

ガーナ国
鉄道安全運行整備計画策定プロジェクト
詳細計画策定調査報告書

平成23年10月
(2011年)

独立行政法人国際協力機構
経済基盤開発部

序 文

日本国政府は、ガーナ共和国政府の要請に基づき、ガーナ鉄道開発公社（Ghana Railway Development Authority）を実施主体とする開発調査型技術協力プロジェクト「鉄道安全運行整備計画策定プロジェクト」を実施することを決定し、独立行政法人国際協力機構がこのプロジェクトを実施することといたしました。

当機構は本格的な協力の開始に先立ち、本件技術協力プロジェクトを円滑かつ効率的に進めるため、平成 23 年 8 月 14 日から 19 日まで 6 日間にわたり詳細計画策定調査団を現地に派遣しました。

調査団は本プロジェクトの背景を確認するとともに、ガーナ共和国政府の意向を確認し、かつ現地調査の結果を踏まえ、本格協力に関する合意文書（Record of Discussions on Study for Safety Operation and Management of Railway in the Republic of Ghana）を締結し、2 年間にわたる技術協力プロジェクトが実施されることとなりました。

本報告書は、今回の調査結果を取りまとめるとともに、引き続き実施を予定している本格協力に資するためのものです。

おわりに、調査にご協力とご支援をいただいた関係各位に対し、心より感謝申し上げます。

平成 23 年 10 月

独立行政法人国際協力機構

経済基盤開発部長 小西 淳文

目 次

序 文
目 次
地 図
写 真

第1章 調査の概要

1-1 要請の背景・経緯	1
1-2 調査の目的	1
1-3 調査団員構成	1
1-4 現地調査日程	2
1-5 面談者リスト	2
1-6 団長所感	3

第2章 ガーナの鉄道の現状

2-1 ガーナの鉄道の概要	4
2-2 組織形態	6
2-3 運行状況	7
2-4 輸送動向	10
2-5 路盤・軌道	12
2-6 車両	16
2-7 車両基地・車両工場	18
2-8 信号・通信設備、踏切	19
2-9 事故	20
2-10 技術基準	21
2-11 他国・国際機関の支援	22
2-12 将来計画	22
2-13 東線乗車記録	23

第3章 プロジェクトの概要

3-1 主要協議内容	27
3-2 TOR案	27
3-3 調査の工程	30

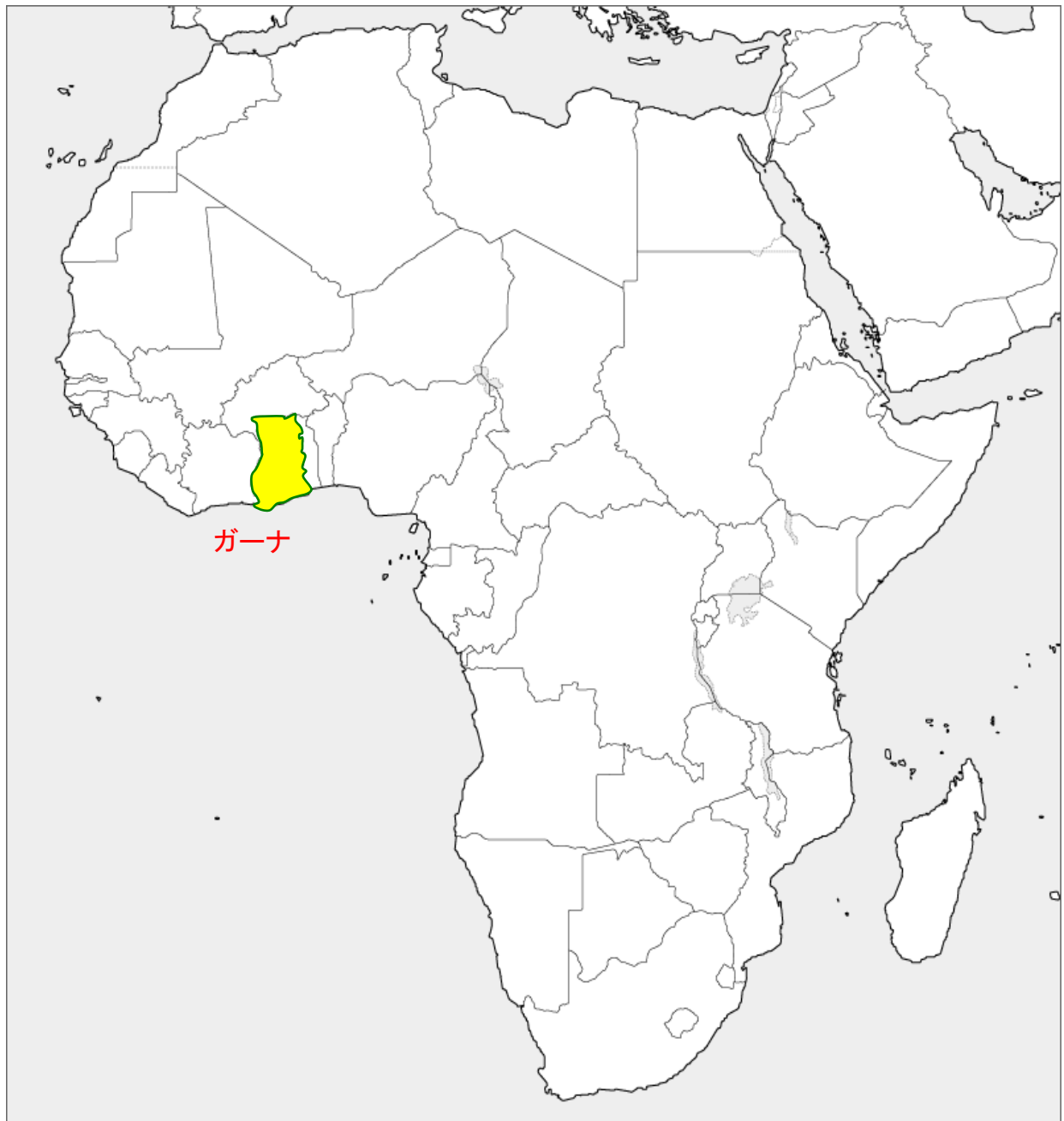
第4章 プロジェクト実施にあたっての留意事項

4-1 留意事項	31
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付属資料

1 Record of Discussions on Study for Safety Operation and Management of Railway in the Republic of Ghana (2011年8月)	35
2 Railways Act. 2008 (2011年8月)	43
3 Annual Transport Date (2011年8月) 調査前	89

ガーナ国位置図





ガーナの鉄道の軌道はほとんど維持管理を実施されていないため、劣悪な状況にある。

鉄道の安全かつ円滑な運行のために、所定の維持管理を実施する体制を構築する必要がある。



平日の夕方 17 時過ぎ、首都アクラ中心部近くのアクラ駅に 2 本の列車が停車しており、帰宅客が続々と駅に集まり、列車に乗り込んでいた。

ガーナでは一時休止した旅客輸送であるが、1 日数便ながらもアクラ近郊で運転が再開している。

安全な鉄道の運行のために、わが国の支援が求められている。



ガーナでは、車両の整備不良による事故や運休がしばしば発生している。

どのような整備が行われているのか、どのような改善を講じればよいのか、現場の実情を幅広い視点から把握することが必要である。



鉄道の維持管理に必要な検査機器、ジグの整備状況など、細部の状況の確認も必要である。

第1章 調査の概要

1-1 要請の背景・経緯

ガーナ共和国（以下「ガーナ国」と記す）の産業構造は一次産品（金やマンガン、ボーキサイトといった鉱物、カカオ、木材等）に依存しており、近年はタコラディ沖合における石油産出が見込まれている。なかでも内陸部で産出されるマンガン、ボーキサイトを輸出港に輸送する手段として鉄道は優位性を発揮できる輸送手段であるが、現状は、鉄道事業者であるガーナ鉄道会社（Ghana Railway Company Limited : GRCL）が予算不足などにより全線 947km のうち旅客輸送は首都アクラ近郊の東線（テマ支線含む）64km で 5 往復、貨物輸送はタコラディを起点とする西線のうちタコラディ～Nsuta 間 61km で 5 往復が運行されているに過ぎない。また、その施設の状況は老朽化や維持管理不足により、機関車、軌道・路盤の整備状況は適切な安全性を確保した水準ではなく、脱線事故が頻発している。

このため、ガーナ国政府は 2008 年 12 月の鉄道法 779（Railway Act. 779）に基づき鉄道の民営化推進政策を導入、鉄道整備計画、事業者の審査・規制、近郊鉄道の整備などを行うガーナ鉄道開発公社（Ghana Railway Development Limited : GRDA）を設立した。しかしながら、GRDA の組織体制・要員は十分とはいえず、安全な列車運行のために、事故原因の究明と適切な維持管理方法の導入に向けた取り組みが必要である。

JICA は、2009 年 2 月に「ガーナ国 西部地域港湾・輸送分野総合開発協力準備調査」を実施し、鉄道の現状及び問題点の抽出を行った結果、鉄道分野の制度改革及び運営改善に向けた支援ニーズの高さが認められた。

このような背景の下、ガーナ国政府は、わが国に対し、鉄道の現状調査、適正な運営管理手法の確立を行うため、「鉄道安全運行整備計画策定プロジェクト」（開発計画調査型技術協力）を、わが国に対して要請した。

この要請に基づき、2011 年 8 月に JICA 経済基盤開発部は調査団を派遣し、交通運輸省（Ministry of Transport : MOT）、経済財務計画省（Ministry of Finance and Economic Planning : MOFEP）、GRDA、GRCL との一連の協議、並びにタコラディ周辺及びアクラ近郊鉄道の現状調査を実施し、2011 年 8 月 19 日に R/D に署名した。

本調査は、ガーナ国政府からの鉄道分野への協力要請の背景、内容を関係者協議・現地調査を通じて基本情報の収集や課題の把握を行い、今後の支援内容・方法案を作成し、ガーナ国政府との協議を実施するものである。

1-2 調査の目的

ガーナ国の鉄道が安全な運行を行えるよう、施設や運行の状況を調査・分析及び、運行・維持管理に関する手法の改善を協力するものである。

1-3 調査団員構成

氏 名	所 属
小泉幸弘	JICA 経済基盤開発部運輸交通・情報通信第一課 課長

黒瀬信弘	JICA 経済基盤開発部運輸交通・情報通信第一課 主任調査役
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1-4 現地調査日程

	Schedule	
Aug. 14 (Sun.)	【Mr. KOIZUMI】 →13:30 Accra (UA990)	【Mr. KUROSE】 Dubai 07:30 (EK787) →12:00 Accra
Aug. 15 (Mon.)	10:00 Meeting at JICA Office (with JICA Ghana Staff) 12:00 Courtesy Call to Embassy of Japan 14:30 Courtesy Call to Ministry of Transport 16:00 Meeting with GRDA	
Aug. 16 (Tues.)	08:30 Meeting with MOFEP 09:30 Meeting with GRDA PM: Travel to Takoradi	
Aug. 17 (Wed.)	Site Visits (GRCL, Railway Station, Depot, Track) 14:00 Depart for Accra	
Aug. 18 (Thurs.)	AM: Internal meeting 14:00: Meeting with GRDA, (Discussions on R/D)	
Aug. 19 (Fri.)	08:00 Signing of Record of Discussions (MOT, MOFEP, GRDA) 13:00 Report to JICA Office 15:00 Visit Tema Harbour	
	【Mr. KOIZUMI】 Accra 20:35 (SN265) →	【Mr. KUROSE】 Accra 17:30 (EK788) →

1-5 面談者リスト

(1) ガーナ側

組 織	氏 名	役 職
MINISTRY OF TRANSPORT	E.N.Y Tackie-Yarboi	Chief Director
GRDA	Emmanuel Opoku Jonathan Ocansah Cealva Ferual A.A.Sadique L.L Quansch J.E. Oduiti	Ag. Chief Executive Director of Finance Ag. Secretary Chief Engineer Mech Engineer
GRCL	マジマ氏 ウィリアム氏 ジェセフサンカ氏	Chief Mechanical Chief Civil Engineer Traffic Manager

(2) 日本側

組 織	氏 名	役 職
在ガーナ日本国大使館	本田真一 倉田裕史	一等書記官 二等書記官
JICA ガーナ事務所	稲村次郎 木藤耕一 相良冬木 Christopher D.NUOYEL	所長 次長 次長 Programme Officer

1-6 団長所感

ガーナ鉄道は 2003～2005 年ごろをピークに旅客、貨物輸送いずれも激減しており、2009 年には貨物輸送量がピーク時の 10 分の 1 以下、旅客も半減しており、車両、軌道等の維持管理資金不足、鉄道安全・定時輸送に支障、旅客・荷主の鉄道離れ、維持管理不足という悪循環になっている。

鉄道輸送の比較優位を発揮できるものとして、一般に都市鉄道、資源輸送及び都市間鉄道といわれており、ガーナ国においては内陸部のマンガン、ボーキサイトを最寄りのタコラディ港まで輸送する潜在的需要が一定量存在していることを考えると、同鉄道の再生は十分可能と考えられる。

