, it is consistently reported that the staff strength to supervise the many road projects is very low. This invariably means that contractors undertake road projects under low supervision. Ineffective supervision is also associated with lack of resources for personnel to effectively monitor projects.

This why Consultants must be used to supervise projects and not overload the few inhouse staff.

CHAPTER 6: CONCLUSIONS

All the stakeholder in the road sector must commit to reset the management of the road transport sub-sector in the spirit of doing well and doing it right by:

- i. **Public Investment Program (PIP):** Prioritising the implementation of LI 2411 by the Minister of Finance.
- ii. **Integrated Transport Policy and Plan:** Adopting a data management system and engaging full time modelers to continuously update the ITP model and HDM IV model for planning the road network.
- iii. **Urban Transportation**
 - a. **Institutional:** Amend the Local Governance Act 2016 (Act 936) to make provision for the creation of Greater Metropolitan Authorities (GMAs) in the urban conurbations in Accra, Kumasi, Sekondi-Takoradi, Tamale and Sunyani to take over selected responsibilities of the Assemblies that are best managed at the greater metropolitan level.
 - b. **Public Transport:**
 - i. **Accra:** Invest in the development and operations of a Bus Rapid Transit (BRT) system along the CBD-Achimota-Ofankor-Amasaman and CBD-Airport-Madina-Adenta BRT route; and
 - ii. **Kumasi:** Reverse decision to stop the feasibility and design studies for a BRT system in Kumasi and proceed to raise the funding for its implementation.
- iv. **Road Sector Management:** The Minister for Roads and Highway must immediately commission the review of the National Roads Authority Act in consultation with stakeholders and bring it into full implementation. The issue of transferring the development, rehabilitation and maintenance of roads to the MMDA must be on the table and comprehensively dealt with.
- v. **Road Asset Preservation and Maintenance:**
 - a. **Regulation and Enforcement:** The Ministry for Roads and Highways must modernize axle load enforcement regime including the use of weigh-in-motion systems and an automated central data collection and control system. The ministry must also explore the use of a PPP arrangement for axle load enforcement and ensure that the ports comply with the regulations to install axle load weigh bridges and weigh all loaded trucks exiting their premises.

CHAPTER 7: APPENDICES

Appendix 1: State of Implementation of NTP 2020

Policy Objective	Strategies	Key Activity	Action Taken	Remarks/ Evaluation
		Inter-Ministerial Working Group is constituted and working		
		Transport Planning Group is constituted and working		
		Transport Master Plan is prepared and being implemented		
		Procedures and guidelines for integrated transport, spatial and development planning is formulated and working		
		Joint procedures for integrated transport and spatial planning at the MMDA level formulated and piloted		
1.2. Develop and implement effective maintenance system for all transport modes	1. Institute a robust maintenance scheme for all modes of transport	GHA/DUR/DFR develop and implement maintenance policies and guidelines		
	4. Build capacity to ensure requisite skills for transport infrastructure maintenance	Develop and implement certified programs for technical training in road maintenance		

Policy Objective	Strategies	Key Activity	Action Taken	Remarks/ Evaluation
1.5 Establish Mass Transportation systems in urban with inter-modal facilities and interchanges	2. Promote road-based mass transportation systems in urban areas, extending BRT corridors	Prepare and implement BRT Masterplans for Accra and Kumasi		
	6. Create competent transport authorities equipped to plan and regulate transport services in their locality and competent operators to provide high quality services to meet user needs	Equip transport departments within Assemblies to plan and regulate transport services		
2.3 Develop Multi-modal Transit Corridors to ensure efficient and effective flow of goods, services and information to meet customer requirement in line with international and sub-regional standards	1. Improve capacity and efficient traffic management of roads leading to seaports and airports to ensure efficient flow of traffic	Improve access roads to KIA, Tema Port and Takoradi Port		
3.1 Subject all Transport infrastructure projects to safety, environment, social and health impact assessments and audit at all stages of development and operations of the transport system	2. All Transport infrastructure designs shall be subjected to safety and environmental audit to ensure provision of appropriate mitigation measured	Projects valued GHS 100 m or above in the last 5 years comply fully with LI 1652		
4.3 Improve Fiscal performance of transport sector MDAs and MMDAs with	1. Enhance revenue mobilization through Cost Recovery measures like the Road Fund	Introduce National Highways Electronic Tolling Review Fuel Levy		

