UNIVERSITY OF GHANA, LEGON

INTERCONNECTIVITY OF WESTERN RAILWAY CORRIDOR WITH TAKORADI PORT: PROSPECTS AND CHALLENGES

BY

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DECLARATION

I Victor Mark Amoro do hereby declare that this dissertation (Interconnectivity of Western Railway Corridor with Takoradi Port: Prospects and Challenges) is my own work and that, to the best of my knowledge and belief it contains no materials previously published or written by another person nor material which to a substantial extent has been accepted for the award of any Masters' degree or diploma in any institution of higher learning except where due acknowledgement has been made in the text.

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DEDICATION

I wish to dedicate this research work to my lovely wife Mrs. Lily Akosua Amoro and my brother Henry Ayenimi Atampugbire whose encouragement, advice and material support brought me this far.
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ABSTRACT

Seaports are known to be nodes for the transshipment of goods from one mode of transport to another. Ports are therefore noted to be among the key facilitators of international trade, thus helping to integrate the world economy. Most modern seaports have therefore been linked to other modes of transport such as road, inland water way and rail. The Port of Takoradi's linkage with the Western Railway Corridor in Ghana has been one of the notable investments made by the Colonial Government. The various Post independent Governments continue to craft policies to revamping the entire rail sector in the country. However, the potential gains and challenges associated with such investments may not have been appreciated by the average citizen. The research therefore focused on the 'interconnectivity of the Western Railway Corridor with Takoradi Port: its prospects and challenges in order to discuss the possible benefits and limitation of such endeavour. The objectives of the study were meant to identify the rationale of the Colonial Government in linking the Western Railway Corridor with the Takoradi Port, to identify the impact of the linkage on the Port with particular reference to its ability to facilitate the transportation of cargo. The management officials generally made the suggestion that the Government should put in place a regulatory framework for the control and operation of the Ghana Railway Company. The researcher also recommended that shippers should patronize rail services in order to facilitate the development of the rail sector in Ghana.
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CHAPTER ONE
INTRODUCTION

1.1 Background of the study

In recent times, a trio of a good transportation infrastructure namely good railways systems, efficient sea ports and the linkage between the two is increasingly acknowledged. It has been well considered that the mark of a good transportation network resides in its ability to serve as a medium through which goods originating from and destined for different parts of the world are transported. While railways and ports serve as valuable means of transporting goods, their operation in isolation does not serve greater merit. There is growing recognition that connecting railways to sea ports stimulates economic activities and promotes an inter-modal functional linkage for effective and economic movement of goods and persons (Addo 2003:7). Indeed this connectivity makes transportation of goods to market centers and for exports a lot easier. Given that Ghana is endowed with agricultural potentials and has considerable minerals deposits, revamping the western railway line to connect to the Takoradi sea port is a worthy venture.

To be sure, railways have contributed to Ghana’s development by facilitating trade through the transporting of goods, raw materials and people to various destinations within the country and beyond (Moradi et al 2011). The development of the railways in Ghana took place during the colonial period and reflected the priorities of colonial rulers (Luntinen, 1996). The main purpose of establishing rail infrastructure was to aid exploitation of natural resources by moving primary products from their source to ports.
for export to metropolitan markets in Europe, and by moving labour from the north of the colonies to plantations or mines further south (Ibid, 1996).

Indeed, Ghana’s position in cocoa production and exportation was especially important to the purpose of railways development, and remains of vital importance to economic development today. Ghana is about the world’s second largest cocoa exporter (Gibson, 2007). The country is also endowed with natural resources such as manganese, gold and bauxite and other major primary products. In Ghana, the railway was the sole means by which these resources were transported to the port for export into the international market. Today, the significance of the relationship between rail transport and the export of primary products in which the country has ‘comparative advantage’ is as great in the context of globalization as it was in the context of colonialization.

Ghana’s railway was built under British rule (Dickson, 1969). The network of 947 km was built between 1898 and 1956 in three sections forming a triangle linking Kumasi at the apex with the sea ports of Takoradi and Tema at the base. Management of Ghana’s railway and ports were initially run by a single colonial administrative body, the Ghana Railway and Harbour Authority. Following Ghana’s independence however, this became the Ghana Railway and Port Authority, but management of the two companies was separated in 1976 and responsibility for the railway handed to the Ghana Railway Corporation (GRC). The establishment and management of Ghana’s railway had considerable impacts. To be sure, the venture facilitated trade which was hitherto constrained by very high transportation costs (Dickson 1968; Austin 2007; Chaves et al., 2010).
In recent times, the condition of almost all sections of the western railway line is nothing to write home about. The railway tracks are in bad shape and the coaches are in a deplorable state. It is perhaps against this backdrop that various efforts are made to rehabilitate Ghana’s railways. Efforts to rehabilitate Ghana’s railways began in 1983. Through a Transport Recovery Programme (TRP) which was part of an Economic Recovery Programme (ERP). The Rawlings administration embarked on a three Railway Rehabilitation Projects (RRPs). The project improved important parts of the Western Line, which was by far the busiest, at a cost of US$ 73.7 million, financed by the World Bank (Brendan et al, 1997). The Eastern and Central Lines were also rehabilitated. Since then not much work have been done to maintain Ghana’s railways. Today there is consensus by the current government that railways offer Ghana a good development potential. This acknowledgement has proven commitment by government and its development counterparts to rehabilitate and restructure railway infrastructure in the country.

The western railway corridor project is one major rehabilitation endeavour of the railways system in the country. Indeed with important economic sectors such as mining (gold, bauxite, and manganese), timber and cocoa, and offering home to 35% of the total population, the western corridor (i.e. Ashanti, Western, and Central Regions) which contributes about 35-40% to the country's gross domestic product offers Ghana with potentials for economic development. Given this potential, there have been incessant calls to urge government's commitment to rehabilitating and restructuring the western railway system. In September 2007, government responded to such calls to extend the
Western Railway from Awaso via Techiman, Bole, Sawla, Wa to Hamile. Soon after, the Western Corridor Feasibility study was undertaken with a view to obtaining a clear picture of the investment potential and actions required to upgrade the Western Railway Line and the Port of Takoradi. In the long term, the project is expected to provide strategic directions for the existing railway lines and the likelihood of a future ECOWAS railway line to Burkina Faso, as well as the provision of a possible alternative transport for passengers and commodities.

This intervention by government and its development partners cannot be more embracing. To be sure, the rehabilitation of the western railway line would facilitate sound mobility of goods and people. This would facilitate internal and international trade; ensure sustainable development of the region, together with an increased integration in the national economy. To be sure, trade within and beyond the country is expected to improve because of easy exportation and importation of goods and raw materials. Industries are expected to spring up in the event of easy transportation of goods and other raw materials. Commuters would be able to travel to various parts of the country by a faster and more comfortable means than what is presented by roads. The already abysmal road infrastructure in the country would be spared the weights of heavy articulated trucks that carry goods around the country.

While all these benefits of rehabilitating the western railway lines are well acknowledged, for Ghana to benefit from the increasingly global economy, the rehabilitation of the western railway lines though a worthy venture is not enough to
transform the country into one of the world's economic powers. It is important that an adequate transport network be in place to provide essential and efficient physical access to both domestic and international markets. Indeed the lack or poor state of transport networks in Ghana is among the most serious impediments to the economic and social development of the country, preventing it from becoming competitive in the global markets and preventing the process of regional integration (Ibid, 1997). There is consensus among development analysts that lack of transportation infrastructure is among the main bottlenecks to productivity growth and competitiveness in many Africa countries and Ghana is no exception.

Indeed the impact of the poor transport infrastructure and associated logistics leaves much to be desired in Ghana. Transports routes are established in isolation, seldom linking each other. In this way the cost of transporting goods continues to rise and this has an effect on trade. Roads are barely linked to railways and railways are not sufficiently linked to the seaports and airports. It is against this backdrop that the commitment to develop different aspects of the western railway rehabilitation programme with the development of adjoining infrastructure such as the Takoradi Ports, railway stations and road networks within the existing framework of the Ghanaian National Transport Policy is encouraging. With particular reference to the resource rich hub of the Western Region, the development of the western railway lines to connect the Takoradi Port could facilitate trade to remarkable extent.
Sea ports are one of Africa’s important gateways for trade with the rest of the world in the global market place (AU/NEPAD, 2009). This assertion cannot be more true about Ghana. One of such important ports in Ghana is the Takoradi Port. In relation to trade, the Takoradi Port is a major gateway to the economy of the country. It represents a complex structure in Ghana’s transportation system providing ship harbour interface services such as pilotages, dredging, provision of berths, maintenance of navigational channels and so on. Thus the Takoradi Port provides grounds for goods and raw materials to be transported by ships to different parts of the world. Seaborne trade represents over 60 per cent of international trade in Ghana (Budak (2007). It has become one key precondition to spatial interaction and a central dimension to the national production system.

There is no contention that the international shipping business is increasing, but there is concern that Ghana’s ports have not been so efficient to the extent desired. One major problem in Ghana is the extent to which seaports are linked up with other transport routes to facilitate the easy transportation of goods. Ghana is yet to come to the realization that its position in the race towards global economic integration can only be realized if there is a holistic and efficient network of its transport system with an unparalled physical capacity and ability to carry freight from the hinterlands to the ports and from the ports to other countries at low costs. Essentially therefore, the commitment by Government to rehabilitate the western railway corridor, a project which includes the rehabilitation of the Takoradi Port is a timely development. The prospects of this interconnectivity cannot be overemphasized as it would secure for the country improved economic growth.
1.2 Statement of the Problem

The development of transportation infrastructure has become topical in recent times because of real and perceived cases of how such an investment could facilitate trading activities within and outside a particular jurisdiction. Indeed the transport sector is a vital foundation to the development of any country. In Ghana, whilst road and other means of transport have contributed significantly to the development of the country, railways and ports have equally been instrumental. Railways provide significant internal links in Ghana though not to a wide extent. Railways also constitute trade corridors connecting mines and food growing areas with ports. With particular reference to the Western Railway Corridor in Ghana, it was originally developed to exploit mineral resources and typically transport bulk minerals from the mine head to port and the world market. Rail was ideally suited for this type of traffic flow particularly over long distances where low operating costs give it the advantage over other alternative modes of transport.

Typically, the western railway line is linked to the port of Takoradi for easy transportation of goods. Indeed ready access to regular shipping services is an important trade enabler and determinant of national competitiveness. It is in this perspective that the Takoradi port is an important economic sector in the country. Given the potential of the western railway line and the port of Takoradi to facilitate trade within and outside the country, so much is expected from these institutions. However, the western railway line in its present state cannot carry enough traffic. Almost all the network is single-track. The railway line still operates on the standards to which it was built. Limited upgrading has occurred for decades now. At best the line exhibits features such as low axle loads, low
speeds, small scale, undercapitalized, and ill-suited for modern requirements. Many of the rail structures are now over 50 years old. Combined with chronic under-maintenance over a long period of time, many sections of line have deteriorated, almost to the point of ruins. This condition makes the line a major handicap in terms of facilitating the carriage of freight to the Takoradi Port for export.