実際、アクラ近郊旅客鉄道については車両更新並びに軌道整備を行った結果、1 日 3 往復の旅客列車が定時運行されるようになっており、通勤客でほぼ満員の状況であった。しかもパーク＆ライドとしての利用も一部にみられるなど、信頼性の高い交通機関として認知され始めている。このような試みは資源輸送に資する西線でも少しずつではあるが行われ始めており、こうしたガーナ国の鉄道再生への支援をソフト分野の協力として日本が行うことは、いわゆる鉄道システム海外輸出とは一線を画してはいるものの、「顔の見える援助」として重要・妥当なものと考えている。

第2章 ガーナの鉄道の現状

2-1 ガーナの鉄道の概要

ガーナ国は、東西約 400Km、南北約 600Km の国土を有するが、これまで建設された鉄道は、人口の多い南部地域に限定されている。路線網はアルファベットの A 字型に、一時は約 950km が整備されたが、現在は、3 分の 2 の区間が休止路線となっており、現在の運行区間は首都アクラの近郊路線と西部のタコラディからアワソに至る区間のみとなっている。なお、西部の Nsuta からアワソまでの間は、改修工事につき現在は運休となっており、工事完了後、運転再開が予定されている。

図 2-1 は、ガーナの鉄道路線図であるが、現在黄緑区間が運行しており、水色区間が改修工事につき運休となっている。

路線は、休止区間を含め、全線非電化であり、1,067mm ゲージを採用している。

車両は、貨物・旅客とも機関車牽引方式が主であるが、アクラ近郊ではディーゼルカーも運行されている。

ガーナと周辺国の鉄道を比較すると、営業キロは各国とも現時点のものではないものの、国土の面積に対して、特段整備が進んでいる状況ではなく、周辺国と同等水準にある。

特筆すべきは、ガーナは軌間 1,000mm を採用している国々に囲まれており、将来的に直通運転を行うためには、異ゲージ問題を克服する必要がある。

表 2-1 周辺国の鉄道概要

	営業キロ	軌間	最大軸重	複線化キロ	電化キロ
ガーナ	947km	1,067mm	16t	30km	非電化
コートジボワール	660km	1,000mm	17t	単線のみ	非電化
ブルキナファソ	622km	1,000mm	17t	単線のみ	非電化
トーゴ	568km	1,000mm	—	単線のみ	非電化
ベナン	532km	1,000mm	—	単線のみ	非電化

注：営業キロは現時点のものではない。

出典：社団法人海外鉄道技術協力協会「世界の鉄道」より作成。

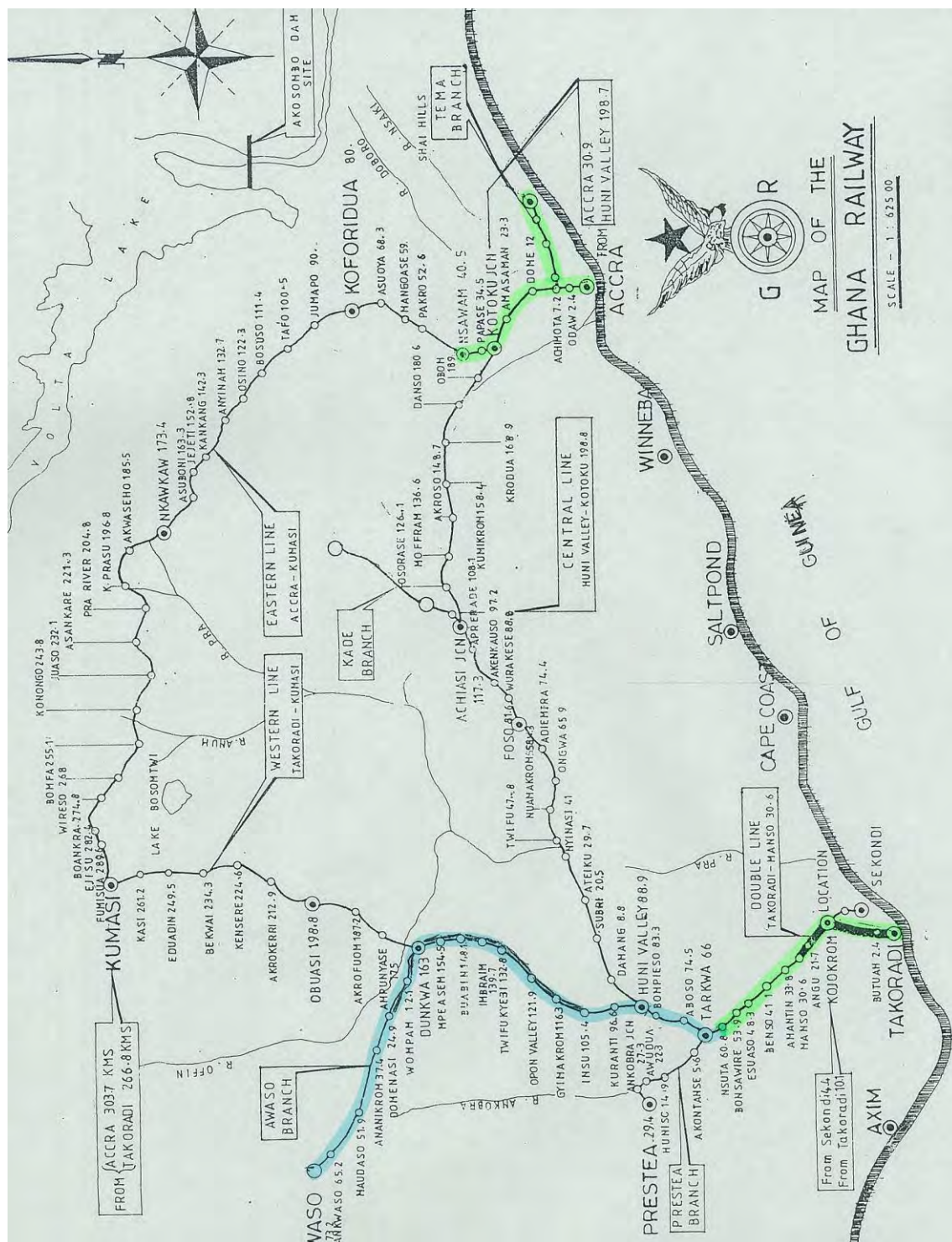


図 2-1 ガーナ国の鉄道路線

2-2 組織形態

ガーナ国の鉄道は、従来ガーナ国鉄（GRC）が運営を行ってきたが、2008 年 12 月の（Railways Act. 779）によりガーナ国内の鉄道の機能回復と近郊鉄道の整備をめざすとともに、鉄道の資産を保有する組織としてガーナ鉄道開発公社（GRDA）の設立が決定され、鉄道の運行は民間セクターにより行われる方法で、民営化をめざすこととなった。

しかし、民間セクターの参入が不調に終わったため、現在はガーナ国鉄の流れをくむ GRCL が鉄道の運行を行っている。

GRDA は、現在策定中のビジネスプランに相当する「Scheme of Service」によれば、約 130 の職種で構成される計画であるが、現時点では 5 名のみの極めて小さな組織となっており、設立間もないこともあり、GRCL からの出向者も含まれているため、厳格に GRCL から独立した組織ではない。

2011 年度のガーナ国の鉄道に関する予算は、7,186,730 セディ（約 4 億円）、うち人件費は 618,000 セディ（3,600 万円）、設備投資費は 5,589,293 セディ（約 3 億円）となっている。

人件費は在籍職員数に比べ多い、一方で設備投資費は運行されている区間が約 300km、かつ、維持管理状況は、適切な運行には不十分であることをかんがみると、本来必要な投資額には程遠い予算しか確保されていない。

表 2-2 GRDA 予算

項 目	金額（セディ）	金額（百万円）
Personnel Emoluments	618,000	37
Administrarion Activity Expenses	353,757	21
Service Activity Expenses	625,680	38
Investment Activity Expenses	5,589,293	335
計	7,186,730	431

（注）1 セディ＝60 円とした。

2-3 運行状況

(1) 運行本数の推移

2005～2010年の各年の列車運行本数の推移は図2-1のとおりである。

貨物列車は2009年まで減少傾向となっており、2010年に増加に転じている。

旅客列車は西線における運行が2007年9月から停止となり減少しているが、2008年から増加に転じている。

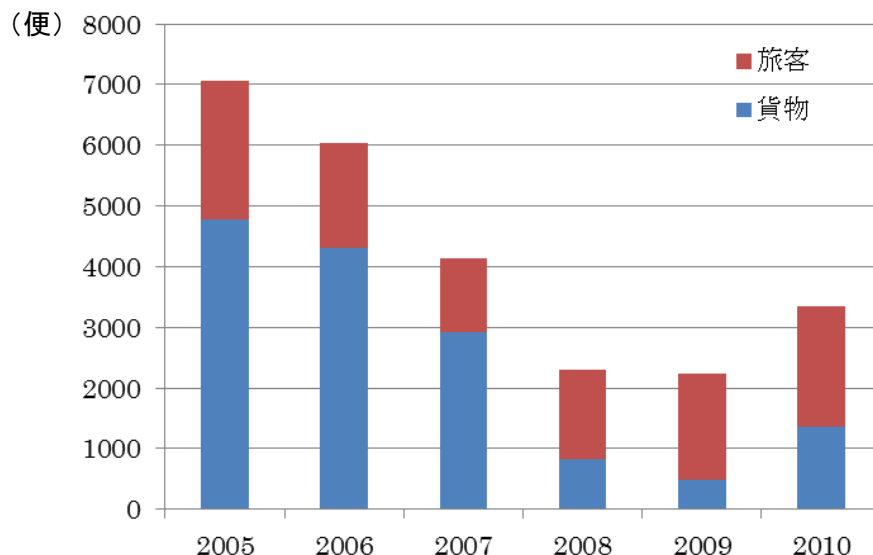


図2-1 列車運行本数

(2) 現在の運行状況

現在、列車が運行されている区間は以下のとおりである。1日の運行に必要な編成数はわずか7編成である。

なお、タコラディ～アワソ間のボーキサイト輸送は、一部区間で現在改修工事を行っており、運休中である。

表2-3 現在の運行状況

区 間	運行頻度	運用編成数	列車種別
タコラディ～アワソ	<2日半で1往復>	<1編成>	貨物 (ボーキサイト)
タコラディ～Nsuta	5往復/日	3編成	貨物 (マンガン)
アクラ～テマ	3往復/日	2編成	旅客
アクラ～Nsawam	2往復/日	1編成	旅客

注：< >運休中

2009年の「ガーナ国 西部地域港湾・輸送分野総合開発協力準備調査」時と比べ、東線の運行頻度は大きく変化していないが、西線は、タコラディ～アワソが週に3～4往復であったものが大幅に減便される、一方マンガン輸送が再開され、1日5往復が運行され

ている。

運行時刻表・ダイヤは入手できなかったが、アクラ駅にアクラ～テマ間の運行時刻表は
 掲示されており、図２－２は、それより作成したものである。

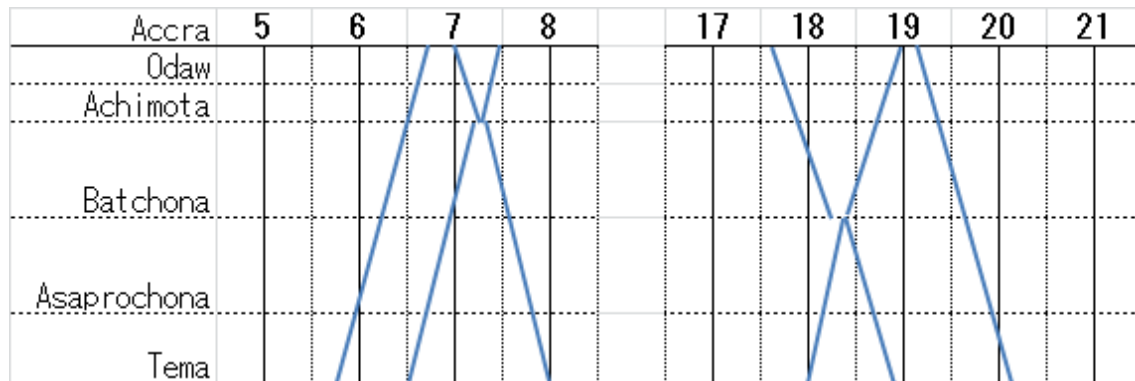


図２－２ アクラ～テマ間運行ダイヤ

(3) 運 休

近年の旅客列車の運休状況は、図２－３のとおりであるが、2007年9月に西線の旅客
 列車の運行が停止したこともあり、2008年に運休本数は大幅に減少している。

なお、貨物列車の運休に関する情報はない。

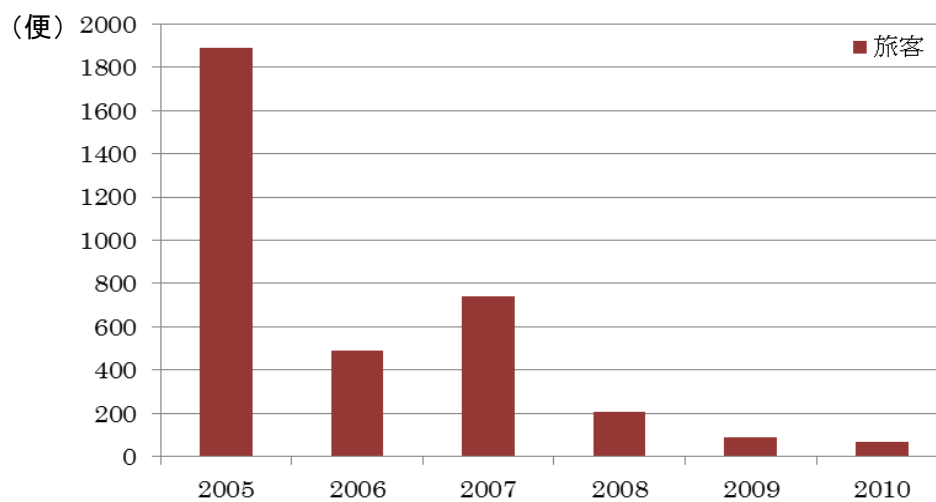


図２－３ 旅客列車の運休本数

運休の理由は、脱線、機関車・貨車の不足、燃料・潤滑油の不足などが挙げられている。

(4) 定時性

近年の旅客列車の定時運行率は、図2-4のとおりであるが、2006年に悪化したものの2007年には回復している。出発時の定時運行率は70%程度であるが、到着は30～40%となっており途中で遅延する列車が多いことがうかがえる。