Policy Objective	Strategies	Key Activity	Action Taken	Remarks/ Evaluation
responsibility for transport infrastructure and services				
	4. Institute an effective scheme to ensure prompt payment for works, goods and services within the transport sector	Contractors are paid promptly Incidence of Arrears in Roads Sector is reduced		
	8. Strictly enforce the provisions of the Public Procurement Act, 2003 (Act 663) and Amendment 2016 (Act 914) and Public Financial Management	Projects valued GHS 100 m or above in the last 5 years are procured through open competitive tendering		
	11. Adopt prudent programming and expenditure within approved budgetary allocations	For all projects valued GHS 100 m or above in the last 5 years <ul style="list-style-type: none"> • Feasibility Reports are prepared and approved • Preliminary design reports and drawings are finalized and approved prior procurement • Budgetary provisions are fully secured prior to award • Detailed design reports and drawings are finalized prior commencement of Works 		

Policy Objective	Strategies	Key Activity	Action Taken	Remarks/ Evaluation
5.1 Adopt and promulgate a transport planning framework based on effective use of policy, long term plans, medium term programmes and annual budgeting	3. All Modal Agencies should prepare and review their respective Master Plans based on the National Transport Master Plan and Transport Policy	GHA/DUR/DFR develop, receive approval and implement road development masterplans		
5.2 All Land Use and Spatial development plans shall include an evaluation of transport demand signed off by the relevant transport sector agencies	2. NDPC should collaborate with the transport sector MDAs to come up with transport performance indicators for the MMDA planning system	Develop transport performance indicators for MMDAs		
	5. All transport agencies must identify all lands/corridors for their current and future requirements and secure them through necessary Executive Instruments and coordinate with the appropriate statutory bodies to protect against encroachment	EI issued for all National Roads EI issued for all Arterial Roads in Accra, Kumasi, Sekondi Takoradi and Tamale		
5.3 Guidelines for integrated transport planning shall be adopted by all transport MDAs for effective inter-modalism	1. All transport planning units should adopt a common planning framework to ensure complementarity and consultations	Develop a common planning framework for all transport planning units		
7.1 Institute schemes, structures and systems to ensure quality assurance,	1. Develop manuals and standards for planning, design, construction, maintenance, supervision and operations for transport sector	Review manuals for standards, designing, operations, maintenance and supervision to	MRH partnered with JICA to develop unified Maintenance Operations Manuals	

Policy Objective	Strategies	Key Activity	Action Taken	Remarks/ Evaluation
health and safety of transport infrastructure works	MDAs and MMDAs with a transportation mandate.	take care of modern trends and practices.	and Road Design Guide in 2023.	
7.3 Institute and enforce regulations undertaken to ensure safe and effective operation of the transport system	1. Develop regulations for urban transport to ensure oversight responsibility and prescribe standards urban transport services	Develop regulations for urban transport to ensure oversight responsibility and prescribe standards for operations of all transport services		
	2. Develop regulations for all commercial operations undertaken on Ghana's roads	Develop regulations for all commercial operations on Ghana's roads		
8.1 Adopt a comprehensive research strategy for the transport sector in support of improved policy formulation, development planning, infrastructure design, construction, maintenance and service provision	1. Strengthen institutional units within the MDAs to undertake and coordinate research in policy, planning, design, construction, maintenance and service provision.	MRH/GHA/DUR/DFR develop and implement a R&D Program		
9.1 Develop key skills and competencies of staff of transport MDAs and MMDAs to fulfil their transportation mandates	3. Collaborate with tertiary institutions to increase the range of relevant professional qualifications and managerial courses available to sector personnel.			
10.3 Adopt new and appropriate technologies to	1. Continuously explore new technologies in the construction			

Policy Objective	Strategies	Key Activity	Action Taken	Remarks/ Evaluation
enhance performance in the transport sector	and maintenance of transport infrastructure.			