Even the port infrastructure falls well short of providing all of the economic and social benefits desired. At the moment the Takoradi Port is only able to accommodate 70 per cent of freight because of its low storage capacity. A major concern to the Takoradi Port is perhaps the possibility that it looses a significant amount of business because it is served by a lower standard rail line. Thus the poor linkage of the western railway line to the Takoradi Port does not allow for easy and quick transportation of goods to the port for exports. With delays on roads, perishable goods get rotten at the ports before they are transported. The lack of efficient storage facilities in the port also contribute to the perishing of goods at the port. Inefficiencies in port operation contributes to the delays and high transportation costs of goods. Slow, expensive, and unsafe links between these two important transport networks limits trade and personal mobility both within and across the national border.

Given these conditions, it is important for Ghana to effectively improve the network between the western railway lines and the sea port of Takoradi through restructuring of the sector. It is essential that the Takoradi Port is capable of and efficient in providing services required by shippers and well connected with other transport networks such as
the western railway lines. However, the western railway line in its present state cannot carry enough traffic. This condition justifies investments in improving the condition of the western railway line and the Takoradi Port as well as upgrading their axle-load standard.

There is no paucity of enthusiasts on the agreement on the positive correlation between rehabilitating and connecting the western railway to the port of Takoradi and national development. To be sure, the prospects of the project seem overwhelming. Facilitation of trade, easy access to domestic and foreign markets, easy transportation of goods and services, investments, reduction in transportation cost and so on are envisaged. However, at present, especially with regards to commitments by government and other stakeholders in the start to completion of the project, there is an emerging debate as to whether government can execute this mandate to the latter. This sense of skepticism is perhaps anchored on past motivations by government to restructure the transportation sector that has gone down the drain. In recent times, the debate has even shifted from whether the project, like a few others will suffer major setbacks in view of the way the project would be managed, corruption, negligence and high expenditure to the consequent reduction of access to benefits by the citizenry in terms of social and economic problems.

Ghana has not started with the project, yet there seems to be a looming opaque transaction. The situation is prompted by the fact that every transaction from prospecting to award of contract seems to be shrouded in secrecy. This lack of transparency is a source of worry to Ghanaians because it is in darkness that the side deals take place. The
combined pressure of poverty in the country and the lack of transparency in contract deals is feared would further exacerbate the dearth of basic social needs especially to the rural areas of the western region and the country at large. This would lead to reduced ability to cope and dissatisfaction would likely set in, potentially leading to instances of agitations and mistrust for government actors.

Given these issues, a lot of calls are being made by individuals and organizations, both in the public and private sectors for the Government of Ghana to commit the necessary resources in a transparent and efficient manner to revamp the rail and port sector at a very minimal cost to the country. When this is readily ensured, the western transport corridor will improve the delivery of transport services and ensure the provision of infrastructure in the region and elsewhere in the country. It would strategically link the rural production and processing areas to the urban centers and also facilitates the integration of the different modes of transport, with linkage to the port of Takoradi being a key target. Indeed the potential gains is not difficult to imagine, but importantly are the questions often asked “to what extent would revamping of the western railway corridor bring visible prospects for all to appreciate?” “How would the management of the project proceed to benefit all stakeholders?” “What are some of the challenges that are likely to ensue as a result of effecting the project?” These issues and questions raised above constitute the crux of the research study.
1.3 Objectives of the Study

The general objective of the study is to assess the prospects and challenges in relation to the interconnectivity of the Western Railway Corridor with the Takoradi Port.

The specific objectives are to;

1. Identify the rationale of the Colonial Government for linking the Western Railway Corridor with the Takoradi Port.

2. Assess the impact of the interconnectivity of the Western Railway Corridor on transportation of goods.

3. Examine how the project could address the challenges encountered by the business community in their efforts to transport goods and services within the country or beyond.

4. Examine the potential negative effects the Western Railway Corridor Project could have on the region and the country at large.

5. To make recommendations in respect of the efficient and effective interplay of the Western Railway Corridor with the Takoradi Port in order to facilitate the smooth flow of cargoes.
1.4 Significance of the Study

The research is meant to provide information to policy makers and investors alike in respect of the prospects and challenges of the interconnectivity of the Western Railway Corridor with the Takoradi Port. The research is also meant to create awareness to all stakeholders in the transport sector of the potential gains the economy would derive when there is an efficient and effective management of the sector to link up as many transport networks as possible, to reduce the cost of transportation and promote access. The research also seeks to awaken the public and all business entities of the benefit of patronizing railway services in connection with the movement of their freight from the hinterlands to the ports and vice versa.

1.5 Scope and Limitation of the Study

The research focused on the management staff of the Takoradi Port, Ghana Railway Corporation and some mining and manufacturing companies in the western region. It also included a few members of the public. These target groups were all in the Western Region of Ghana where many of them worked or were resident. The study solicited information from 43 respondents which seem not to be representative enough to gather as much varied data as possible.

1.6 Definition of Terms

**Berth:** The space by the quay where a ship can stay anchored for a period of time.

**Cargo throughput:** The total volume of goods handled by the port in any given period.
**Challenges:** Issues or events that impede the fruition of the attendant benefits of the port and railways.

**Concession:** The ceding of the stake of a public organization's interest to the private sector for a period of time for the purpose of development, operation and maintenance of rail lines.

**Connectivity:** The linkage of the rail to the ports.

**Interconnectivity:** Mutual connection of rails to the ports.

**Containerization:** The use of maritime containers for the movement of goods by rail, road or sea.

**Freight:** This refers to goods meant to be moved from one place to another.

**Hinterland:** The hinterland of a port is the area of land around or behind which provides a surplus of goods for export and goods provided by other countries (imports).

**Infrastructure:** The facilities and equipment needed to ensure the efficient and effective operation of the rail lines.

**Interface:** This refers to the level of communication between the port and the hinterland and how they interact or relate for their mutual benefit.

**Intermodal transport:** The movement of freight by two or more modes of transport without intermediate handling.

**Multimodal transport:** The movement of freight by two or more modes of transport through transshipment (intermediate handling).

**Port:** Sea – land interface with cargo handling facilities where ships load and/or discharge cargoes.
Prospects: the actual and potential gains associated with investment in linking the rail to the ports.

Ship turnaround time: The total number of hours a ship spends at the port (ship’s time at anchorage and at berth)

Stevedoring: The process of loading and/or unloading of cargoes from or unto a ship.

Unimodal Transport: The movement of freight by one mode of transport.

Western Railway Corridor: The part of the railway network that links through Tarkwa to Kumasi and from Tarkwa to Prestea.

1.7 Organization of the Report

Chapter one deals with the introduction, the problem statement, objectives of the study, significance of the study, limitations of the study, definition of terms and the organization of the research.

Chapter two focuses on the review of literature relevant to the study. The chapter reviews the historical backgrounds of railways and the ports in general and in specificity, their construction, management and operations. It also reviews literature on the developmental antecedents of the western railway corridor and the Takoradi Port.

Chapter three covers the research methods employed to gather data for the study. It outlines the study area, the target population and sampling procedure, data collection instruments and data analysis method.
Chapter four makes a presentation of the findings. Responses gathered from the field by use of the research instruments (interviews and focus group discussions) were discussed.

Chapter five makes a summary of the findings, concludes the study and makes recommendations in relation to the research findings.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter engages in a review of the pertinent literature which shapes this study. It reviews literature on the academic contribution in relation to existent reports and scholarship in the endeavour of rail and port development in Ghana. The chapter explores the prospects for linking the western railway corridor to the port of Takoradi by the colonial authority and its contribution to national development as documented by scholars. The relevance of this study is positioned by exploring its connections with recent debates about the importance of transport connectivity. It goes on to examine the structure and functioning of the western railway line and the port of Takoradi and the prospects for economic integration in the country. The chapter also reviews the economic and institutional requirements for successful establishment of the project. This Chapter concentrates on the review of various sources of secondary information in relation to the research. Sources such as books, articles, journals, the internet and magazines were used.

2.2 Rail Transport

Rail transport is the means of conveyance of goods and passengers by way of wheeled vehicles on rail tracks. In contrast to road transport, where vehicles merely run on a prepared surface, rail vehicles are also directionally guided by the tracks they run on. Track usually consists of steel rails installed on sleepers or ties in ballast, on which the rolling stock, usually fitted with metal wheels moves. The operation is carried out by a Railway Company, providing transport between stations or freight customer facilities.
The oldest, man-hauled railways date to the 6th century B.C. With the development of the steam engine, it was possible to construct mainline railways, which was a key component of the industrial revolution. The earliest evidence of a railway was a 6-kilometre Diolkos (meaning – across, portage) wagon way, which transported boats across the Corinth Isthmus in Greece during the 9th Century B.C. Trucks pushed by slaves ran in groves in limestone, which provided the track element. The Diolkos was a paved track way near Corinth in ancient Greece which enabled boats to be moved overland across the Isthmus of Corinth. The short cut allowed ancient vessels to avoid the dangerous circumnavigation of the Peloponnese peninsula (Wikipedia, 2010).

Ghana railways came into existence in 1903 when the colonialists built the first lines in the then Gold Coast to convey the heavy equipment from the Takoradi Harbour to the mines in the Tarkwa area in the Western Region (GhanaWeb, 2009). The Ghana Railways Company Limited operates the Ghana railway network. The Ghana Railways Company is a body with responsibility for the efficient management of the national rail system so as to enhance the smooth movement of goods and passengers.

Operations of the Company commenced in 1898 under the Gold Coast Civil Service with headquarters in Sekondi. The headquarters was transferred to Takoradi following the construction of Takoradi Harbour and railways and ports were jointly administered as the Ghana Railways and Ports Authority. However, in 1976, SMCD 95 separated the Railway from Ports as the Ghana Railway Corporation. The Company enjoyed the status of a public corporation until March 19, 2001, when it became a limited liability company.
The Ghana Railway Network consists of three main lines: Western Line, Eastern Line and Central Line.

### 2.3 History of Rail Transport under Guggisberg Administration

In the summer of 1928, Brigadier-General Gordon F. Guggisberg was assigned the governorship of British Guyana. Just eight months after arriving at his post, he became ill and was returned to England, where he died in 1930. From 1919 through 1927, however, Guggisberg served as governor of the Gold Coast (Ghana), and in the history of the country, he is described most favorably. In fact, in the most detailed biography, the author R.E. Wraith described Guggisberg as the "founder of the modern Gold Coast as surely Nkrumah was the founder of the modern Ghana" (Wraith, 1967).

There are important factors to which the administration's success can be attributed. Guggisberg's prior experience in the colony where he first arrived in 1902 for the survey of the Gold Coast and Ashanti has been cited. Seconded by the Royal Engineers to this special employment under the Colonial Office, he traveled the territories and under the aegis of the Mines Survey Department, he worked toward addressing the problem of mapping the Gold Coast. In 1906 he was appointed director of survey. Later survey work in southern Nigeria brought Guggisberg additional African experiences. Furthermore, Governor Hugh Clifford, whose position Guggisberg inherited in 1919, was said to have laid solid foundation upon which his successor could make rapid progress. For example, there was the "Clifford Constitution of 1916" by which the first Africans were allowed on the legislative council. Furthermore, the administration discussed the need for a deep-
water harbor, laid some rail lines to the gold-mining regions, and also supported the establishment of elementary schools by the various Christian missions (Wraith, 1967).