なお、貨物列車の運休に関する情報は無い。

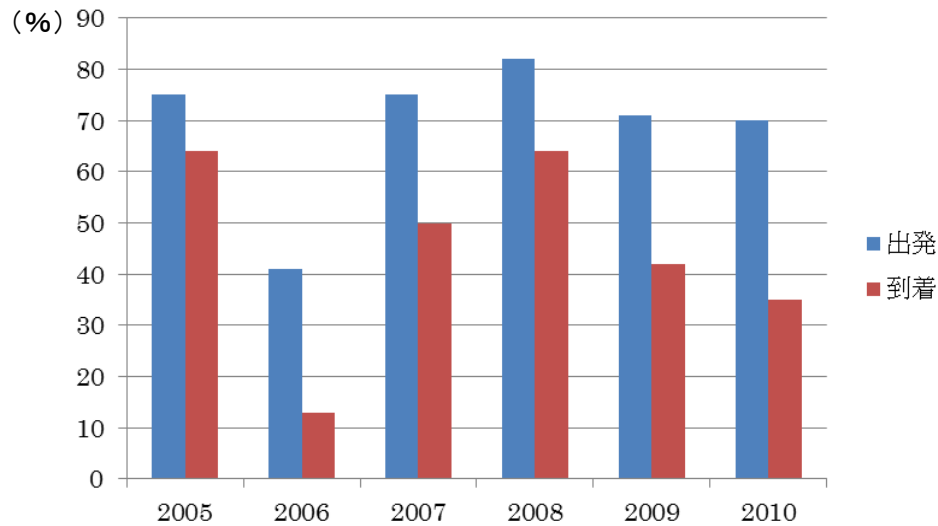


図2-4 旅客列車の定時運行率

遅延の理由は、軌道の整備不良、脱線、機関車・貨車の不足、燃料・潤滑油の不足、信号・通信設備の不具合、タコラディ港の荷役線の不足、軌道の冠水などが挙げられている。

2-4 輸送動向

(1) 貨物輸送

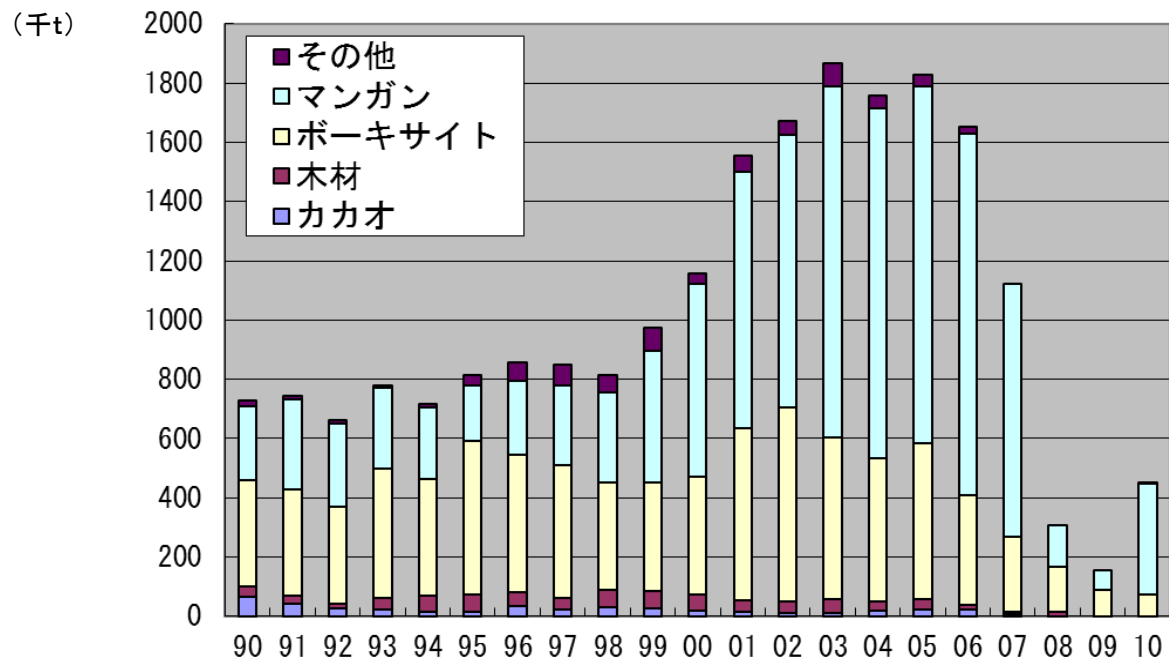


図2-5 貨物輸送推移

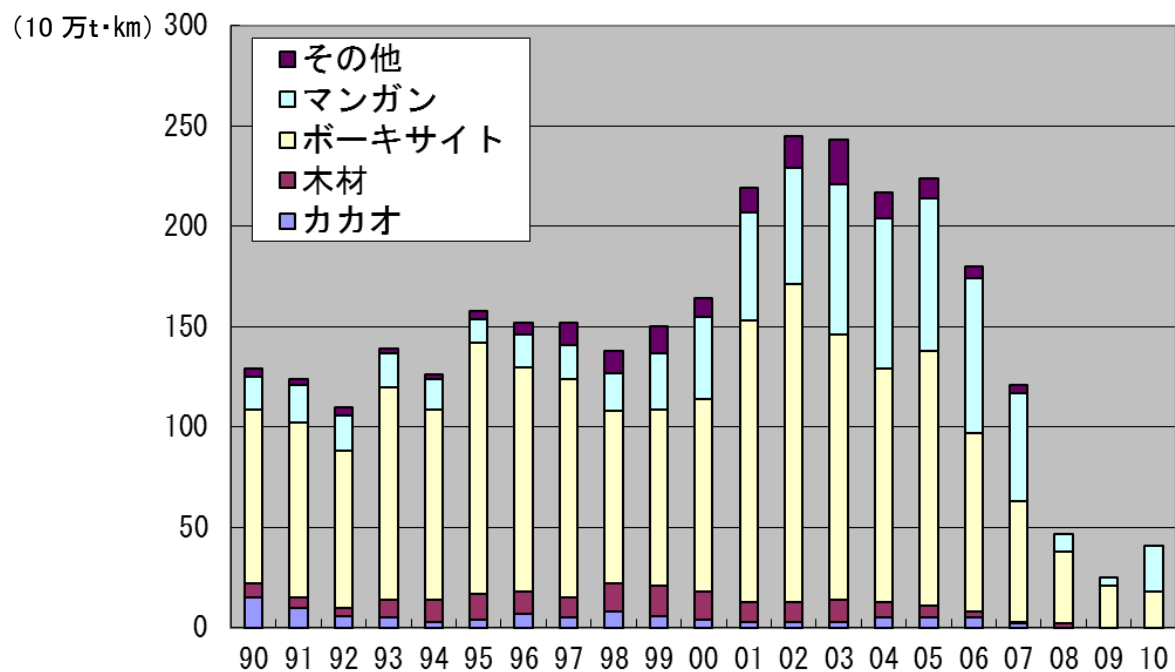


図2-6 貨物輸送推移

貨物の輸送動向は図2-5, 6のとおりであり、トンベースで見ると1990年代はほぼ横ばいであったが、1999年から急激に輸送量が上昇している。

その後2003～2005年をピークに急激に輸送量が減少しているが、2009年を底に2010年は上昇に転じている。

輸送物はマンガンが主であり、ボーキサイトがこれに続いているが、減少傾向にある。一方、トン・キロベースで貨物輸送動向を見てみると、トンベースと同様の傾向がみられるが、マンガンとボーキサイトのシェアが逆転している。

これは、ボーキサイトの産地がアワソであり、マンガンの産地であるNsutaからタコラディまでの輸送距離が長いためである。

(2) 旅客輸送

旅客輸送については、旅客数は増加と減少を繰り返しており、2010年時点は過去20年間の平均的な利用となっている。

しかし、旅客キロは長期的に低下傾向にあり、2008年から微増傾向にあるものの、1990年と比較して、10分の1程度となっている。

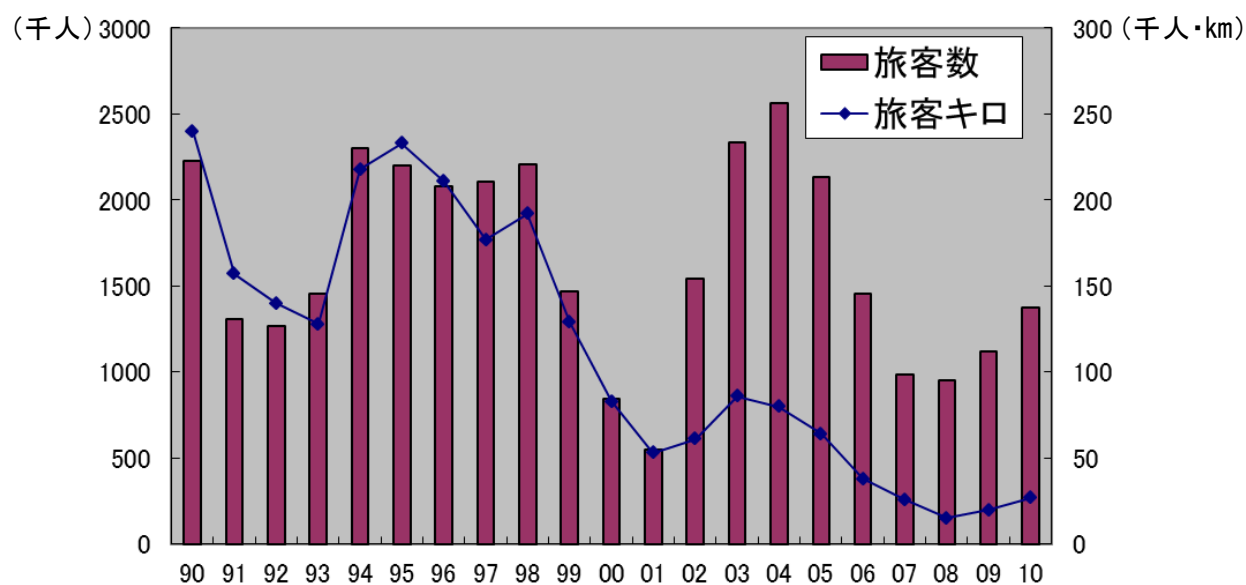


図2-7 旅客輸送推移

2-5 路盤・軌道

ガーナ国の鉄道は、1,067mm ゲージの狭軌を使用している。タコラディから Manso までの 30.6km 間は複線化されているほかは、すべて単線となっている。

ガーナ国の鉄道の技術的な基準は 1956 年 7 月に制定された「ENGINEERING MANUAL」に示されており、たとえば、土工定規は図 2-8 のとおり、まくらぎ設置間隔は図 2-9 のとおり示されている。