Appendix 2: State of Implementation of ITP 2010

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
Improve Sub-Regional Integration	Harmonisation of regulations, procedures and modalities for the implementation of axle load controls of vehicles on transit Corridors, particularly on the North- South competing transit corridors.	Strengthen the overload control operations on all the transit corridors	Short		
Establishment of an intermodal framework	Formalising modal integration in key locations	Propose improvement of linkages ports/stations <ul style="list-style-type: none"> • Tema: rail & road • Takoradi: rail & road • Akosombo: rail, road, pipeline & lake • Buipe: road, pipeline & lake • KIA: rail and road • Urban Rail Stations: roads 	Short & Medium		
Rehabilitate the existing rail network and improve services and operating standards to win new costumers	Rehabilitation of the western and eastern lines	Rehabilitate Western Line between Takoradi and Kumasi with linkages to satisfy the manganese and bauxite demand and transit traffic with linkages to Boankra for containers, cement and passenger traffic Rehabilitate the Eastern line between Accra/Tema to Kumasi for sub-urban passenger services operation with linkages to	Short & Medium	No action taken yet	

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
		Boankra for inland and sub-regional cargo transfer traffic			
Plan an extension of the network to the north	Carry out planning studies	Carryout demand studies Prepare plans for incremental extensions Implement plans	Medium & Long term	Planning studies and masterplan is available	
Change the role of the road transport Authorities	Set up a Central Regulatory Body	Set up a Road Operators License Agency (ROLA)	Short term	Not done	
	Develop administration method at the national scale	Design and implement a road transport monitoring database focused on monitoring operators' compliance with safety and service standards.	Short term	Not done	
	Introduce a licence system for road transport operators	Introduce the legal actor entity rule for licensing the Operator as the one who pay salaries of the driver	Short to medium term	Not done	
Establishment of an institutional framework which enables good governance and improved performance based on the separation of functions of: Policy formulation; Regulation; Asset Management; and Service Provision	Apply the principle of separated functions to institutional arrangements including the decentralized management of road infrastructure	Separate policy function from asset management function. Review previous studies and adopt and implement changes.			

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
Strengthen the existing planning, management and supervisory functions	Implement remedial measures to restore good management practice	Stop letting contracts for which funding has not been secured	Short-term	The problems persist	
		Apportion a percentage of budget to systematically eliminate the back log			
		Review contractor lists and eliminate those contractors failing to comply with requirements			
		Terminate contracts in which the contractor has failed to perform			
		Develop criteria for expansion of the road network based only on policy objectives			
		Implement Performance Agreements based on 5-year strategic plans prepared and submitted by road agencies as proposed ISTS (2006) and IRWG (2007)			
	Introduce the use of 'Term' contracts and 'performance-based' contracts	Identify and implement 10 pilot projects employing 'term' and 'performance-based' contracts commencing 2011 – monitor and evaluate success	Short-term	Not done apart from pilot project	
Improving data base of road network	Integrated database of road network (trunk, feeder and urban roads)	<ul style="list-style-type: none"> • Harmonize/integrate GIS and road inventory systems used by GHA/DUR/DFR • Authorise formal coordination meetings with GHA/DFR/DUR • Meet regularly and report monthly to management 	Short to Medium Term	MRH has implemented RAMS and agencies are populating data to improve data management	

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
Improving capacity of the national road network	Add at least 2 lanes to: <ul style="list-style-type: none"> • N1: Aflao – N 8 Junction • N2: Asikuma Nkwanta (Jct 5 N5) -Hohoe • N4: Jct N1 – Kukurantumi Jct • N6: Apedwa – Kumasi 		Short to Medium Term	Works at various stages of implementation	
Performance improvements for trunk roads	Full adoption of the ITP methodology	<ul style="list-style-type: none"> • Agree with management to adopt the methodology • Assign a modeller full time and utilise calibrated model to inform plans • Provide feasibility consultants with assessments generated in the ITP • Undertake a study to identify areas in which additional data is required or can be strengthened • Commission surveys to collect data 	Short to Medium Term	Not adopted	
	Full adoption of HDM IV	<ul style="list-style-type: none"> • Agree with management to adopt the methodology • Assign a modeller full time and utilise calibrated model to inform plans 	Short to Medium Term	Not adopted	

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
Performance improvements for feeder roads	Development and utilization of planning tools and other systems appropriate to reducing poverty communities in rural communities	<ul style="list-style-type: none"> Adapt, where necessary, and fully adopt the RPM for feeder road development Respond to requests from development authorities for road construction and maintenance in areas identified for increased agricultural production Undertake a study to identify areas in which additional data is required or can be strengthened Commission surveys to collect data 	Short to Medium Term		
	Adoption of more appropriate methods for maintenance provision	<ul style="list-style-type: none"> Develop and adopt a policy statement on the use of labour-based methods Finalise the labour-based strategy Implement, including training of management personnel and community 	Short to Medium Term		
Performance improvements for urban roads	Work closely with MMDAs to develop integrated land use and transport plans for cities and identify new sources of funding for road maintenance	<ul style="list-style-type: none"> Strengthen mandate for coordination with MMDAs Establish an integrated planning unit in DUR Appoint personnel with expertise in urban economics, planning and coordination Undertake joint studies to formulate a strategy and action plan to implement 	Short to Medium Term		