While the dedication with which England, and therefore the Clifford administration, assessed colonial affairs may have been retarded by World War I in Europe (1914–1917), Guggisberg arrived at his appointed post at war’s end. In addition to past African experiences, the new governor inherited a budget surplus to finance parts of his development ideas. Most important, however, was his professional training as Royal Engineer and Surveyor that allowed him the ability to understand the ramifications of the construction programs he advocated. Guggisberg was convinced that progress in the Gold Coast was dependent on the good physical health of its people. It was in light of this that the first comprehensive medical institution at Korle Bu was undertaken. Also, to exploit resources of the colony for the financing of the many construction projects, the government saw the need for an improved transportation system. The existing school system was also thought to be inadequate to sustain future developments. In his agenda for education, Guggisberg saw a central role for the colonial state. This was a radical departure from previous administrations that had not seen any need for the colonial government to become an aggressive provider of education let alone to waste resources in the funding of post-elementary schooling. Guggisberg’s Prince of Wales College for boys and girls, now Achimota College, was indeed a grand trophy of the government’s educational policy (Wraith, 1967).
Only a month after arriving at his post in 1919, Guggisberg presented a ten-year program in which his development policies were outlined. Many have lamented about how previous British governors resisted pressures to open up the hinterlands (Wraith, 1967).

Thus, the start of rail construction in the beginning of the 1900s was considered overdue; nevertheless, to aggressively pursue the expansion of road, railway services, and a deep-water harbor in the colony as Guggisberg did was indeed radical. In a September 1919 Preliminary Report on Transportation in the Gold Coast Colony, the newly appointed governor made his vision clear to the Colonial Office. Hence, under his stewardship, a deep-water harbor at Takoradi commenced; over 230 miles of railway were laid, and about 260 miles of tarred roads were constructed. As a result of this opening up of the hinterlands, the colony was able to increase its exports of timber, gold, manganese, and cocoa with relative ease than in previous years. The benefits of Guggisberg's construction policies were evident by 1927 when 82 per cent of the colony's foreign earning came from cocoa exports alone (Wraith, 1967).

Central to the policies of the government was the conviction that Africans in the Gold Coast were capable of becoming involved in the administration of the colony. Most important, the governor was of the view that developments must be applicable to local needs. It was for this reason that he advocated technical education as well as the study of the local vernaculars. Those who were suspicious of the insistence on this kind of education, however, accused him of advocating an inferior education for Africans compared to that which could be earned in London. The accomplishments of students
from Achimota College, nonetheless, have proved otherwise. This same practicality was evident in the manner the governor sought to place Africans in responsible administrative positions (Wraith, 1967).

While the 1916 Clifford Constitution allowed “three paramount chiefs and three other Africans” on the Gold Coast legislative council, the 1925 changes introduced by Governor Guggisberg made it possible for the number of Africans in positions of responsibility to increase. For example, at the time of his appointment as governor, there were only three Africans holding positions in the civil service, but the number increased to thirty-eight by 1927. The administration, supported by a network of provincial and district commissioners, made it a responsibility to improve the native courts. Detailed record keeping was encouraged at all levels, and to ensure fairness in the enforcement of laws, the district commissioner’s courts abrogated to itself the right to review cases from the native courts. Entries in the diaries of Duncan-Johnstone, the district commissioner of Ashanti-Akim, are indicative of the efforts made to bring progress to the people at all levels of society. In fact, an effective native administration system was perceived as critical to the goal of involving Africans in the management of their own affairs. Hence, the 1925 legislative changes allowed the establishment of provincial councils of chiefs. From these councils, elected members served on the colony’s legislative council. While the process made it possible for educated personalities as E.J.P.Brown, T.Hutton Mills, and J.Casely Hayford to become legislative council members, Guggisberg preferred reliance on traditional chiefs—a policy that was consistent with the British colonial idea of indirect rule (Wraith, 1967). But for the stability and administration of the colony, the
governor was conservative and deliberate in certain policy matters. For example, even though a Kumasi council petition seeking the return of the ex-Asantehene from the Seychelles was submitted in 1919, the governor recommended that the former King Prempeh I be allowed back at a later date (1924) and only as a private citizen. Two years later, however, the former Asantehene was installed as Kumashene. The governor's caution was with regard to the effective introduction of his policy on native administration. But this occasional conservatism notwithstanding, the government laid a solid foundation for the "Africanization" of the Gold Coast administration and gave impetus to the rise of nationalism in the Gold Coast. It was not surprising then that the Gold Coast (Ghana) was to become the first colony in black Africa to gain political independence from colonial rule in 1957 (Wraith, 1967).

2.4 The Port of Takoradi

Takoradi Port was opened in 1928 to handle exports of minerals from the mines of Western Ghana (Ghana Ports and Harbours Handbook, 2007/8, page 63). The Port is located 228 km west of Accra at longitude 4° 54' N and latitude 1° 44' W. In addition, Takoradi Port handles other bulk exports notably cocoa beans as well as loading and discharging other types of cargo. Takoradi Port’s biggest traffic is minerals. High-grade bauxite mined in the Awaso region is hauled to Takoradi Port by rail for export. The Ghana Bauxite Company exported about 884,500 tonnes in 2006. About 2.574 million tonnes of bauxite and manganese were loaded for export in 2006 and about 123,600 tonnes of imports – ammonium nitrate, limestone and quick lime were discharged (Ghana Ports and Harbours Handbook, 2007/8 page 63).

Raw materials and equivalent for the mines are also imported through Takoradi Port. The bauxite is usually loaded on to bulk carriers using a conveyor system and lighters. The manganese is tipped from rail wagons on to the quay side for loading onto vessels. Over 60% of Ghana’s cocoa exports are handled in Takoradi Port. Most of the traffic goes in
bulk, but some are exported in bags or containers. The Port handled about 283,000 tonnes of cocoa beans in 2006 of which 218,000 tonnes were in bulk form (Ghana Ports Handbook, 2007/8 page 64).

A wide array of goods is now shipped through Takoradi Port in containers. Containerised imports include, building materials, chemicals, clothing, electronics, machinery, paper, steel, tyres, vehicles and wire. Containerised exports include cocoa beans and products, sheanuts, rubber, timber and wood products. In stressing the economic significance of Ghanaian ports in an interview with Davies Desmond of West Africa Magazine, Mr. Benjamin Mensah, the former Director General of Ghana Ports and Harbours Authority made the following noteworthy comments: “it is really crucial and necessary for the development of the Ghanaian economy. At present, 85% of Ghana’s trade goes through the ports and that alone is really crucial to the country’s survival. So if the ports are functioning well and there is high productivity, naturally prices would be affected as well. This will make our main exports of cocoa and timber competitive as the cost of transportation will reduce when you have efficient port handling and auxiliary services.”(West Africa Magazine, 2002 page 15).
Table 2.1: The berths’ capacities of the Port of Takoradi are indicated below;

<table>
<thead>
<tr>
<th>Berths</th>
<th>Depth (metres)</th>
<th>Average length (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 multipurpose berths</td>
<td>9.5</td>
<td>82 – 167.6</td>
</tr>
<tr>
<td>1 manganese berth</td>
<td>8.6</td>
<td>158.5</td>
</tr>
<tr>
<td>1 oil berth</td>
<td>8.9</td>
<td>182.9</td>
</tr>
<tr>
<td>1 clinker jetty</td>
<td>7.0</td>
<td>137.3</td>
</tr>
<tr>
<td>5 buoy berths</td>
<td>10.4</td>
<td>91 – 195</td>
</tr>
</tbody>
</table>


The maximum draft at the berth is 9.5 metres while the maximum draft of the buoy is 10.4 metres. Takoradi Port has an adequate stock of cargo handling equipment like forklift trucks, cranes, RORO trailers and tractors and rail shunters. In addition to these the Port has a wide range of watercrafts like tugboats, lighter tugs, a water barge and a patrol boat to support its operations. Takoradi Port is linked to Kumasi by the Western Rail Network that is well integrated into the road network. This provides shippers with a cheaper mode of transport to the hinterlands.

For example, the Port of Abidjan in Cote d’Ivoire has water area covering about 1000 hectares, with 60% of the most important industries of the country located at the Port. It has a quay length of 6 km with a 5-hectare parking lot for trucks of goods in transit. The Port is linked with about 6500 km of tarred roads squaring Cote D’Ivoire and serving the borders of Burkina Faso, Mali, Guinea, Liberia and Ghana. The Port is also linked by a
1,250-km rail network to Kaya in Burkina Faso (Bernard Otambil, West Africa Magazine, 2002).

2.5 Rail Connectivity of Takoradi Port

Rail operations constitute an increasingly vital component of the logistics network that can contribute to the more sustainable movement of freight to and from the Port and its facilities. Rail is increasingly recognized as safe and environmentally friendly. The seaport becomes a major determinant of the rate of economic growth and the stage of economic development in the hinterland becomes a function of the capacity and degree of sophistication of the port facilities.

Inadequate connectivity has been affecting cargo movement and impacting international trade. As the Ghanaian economy integrates with the global economy, maritime infrastructure will play an ever growing role. Road and rail connectivity forms an integral part of port infrastructure as inefficient evacuation of cargo can mar the entire operation of a port. In particular, containerization of cargo presupposes a seamless link with the road and rail network in door-to-door transport system. Congestion may be created at port locations on account of delayed evacuation of cargo due to inadequate road and rail capacity. This undermines the competitiveness of ports and the economy at large. More particularly, the hinterland benefits from a robust growth in the exportation of minerals and other raw materials. Poor rail and road connectivity affect cargo movement. The importance of maritime infrastructure in facilitating international trade and economic growth should be well appreciated. Ports may have adequate capacity and modern
handling facilities, but may not ensure a quicker turnaround time of ships. Evacuation of cargo from the port and movement to the port areas have to be properly synchronized so that the intermodal network functions smoothly.

Port rail interconnectivity is an aspect of intermodal freight transportation that ensures an optimal integration of different transport modes, enabling an efficient and cost-effective use of the transport system through seamless, customer-oriented services.

Governments are now appreciating the need for the efficient and effective interplay of the various transport modes. Similar concerns exist in Viet Nam; “seamless transport services at reasonable cost to make the transport sector more competitive have become an increasingly critical objective, both for international and interprovincial transport of goods. The multimodal transport concept is being recognized as important in Viet Nam but services are still very much constrained due to various factors such as lack of guaranteed services, lack of cargo information systems, lack of modern cargo handling methods, poor access links to ports and restrictions on truck movements through cities and over weak bridges”(ESCAP 2003).

Major European cities like London and Rotterdam have moved their container terminals to locations where good rail and road connections are available. In North America, Tacoma’s container port is outstripping Seattle’s because there is room to expand and its road and rail connections are better (Cowie Art, 2008).
Recently, members of the Ghana Food and Beverages Dealers Association suggested to the Government of Ghana to invest in rail transport to facilitate their business. This was contained in a research report presented to the Parliamentary Select Committee on Trade and Industry by Mr. John Awuni who is a member of the Association and Corporate Affairs Director of Finatrade Group of Companies. He made the following phenomenal statement: “while it takes a day or two to deliver goods through rail transport, it takes about two weeks to deliver the same goods by road transport as most vehicles will have to queue for days before loading, then about another week to deliver depending on the destination” (Ghana Business News, 2009).

Road is the most important mode of transport in the West and Central African sub-region and has steadily gained importance for transit transport. About nine-tenths of transit freight is carried by road. However, the condition of the roads is often insufficient for the safe and expeditious movement of cargo (UNCTAD 2007). Rail is the second most important mode of transport in West Africa. It links two capitals; Ouagadougou (Burkina Faso) and Bamako (Mali), with two regional seaports, Abidjan (Cote d’Ivoire) and Dakar (Senegal) respectively. Niamey (Niger) cannot be reached by rail and hence goods to and from the country need to take the Cotonou –rail and road corridor (UNCTAD 2007).