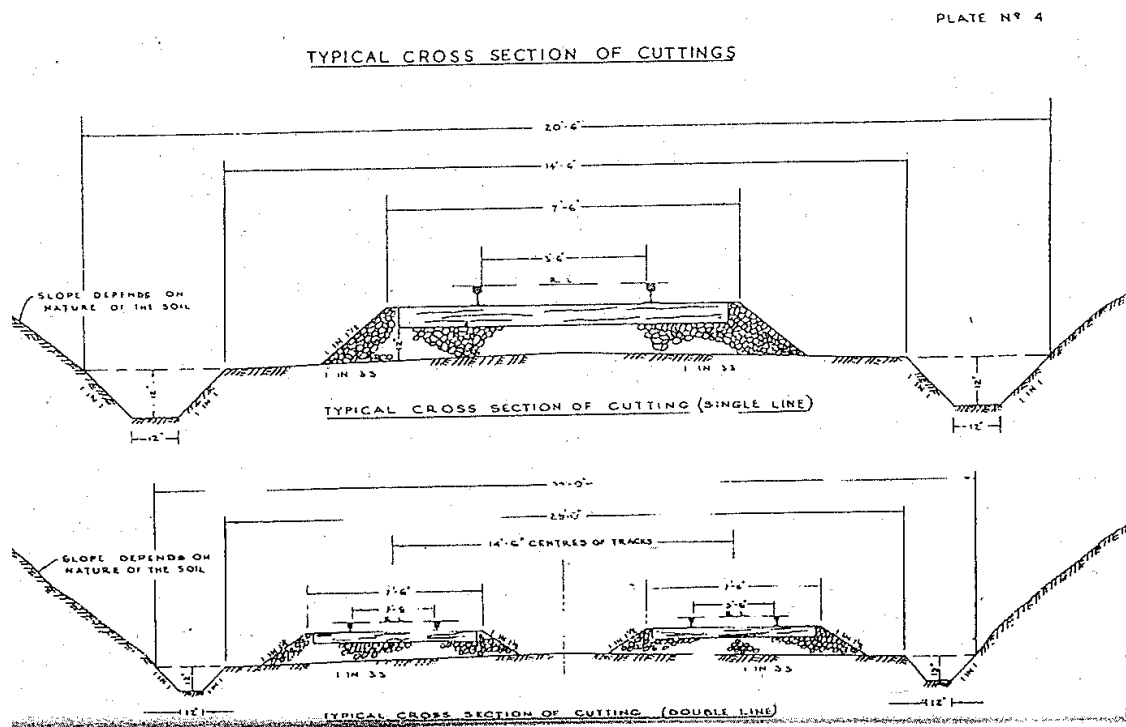


図2-8 土工定規

SLEEPER SPACING

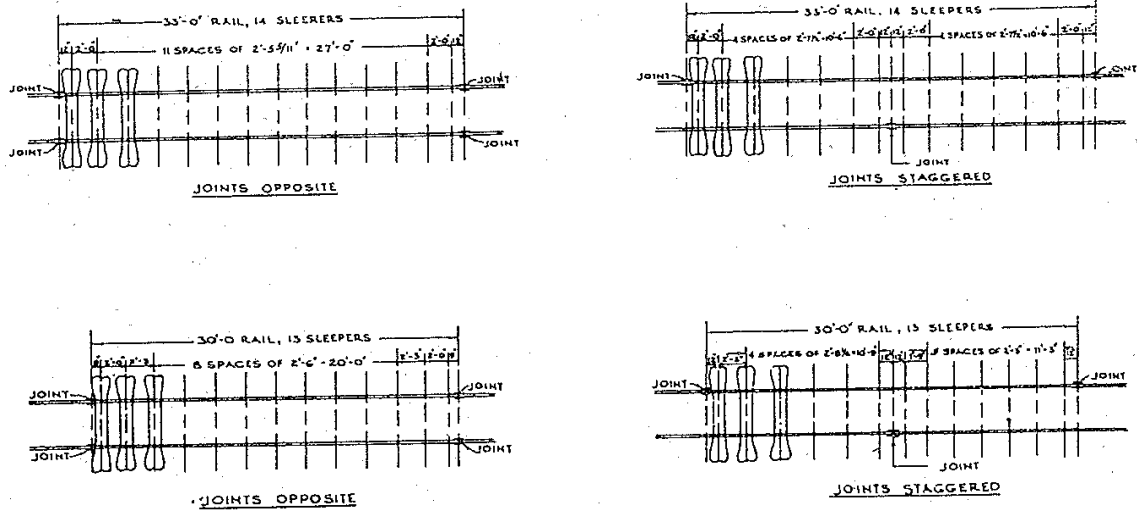


図2-9 まくらぎ設置間隔

軌道の状況については、西線のタコラディ近郊で2カ所、東線のアクラ市内で1カ所確認したのみであるが、軌道・路盤の状態は以下のとおりであった。

- ・まくらぎは基本的に木製まくらぎを使用しているが、橋りょうや踏切の前後では鋼鉄製まくらぎを使用しているところも見られる。
- ・まくらぎの状態は、目立った劣化などは見られず、設置間隔も比較的そろっている。
- ・バラストはまくらぎ間に敷かれている箇所も見られるが、噴泥化しているところも多く、土工定規で定められた形状にバラストが配置されている箇所は皆無と思われる。また、バラストがある区間でも、本来の機能を果たしているものはほとんどないものと思われる。
- ・レールの通り（特に左右）やレールの継ぎ目間隔は不適切なところが目立つ。

軌道の現場点検の実施頻度を尋ねたところ、特に行っていないとのことである。

<西 線>



レールが左右に揺れており、通りが適切でない。



継ぎ目板にレールが固定されておらず、10 cm程度の間隔が空いている（青色の手帳の長辺は16.5cm）。



噴泥化した路盤



上記箇所の左側の継ぎ目には間隔調整用のレールが挿入されている。

<東 線>



近年開業した区間でもレールの通りは適切でない。



バラストは土工定規に従って敷かれておらず、まくらぎの端部は大半が露出した状況である。



レールの固定具は極めて簡易なものである。



駅付近に設置されている標識類は「停車位置目標」のみ。

2-6 車 両

(1) 機関車 (DL)



アクラ発 Nsawam 行の旅客列車に使用されていた
1673 号機 (米国製)
(アクラ駅)



日本の ODA により導入された 1677 号機 (米国製)



マンガン輸送用の 1661 号機。軸重は 14.5 t である。
(タコラディ車両基地)



1992 年にフランス (アルストム) で製造された
2603 号機は、軸重が 16 t であり、構造物が耐え
られないため使用されていない。
(タコラディ車両基地)

(2) 客 車



アクラ発 Nsawam 行の旅客列車（アクラ駅）



構内に留置されていた 1986 年製の客車（東ドイツ製）。長らく放置されているようで、錆ついている。（タコラディ駅）

(3) ディーゼルカー



アクラ発 テマ行のディーゼルカー、2010 年中国製の車両。（アクラ駅）



ドアは車端に 2 カ所設けられている。（シャングリラホテル駅）

2-7 車両基地・車両工場

ガーナ国の鉄道には、アクラ、テマ、タコラディ、セコンディに車両工場があり、この4工場で機関車・貨車・客車の維持管理を行っている。なお、かつてはクマシにも車両工場があった。

今回は、タコラディとセコンディの車両工場を視察したが、いずれの車両工場にも、一般的な車両の維持管理に必要な一通りの機械設備や試験室はそろっていたが、1990年代に納入された機器であっても使用できなくなっている機械設備も多く、工場内の機械の維持管理が不十分であることがうかがえた。

また、工場内には、整備基準などの掲示板が掲げられていたが、日本やミャンマーなどに比べれば、具体的な維持管理基準や作業内容・手順で示した掲示は少なく、記録台帳のようなものは確認できなかった。

工場内には、米国製、ドイツ製、フランス製の機関車が留置してあったが、タコラディには軸重が重く（16t）軌道に負担をかけるため、運行中止となっているフランス製（Alstom 製）の機関車、セコンディの車両工場は事故車両や運行が不可能になった機関車が留置されていた。

TYPE	DESCRIPTION	NOMINAL VOLTAGE	PICK UP VOLTAGE	DROP OUT VOLTAGE	CONTACT GAP	CONTACT PRESSURE	RESISTANCE
HAZARD CONTACTORS							
1	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
2	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
3	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
4	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
5	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
6	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
7	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
8	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
9	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
10	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
AUXILIARY RELAYS							
1	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
2	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
3	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
4	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
5	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
6	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
7	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
8	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
9	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
10	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
REVERSER							
1	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
2	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
3	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
4	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
5	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
6	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
7	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
8	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
9	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
10	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω

メンテナンスに関する掲示例
（電圧に関するもの）

TYPE	DESCRIPTION	NOMINAL VOLTAGE	PICK UP VOLTAGE	DROP OUT VOLTAGE	CONTACT GAP	CONTACT PRESSURE	RESISTANCE
WATER TEMPERATURE SWITCH							
1	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
2	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
3	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
4	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
5	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
6	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
7	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
8	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
9	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
10	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
ENGINE SPEED INDICATOR							
1	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
2	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
3	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
4	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
5	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
6	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
7	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
8	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
9	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω
10	SPK EFK	24VDC	15VDC	10VDC	1.5-2.7mm	1.5-2.7kg	12-4-20Ω

メンテナンスに関する掲示例
（水温に関するもの）



衝突事故で廃車となった機関車
（1657号機：ドイツ製）



日本からの供与機器
（車軸研削機）

いずれの工場も職員の姿はまばらであり、実際に目にした職員数は、タコラディは 20 名程度、セコンディは 20～30 名程度であったが、1 日に稼働している機関車が 10 台未満であるため、要員としては特段少ないものではないと思われる。

2-8 信号・通信設備、踏切

過去に、信号機や踏切設備（警報機・遮断機）は設置されていたが、現在は稼働していない。信号・通信設備は稼働しておらず、携帯電話で連絡を取り合っている。

運行している列車の連絡が十分でないため、駅に停車中の列車に列車が衝突する事故が発生した事例もある。

踏切は、警報機や遮断機が残っているところも見られるが、自動化されているものはなく、幹線道路の踏切には踏切番が旗を持って立っている。



使用されていない警報機

2-9 事 故

ガーナ国鉄道の事故件数の推移は図2-10のとおりであるが、2005～2008年にかけて列車運行本数は減少しており、列車運行頻度に対する事故発生件数は大きく変化していない。

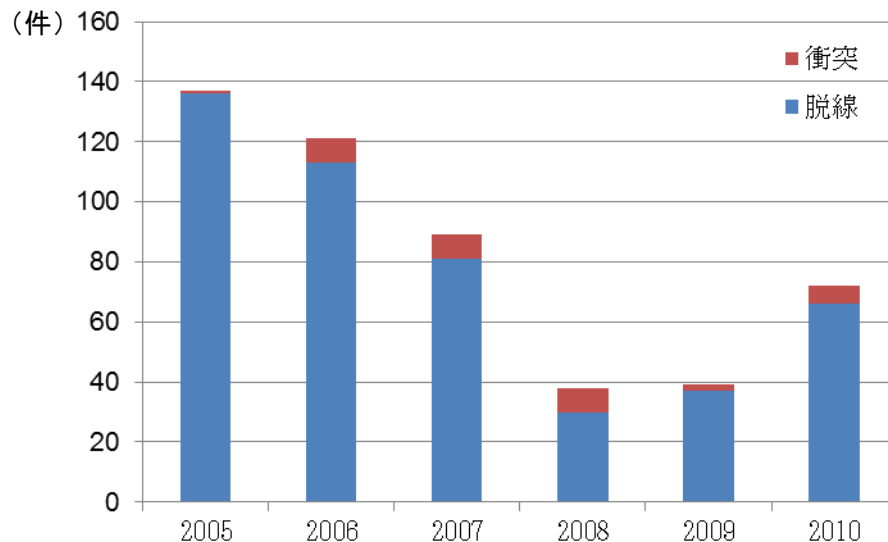


図2-10 事故件数推移

事故の根本的な原因について、GRCLは、機関車のブレーキの不具合によるものをあげており、ブレーキの利きが十分でないまま運行をしていることがあり、速度超過による脱線が多く発生しているとのことである。

また、路盤の問題として、排水が十分でないこと、噴泥化が発生していることが挙げられ、設備投資が不十分であると認識しているようであった。

なお、ガーナ国の鉄道への年間設備投資額の推移は図2-11のとおり（1ドル＝100円、1セディ＝60円として計算）となっているが、軌道・橋りょうなどの投資は、2008年までほとんど行われておらず、車両の設備投資も2007年と2009年に行われているが、いずれも本来は毎年継続して投資されるべきものであり、連続性のない貧弱な投資しか行われていない点は維持管理のうえで非常に懸念すべき問題である。

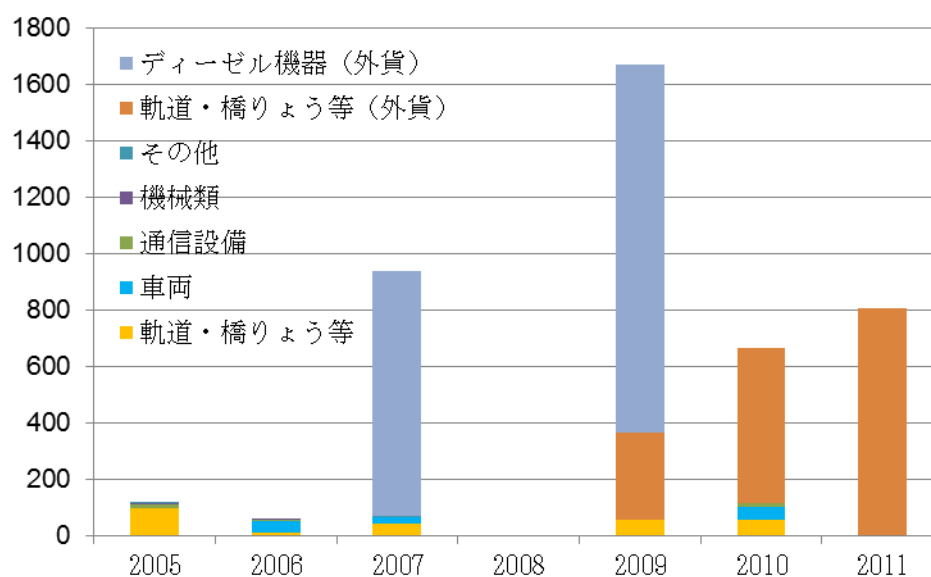


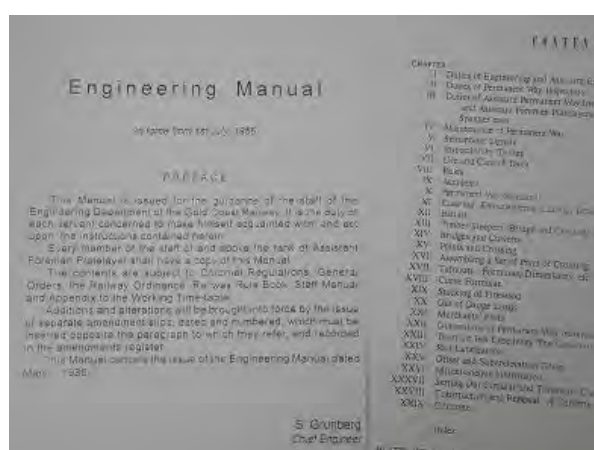
図2-11 設備投資推移 (百万円)