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
		<p>integrated economic and transport planning in key urban centres of: Greater Accra, Kumasi, Tamale, Takoradi/Sekondi</p> <ul style="list-style-type: none"> • Implement plan/commence integrated planning • Roll out to other MMAs as the need arises or when invited by the host Assembly 			
	Adopt an evidence-based method for prioritizing investments	<ul style="list-style-type: none"> • Agree to adopt ITP methodology and HDMIV as basis for prioritising investments • Assign a modeller full time to promote and adopt the methodology • Establish guidelines for its use and enforce for all new projects • Report monthly on its application 		No adopted	
	Allocate resources to establish effective MMRUs in each of the MMAs	<ul style="list-style-type: none"> • Continue to build capacity and recruit personnel for MMRUs • Review management procedures to identify areas for improvement 		Work in progress	

Appendix 3: State of Implementation of GAMA STP 1016 - 2020

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
Corridor Renovation and Improvement Project Package (CRIPP)	Construct and Operationalize BRT System	BRT Construction: <ul style="list-style-type: none"> CBD-Achimota-Ofankor-Amasaman (24.9 km) 2 Hub Terminals 2 Transfer Terminals BRT Operations: <ul style="list-style-type: none"> Line 1: CBD-Achimota-Ofankor-Amasaman (53 buses) Line 2: CBD-Achimota-Ofankor (36 Buses) 	Ongoing	No action taken yet	
		BRT Construct: <ul style="list-style-type: none"> CBD-Airport-Madian-Adenta BRT route (25 km) 2 Hub Terminals 3 Transfer Terminals Traffic Systems Management (TSM) <ul style="list-style-type: none"> 5 Spots on Adenta Corridor 3 Spots on Kanda Highway Corridor BRT Operations: <ul style="list-style-type: none"> Line 1: CBD-Airport-Madian-Adenta (36 buses) Line 2: CBD-Airport-Madiana (30 Buses) 	2016 - 2020	No action taken yet	

Strategic Objective	Strategies	Action Required	Time Frame	Action Taken	Remarks/ Evaluation
Railway Improvement	Reconstruction and operationalise to 2-line standard gauge system	Construction of: <ul style="list-style-type: none"> • Accra-Amasaman line (24.9km) • Achimota-Asoprochona line (23.7km) • Circle, Achimota, Dzorwulu, Shangrila, Adogonor and Queensland Stations Operationalise the system <ul style="list-style-type: none"> • Signalling • Rolling stock • with rolling s 	2016 - 2020	No action taken yet	

Appendix 4: Urban Transport Studies in Ghana

Item	Study	Coverage	Funding Agency	Consultant	Date Completed
i.	Accra District Traffic Management and Improvement Study	Central Accra	World Bank	DeLeuw Carter International	1989
ii.	Urban Transport Planning and Traffic Management Studies for the Greater Accra Metropolitan Area (GAMA)	AMA, TMA, Ga District	IDA/World Bank	DHV, The Netherlands MDC, Ghana	January 2004
iii.	Feasibility Studies and Design of Arterials and Local Roads in Accra East Corridor	Accra East	IDA/World Bank	DIWI, Germany MDC, Ghana	December 2006
iv.	Transportation Studies and Provision of Markets and Bus Terminals at Anyaa and Amamoley	Accra West	AfDB	Louis Berger SAS France Transtech Consult, Ghana	October 2012
v.	Kumasi Transport Plan	Greater Kumasi	World Bank	Integrated Transport Planning, UK Delin Consult, Ghana	January 2013
vi.	Feasibility and Detailed Design Studies for North-West Accra Roads	Accra West	AfDB	ICT, India Delin Consult, Ghana	June 2013
vii.	Pre-feasibility Studies – Transport Infrastructure Financing	Sekondi-Takoradi	World Bank	Mussa K. Dankwah	October 2013
viii.	Urban Transportation Planning and Detailed Design Studies for Accra	Accra East	AfDB	Associated Consultants, Ghana	December 2016