2.6 Multimodal Transport

Over the past decade, the world has witnessed strategic considerable developments. The movement towards globalization and trade liberalization paralleled by the revolution in information and communication technologies is continually advancing and significantly
altering markets. Progressively, these developments are required in the type and quality of transport and logistics services and infrastructure. The massive growth in containerization which introduced the modern concept of multimodal transport has shifted the cargo delivery system from port-to-port to door-to-door. Multimodal transport operation is made up of a number of unimodal stages of transport such as sea, road, rail or air.

Multimodal transport can be viewed as a chain that interconnects different links or modes of transport – air, sea and land into one complete process that ensures an efficient and cost-effective door-to-door movement of goods under the responsibility of a single transport operator, known as Multimodal Transport Operator (MTO) on one transport document. The United Nations Economic Commission for Europe (UNECE) defines multimodal transport as 'carriage of goods by two or more modes of transport'. Thus, the main features of multimodal transport are; the carriage of goods by two or more modes of transport under one contract, one document and one responsible party (MTO) for the entire carriage, who might subcontract the performance of some or all modes of the carriage to other carriers (UNECE).

Some of the forms of multimodalism include;

1. Containerization- FCL/LCL/road/sea/rail
2. Land bridge via trailer/truck – road/sea/road
3. Land bridge via pallet/IATA container – road/sea/air/road
4. Trailer/truck – road/sea/road
5. Swapbody - road/rail/sea/road
Intermodal transport has been defined as the movement of goods in one and the same loading unit or road vehicle, which uses successively two or more modes of transport without handling the goods themselves in changing modes. Combined transport is defined as intermodal transport where the major part of the (European) journey is by rail, inland waterways or sea and any initial or final legs carried out by road as short as possible. The concept mainly developed with the advent of containerization in the late 1960's. Since then, certain important developments have influenced the modern development of multimodal transport.

The search to reduce costs and improve customer service resulted in the integration of all activities in the supply chain, including the transport chain. Today, the total transport chain from the origin to the final destination is being regarded as a whole in order to be able to compare alternatives realistically. Therefore, to ensure the efficiency of this chain and gain operational control over it, new transport patterns and practices have emerged.

2.7 Requirements for Port-Rail Interconnectivity

Facility and operational requirements must be met in order to ensure the smooth operation of ports with rail networks. Some of these requirements include:

1. Rail-mounted gantry cranes that load and unload rail cars
2. Space allocation for trucks
3. Access by road and rail
4. Terminals to accommodate more and larger ships
5. Modern facilities and handling methods
6. Efficient and rapid services to customers
7. Adequate security and safety to cargo
8. Flexible tariffs

2.8 Rail Freight

Rail freight is popular in multimodal transport and transshipment. Rail cars or rail wagons are available in configurations to accommodate many kinds of cargo. Rail freight is very popular in the movement of ocean freight containers and in the transport of bulk cargo in long distance land travel. Road carriers issue a rail waybill, also known as a rail consignment note.

There are four shipment options for rail transport. They include single-client full trains, full wagons, parcels and TECO lines. Single-client full trains are used for large volume of goods with a common origin and destination. They are generally contracted to supply large companies, particularly in the iron and steel, automobile, construction and petrochemical sectors. Rates are negotiated on a case by case basis according to distance and the number of wagons transported. The Bauxite and Manganese Companies in Ghana use single-client full trains. With full wagons, one or more wagons of a train are contracted for the goods. Rates are based on type of wagon, the weight and the distance.
Parcels are used for shipments smaller than full wagon. The charge is based on the weight of the merchandise transported. TECO lines are trains for transporting containers. They are used for transporting containers to inland points or transporting maritime containers to inland points or transporting them between ports. The unit of transport is the Intermodal Transport Unit (ITU) of 20, 30, 40 or 45 feet or equivalent. Rates are based on the type of ITU, whether they travel full or empty and distance.

2.9 Funding Port-Rail Facilities

Various funding options and models exist for the construction, management and operation of port-rail facilities. Public, private or combinations of both have been proposed in a lot of situations. The various options are explained below;

1. Public

According to Blaney, Monica (2008), various modes of publicly owned railroads include organizations that;

a) own the capital assets and operate the railway themselves
b) own capital assets and hire a third party to operate
c) lease track from a private company and hire party to run the railway
d) bought a railroad company and continue to hold it as revenue generating company which pays dividends to a public entity
e) are strictly a holding company with no assets but provide open access to the port or region.
2. Public – Private Partnership

In order to accelerate the development of efficient multimodal transport and logistics operations, governments in a number of countries are working with the private sector on capacity building in multimodal transport operations. Additionally, governments are working with the private sector in relation to the management and operation of container terminals and increased rail haulage and multi axle freight vehicles in the transportation of containers between Inland Container Depots (ICDs) and Inland Destinations or Origins.

3. Railway Concession

Separation of the management of transport services from that of the infrastructures is achieved through concession processes. Thus, the first category of services falls under the responsibility of the private concessionaire while the second one remains the business of a patrimony entity as the mandatory of the conceding authority. This arrangement is the one applied to the case of the Abidjan – Ouagadougou/Kaya Railway (MOWCA 2008).

The concessionaire takes the commitment to adopt a business-oriented policy and run the transport services within a context of competitive environment and the state is borne with the duty to ensure the competition pressure by eventually limiting the concession periods.

It is very important for the scope of the concession to encompass;

a) the framework for the operation of the railway transport activity

b) the management of rail infrastructure as well as that of the motive power and towed equipment

c) the concession dues
d) the taxes and dues to be paid in relation to the railway activities

e) the duration of the concession

f) the control and monitoring of the concession by the state

g) the arbitration of conflicts arising between the state and the concessionaire

In 2007, a consortium led by Dubai-based Kampac Oil signed a US$1.6 billion concession to develop the 1,067mm (3ft 6in) Cape Gauge Western Railway. Over five years, a 500 - kilometre line is to be constructed from Awaso to Hamile near the border with Burkina Faso. The Government of Ghana awarded a US$1.4 billion concession for the Eastern Railway to Peatrack Company Limited (Wikipedia 2009). The Government has passed a new Railway Act (Ghana Railway Development Authority, GRDA-ACT 746, 2007) to regulate the construction, operation and safety of railways as well as manage the post-concession railway system.

2.10 Rail Expansion Initiatives in Ghana

In 2005, the Government of Ghana announced plans to extend the railway system to facilitate economic development. To begin, US$5million was sought from the African Development Bank (AfDB) for feasibility studies. Possible projects at the time included extending a line from Ejisu to Nkoranza andTechiman; a line from Tamale to Bolgatanga and Paga to Burkina Faso; a line from Wenchi, Bole to Wa and Hamile and also to Burkina Faso and a line to Yendi. These towns are proposed to be serviced by rail; Ejisu, Kintampo, Paga, Hamile and Boankra Inland Port (Wikipedia 2010).

The implementation of the various phases of the expansion projects are indicated below:
Phase I – improvement of existing line (Takoradi – Awaso)

Phase II – construction of a new standard gauge Western Rail Line (Takoradi – Nyinahin)


In addition, the Petroleum Railway Initiative involves the railing of petroleum products from Tema to Kumasi and to the North, Western and Brong Ahafo Regions (Ghanaweb, 2010). More than US$2 billion is to be injected into the rail transport system in the country to make it a safer, affordable and cost effective alternative to road transport. The investment is to revamp the sector to facilitate the movement of goods and along the Accra-Koforidua-Kumasi rail line, which is one of the busiest rails in the country. The project, which is expected to be implemented this year (2010), will be funded by The African Railway Company (Ghanaweb, 2010).

The expansion is in line with the objective of the Economic Community of West African States (ECOWAS) to link all member states by rail. It will also facilitate the achievement of the broad objective of the Union of African Railways to link member states by rail. About 40% of food prices in Ghana are attributed to transportation cost. Also, most of the foodstuffs produced in the rural areas get rotten due to unavailability of cheaper means of transport to convey them to consuming centres like Accra, Kumasi and Sekondi-Takoradi. The construction of the lines will serve as a catalyst for the exploitation of the mineral deposits like diamond, gold, limestone and bauxite located along the line (Ghana Railways Company 2010). The country spends a lot of money on the maintenance of
roads due to the heavy articulated trucks using the roads. A lot of accidents too are being experienced on our roads leading to deaths and damage to properties. A lot of money is also being spent on the importation of fuel to service the road vehicles which also contribute immensely to the pollution of the environment.

Accidents on the roads will be reduced since rail transport is safer than road transport. Since rail transport is environmentally friendly the pollution of the environment will be greatly reduced. The railway also has the advantage of bulk haulage of commodities.

2.11 Advantages of Rail Transport

Rail transport offers a lot of advantages. Some of the advantages include;

1. Increased security of cargo
2. Capability to transport large and heavy volumes of cargo over long distances at low unit cost
3. Efficient operations in a multimodal environment
4. It is faster (with respect to sea) on some routes
5. It is cheaper (with respect to road) in most cases
6. Operations are not usually affected by weather conditions
7. Reliability of operations
8. It reduces truck movements, costs, fuel usage and emissions whilst accommodating growth needs in transportation.
2.12 Disadvantages of Rail Transport

1. Relatively low (in comparison to road) network density and door-to-door capability

2. No single agent for door-to-door transport and intervention of several rail operators or networks in international and rail transports.

3. Tariff differentiations and complex structures – no single bill of landing

4. Low commercial speed in some lines

5. The rail freight is expensive in short distances

2.13 Problems and Challenges of Port-Rail Inter-Connectivity

1. Poor trade partnership

Transportation service is a derived demand of trade. The direction of flow of goods invariably determines the trade relationship between the source or country of origin and destination or consuming country. However, it has been observed that West African states do not have appreciable trade relationships with each other. This therefore affects the demand for transport services which eventually affects the operations of rail operators serving the ports. The African intra regional trade is growing, but low; Africa -10%, North America – 40% and Western Europe – 68% (www.slideshare.com, 2009). Intra-African trade is an opportunity, because increased trade between countries creates a demand for better roads and railways and provides the wealth to build and maintain them.
2. Lack of integration with ports

It is vitally important for rail networks to be linked to the ports to facilitate the smooth flow of freight. However, most rail networks in West Africa are not connected to the ports. Even those which are connected are not always in good shape. For example, the Port of Tema is currently being reconnected by rail.

3. Financial constraints

One of the key resources needed to ensure the unhindered operations of rail is finance. This is because rail is the mode of transport most dependent on infrastructure. Acquiring the various capital assets, managing and operating the rail all need a constant cash flow within the rail company. However, where the rail company does not get adequate funding from the owners whether government or private individuals (or combination of the two) it would limit the company’s ability to operate and further expand its facilities.

4. Poor infrastructure and rolling stock

Rail services can be efficient and effective when the infrastructure (gauges, sleepers, rail cars, wagons) are in good working order. They should as well be maintained on a regular basis in order to ensure safety and security of cargo and passengers.