2-10 技術基準

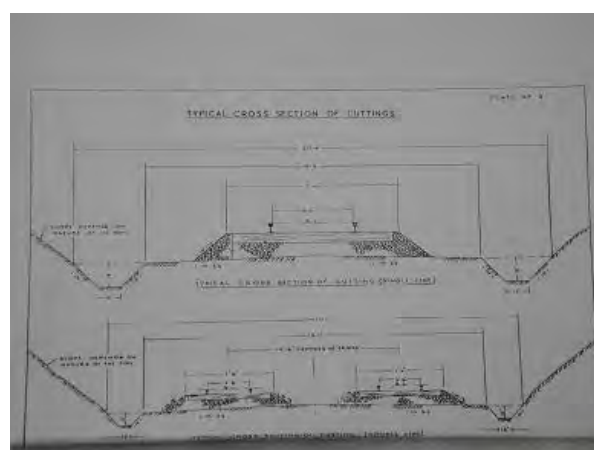
ガーナ鉄道における技術基準は 1956 年に制定されたものが現在まで変更されることなく、適用されている。

GRDA は施設を保有する組織として、鉄道の運行を担う会社（現在は GRCL のみ）の技術基準の妥当性を判断するために、基準類をもつ考えであるが、現在は 1956 年のものを使用しているところである。

ただし、路盤・軌道の状況を見る限り、この基準は遵守されていないのが実情である。



1956 年の基準が使用されている。



土工定規は定められており、バラスト幅はまくらぎの外側まで設けること、排水路を設けることなどが示されている。しかし、実際にこのような状況にはなっていない。

平面図・縦断図は、すべての区間でそろっている状況ではなく、新しい区間のものは修正されていないとのことである。逆に、設計図面に基づき工事を行っていないことがうかがえる。

2-11 他国・国際機関の支援

ガーナ国の鉄道に関連する各国の支援状況は次のとおり。

(1) 日 本

1983 年より実施されてきたガーナ鉄道修復事業の一環として、機関車・貨車、車両保守工場の設備を調達することにより、鉄道輸送力の増強を図るため、62 億 300 万円の円借款を実施している（1994 年 3 月 L/A）。

近年では、2009 年に「ガーナ国 西部地域港湾・輸送分野総合開発協力準備調査」（JICA）を実施している。

(2) 世界銀行

1990 年代の構造調整政策に関連し、ガーナ国政府公的資金支出抑制、並びに民間資金・ノウハウの活用を目的として運輸交通分野における PPP 方式導入を推進した。

ガーナ国の鉄道セクターについては、1995 年ころより民営化に向けた制度設計を支援し、これに基づき 2009 年に GRDA が設立された。

世界銀行は引き続き GRDA 組織強化に資する制度整備及び各種規則整備を実施している。なお、日本が協力する鉄道安全運行整備計画とは重複はしない。

(3) 中 国

北線・西線、ガーナ近郊線の標準軌改軌・新設並びに車両供与を行っている。

また、既存路線にディーゼルカーを投入し、運行を開始している。

(4) EU

2010 年にガーナ鉄道西線の改修及び北部延伸に係るフィージビリティスタディ（F/S）を実施している。

2-12 将来計画

ガーナでは下記の都市近郊区間の改良に取り組んでおり、現在の休止区間の再開も含んでいる。

- ① Accra ～ Tema
- ② Accra ～ Nsawam
- ③ Kumasi ～ Ejisu
- ④ Takoradi ～ Sekondi

また、在来線の近代化、ガーナ国北部・ブルキナファソ方面への延伸、標準軌化（1,435mm ゲージ化）、高速列車の導入の検討も行っている。

2-13 東線乗車記録

(1) 概要

ガーナ国の鉄道における旅客列車は、首都アクラ近郊のみで運行されているが、2011年8月18日（木）に、アクラ駅からシャングリラホテル駅（JICA ガーナ事務所徒歩5分）まで乗車した。

(2) アクラ駅

アクラ駅は、きっぷ売り場などがある三角屋根の駅舎とホーム1面からなる頭端駅である。きっぷ売り場で1セディ（約60円）のきっぷ（日本の硬券のようなもの）を購入したが、テーマまで均一運賃のようである。改札では改札員によるきっぷの確認が行われていた。



三角屋根のアクラ駅の駅舎



行き止まりとなっている頭端駅

GHANA RAILWAY COMPANY LTD			
SCHEDULE FOR ACCRA-TEMA / TEMA-ACCRA			
SUBURBAN TRAIN SERVICE			
MORNING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
06:55 hrs	08:15 hrs	07:00 hrs	08:00 hrs
06:56 hrs	08:16 hrs	07:01 hrs	08:01 hrs
EVENING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
18:00 hrs	19:10 hrs	18:05 hrs	19:05 hrs
18:01 hrs	19:11 hrs	18:06 hrs	19:06 hrs
MORNING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
06:55 hrs	08:15 hrs	07:00 hrs	08:00 hrs
06:56 hrs	08:16 hrs	07:01 hrs	08:01 hrs
EVENING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
18:00 hrs	19:10 hrs	18:05 hrs	19:05 hrs
18:01 hrs	19:11 hrs	18:06 hrs	19:06 hrs
MORNING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
06:55 hrs	08:15 hrs	07:00 hrs	08:00 hrs
06:56 hrs	08:16 hrs	07:01 hrs	08:01 hrs
EVENING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
18:00 hrs	19:10 hrs	18:05 hrs	19:05 hrs
18:01 hrs	19:11 hrs	18:06 hrs	19:06 hrs
MORNING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
06:55 hrs	08:15 hrs	07:00 hrs	08:00 hrs
06:56 hrs	08:16 hrs	07:01 hrs	08:01 hrs
EVENING SERVICE			
TEMA-ACCRA	ACCRA-TEMA	TEMA-ACCRA	ACCRA-TEMA
DEPARTS AT	ARRIVES AT	DEPARTS AT	ARRIVES AT
18:00 hrs	19:10 hrs	18:05 hrs	19:05 hrs
18:01 hrs	19:11 hrs	18:06 hrs	19:06 hrs

アクラ駅の時刻表（テマ方面のみ）

アクラからテマ方面に 1 日 3 往復、Nsawam 方面に 2 往復が運行されているが、駅に掲示されている時刻表にはテマ方面のみ列車時刻が記載されていた。この時刻表によると、朝晩、Achimota 駅と Batchona 駅にて列車交換があることがわかる。

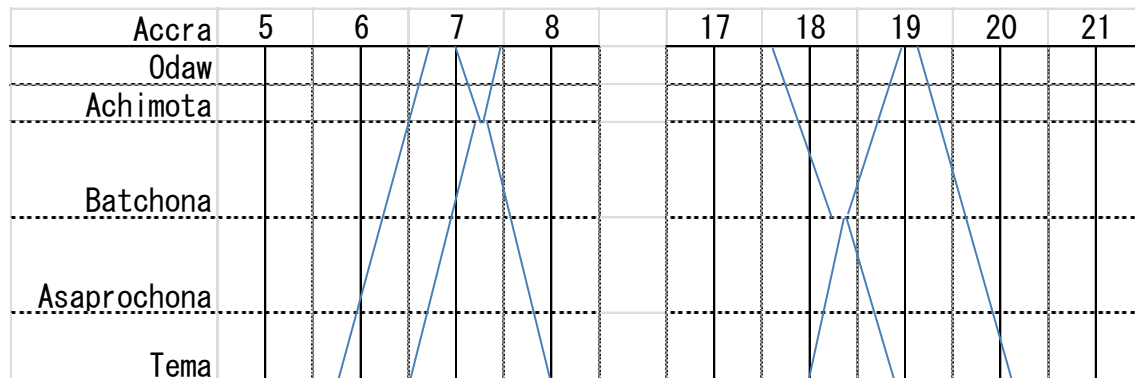


図 2－1 2 アクラ～テマ間運行ダイヤ（図 2－2 の再掲）

17 時過ぎにホームに入ると、ホーム側にテマ行 5 両編成のディーゼルカー（DMU と呼ばれている。中国製）と、隣に Nsawam 行と思われるディーゼル機関車 1 両と客車 10 両（1 等車あり）からなる列車が停車しており、いずれも既に乗車している客が見られた。

Nsawam 行の客車列車にはホームがなく、地面から直接乗降しており、このため駅構内の線路上を乗客が自由に往来していた。

駅構内は外部から鉄道利用者以外が立ち入らないよう仕切られており、係員がロープを張って仕切っていたが、実際には自由な往来が黙認されているようであった。



赤・黄・緑の三色塗装の DMU



客車 10 両を率いる 1673 号機

構内の軌道の整備状況は十分ではなく、線路上にゴミが散乱し、レール間に必要以上にバラストが盛られているところも見られた。

テマ行の DMU は 2010 年に製造されたものであり、車端前後 2 カ所にドアがあり、室内とデッキが仕切られている構造となっていた。室内のシートはロングシートとなっており、吊り輪、スタンションポールもあり、通勤輸送を意識した設計としたことがうかがえる。着

席定員は1両当たりおよそ60人分、冷房はないものの扇風機は設置されていた。

乗客はスーツ姿の者、携帯電話や新聞を見る者もあり、利用者の客層が決して低所得者ではないことがうかがえた（途上国で運賃約60円は高い部類に属する）。

17時30分、Nsawam行と思われる客車列車がドアを開けたまま出発。車両端部やドアの外側につかまり乗車している客が見られたが、1両当たり100人以上が乗車し、車内は混雑していた。10両編成であるため、1,000人程度を輸送しているものと思われる。

(3) アクラ駅～シャングリラホテル駅

テマ行は駅に掲載されていた時刻表どおり17時40分に出発した。

乗車している4両目には立客が20人程度あり、Nsawam行の客車列車ほどの混雑はなく出発した。

2駅目までは、およそ時速40km程度で走行したが、揺れはあるものの、異常な振動などは感じられなかった。

沿線はスラム街となっており、線路脇に水たまりなどが多く見られた。

途中、幹線道路と交差する踏切があり、遮断機がある踏切も見られたが、実際に遮断機は使用されておらず、赤い旗を持った踏切番が道路交通を遮断していた。

テマ行は2駅目で方向転換するが、配線の都合上、駅に停車したあと、いったんNsawam方面に列車を移動し、本線上で折返す方法をとっていた。

2駅目からテマまでは新しく整備された区間であるが、時速50km程度で走行し、先ほどまでの区間に比べ揺れは小さく、安定した走行であった。ただし、曲線部でレールのきしみ音が聞こえた。

車内の混雑状況であるが、1駅目では、4号車には20人程度の乗客があり、立客は40人程度となりやや混雑してきた（日本人に比べ体格が大きく、手荷物が大きいので、立客人数に比べ混雑しているように思えることもある）。

2駅目では更に乗客があるが、車内を歩けないほどの混雑にはならなかった。

4駅目からも降車客より乗車客が多く、都心から郊外に向かう帰宅客に利用されていることがうかがえた。

4駅目（シャングリラホテル駅）にはホームはなく、3カ所に昇降階段が設置されているのみで、健常者でなければ利用しにくい駅となっている。



シャングリラホテル駅の乗降用ステップ

(4) その他

- Nsawam 方面、テマ方面を併わせ、1 日数千人程度に利用されているものと思われる。客層は一定の所得のあるホワイトカラーが中心と思われた。
- 駅のホームが十分整備されていないため、高齢者などの乗降は安全ではない。
- 駅間は 40～50km/h 程度で一定の速度で走行しており、特段危険は感じられる揺れはなかった。
- テマ方面の新たに整備された区間の乗り心地はさほど悪くなく、この水準が当面の目標水準の目安と思われる。
- アクラ駅から 2 駅目でまでは路盤ののり尻に水たまりが目立ち、排水対策が十分ではない。
- 信号設備はまったく見られなかった（過去に設置されていた形跡も見られず）。
- テマ方面は、1 日 3 往復であるものの、列車交換が 1 日 2 回あり、また、アクラ駅から Nsawam 行とテマ行が 5 分間をおいて出発している。列車本数は少ないとはいえ、運行状況の管理は考慮する必要がある。
- 踏切には遮断機があるものも見られるが、いずれもまったく使用されておらず、幹線道路については赤い旗を持った踏切番が配置され対応している。通行量の少ない道路は、特に対策は講じられておらず、通行者の判断に任されているようである。