Item	Study	Coverage	Funding Agency	Consultant	Date Completed
	North-East Roads and Community Upgrading Infrastructure				
ix.	Transportations Master Plan for Greater Accra Region	Greater Accra Metropolitan Area (GAMA)	KOICA	Dongil Engineering Seoyoung Engineering Hanmac Engineering	December 2016
x.	Public Transport Sector Enhancement in Kumasi: Bus Operation Preparation and BRT Projects Feasibility Study – Lot 1	Greater Kumasi	AFD	ROM Transportation Engineering, Israel	September 2020
xi.	Public Transport Sector Enhancement in Kumasi: Bus Operation Preparation and BRT Projects Feasibility Study – Lot 2	Greater Kumasi	AFD	ROM Transportation Engineering, Israel	December 2020
xii.	Feasibility Analysis and Business Model (FABM), Detailed Design and Procurement Support (DDpS) for Bus Transit (BRT) in Greater Kumasi	Greater Kumasi	World Bank	LOGIT Consulting Inc (Lead Member), LOGIT Engenharia Consultiva Ltda, Institute for Transportation and Development Policy (ITDP), Transconsult Sucursal Colombia, DELIN Consult Limited, Ghana	August 2025

Appendix 5: Donor Funded Road Projects in Ghana

Item	Project	Development Partner	Type of Support	Amount (M, US\$)	Credit Reference	Commenced	Completed
i.	First Highway Project	World Bank	Credit	13.0	438-GH	1974	1981
ii.	Second Highway Project	World Bank	Credit	28.0	594-GH	1975	1983
iii.	Third Highway Project	World Bank	Credit	25.0	1029-GH	1980	1986
iv.	Accra District Rehabilitation Project	World Bank	Credit	22.0	1564-GH	1985	1991
v.	Road Rehabilitation and Maintenance Project	World Bank	Credit	40.0	1601GH / A-1GH	1985	1991
vi.	First Transport Rehabilitation Project	World Bank	Credit	60.0	1858-GH	1988	1995
vii.	Priority Works Project	World Bank	Credit	10.6	1874-GH	1988	1992
		OPEC		4.8			
		KfW		5.9			
viii.	Cocoa Roads Rehabilitation Program	World Bank	Credit				
ix.	Second Urban Project	World Bank	Credit	SDR 53.7	2157-GH	1991	
x.	Second Transport Rehabilitation Project	World Bank	Credit	96.0	2192-GH	1991	1997
xi.	National Feeder Roads Rehabilitation and Maintenance Project	World Bank	Credit	55.0	2319-GH	1992	1998
xii.	Urban Transport Project	World Bank	Credit	76.2	24980-GH	1993	1999

Item	Project	Development Partner	Type of Support	Amount (M, US\$)	Credit Reference	Commenced	Completed
xiii.	Highway Sector Investment Program	World Bank	Credit	100.0	14572-GH	1997	2001
xiv.	Road Sector Development Program	World Bank	Credit	220.0	P050623	2001	2008
		AfDB		59.0			
		ABEDA		11.78			
		DANIDA		34.0			
		BDID		47.8			
		EC		61.96			
		AFD		30.2			
		Netherlands		9.1			
		GTAC		0.5			
		JBIC		150.0			
		JICA		10			
		KfW		52.9			
OPEC Fund	6.0						
Fonds CEDEAO	9.0						
xv.	Urban Transport Project	World Bank	Credit	46.8	39750-GH	2007	2015
		GEF		7.0			
		AFD		20.0			
xvi.	Transport Sector Project	World Bank	Credit	225.0	46000-GH	2009	2018

Item	Project	Development Partner	Type of Support	Amount (M, US\$)	Credit Reference	Commenced	Completed
		World Bank	Credit	25.0	55490-GH		
xvii.	Transport Sector Improvement Project	World Bank	Credit	150.0	P151026	2017	Ongoing

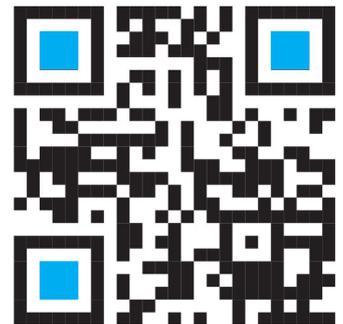


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