5. Insufficient human resources with the expertise and technical competence

The most important asset of any organization is the human resources who work for the firm. The value of the organization invariably is determined by the level of knowledge, competence and expertise available to the workers. Rail companies therefore need to offer regular training and education programmes for their workers to be fully abreast with new technology and innovative ways of offering the best form of customer service to their clients.
CHAPTER THREE
RESEARCH METHODS

3.1 Introduction

The chapter outlines the research methodology used for the study. It includes an overview of the research design and approach, selection of the samples and techniques for data collection and data analysis.

3.2 Overview of Methodology

This study consists of two months of field research carried out in the Western Region. The purpose of the field research was to investigate and observe the prospects and challenges of the development of the western corridor railway project. It sought to assess the extent to which linking up the western railways with the Takoradi Port could be beneficial to the western region and the country at large. In addition, the effects of the connectivity on the social and economic development of the region were examined through a sample of the views and perceptions of the people. The researcher used both primary and secondary data. The principal methods of collecting the primary data were through semi-structured interviews and focus group discussion. The secondary data include historical and official records, books, news magazine and internet. These different methods were used to complement and corroborate each other.

3.3 Selection of the Study Area

This study focused on the Western Region of Ghana. The area largely poses economic potentials for the development of the country. However, it has a poor transport network
system. Apart from the bad state of roads, railways and ports, these three facilities do link up very well. This makes transportation of goods difficult and hence limits the economic potential of the region. With the recent commitment by government to rehabilitate the railways to link up the Takoradi Port, the area was therefore seen as a suitable place for the study into the prospects and limitations of connecting the western railways to the Takoradi Port.

3.4 Target Group

The target group included the Management staff of Takoradi Port and the Ghana Railway Company Limited. It also included the Management staff of the Western railways and Management and staff of Mining and Manufacturing Companies who used the railways and the port as means to transport their goods. Staff of the various district and municipal assemblies also provided information for the study. Members of the general public who included farmers, business men and women and the youth. were also targeted. In all these groups, a definite number of respondents were not targeted. This was to avoid biases and uncertainties with respect to getting respondents to either interview or be part of the focus group discussions.
3.5 Research Methods

3.5.1 Gaining Access to the Participants

Permission was sought from heads of companies and institutions before anyone could be assigned to talk to the researcher. In most cases, the heads of selected organizations received and participated in the research. They were instrumental in mobilizing other members of their respective organizations to participate in the research as well. It was emphasized to the heads of the selected organizations that data, field notes and interview transcripts would be held in strictest confidence and anonymity. It was also made known that in the process of the research, other issues may emerge and may require more discussion and renegotiation of access.

3.6 Data Collection

The collection of the data involved the use of two methods namely semi-structured interviews and focus group discussions.

3.6.1 Semi Structured Interviews

The semi structured interview allows for the probing of views and opinions where it is desirable for respondents to expand on their answers thereby clarifying whatever is not clear (Gray, 2004). Semi-structured interviews were held with key personalities who were thought to have good knowledge on the railway system as well as the port operation in the area and how these two important means of transport facilitated the transportation of goods. Ten (10) respondents were selected from the Takoradi Port Administration, the Ghana Railway Development Authority (3) and the Ghana Railway Company (Takoradi
branch) (4) using a purposive sampling technique. Interview sessions were conducted with each of the respondents on separate time frames. Interviews sought to examine the records and trends in the transportation of goods via the Western Railways and the Takoradi Port and how it has impacted on the social and economic developments in the area and the country at large. Interviews also examined the possible constraints that hindered the easy transportation of goods via the transport network in regard and what prospects and challenges were expected when the western railway corridor rehabilitation project and the development of the Takoradi Port to effect.

Interviews were also held with nine (9) staff members of various manufacturing and mining companies in the region who consumed the services of the railways and port in the region. A simple random sampling technique was used to select nine (9) companies from which a representative was interviewed. The nine companies selected are listed in the table below
Table 3.1: Mining and Manufacturing Companies Interviewed

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teberebie Goldfield s Ltd.</td>
<td>Teberebie (W/R)</td>
</tr>
<tr>
<td>Goldfields (GH) Ltd.</td>
<td>Tarkwa (W/R)</td>
</tr>
<tr>
<td>Abosso Goldfields Ltd.</td>
<td>Damang (W/R)</td>
</tr>
<tr>
<td>Ghana Primewood Ltd.</td>
<td>Takoradi (W/R)</td>
</tr>
<tr>
<td>Ghana Bauxite Company</td>
<td>Awaso (W/R)</td>
</tr>
<tr>
<td>Ghana Manganese Company</td>
<td>Nsuta (W/R)</td>
</tr>
<tr>
<td>Gihoc Glass Ltd.</td>
<td>Aboso (W/R)</td>
</tr>
<tr>
<td>Ghana Rubber Estates Ltd. (GREL)</td>
<td>Apemenim (W/R)</td>
</tr>
<tr>
<td>Samartex Timber &amp; Plywood Company Ltd.</td>
<td>Samreboi (W/R)</td>
</tr>
</tbody>
</table>

An Interview guide with key questions was developed. The interview questions were designed such that they were clearly linked to the objectives of the research. In some instances new questions arose from the answers that were given by the respondents during the course of the interview. The respondents were contacted through phone in advance of the meeting and advised of the dates, times and location. Each interview session started with a brief introduction explaining the objectives of the research and the methods of recording data to be used. The interviews were recorded using a digital voice recorder to ensure that all data was captured.
3.7 Focus Group Discussion

Focus group discussion was also used to obtain data for this research. Focus group discussion was used in order to enable the researcher gather different views from the public. A cluster sampling technique was used to select four (4) groups. These groups included farmers, food merchants, business men and women and the youth. It was easy locating these groups because of their location at specific places. Selected discussants of each of the selected groups constituted participants for the discussion. A purposive sampling technique was used to select members of each of the selected groups. They were asked of their backgrounds before the researcher categorised them into the various groups. In most cases, the number of respondents for each group varied. Selected respondents were told the purpose of the intended discussion. During the discussion, views about their conception of the prospects and challenges of rehabilitating the western railway lines were sought. Focus group discussions were guided by a discussion guide that was developed by the researcher.

3.8 Review of Documents

Relevant documents on the topic were identified and reviewed. The key documents that were analysed included books, journals, magazines, articles, internet materials and unpublished works related to the study. Analysis of such documents was used as complement to the primary data. The essence of this method was also to provide a review of literature on the prospect and challenges of connecting railways to ports. Some documents also served as invaluable materials to gather historical data on the study area.

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3.9 Data Analysis

Data from the interviews and focus group discussions were transcribed. The data from the document review and observation were also organised and categorized. The complete data was then systematically organized into categories and presented in different chapters depending on the context of discussion in such chapters. Some data were also categorized systematically and grouped into themes for discussion. A qualitative analysis of the data was then made.

3.10 Limitations of Research Methods

Some of the respondents, who agreed to be interviewed, were not available at the agreed time. This however, did not affect the final outcome of the study. This limitation was solved by the replacement of respondents who equally had good knowledge of the transport network of the region. In some cases, telephonic interviews were held with some respondents.
CHAPTER FOUR
PRESENTATION OF FINDINGS

4.1 Introduction

In this chapter the researcher presents the field data from the study area. This is done in a qualitative manner to give detailed explanation to data gathered during field studies. For purposes of providing clear insight, the data is presented systematically under a number of themes which reflect the objectives of the study outlined in chapter one. These themes include: the rationale for the linkage of the Western Railway Corridor with the Takoradi Port by the Colonial Government, the impact of the interconnectivity on the transportation of goods, the challenges encountered in transportation of goods to the Takoradi Port, the negative impacts of the intended project and the policy outcomes of the project. Some of these themes have been further divided into sub-themes so as to enable the researcher present the data in a systematic fashion. Key demographic variables have also been presented. These include the age and sex distributions as well as the economic distribution of respondents.

4.2 Demographics of Respondents

A total of 19 semi-structured interviews were conducted with key informants, and four sessions of focus group discussions were held with members of the public. In all the four sessions of discussion, a total number of 24 participants constituted the respondents. Below is a summary of the age and sex distributions of respondents categorized in terms of age, gender and percentages, followed by their economic backgrounds.
4.3 Age and Sex Distributions of Respondents

In research, the views and opinions that are solicited from the respondents reflect to a great extent their socio-demographic characteristics. Age and sex are socio-demographic characteristics that are important in the presentation and analysis of the views of respondents on issues of relevance to this study. As such, it is important to examine the ages of the respondents whose views were solicited for the purpose of the study. In all twenty four (24) respondents participated in the focus group discussions while nineteen (19) respondents were interviewed. The first session of focus group discussions with farmers had a total of four (4) participants; the second with food merchants had seven (7) participants. The third with people engaged in business were also seven (7) and the fourth with the youth had six (6) participants. The total number of respondents during interviews and focus group discussions was thus forty three (43). For the purpose of categorization, ages have been put into three groups, ranging from 19 to 45 years, 46 to 60 years and 61 and above years. Table 4.1 below illustrates information on the sex and ages of the respondents
Table 4.1: Age and Sex distribution of respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-45</td>
<td>14</td>
<td>10</td>
<td>56%</td>
</tr>
<tr>
<td>46-60</td>
<td>11</td>
<td>5</td>
<td>37%</td>
</tr>
<tr>
<td>61 and above</td>
<td>3</td>
<td>0</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>15</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

Out of the 43 respondents 28 (65%) respondents were male and 15 (35%) respondents were female. Fifty six (56%) per cent of the respondents fell within the age group (19-45), representing the highest category of respondents. The least age category of respondents came from age group of 60 and above (7%). Thirty seven (37%) per cent of the respondents fell within the age category of (46-60) years.

4.4 Socio-Economic Background of Respondents

It was thought that knowledge of the socio-economic background of the respondents will help provide a picture of the economic and social circumstances of the respondents and also aid in the analysis of responses under social and economic environment of the area.
Table 4.2: Socio-Economic Background of Respondents

<table>
<thead>
<tr>
<th>Profession/Occupation</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer (Agriculture)</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Trader (Food Merchants)</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Business (Men and Women)</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Private sector workers</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Public sector workers</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Unemployed</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>43</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2011

More respondents worked in the public sector (23%). The private sector had (21%) of respondents. A good percentage of the respondents (16%) each were Food Merchants and Business men and women. Most of the respondents who were selected from these two groups doubled as people who used the railway line for both internal and international trade. Fourteen (14%) per cent of the respondents were unemployed and 9 % were farmers who also transported goods via the railway and the port.