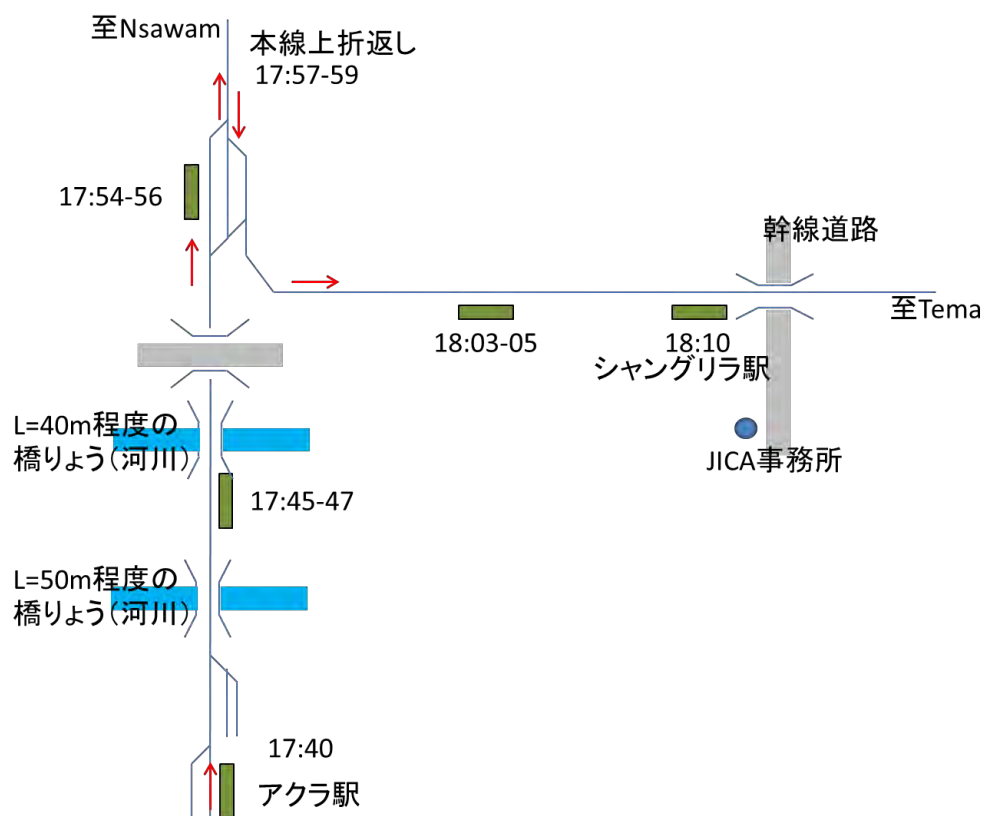


図 1 3. アクラ中心部概略図

※ガーナ国において、鉄道の写真撮影は原則禁止のようである。写真撮影の際は、事前に GRDA などの職員に許可を得ておき、職員の名刺を持参しておくことが望ましい。

第3章 プロジェクトの概要

3-1 主要協議内容

- (1) 協力開始時期はおおむね 2012 年 1 月とし、協力期間は 24 カ月を予定している。後述する世界銀行の協力がおおむね 2011 年内に終了予定のところ、これも反映して本技術協力プロジェクトを開始することが可能である。
- (2) 鉄道の安全運行は最優先課題。このため特に緊急度が高い軌道、及び車両に関する安全運行規則を策定・更新するとともに、同規則に沿った実際の活動を支援する。GRDA から信号・通信分野の基準策定の要請もなされたが、現時点では個人の携帯電話を用いた通信による運行管理を行っているにすぎない。このため他ドナーにより通信・信号設備の導入の際には本プロジェクトコンポーネントで対象とすることは可能なるも当面は軌道、車両の 2 分野に注力すべきと説明、合意が得られた。
- (3) 主なカウンターパート機関は GRDA となる。GRDA は 2009 年に設立、現時点では職員の人数は限られているものの、ガーナ国の鉄道に関するコンセッショネアーへの免許付与、運行状況モニタリング等を行う機関として、今後重要な役割を果たすことが期待されている。現在鉄道の運行・維持管理を実施している機関は GRCL であり、軌道、車両維持管理状況のレビュー対象は GRCL となる。
- (4) 現地踏査対象区間は西線の一部であるタコラディ〜アワソとする。この区間のマンガン輸送は 1 日 5 本の列車で行われている。また、ボーキサイト輸送区間は順次リハビリを行っており、改修後には列車運行が再開される予定であるところ、ガーナ国の鉄道再生の鍵を握る最重要路線と思われるからである。なお、GRDA からは現在旅客輸送を行っているアクラ〜テマ、アクラ〜ヌサワについても、対象としてほしいとの要望がなされたが、まずは西側に特化することとした。

3-2 TOR案

調査のTOR案として、以下のとおり考えている。

- (1) 事前準備及びインセプション・レポートの作成・説明・協議
 - 1) 関連資料・情報の収集・分析
 - ・ガーナの鉄道の近年の動向（運行区間、輸送状況など）、ガーナと周辺隣国における港湾の整備状況、並びに社会経済状況について、国内で把握できる範囲で情報を収集・分析するとともに、現地で調査するにあたり、収集すべき情報をあらかじめ整理する。
 - 2) 調査の基本方針、方法、工程、手順等の検討
 - ・本調査の基本方針、調査・検討等の進め方、実施機関への技術協力の方法、作業スケジュールについて検討する。
 - 3) 現地調査事前準備作業

- ・現地調査における調査項目と調査日程について検討する。
 - 4) インセプション・レポートの作成
 - ・1) ～3) を通じてインセプション・レポートを作成
 - 5) インセプション・レポートの説明及び協議等
 - ・インセプション・レポートを JICA 並びに実施機関に説明し、本プロジェクトの進め方について協議を行う。
- (2) ガーナ鉄道の現状把握と分析
- 1) 現在の保有施設の把握
 - ・平面図・縦断図、構造物台帳、車両台帳、運行記録、事故記録等の整備状況（有無を確認し、既存の資料から得られた保有施設・車両の状況を把握する。これを基に現地調査における調査項目を整理し、現地調査を実施する。
 - 2) 現在の運行・維持管理基準、方法、体制の把握
 - ・ガーナ鉄道における運転規則、運行を担当している GRDA・GRCL の組織体制（予算、経験年数、要員含む）を把握する。
 - ・鉄道施設・車両の維持管理基準、維持管理方法、維持管理を担当している GRDA・GRCL の組織体制（予算、経験年数、要員含む）を把握する。
 - 3) 変状、不具合状況の把握と原因分析
 - ・現地調査において安全な運行に支障する路盤・軌道・車両の変状、不具合発生箇所を抽出するとともに、重大性の判定を行う。なお、重大性の判定基準を現地踏査前に検討しておくこと。
 - ・現地踏査にて変状、不具合発生箇所、事故多発箇所の状況について図面・調書に記録するとともに、その事象を類型化し、原因分析を行う。
- (3) 改善目標の設定
- 1) 実施機関との現状・問題点の認識の共有
 - ・TOR2 において実施した現地踏査結果を踏まえ、今後の運行・維持管理方法を検討するにあたり、現在の鉄道施設・車両の現状と課題を実施機関と認識を共有する。
 - 2) 安全性向上に向けた目標の設定と体制の強化
 - ・1) での問題意識を共有し、安全な運行に向けて、ガーナ鉄道の現状を踏まえた上で現実的に到達可能な目標を設定するとともに、維持管理体制の強化について提言する。
 - 3) 上記のための W/S（ワークショップ）の開催
 - ・1) ～2) について、関係者間の関心を高め、現状と課題の認識を共有するとともに、目標への方向性の確認のため、ワークショップを開催する。
 - ・開催時期として 2012 年 6 月ころを想定している。
- (4) 運行・維持管理計画の策定
- 1) 運行・維持管理に関する基準、方法、体制案の作成
 - ・TOR3 にて示された目標を実現するための運行・維持管理基準、維持管理方法、維持管理体制案を作成する。なお、計画策定の際、原則として大規模な鉄道施設・車両の

改修を伴わない範囲とする。

2) 記録、再発防止策案の作成

- ・運行・維持管理を効果的、効率的に実施するために、運行・維持管理の記録のほか、変状・不具合や事故等の記録方法案を作成する。また、変状・不具合、事故については再発防止策案を作成する。
- ・維持管理上の基本となる線路平面図・配線略図などが整備されていない場合、これを作成する。
- ・線路平面図・配線略図の図面作成にあたっては国内再委託も可能とする。

3) 設備投資計画案の作成

- ・鉄道施設・車両の現状調査を踏まえ、更なる安全運行のために改修が必要と判断される構造物、車両、部位について設備投資計画案を作成する。

4) 作成案の協議、共有化

- ・1)～3)にて作成した各案について実施機関と協議を行い、(5)における現業機関への説明と訓練に向けてこの維持管理計画案を完成させる。

5) インタリム・レポート（維持管理計画（案））の作成

- ・4)を踏まえ、維持管理計画（案）を作成する。

(5) 運行・維持管理計画の実行

1) 現業機関への説明・訓練

- ・(4)にて策定した運行・維持管理計画等について、ガーナ国鉄道の現業機関の職員に実地にて習熟できるよう実地訓練を実施する。

2) プログレス・レポート（訓練結果報告）の作成

- ・1)を実施した後に、現業機関への説明・訓練の状況と本プロジェクト完了までの課題と対応策について報告書を作成する。

3) 実施状況の確認・評価

- ・1)における訓練実施から約半年後に習得状況の確認を行い、GRCLの現業機関の習得状況並びに策定した維持管理計画の評価を行う。
- ・現業機関の技術力と施設・車両の状況に応じて、持続可能な維持管理計画となるよう必要に応じて修正を行う。

(6) ファイナル・レポートの作成

1) ファイナル・レポートの作成

下記をファイナル・レポートとして完成させる。

- ・(4)の1)、2)、3)で作成した運行・維持管理マニュアル（記録方法、再発防止策案、設備投資計画案を含む）
- ・(4)の2)線路平面図・配線略図などの維持管理用図面

3-3 調査の工程

調査は2012年1月より開始し、2013年11月の終了を目処とする。

	2012												2013										
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
(1)	☐																						
(2)																							
(3)																							
(4)																							
(5)																							
(6)																							
	△ IC/R												△ IT/R			△ PR/R						△ DF/R	△ F/R

凡例

ICR：インセプション・レポート

IT/R：インテリム・レポート

PR/R：プログレス・レポート

DF/R：ドラフトファイナル・レポート

F/R：ファイナル・レポート

第4章 プロジェクト実施にあたっての留意事項

4-1 留意事項

(1) 「ガーナ」国の実施機関

ガーナ国における鉄道行政は、GRDA が鉄道の施設保有、運行免許の付与、運行状況のモニタリング等を行う機関として設立されており、同組織をカウンターパート (C/P) とする。

GRDA は現在職員 5 名程度の組織であり、既存の鉄道の運行・維持管理を行っている機関は GRCL であることから、本プロジェクトにおける路盤・軌道、車両の現状調査は現業機関をもつ GRCL と緊密に連携をする必要がある。

(2) 現行制度の確認

本調査を実施するにあたり、現在のガーナ国の鉄道が技術基準としている「ENGINEERING MANUAL」、また、今後のGRDAの組織の位置づけを把握するために「Railway Act. 779」の把握、分析を十分に行う必要がある。

(3) 他ドナーの動向及び、本調査における協調の重要性

世界銀行が GRDA 組織強化に資する制度整備及び各種規則整備を実施しているが、おおむね 2011 年内に終了予定である。また、EU が 2010 年にガーナ国鉄道西線の改修及び北部延伸にかかるフィージビリティスタディ (F/S) を実施している。さらに中国がアクラ近郊路線の整備並びに車両供与を実施しており、これらの動向をかんがみつつ、協調して効果を発揮できる支援策を提案する必要がある。

(4) 対象区間

本プロジェクトの現地調査の対象区間は西線の一部であり、現在 1 日 5 本のマンガン輸送が行われていること、ボーキサイト輸送に向けて順次リハビリを行っており、改修後には運行再開が予定されているため、西線のタコラディ～アワソ間 (約 240 k m) とする。なお、R/D 中の「MAIN POINTS DISCUSSED」に記載している Tarkwa～Prestea については、最終的に対象外とした。

(5) 信号・通信分野

GRDA からは信号・通信分野の基準策定の要請もなされたが、現時点では個人の携帯電話を用いた通信による運行管理を行っているにすぎず、本格的な信号・通信施設の導入には大規模な投資を要するので、本プロジェクトでは、対象外とすることで合意済みである。

(6) 設備投資計画案

3-2 の (4) , 3) について、本設備投資計画案はフィージビリティスタディ (F/S) レベルの計画を想定しているものではなく、改修が必要と判断される構造物や車両の抽出と、その数量規模を把握することが目的である。

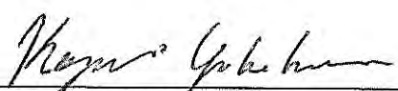
付属資料

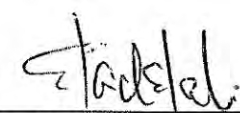
- 1 Record of Discussions on Study for Safety Operation and Management
of Railway in the Republic of Ghana (2011 年 8 月)
- 2 Railways Act. 2008 (2011 年 8 月)
- 3 Annual Transport Date (2011 年 8 月)

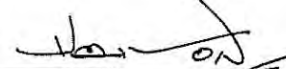
RECORD OF DISCUSSIONS
ON
Study for Safety Operation and Management of Railway
IN
the Republic of Ghana

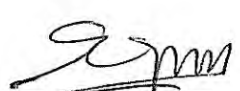
AGREED UPON BETWEEN
Ministry of Transport, Ghana Railway Development Authority
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Accra, 19 August 2011


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21

In response to the official request of the Government of the Republic of Ghana to the Government of Japan, the Japan International Cooperation Agency (hereinafter referred to as "JICA") held a series of discussions with Ghana Railway Development Authority of the Republic of Ghana (hereinafter referred to as "GRDA") and relevant organizations to develop a detailed plan of the Project on the Study for safety operation and management of railway (hereinafter referred to as "the Project").

Both parties agreed the details of the Project and the main points discussed as described in the Appendix 1 and the Appendix 2 respectively.

The effectiveness of the record of discussions is subject to the approval of JICA.

Appendix 1: Project Description

Appendix 2: Main Points Discussed



PROJECT DESCRIPTION

I. BACKGROUND

Railway network is currently operated by the Ghana Railway Company Limited (GRCL). Although total current network is about 947km, currently a part of Western line and Eastern line are operated and other sections are suspended due to deterioration of tracks, lack of operational rolling stocks etc. Volume of freight traffic were recorded 154 thousand tonnage in 2009, less than one-tenth of that in 2005. Due to lack of appropriate maintenance, the rate of accidents such as derailments, collisions per tonnage-kilometer are high.

The Republic of Ghana intends to introduce Public Private Partnership (PPP) scheme to railway sector and has established the Ghana Railway Development Authority (GRDA) in 2009 in accordance with the Railway Act 2008, Act 779. GRDA is expected to function as a regulatory body to give license and monitor the activities of railway operator(s) and developers. To set and enforce safety and security standards for the construction and operation of railways is one of the urgent issues.

JICA has conducted the survey on the port and transportation in Western part of Ghana in February, 2009 and it is recognized to support Ghana's effort to improve safety measures in railway sector.

Based on these discussions, the Republic of Ghana requested JICA for the technical cooperation on the project.

II. OUTLINE OF THE PROJECT

1. Title of the Project

The Project on the Study for safety operation and management of railway in the Republic of Ghana

2. Expected Goals which will be attained after the Project Completion

(i) Goal of the Proposed Plan

Appropriate maintenance for railway system is carried out.

(ii) Goal which will be attained by utilizing the Proposed Plan

Number of accidents, delay, and suspension of train operation is expected to be reduced.

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3. Outputs

Updated Maintenance and Operation manual for safety operation on Ghana railway system are set up.

4. Activities

- (i) To review and examine the current situation of Ghana Railway system
- (iii) To set up improvement target for maintenance of Track and Rolling stock
- (iii) To update the maintenance and operation manuals of Track and Rolling stock
- (iv) To support the implementation for the updated maintenance and operation manuals of Track and Rolling stock

5. Input

(i) Input by JICA

(a) Dispatch of Mission

JICA will dispatch the Mission consists of expert of;
Team Leader /Railway Planning,
Railway Operation,
Roadbed and Bridges,
Track,
Rolling Stock, and
Signaling and Telecommunication.

(b) Training

The Mission will conduct training in Ghana to counterparts based on draft manuals.

(ii) Input by GRDA

GRDA will take necessary measures to provide at its own expense:

- (a) Services of GRDA's counterpart personnel and administrative personnel as referred to in II-7;
- (b) Suitable office space with necessary equipment;
- (c) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
- (d) Information as well as support in obtaining medical service;
- (e) Credentials or identification cards;
- (f) Available data (including maps and photographs) and information related to the Project;
- (g) Running expenses necessary for the implementation of the Project;
- (h) Expenses necessary for transportation within the Republic of Ghana of the equipment referred to in II-7 (1) as well as for the installation, operation and maintenance thereof; and
- (i) Necessary assistance to the members of the mission for the remittance as well as utilization of the funds introduced into the Republic of Ghana from Japan in connection with the implementation of the Project

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7. Implementation Structure

The roles and assignments of relevant organizations are as follows:

(i) GRDA

(a) Assignment of personnel

Chief Executive of GRDA will be responsible for overall administration and implementation of the Project.

(b) Assignment of personnel

GRDA will assign counterpart personnel to each member of the Mission.

(ii) Other relevant organizations

(a) Ministry of Finance & Economic Planning

(b) Ministry of Transport

(c) Ghana Railway Company Limited

(iii) Members of the Mission

The member of the Mission will give necessary technical guidance, advice and recommendations to GRDA on any matters pertaining to the implementation of the Project.

(iv) Joint Coordinating Committee

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC meeting will be held whenever deems it necessary.

8. Project Site(s) and Beneficiaries

GRDA, GRCL

Passenger, Freight forwarder, Mining Companies

9. Duration

The Project will be carried out in accordance with the tentative schedule as below. The schedule is subject to change when both parties agreed upon any necessity that will arise during the course of the Project.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Activity 1																								
Activity 2																								
Activity 3																								
Activity 4																								
Report	△ C/R												△ IT/R			△ PR/R						△ DF/R		△ F/R

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10. Reports

JICA will prepare and submit the following reports to the GRDA in English.

- (i) 30 copies of Inception Report at the commencement of the first work period in the Republic of Ghana
- (ii) 30 copies of Interim Report at the time about thirteen (13) months after the commencement of the first work period in the Republic of Ghana
- (iii) 30 copies of Progress Report at the time of sixteen (16) months after the commencement of the first work period in the Republic of Ghana
- (iv) 30 copies of Draft Final Report at the end of the last work period in the Republic of Ghana
- (v) 50 copies of Final Report within two (2) month after the receipt of the comments on the Draft Final Report

Soft copy of each report will be provided.

11. Environmental and Social Considerations

GRDA agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF GRDA

1. GRDA will take necessary measures to:

- (i) ensure that the technologies and knowledge acquired by the Republic of Ghana nationals as a result of Japanese technical cooperation contributes to the economic and social development of the Republic of Ghana, and that the knowledge and experience acquired by the personnel of the Republic of Ghana from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and
- (ii) grant privileges, exemptions and benefits to the members of the JICA study team referred to in II-7 (1) above and their families, which are no less favorable than those granted to experts and members of the missions and their families of third countries or international organizations performing similar missions in the Republic of Ghana.

2. GRDA will take necessary measures to:

- (i) provide security-related information as well as measures to ensure the safety of the members of the Mission;
- (ii) permit the members of the Mission to enter, leave and sojourn in Republic of Ghana for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.



- (iii) exempt the members of the Mission from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;
 - (iv) exempt the members of the Mission from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and/or remitted to them from abroad for their services in connection with the implementation of the Project; and
 - (v) meet taxes and any other charges on the equipment, machinery and other material, referred to in II-7 above, necessary for the implementation of the Project.
3. GRDA will bear claims, if any arises, against the members of the Mission resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Mission.

IV. EVALUATION

JICA will conduct the following evaluations and surveys to mainly verify sustainability and impact of the Project and draw lessons. The GRDA is required to provide necessary support for them.

- 1. Ex-post evaluation three (3) years after the project completion, in principle
- 2. Follow-up surveys on necessity basis

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting support for the Project, GRDA will take appropriate measures to make the Project widely known to the people of the Republic of Ghana.

VI. MUTUAL CONSULTATION

JICA and GRDA will consult each other whenever any major issues arise in the course of Project implementation.

VII. AMENDMENTS

The record of discussions may be amended by the minutes of meetings between JICA and GRDA.

The minutes of meetings will be signed by authorized persons of each side who may be different from the signatures of the record of discussions.



MAIN POINTS DISCUSSED

I. Scope of the field survey

Regarding II 4 (1), both parties agreed the mission will conduct field survey on the part of Western line from Takoradi to Awaso and Tarkwa to Prestea. Based on the field survey, the Mission will set up the improvement target for maintenance of Track.

II. Counterpart personnel

Regarding II 7 (1) b, both parties agreed GRDA would inform JICA Ghana office of the name and position of the assigned counterpart personnel prior to commencement of the Project.

III. Office space

In order to make collaboration work smoothly, office space for the Mission will be located within the building of GRDA HQs.

IV. Information disclosure

Both parties agreed information related to railway in Ghana such as other donor's intention, will be shared each other in order to avoid duplication and to maximize synergy effect.

V. Information disclosure

Regarding II 5 (2) (c) and (g), both parties agreed GRDA will take necessary measures to provide mainly for Ghanaian counterparts.



ARRANGEMENT OF SECTIONS

PART ONE—GHANA RAILWAY DEVELOPMENT AUTHORITY

Establishment, functions and governing body

Section

1. Establishment of the Ghana Railway Development Authority
2. Objects and functions of the Authority
3. Ministerial responsibility
4. Governing body of the Authority
5. Functions of the Board
6. Tenure of office of members of the Board
7. Meetings of the Board
8. Disclosure of interest
9. Establishment of committees
10. Allowances
11. Further rules

Administration and staff of the Authority

12. Divisions of the Authority
13. Chief Executive Officer
14. Functions of the Chief Executive Officer
15. Appointment of other staff

Finances of the Authority

16. Funds of the Authority
17. Loans, bank accounts and investments
18. Annual budget of the Authority
19. Accounts and audit
20. Tax exemption
21. Annual report and other reports

Railway Development Fund and other provisions

22. Establishment of the Railway Development Fund
23. Object of the Fund
24. Sources of money for the Fund
25. Management of the Fund

Act 779

Railways Act, 2008

26. Charges on the Fund
27. Annual programme of expenditure from the Fund
28. Purpose of disbursement of the Fund
29. Withdrawal procedure
30. Staff of the Fund
31. Execution of contracts
32. Vesting, management and improvement of the railway assets
33. Liabilities arising from the operations of the Ghana Railway Company Limited
34. Stay of arrest in certain cases
35. Protection of officers
36. Power to obtain information
37. Confidentiality and prohibition

PART TWO—OPERATION OF RAILWAYS

Licensing and regulation of railways

38. Railway licences
39. Common or private carrier
40. Grant of licence
41. Conditions of licence
42. Condition for transfer of licence
43. Renewal of licence
44. Power to suspend, cancel or modify licence

Construction of railways

45. Construction without approval by the Authority
46. Grant of approval for construction of railway line
47. Powers in relation to natural or man-made obstacles
48. Acquisition of land for railway purposes
49. Power to enter and inspect land
50. Accommodation works on new lines of railway
51. Additional accommodation works

Railway, road and utility crossing

52. Constructions across a railway line
53. Failure to agree on construction or maintenance
54. Agreement on apportionment of costs

Running rights and joint track usage for railway companies

Act 779

Railways Act, 2008

- 82. Liability for dangerous goods
- 83. Unclaimed goods
- 84. Railway company not represented by agent

Offences relating to railway operations

- 85. Threat to safety
- 86. Other offences
- 87. Dangerous goods
- 88. Employee demanding improper amount
- 89. Neglect of duty by employee of railway company
- 90. Drunken employee on railway facility
- 91. Drunkenness on duty
- 92. Test for alcohol or drugs
- 93. Dismissal of convicted employee

Enforcement

- 94. Right to lodge complaint
- 95. Fact finding by the Authority conclusive
- 96. Time for making decisions
- 97. Monitoring of railway equipment and compensation for damage
- 98. Prohibition of Authority from operating or managing railway

Complaints, appeals and review rules.

- 99. Establishment of the Railway Complaints, Appeals and Review Panel
- 100. Power of Authority to investigate and decide on complaint
- 101. Power and procedure of the Panel
- 102. Power to request information and confidentiality
- 103. Decision of the Panel
- 104. Right to seek review
- 105. Rules applicable to review proceedings

PART THREE—MISCELLANEOUS PROVISIONS

Miscellaneous

- 106. Regulations
- 107. Interpretation
- 108. Repeals
- 109. Transitional provision



THE SEVEN HUNDRED AND SEVENTY-NINETH

ACT

OF THE PARLIAMENT OF THE REPUBLIC OF GHANA
ENTITLED

RAILWAYS ACT, 2008

AN ACT to establish the Ghana Railway Development Authority, provide
for the operation of railways and for related matters.

DATE OF ASSENT: 6th January, 2009.

ENACTED by the President and Parliament:

PART ONE—GHANA RAILWAY DEVELOPMENT AUTHORITY

Establishment, functions and governing body

Establishment of the Ghana Railway Development Authority

1. (1) There is established by this Act a body known as the Ghana
Railway Development Authority.