Essentially, the dimorphic characteristics of the respondents indicate to a large extent that their responses could have been imbued with some sense of maturity and informed knowledge. This perhaps contributes significantly to the quality nature of data gathered.
4.3 Rational for Railway Development in Ghana

According to the majority (82%) of the focus group members, railway development in Ghana began in 1898 and was further expanded (under the colonial government) in the 1920s (Brendan et al, 1997). The expansion was in particular meant to facilitate the transportation of the rich resources of the colony including cocoa, timber and diamonds from the central and eastern regions of Ghana to the ports for export to Europe. It was also meant to facilitate the movement of labour to plantations and mines. (Ibid, 2007)

In line with the colonial intention, and perhaps towards a motive to build an independent Ghana, further expansion was made to the railway system in the early 1960s under the first post-independence government. Then in the 1980s and early 1990s, rehabilitation of parts of the railway was undertaken as part of Ghana’s Economic Recovery Programme (ERP), under the auspices of the International Development Agency (IDA) (Ibid, 2007). Twenty of the focus group discussion members revealed that emphasis on the most recent rehabilitation was on the western line which serviced the Takoradi seaport, the main export port. According to the respondents this development was meant to help in the exploitation of mineral resources from the ‘natural resource basket’ of the western region and typically to transport bulk minerals from the mine head to the Takoradi Port and the world market. Rail was ideally suited to this type of traffic flow particularly over long distances where low operating costs gave it the advantage over other alternative modes of transport. Indeed, potential mine developments deep in the hinterland were generally uneconomical without an efficient rail link to get the minerals to market at a competitive price.
Also, the majority of the respondents representing (75%) indicated that thus the current rail networks in Ghana were mostly inherited from the colonial period and after independence to a large extent deteriorated and ended up in a bad state of disrepair and disuse. Given this condition, traditional customers have been forced to use road at increased costs and adverse effects on the environment and the economy. Both existing and new mine developments in many cases have been constrained by the lack of an operating railway network. Indeed, the use of the western railway as a viable means of transport has over the years been severely undercut by the subsequent deterioration in the railway network which has led to the loss of its customers to road transport. In recent years, rail transport has been increasingly unable to carry the full volume of mining and other traffic. A combination of lack of rolling stock, poor quality of infrastructure, and low associated speeds (as well as occasional strikes) have diverted a growing share of mineral and other traffic to the road networks. As estimated, the western line should be carrying about 2-3 million tonnes of minerals to port each year. But as revealed, the sector is only able to move an occasional train a week. There is no doubt that existing and potential mine developments have been constrained through the lack of a reliable railway network. The potential economic loses as a result cannot be downplayed.

4.4 Contemporary Rationale for Railway Development in Ghana

Despite these conditions, there seem to be a realization that rail transport offers the country an opportunity to improve upon its internal and external trade. Rail transport presents an avenue for Ghana to boost its economic potentials with respect to the mining industry, the agricultural industry, tourism, manufacturing and the recent oil and gas
industry. It is perhaps in this light that the Government and its development counterparts have explored urgent measures to arrest the deterioration of the rail system and offer the country a foundation to improve upon its economic outcomes.

Ten public sector workers representing (23%) of the focus group discussion members stated that discussion about awarding a concession contract for GRC as a basis for financing the upgrade and possible expansion of the rail infrastructure is almost in the conclusion stages. The hope is that these concession arrangements would help to improve the railway’s operational performance and to reverse the downturn in rail traffic. But while there is skepticism about the ability of rail concessions to finance major track rehabilitation, with the limited investments made being confined to purchases of rolling stock, a recent contract has been signed to rehabilitate both the western and the eastern railway corridors to link the two seaports in the country.

4.5 Port Development

According to sixty seven per cent (67%) of the respondents Ghana has made significant progress in modernizing its ports sector and is committed to making further improvements. The 67% of the respondents further disclosed that Ghana is one of the few African countries in the process of adopting the landlord model, which has become the preferred institutional framework for the sector around the world. Ghana’s two major ports, at Tema and Takoradi, are large relative to other West African ports. Also, the respondents (58%) indicated that demand for both container and general cargo services have more than doubled over the period 1998-2006. Also, 23% of the focus group members indicated that under the Ghana Gateway Program, the ports sector is being
developed within an explicit framework of regional integration to ensure smooth transit to the landlocked hinterland countries. Furthermore, 65% of the respondents alluded that due to the civil war in Côte d'Ivoire, significant traffic has been diverted from that country to Ghana. As a result, transit traffic has increased markedly in recent years to a total of over 10,000 TEUs. There however exist some challenges which make ports under function in Ghana. According to the majority of the respondents (85%) the recent burgeoning demand for port services in Ghana have made ports particularly congested. The congestion problem lies behind a number of shortcomings in the port’s performance, and these can be addressed only once the capacity increases.

4.6 Impact of Railway and Port Development

Concerning the impact of railway on port development, 58% of the respondents gave the indications that at its present state, the Takoradi Port has become less suitable for modern transportation requirements and large volumes of commercial activities. Its capacity is perhaps the case because of the remoteness of initiatives to turn it into a modern day port which has the capacity to contain and transport large volumes of freights. However, 79% of the respondents admitted that it may be unwise to improve the capacity of the Takoradi Port when large volumes of goods seldom come in as a result of the abysmal railway infrastructure imposed on it. Also, an overwhelming majority (92%) of the respondents stated that much of the goods that transit the port are brought in by articulator trucks that cannot carry as much goods as rolling stock do. Essentially therefore, the rehabilitation of the western railway lines would mean the effective transportation of large volumes of goods to the Takoradi Port. Given this encouraging capacity of the rail transport, the
Takoradi Port may also have to be upgraded to accommodate the volumes of goods in transit for export.

There is an expectation among 85% of the focus group members that rehabilitation of the western railways would expand the extant port to store, preserve and transport goods in a less costly manner. An expansion of the port would also aid the safe docking of ships. The expectation is that the western corridor project would establish a special terminal with gantry cranes and rail facilities to allow for direct transfer of goods from trains to ships and the vice versa. This terminal could also allow for the use as a holding area for containers discharged from vessels. It should also have large parking area for trucks to load and discharge freight at the said terminal. This arrangement have the potential to decongest the port and Takoradi township where these articulated trucks often park at random locations while waiting for the opportunity to enter the port to load or discharge freight.

4.7 Economic Development

The most publicised benefits of the western corridor railway project resulting from Ghana’s transportation sector reforms include the following:

- Would facilitate the transportation of goods that would earn for the country some foreign exchange
- Would provide substantial government revenue
- Would provide capital and social infrastructure to the public
- Would generate direct and indirect employment
• Would develop communities along which rehabilitation activities would be present

4.8 Facilitation of Foreign Exchange Generation

Indeed increased investment in the transportation sector as a response to economic reforms has resulted in monumental increase in volumes of goods and raw material transported within or outside the country. According to 80% of the respondents food crops, minerals, raw materials and other goods have enjoyed phenomenal growth with investments in the transportation sector. Also, during focus group discussion, members of the focus group corroborated that these fortunes could even be more with the rehabilitation and reconstruction of the western railway lines to link the Takoradi Port. Generally, the respondents concluded that when this investment takes off, it has the potential of facilitating the exportation of goods that could fetch for the country some good foreign exchange earnings.

4.9 Generation of Government Revenues

The transportation industry generates revenue for the internal economy through the following sources:

• Salaries, wages and other payments made to employees and contractors

• Corporate income taxes, services, customs and harbour duties

• Taxes on salaries of employees, and social security contributions from employees and their employers

• Dividends to shareholders
• Equipment and consumables purchased locally
• Import duty and purchase tax on vehicles and other machines that run on roads, railways and other means of transport
• Electricity and water charges

Accordingly, a significant majority of the respondents (97%) acknowledged that the revamping of the western railway corridor would facilitate more benefits in terms of government revenue from the sources mentioned above. This would hold a brisk economic picture for the region and the country at large.

4.10 Generation of Employment

The project is expected to be a significant contributor to formal and informal employment in the country. Equally, 97% of the respondents were optimistic about the potential of the Takoradi Port to be a source of employment for massive numbers of labourers who could work at unloading the shipments designated for the railway extension. Indeed the port’s facilities, including docking, unloading, storage, and shipment would provide numerous employment opportunities to the region’s population and its new immigrants arriving from all over country and perhaps neighbouring countries. Other employment indirectly connected to the port may include providing victual services to the ships, as well as paper, ropes and other necessities.
4.11 Agricultural Development

Agriculture holds the main economic activity for the western region and many parts of the country. Indeed, there is evidence that the major agricultural occupations in the region are crop production, fishing, animal husbandry and hunting which represents about (58.1%) of economic activities in the region. There was consensus among focus group members that agricultural development in the region would develop significantly following the extension of the western railway to the Port of Takoradi. As has been discussed above, there is acknowledgement that the western railway itself and the port would provide many employment opportunities. But these opportunities are expected to be large in the agricultural sector. As indicated by the 70% of the respondents one fundamental problem to farmers in the region has always been how to transport their goods to various markets within the country and internationally. According to the 70% of the respondents on a regular basis, farmers have complained of poor transport networks in the transportation of their goods. Some framers have had their goods go bad or stolen when goods are left in the farms for several days awaiting means of transport. This situation has often discouraged people to go into farming since the gains are washed away by a poor transportation system in the region.

Thus, notwithstanding the great agricultural potential of the region, the transportation infrastructure development of the region, which would increase agricultural development and other economic activities, is lagging behind the two other industrial regions of Greater Accra and Ashanti. Indeed, 80% of the respondents disclose that the region’s road network is one of the worst in the country, and the road system to the rich cocoa growing
areas is in a terrible state. Very often, during the rainy season, cocoa and food crops are locked up in the interior of the region because of inaccessible roads. According to the 80% respondents rail transport used to play a very important role in the region's development by facilitating transportation of goods and people, export of bauxite, manganese, timber and timber products and cocoa though the port at Takoradi is now in a very bad state.

The only line that is still functional is the line from Takoradi to Kumasi and Awaso, known as the Western Line. To be sure, this line remains the only long-distance section of Ghana’s railway system which still functions, though rather inefficiently. Furthermore, 85% of the focus group members indicated that the port at Takoradi handles about 75 per cent of Ghana's export trade of timber, cocoa, manganese and bauxite. However the present state of the harbour is nothing to write home about.

Given these difficulties, the rehabilitation of the western railway line and the deep water port at Takoradi would be particularly important to farmers and merchants in agricultural products. This means that farmers and merchants would benefit from these two important economic institutions due to the commercial activity they would bring to the region and the successful building of a trade network with farmers and cash crop growers in various places in the country to export their crops via the Takoradi Port at a reasonable cost. The study found that many food merchants prefer to sell their products within the country since it offers them some security. For them they are able to evade the delays and cost of transporting their goods to the harbour for exports. As mentioned above, in such difficulties, some who have attempted have had their food products go bad or delays in
transporting goods to the port for export halt their business endeavours which also come as a cost to them. For such farmers, until the rehabilitation and extension of the western railway line to Port of Takoradi is well instituted, a large proportion of their products may still have to be sold on the local market. While this is encouraging, it does not fetch for the country the desired economic benefit in terms of share of foreign exchange. When the western corridor project is complete, large volumes of goods could be exported via the Takoradi Port. Interestingly, 97% of the respondents believe that transportation of food crops from Ghana to the international market would be simplified by the railway services that deliver products to the Takoradi Port where they will be packed and exported to determined destinations. This means that many farmers would be encouraged to go into agricultural production which would promote the development of agriculture in the region and the country at large.

4.12 Development of Tourism

Tourism in the region has been described as the country’s sleeping giant. Even though the Central Region often comes to mind when tourism is discussed, the shared mass of the tourism potential of the Western Region is yet to be properly assessed and exploited. The region has the second largest concentration of forts and castles in the country, accounting for seven out of the country’s fifteen selected tourist forts under the Museums and Monuments Board. There is a very substantial eco-tourism potential of the region which is yet to be fully exploited. Indeed the famous Nzulezo village built on stilts on water, and the Amanzule wetlands, which include the internationally recognised bird sanctuary.
are located in Nzema East. The unexplored caves of Mpohor-Wassa-East, including the Rock Shrines of Wassa Domaa, can attract many visitors if exploited. But to a large extent all these places are easy to access. Roads are the only means by which one can get to these tourist sites. Even with roads, it may take one considerable time to get to such places and only a few tourists can be carried to such places at a time.

According to the majority of the respondents (92%) the potential for improvement to easily access these places hinge on the western corridor railway project. Indeed, the 92% of the respondents indicated that improvements in the tourism sector could take place as the region enjoyed the introduction of two important economic establishments, the western railway lines and the port of Takoradi. These establishments would facilitate the movement of tourists to the many tourist sites in the region in a fast and less stressful manner. Travelling by train on their way to the tourist sites could be an entertaining experience for tourist. The trip and tour agencies could also establish offices along rail stations to serve tourist needs. There are high expectations among 85% of the focus group members that rail transport would enjoy great demand among tourists who will find them to meet both their travel and entertainment needs.

It is indisputable that tourists who would travel to various tourist sites in the region via the western railways would benefit from the various services provided by the region. The region is expected to flourish commercially through hotel and other services provided to meet the needs of tourists. A boost in tourism in the region would naturally require a
steady increase in the construction of hotels, residences, restaurants, nightclubs, markets, theatres, cinemas, amusement parks and other facilities for tourism and recreation.

4.13 Natural Resources, Good Transportation Network and Economic Gains

It is no secret that the region is endowed with considerable natural resources, which give it a significant economic importance within the context of national development. The region is the largest producer of cocoa, rubber and coconut, and one of the major producers of oil palm. The rich tropical forest makes it one of the largest producers of raw and sawn timber as well as processed wood products. A wide variety of minerals, including gold, bauxite, iron, diamonds and manganese are either being exploited or are potentially exploitable in the region. The largest potential deposits of gas and crude oil that are nearest to possible economic exploitation can be found in the Tano Basin and offshore in the Jomoro (Western Nzema) District. The same district has high quality limestone and fine sand deposits upon which the country’s cement and glass industries can rely. Major timber and wood-processing factories are found in Takoradi, Sefwi-Wiawso, Samreboi and Bibiani. But many analysts concede that the region’s total geological profile and mineral potential are yet to be fully determined. During focus group discursion respondents indicated that apart from the lack of capacity to exploit the considerable mineral wealth of the region, the poor transportation network in the region does not allow for easy and timely transportation of minerals and other resources to the ports for export. Furthermore, 79% of the respondents observed that the weight of mineral products such as gold, bauxite, manganese and other goods such as cement, wood and furniture does not make road transport a viable option. According to the 79% of the
respondents, often articulated trucks carrying such goods have either broken down or impeded by the bad road network in the region. These articulated trucks carrying heavy loads have even to a large extent been responsible for the bad state of road networks in the region. In conclusion, 97% of the respondents were optimistic that the western corridor railway project to connect the Takoradi Port would contribute significantly to the transportation of mineral products and other products that are heavy and difficult to transport by road. The project would also allow for an easy and fast transportation of these goods for export to the international market.

4.14 Railway and Port Rehabilitation in the Light of the Oil Boom

Ghana is blessed with considerable amounts of natural resources. This situation presents unique economic opportunities for the country. However, poor transport networks have compromised the capacities of mining and manufacturing companies to tap the full potential of resource wealth in the country. As such the country's resources are yet to benefit the people of Ghana. With the recent discoveries of substantial amounts of oil and gas, there are hopes that this trend may change. Indeed oil and gas may present as one of the principal sources of public revenue and national wealth. Under the right circumstances, this "oil boom" can be an important catalyst for growth and development. Unfortunately, in Ghana, natural resource booms have set off dynamic growth processes only to a limited extent (AfDB, 2009). According to focus group members abysmal transportation networks have not promoted the easy transportation of resources for export at the port of Takoradi. Members of the focus group discussion actually stated
categorically that poor connectivity of the western railways to the port of Takoradi increases the cost of transporting mineral traffic.

Given the country's poor handling of its mineral resources to various parts of the world, there have been recurring concerns in recent legislative platforms that the emerging oil and gas sector might not cater for the development circumstances of the country if crude oil and other oil related products are not packaged and exported in an efficient, timely, safe and less costly manner. There were expectations from focus group members that since Ghana has begun to export oil in commercial quantities to various parts of the world, the rehabilitation of the western railway and the Takoradi Port cannot be more timely.

4.15 The Development of Subsidiary Businesses

The study found out that various economic subsidiaries or complimentary services related to the port and railway would also flourish. These include, for example, construction and small commercial shops within the city such as groceries, cloth and furniture outlets, restaurants, small hotels, and the likes. The western region is expected to welcome thousands of business men and women to run these complimentary services. The region's commercial and service interests would benefit greatly from their presence. In actuality, transit activities in the region would play a significant role in activating the city's commercial flow, whether by workers on the railway rehabilitation project or business men and women. To add, the boost in the region's economic performance could leave its
mark on both the productive and consumptive behaviour of rural areas in the region. This is to be traced from the areas the railway would pass and rail stations.

Indeed 72% of the respondents were of the view that connecting the western railways to the Takoradi Port would encourage a number of investors to establish small factories for the local production of goods such as tin foods, clothing, and wooden products and the likes. It is indisputable that the development of the Takoradi Port and the extension of the western railways to the Port would lead to a transformation of traditional economic activities (dominated by the rural folks) to a modern economic model based on mutual export and import. The dominant traditional economic structure in the western region and Ghana at large would gradually be replaced with a more developed and progressive economic model.

4.16 Construction Development

The research also found that there is the hope for vigorous construction activities in the region. Indeed 97% of the respondents anticipated that the railway and port development would open up Ghana as a business destination. The completion of the project is expected to see the arrival of several investors from various countries across the world. The hope among a cross-section of the focus group members is that the extension and operation of the western railway lines to the port of Takoradi would play a primary role in invigorating the region’s construction activity as an outcome of the immigration of labourers employed in the railway’s various establishments. As a result, investors from various parts of the world would come to build factories, houses, estates and shops in the
region so as to take advantage of the cosy business environment created by the railways and the ports. It is also anticipated by the focus group members that investors would take advantage of this environment to construct buildings for themselves and open exchange banks and other services for themselves and local residents. Construction expansion could take place in many parts of the region where economic potential is rife and where the project facilitates a good transportation network for their business.

An important revelation that emerged during the focus group discussion was that Philanthropists and NGOs are often interested in providing assistance at a cost effective manner so as to be able to provide as much help to capture a wide range of people. Given this, the expectations among the focus group participants were that humanitarian groups are likely to show increasing interest in providing assistance in region through the construction of education, health and social institutions such as hospitals and schools. This would certainly be beneficial to the people and serve as a complementary service to those of the government.

Interestedly, 59% of the respondents also noted the potential gain in taxes for the local authorities of areas where construction activities would take place. Therefore there was an expectation among the 59% of the respondents that the Districts and Municipalities' incomes could increase as a result of expected construction activities in the region and the fees and taxes imposed for building licenses and permits. Thus, various areas in the region could have their income rise after the rehabilitation of the western corridor railway project and an effective operation in connection with the Takoradi Port. Generally, all the
focus group members held the view that the economic prosperity of the region would be harnessed due to the rehabilitation and extension of the western railway and development of the Takoradi Port since it hold the potential to entice the immigration of merchants and owners of capital from wealthy countries.

The point was also established by the focus group members that the region’s already poor road network would be spared the destruction of articulated trucks carrying heavy goods within the region and to the port for export. The Public works department would then have to invest fewer resources to maintain roads. It would even allow the department to focus on constructing good road network within commercial centres of the region rather than investing in patching damage roads.

4.17 Improvement of the Administrative Agency

At present, there is a belief among people living in the western region that the administrative agencies of the two important transport networks do not function efficiently. Eighty one per cent of the respondents indicated that the Ghana Railway Corporation is under resourced and understaffed. While the Ports and Harbours authority may be relatively better, there are calls that the sector needs serious reforms in its management. With this revelation, the western corridor railway project is likely to absorb increasing numbers of employees in the period following the commencement of the western railway extension to the port of Takoradi. The railway project and the port development project necessitate a continual increase in the size of government staff in order to deal with the official transactions related to those two projects and their offshoot
agencies, commercial stores, health, postal, sewage and industrial services. This employment rise would come as an effort to improve rail and port services.

4.18 Population Increase and Social Problems

The introduction of the railway contributed to driving internal migration within the regions along the western corridor in search of work.

Many of the respondents (97%) acknowledged that there are numerous factors that could play vital roles in the surge in the population of the region. The mineral wealth and the recent oil find in the region are already responsible for the influx of people into the region. The railway/seaport share among those factors would however be definitely significant. It was pointed out by the focus group members that the potential increase in population in the region could come not only at the hands of the labourers who may come to work for the rehabilitation project, but also those who would come to work in other agencies in the region that have a direct or indirect relationship to the project. Indeed as stated earlier there are expectations among focus group members that the railway project would be one of the largest sources of employment in region. Rehabilitation of dilapidated rail tracks, construction of additional tracks, construction of railway stations at strategic market locations and the Takoradi Port and the management of the whole western corridor railway project are expected to provide employment opportunities for hundreds of employees, labourers, and engineers who may have to settle in the region.

Interestingly, while the influx of people into the region to seek employment may be seen as an indication of a bright future awaiting the region and the country at large, most
significantly on economic terms in which it expected to make indisputable gain, there are concerns among 10% of the respondents that this opportunity may turn to be an unwholesome experience. The benefit of embarking on the western railway project is not in contention, but the potential gain is not all about what benefits and what infrastructure would be developed and harnessed. Far from suggesting doom, the project goes beyond benefits. The propensity for a brisk in employment opportunities with its attendant population increase could exacerbate teeming social problems the government and other stakeholders are grappling with. Concerns were raised by raised focus group members that with the influx of people to the region, social problems such as armed robbery, prostitution, poor accommodation, pressure on social amenities to mention but these could be the negative effects of the project.

4.19 The Social Implications of Population Increase

The social organisation of every community is guided and directed by certain principles. According to 75% of the respondents the concentration of mining operations and the recent oil discovery in the region are already impacting adversely on the social organisation and cultural values of the people. The western railway project is expected to lure as much people in the region as have the mining, oil and agricultural sectors. Concerns were expressed by 80% of the focus group members about the potential for inadequate housing, youth unemployment, family disorganisation, school dropout rates, prostitution and drug abuse. Admittedly, these problems are not new to the region, but the ‘railway corridor induced population increase’ could cause a rise in these problems to a level that the respondents perceived would be threatening to the social fibre of the area.
The western railway project would certainly trigger a massive migration of all kinds of people to the area. At the moment, the population growth rate in the region is above the national average and might even double it.

**Inadequate Housing**

 Concerns were raised among the 80% of the focus group members that the potential investment in the projects and its ancillary business outcome could lead to the displacement of people and communities. Considerable portions of land may have to be used in the rehabilitation process. Businesses that are likely to spring up as a result of the project may also use substantial portions of land. When this happens, affected people may have to migrate in search of farmland while others may relocate or resettle in unknown areas. Displacement of communities and people may result in increased migration of the youth who may not be considered for compensation. The youth may migrate to the towns, especially in search of jobs. Already the sudden flow of people into town centers as a result of mining triggered displacements has created a major problem of housing in various townships in the region. Ninety two per cent of the respondents actually cautioned that the western railway project has a potential to add to the existing difficulty. The potential is for the already high rents to rise. The rise in rents may be so much that the migrant unemployed youth may not be able to afford rooms in the townships. Some may be forced to live in severely overcrowded conditions. There were assertions by 85% of the respondents that many of the migrant youth into townships have turned the railway stations, lorry parks and other open places into places of abode. Fifty three per cent of people interviewed reported evidence of people living in make-shift
structures in forest areas or in hired rooms in villages because of displacements by large-scale mining activities. With the potential of a similar effect, the western railway project could exacerbate the inadequate housing conditions in many parts of the region. A situation of this nature also has the potential of generating other social problems.

**Family Disorganisation**

Closely related to the above point is the potential for the disorganization of family units. In fact, 89% of the respondents expressed the concern that because land may be needed for construction purposes, government and other private business entities may decide to apply relocation and compensation measures. This may have serious consequences for the family as a close-knit social unit. New housing arrangements for the resettlement of family units and communities could disrupt long established family networks in the area. There is even the concern that as is always been the case, housing units provided by the government and other stakeholders have not always conformed to the size of households. As one interviewee noted, it would be unfair and inhuman to resettle a family that had a house with five rooms and large space into one with three rooms in a crowded space.

**Prostitution**

One of the major social issues that is feared to emerge as a result of the economic potential of western railway project is prostitution. Almost all respondents (98%) were unanimous that there could likely be an increase in prostitution. When this situation emerges it may have a tendency to erode the region of its social values. According to the 98% of the respondents there are both mobile and resident sex workers in the area. The
mobile sex workers who come mainly from Takoradi, Cape Coast, Kumasi, Accra and Obuasi target expatriate staff of the mining companies and some prosperous galamsey operators. This condition is likely to be exacerbated since sex workers would expect workers of the project to have money. Sex workers may also take advantage of the economic boom as a result of the railway and port rehabilitation to sell sex for money. There is the potential for resident sex workers to service local workers of the project and business communities. These sex workers may migrate into the townships with the intention of trading or getting other jobs. However, failure to attain their stated objectives may compel them to resort to prostitution as the last option for survival. The trend for reported cases of HIV in the region has been on the increase since 1992 and the rate of increase may even be more if care is not taken.

Drug Abuse

Closely related to prostitution is the fear that the economic fortunes of the region may entrench an addictive drug sub-culture in the region. Seventy nine per cent of the respondents noted that this incident is already taking root in many townships in the region. According to one interviewee, it is particularly common among clusters of young men and women whose income levels get better as they exploit the opportunities around them. These cases are also common among prostitutes who are mainly migrant youth. Reports were also made by 47% of the respondents interviewed that the drugs such as marijuana and other addictive drugs like cocaine are consumed in the belief that they stimulate the youth to work very hard.
High Cost of Living

One of the known, negative effects of economic wealth is its potential to influence a certain sense of living. Usually when people feel rich, they spend lavishly on goods and services they deem prestigious. Majority of the respondents (79%) indicated that as the case is now, there is evidence of a high cost of living within communities near mine locations where all the indices such as food, accommodation, health, water and so on that make a decent life have a price tag beyond the reach of the average person. Given its potential to stimulate a similar feeling of wealth among workers of railway and port rehabilitation project, the western corridor project is expected to even aggravate the incidence of high cost of living in many areas in the region. Two main concerns were expressed by the focus group members as factors that may trigger the incidence of a high cost of living in the region. Indeed 79% of the respondents were of the view that there could be a disparity in incomes in favour of people working on the project and those who would exploit the economic advantages of the project to make a living. It is expected that professional and technical staff on the project would be paid huge sums of money as their salaries. In most cases the salaries of such staff are indexed to the US dollar. This would mean a rise in their income far above their counterparts in the public sector. There is also the expectation among the focus group members that expatriate staff of the construction company would be paid internationally competitive salaries, which may further widen the income disparities in the region. The concern was expressed by 20% of the respondents interviewed that this group of high income earners could thus influence the pricing of goods and services such as housing, food and other amenities.
The other concern expressed by the 79% of the respondents was the fact that the project could withdraw a significant percentage of the labour force from agriculture and other income-generating activities by taking farmland away and holding out the false promise of employment. The fall in food production in an area that is already densely populated, with high unemployment may account for high food prices. Complains were made by the focus group members that as it stands now, especially in many of the town centers in the region, the average price for a plate of food is 5 Ghana cedies and this could rise as a result of the potential conditions highlighted above. One interviewee noted that at the moment, a bag of rice sells for about 60 Ghana cedis in Accra but is sold for 70 Ghana cedis in Bibiani 75 in Tarkwa and about 75 to 80 Ghana cedis in Takoradi. Because the project has the tendency to add to the already existing incidence of high cost of living, there is fear that the western region may become uninhabitable especially for the poor. Poverty and harsh economic conditions could lead to the situation where children of school going age would be forced into menial jobs at the expense of their education. Child labour and high school dropout rates were reported in various communities of the region by two interviewees.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary and Conclusion
The researcher would like to summarise and conclude that rail lines and ports have the potential to deliver economic and social benefits by connecting people and market centers within and to international and regional markets. Without reliable and competitively priced freight transport over sturdy infrastructure, Ghana may not chalk the desired benefits from trade since there would be limited avenues of trading its goods on the most advantageous terms. If the country cannot transport its minerals and other produce to markets from isolated rural areas, then the mining companies, farmers, business men and women and to a large extent the government will be unable to break out of subsistence trade. Indeed transport makes markets work and economies to grow.

The deterioration of the western rail infrastructure in linkage with the Takoradi Port compromises its connective functions and there is agreement that this has caused the economy to some considerable extent. Given this condition, essential transactions and movements of freight are delayed or disrupted, transport costs rise, individuals lose time in unremunerated commuting, and business entities must fight harder to compete. This does not place Ghana well as a good investment destination in terms of regional economic integration and globalization.

To restore the country as a good investment destination, it is necessary to improve or restore effective connections and add new infrastructure to improve the transport network
of the western railway corridor and the Takoradi Port. As has been discussed in the
preceding chapter, this project has the potential to among other things:

- Facilitate the easy and less costly transportation of freight to the port for export thereby increasing foreign exchange for the country.
- Improve the development of agriculture thereby making it an attractive venture to the youth.
- Stimulate economic growth of the region and the entire country.
- Facilitate trade within the country and with international counterparts within the global arena.
- Develop the tourism sector in the region and the nation as a whole. This would serve as an additional income generating source in the region.
- Facilitate the export of crude oil to the international market at faster and cost-effective rate.
- Develop the efficiency of the Takoradi Port to meet international maritime standards.
- Create employment for people thereby improving conditions and standard of living.

The challenges of the rehabilitation project cannot be swept under the carpet. Concerns have been raised that the project has the potential to either introduce or exacerbate existing social problems in the region and the country at large. Some of these concerns have included among other things:

- Population increase in the region with its concomitant social problems.
• Inadequate housing leading to destitution, overcrowding, ill health and diseases in the commercial cities and towns in the region.

• Disorganization of families by breaking down social cohesion and social support system in the traditional society.

• Corruption and rent seeking of gargantuan amount of money among expatriate works and the landlord in the region.

• Prostitution which is capable of eroding gains made in the fight against HIV infection in the region and the country as a whole.

• Drug abuse menace and its correlation with high rate of metal illness in the commercial centers.

• Fear of high cost of living exacerbating poverty in the communities.

Notwithstanding these challenges, it is important to ensure that the project starts and runs to its completion as this would revive the sector and makes it contribute significantly to the development of the country.

5.2 Recommendations

The research presents these recommendations for policy considerations:

• There should be a commitment by all stakeholders to appropriate investments required to rehabilitate the railway and the port in the western region.

• All sections of the western railway and the Takoradi Port necessitates major rehabilitation and expansion to enable it handle the increase in exportable
commodities from the region, and also take the pressure off the Tema Port for some imports.

- The waterways of the Takoradi Port need to be deepened to be able to handle larger container ships, to support the level of industrialization needed to accelerate the economic development of the region and the country.

- There is growing knowledge that achieving a specified connectivity standard is not simply, or even primarily, about creating new transport infrastructure. There is evidence of poor maintenance culture in the country, the most common consequences of poor maintenance are lower operating speeds and higher costs of maintaining the lines and trains that use the rail infrastructure. Unless more resources are allocated to maintenance, the benefits of improving the condition, upgrading the category, or expanding the quantity and quality of the rail transport infrastructure will be temporary. It is therefore recommended that the management of the Port of Takoradi should improve and preserve the quality of the infrastructure when completed.

- Despite acknowledgment of rehabilitating the western railway corridor, it is recommended that the existing rail network be extended. There should be the creation of additional infrastructure to link various parts that were previously left out. There should be the provision of missing links of the rail network, and the provision of new rail tracks at un-served locations.
• The study recommends that there should be the addition of berths to increase Port capacity.

• Also the research recommends that there should be a proper training and education of the railway workers in order to enhance their operational capacity and skills.

• There should be a regulatory framework for the control and operation of the Ghana Railway Company

• It is further recommended that mining companies and shippers in general should help to develop the rail sector by contributing to the efforts of the Government in terms of the acquisition of infrastructure

• The execution of the western railway project should be done in a transparent and accountable manner so as to curtail corruption, rent seeking and mismanagement which have the tendency to stall the project.

• Appropriate measures should be taken by responsible authorities to mitigate the consequent social problems likely to characterize the execution of the project.
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APPENDICES

APPENDIX A: INTERVIEW GUIDE

Topic: Interconnectivity of the Western Railway Corridor with the Takoradi Port:
Prospects and Challenges

The focus of this research is to identify the prospects and challenges of connecting the western railway corridor to the Port of Takoradi. The following questions served as a guide and provided themes for discussion.

1. How do you share in the view that the western railway line and the Takoradi Port are worth rehabilitating?
2. What do you think are some of the benefits Ghana would derive from rehabilitating the western railway corridor to connect the Takoradi Port?
3. Please give account of some of the benefits this infrastructure (Western railway and the Takoradi Port) has had for Ghana.
4. Do you share in the view that rehabilitating the two transport infrastructure would derive any benefit for the country than it already has?
5. What different benefits do you envisage?
6. What do you think are the constraints of the existing infrastructure?
7. What should be done new?
8. What should be maintained?
9. Give an assessment of the extent of connectivity of the western railway with the Takoradi Port
10. Is the linkage effective?
11. Do you agree that it would be as good to rehabilitate one of the two infrastructures or the two together?
12. Does it allow for large volumes of goods to be transported?
13. What mode of transport is currently preferred for the transportation of goods to the Port?
14. Does the port function to your satisfaction?
15. What are some of the constraints militating against an efficient functioning of the Port?
16. Indicate specific causes of such constraints
17. What do you think should be done to improve port efficiency?
18. What are some of the challenges do you foresee in this investment?
19. Do you feel there would be any adverse impacts?
20. What in your opinion should be done to mitigate these impacts?

Note:
Answers to the questions led to other questions that sought to probe deeply for detailed information from the respondents.
APPENDIX B: GUIDE FOR FOCUS GROUP DISCUSSIONS

Topic: Interconnectivity of the Western Railway Corridor with the Takoradi Port: Prospects and Challenges.

The following themes served as a guide for discussion:

1. The advantages of railways to roads
2. The current state of the western railway corridor
3. Perceived gains or losses as a result of current state
4. The benefits derived from the Takoradi Port
5. The challenges the port faces
6. Views of government's intensions to rehabilitate the western railway corridor to link the Takoradi Port
7. Perceived benefits of the intended project
8. Perceived challenges of the intended project