(2) The Authority is a body corporate with perpetual succession
and a common seal and may sue and be sued in its corporate name.

(3) The Authority may for the performance of its functions acquire
and hold movable or immovable property and may enter into a contract
or any other transaction.

(4) Where there is hindrance to the acquisition of property, the property may be acquired for the Authority under the State Property Act, 1960 (C.A. 6) or the State Lands Act, 1962 (Act 125) and the cost shall be borne by the Authority.

Objects and functions of the Authority

2. (1) The objects of the Authority are to
- (a) promote the development of railways and railway services,
 - (b) hold, administer and improve the Railway Assets; and
 - (c) promote the development and management of suburban railway.
- (2) To achieve the objects the Authority shall
- (a) implement and ensure compliance with Part Two of this Act,
 - (b) grant licences, concessions, and leases which are necessary for the operation of railways and railway services and perform other related functions including the keeping of a register of railway
 - (i) operations,
 - (ii) licensees, and
 - (iii) sub-licensees,
 - (c) exercise ownership rights over assets that are transferred to the Authority from Railway assets,
 - (d) set and enforce safety and security standards for the construction and operation of railways in accordance with this Act,
 - (e) regulate and monitor the activities of licensees, concessionaires and operators of railway,
 - (f) initiate, conduct, promote and encourage studies necessary for the growth and development of railways including the development of master plans in accordance with the Schedule to this Act and set standards,
 - (g) oversee the administration of the Railway Development Fund and ensure that the Railway Development Fund is used for the purposes set out in section 23,
 - (h) ensure collaboration with other public, private or international agencies necessary for the performance of its functions,

- (i) advise the government on railway matters generally,
- (j) subject to section 98,
 - (i) carry out any transitional function that is necessary for the growth and sustainability of railways,
 - (ii) carry out other activities incidental to its functions, and
- (k) subject to ministerial directives, perform the functions of a railway regulator.

Ministerial responsibility

3. (1) The Minister responsible for railways has ministerial responsibility for the Authority.

(2) The Minister may give directives to the Authority on matters of policy and the Authority shall comply.

Governing body of the Authority

4. (1) The governing body of the Authority is a Board consisting of
- (a) a chairperson,
 - (b) one representative each of
 - (i) the Ministry of Ports, Harbours and Railways,
 - (ii) the Ministry of Road Transport,
 - (iii) the Ministry of Finance and Economic Planning,
 - (iv) the Ghana Ports and Harbours Authority,
 - (v) the National Development Planning Commission,
 - (vi) the Ghana Chamber of Mines, and
 - (vii) the Ghana Cocoa Board,
 - (c) two persons appointed from the private sector or commerce taking gender balance into consideration and,
 - (d) the Chief Executive Officer of the Authority.

(2) The members of the Board shall be appointed by the President in accordance with article 70 of the Constitution.

Functions of the Board

5. The Board shall
- (a) ensure the efficient and effective performance of the functions conferred on the Authority under this Act,
 - (b) initiate policies for the proper management of the Authority,
 - (c) ensure the sound and proper management of the Fund set up under section 22 of this Act, and
 - (d) perform other functions that are incidental to the objects of the Authority.

Tenure of office of members of the Board

6. (1) A member of the Board, shall hold office for a period of not more than three years and is eligible for re-appointment.

(2) Subsection (1) does not apply to the Chief Executive Officer.

(3) A member of the Board may at any time resign from office in writing addressed to the President through the Minister.

(4) A member of the Board other than the Chief Executive Officer who is absent from three consecutive meetings of the Board without reasonable cause ceases to be a member of the Board.

(5) The President may by letter addressed to a member revoke the appointment of that member.

(6) Where a member of the Board is, unable to act as a member, the Minister shall determine whether the inability would result in the declaration of a vacancy.

(7) Where there is a vacancy

(a) under subsection (3) or (4) or section 8(2), or

(b) as a result of a revocation of appointment under subsection (5), or

(c) by reason of the death of a member,

the Minister shall notify the President of the vacancy, and the President shall in accordance with article 70 of the Constitution appoint a person to fill the vacancy.

Meetings of the Board

7. (1) The Board shall meet at least once every three months for the dispatch of business at the place and time determined by the chairperson.

(2) The chairperson shall at the request in writing of not less than one third of the membership of the Board convene an extraordinary meeting of the Board at the place and time determined by the chairperson.

(3) The quorum at a meeting of the Board is six members of the Board.

(4) The chairperson shall preside at meetings of the Board and in the absence of the chairperson, a member of the Board elected by the members present from among their number shall preside.

(5) Matters before the Board shall be decided by a majority of the members present and voting and in the event of an equality of votes, the person presiding shall have a casting vote.

(6) The Board may co-opt a person to attend a Board meeting but that person shall not vote on a matter for decision at the meeting.

(7) The proceedings of the Board shall not be invalidated by reason of a vacancy among the members or a defect in the appointment or qualification of a member.

(8) Subject to this section, the Board may determine the procedure for its meetings.

Disclosure of interest

8. (1) A member of the Board who has an interest in a matter for consideration by the Board shall disclose in writing the nature of that interest and is disqualified from participating in the deliberations of the Board in respect of that matter.

(2) A member who contravenes subsection (1) ceases to be a member of the Board.

Establishment of committees

9. (1) The Board may establish committees consisting of members of the Board or non-members or both to perform a function.

(2) Where a member of the Board is on a committee, that member shall be the chairperson of the committee.

Allowances

10. Members of the Board and members of a committee of the Board shall be paid the allowances approved by the Minister in consultation with the Minister responsible for Finance.

Further rules

11. The Board may make further rules in respect of

- (a) the sittings of the Board and its work, and
- (b) the manner of and procedures for dealing with matters and business before the Authority, including an application or complaint filed with it in respect of any of its functions or object.

Administration and staff of the Authority

Divisions of the Authority

12. (1) The Authority shall have divisions and units that are necessary for the efficient performance of its functions.

(2) In the setting up of divisions and units the Authority shall be guided by the need to

- (a) promote the development and planning of railways,

- (b) set and maintain high safety and security standards in all aspects of the operations of railways, and
- (c) ensure effective monitoring and compliance with this Act and related Regulations.

Chief Executive Officer

13. (1) The President shall in accordance with article 195 of the Constitution appoint for the Authority a Chief Executive Officer.

(2) The Chief Executive Officer shall hold office on terms and conditions specified in the letter of appointment and shall be appointed for a term of not more than four years but is eligible for re-appointment.

Functions of the Chief Executive Officer

14. (1) The Chief Executive Officer is responsible for the day to day administration of the affairs of the Authority and is answerable to the Board for the performance of the functions of that office.

(2) The Chief Executive Officer shall perform any other function determined by the Board.

(3) The Chief Executive Officer may delegate a function to an officer of the Authority but shall not be relieved of the ultimate responsibility for the performance of the delegated function.

Appointment of other staff

15. (1) The President shall in accordance with article 195 of the Constitution appoint for the Authority other staff that are necessary for the proper and effective performance of its functions.

(2) Other public officers and officers of State Enterprises may be transferred or seconded to the Authority or may otherwise give assistance to it.

(3) The Authority may engage the services of advisers on the ~~recommendations of the Board~~.

(4) The President shall on the recommendations of the Board appoint a secretary to the Board who shall perform such functions as the Board may direct.

Finances of the Authority

Funds of the Authority

16. (1) The funds of the Authority include
- (a) fees for licences and other charges relating to its functions,
 - (b) donations, loans and grants, and
 - (c) any other moneys that are approved by Parliament.

(2) The expenses of the Authority including remuneration of employees, allowances to members of the Board and the other administrative expenses of the Authority shall be paid by the Authority from the funds provided for the Authority under this section.

(3) Where the Authority has any amount remaining to its credit after it has made provision for

- (a) the payment of salaries, allowances and other administrative and management expenditure,
- (b) depreciation of asset,
- (c) repayment of loan, interest, and
- (d) contingency,

in any financial year, the Authority shall transfer to the Consolidated Fund a proportion of the credit that the Minister for Finance may in writing direct after consultation with the Minister and the Board.

(4) Subsection (3) does not apply to the Ghana Development Fund established under section 22.

Loans, bank accounts and investments

17. (1) Subject to article 181 of the Constitution and the Loans Act, 1970 (Act 335) the Authority may obtain loans and credit facilities that the Authority requires for the implementation of its functions.

(2) The Authority may with the approval of the Minister for Finance borrow, by way of overdraft or otherwise, sums that it may require to meet its current obligations or perform its functions under this Act.

(3) The Board may with the approval of the Minister for Finance open bank accounts that the Board considers necessary, except that a bank account opened outside the country shall be subject to article 183 (2)(b) of the Constitution.

(4) The Authority may make investments that the Board considers necessary except that any returns on investments shall be paid only into the Railway Development Fund.

Annual budget of Authority

18. (1) The Authority shall, not later than three months before the end of each financial year, cause to be prepared and submitted to the Minister for the approval of Parliament, an annual budget in respect of the ensuing financial year comprising estimates of expected recurrent and capital expenditures in that financial year.

(2) The estimates shall clearly indicate expenditure from the Fund in a separate section and indicate the purpose of the expenditure.

(3) Estimates for the Fund shall be in accordance with section 27 and comply with section 23 to 29.

Accounts and audit

19. (1) The Board shall keep books of account and proper records in relation to them in a form approved by the Auditor-General.

(2) The Board shall submit the accounts of the Authority to the Auditor-General for audit within three months after the end of the financial year.

(3) The Auditor-General shall not later than three months after the end of the financial year, audit the accounts and forward a copy of the audit report to the Minister.

(4) The Internal Audit Agency Act, 2003 (Act 658) shall apply to this Part.

(5) The financial year of the Authority shall be the same as the financial year of the Government.

Tax exemption

20. The Authority is hereby exempted from payment of tax on the chargeable income from its operations.

Annual report and other reports

21. (1) The Board shall within one month after the receipt of the audit report, submit an annual report to the Minister covering the activities and the operations of the Authority for the year to which the report relates.

(2) The annual report shall include the report of the Auditor-General.

(3) The Minister shall, within one month after the receipt of the annual report, submit the report to Parliament with a statement that the Minister considers necessary.

(4) The Board shall also submit to the Minister any other report which the Minister may require in writing.

Railway Development Fund and other provisions

Establishment of the Railway Development Fund

22. There is established under this Act a Railway Development Fund.

Object of the Fund

23. The object of the Fund is to

(a) finance the development of railways and to provide for expenditure directly related to the development of railways,

- (b) finance the development and improvement of railway assets including the development of new railways and the preservation or improvement of the value of existing assets,
- (c) defray the costs and expenses incurred by the Authority in preparing any report or master-plan, and
- (d) pay for the costs of acquiring assets.

Sources of money for the Fund

24. The sources of money for the Fund are

- (a) moneys received by the Authority from the disposal of assets,
- (b) proceeds received by the Authority from investments,
- (c) moneys provided by the Minister for Finance with the approval of Parliament for the Fund or for a specific project under the Fund,
- (d) levies approved by Parliament,
- (e) loans granted for the purposes of the Fund, and
- (f) grants, gifts and income from other sources received for the purpose of the Fund.

Management of the Fund

25. (1) The Board shall be responsible for the management of the Fund.

(2) There is hereby established a Fund Committee which shall be responsible for the day to day management of the Fund and shall be answerable to the Board.

(3) The Fund Committee shall consist of one representative of

- (a) the Ministry of Finance,
- (b) the Ministry responsible for railways, and
- (c) the Controller and Accountant-General,

who shall not be below the rank of a director.

(4) The Fund Committee shall make recommendations for the administration and management of the Fund.

(5) In furtherance of subsection (1), the Board shall

- (a) arrange for the collection of monies assigned to or receivable by the Fund,
- (b) identify additional sources of funding,
- (c) co-ordinate and ensure total accountability of the Fund,
- (d) recommend to the Minister after consultation with the Minister for Finance additional sources and level of payments into the Fund,

- (e) prepare and publish procedures for the disbursement of the Fund in consultation with the Minister of Finance,
- (f) determine the expenditure programmes from the Fund, taking into consideration the provisions of this Act and Government policy, and
- (g) perform other functions incidental to the administration of the Fund.

Charges on the Fund

26. Despite section 23 of this Act, the Fund shall be used for

- (a) the development of railway infrastructure and related matters,
- (b) railway safety activities, and
- (c) other relevant matters determined by the Board.

Annual programme of expenditure from the Fund

27. (1) The Fund Committee shall prepare for the approval of the Board, an annual expenditure programme for the Fund in respect of the following financial year.

(2) The expenditure programme shall be prepared at least three months before the end of each financial year.

(3) The annual expenditure programme shall be in a form and contain particulars determined by the Board and shall include

- (a) the relevant capital expenditure programme for the following financial year,
- (b) reasons for the expenditure in respect of each item, and
- (c) projections of cash flow into the Fund for the following financial year.

(4) The Board shall in consultation with the Minister responsible for Finance approve the annual expenditure programme to be financed from the Fund.

(5) In preparing and approving the annual expenditure programme the following shall be considered:

- (a) policy direction of the Ministry responsible for railways;
- (b) the affordability of the overall programme; and
- (c) the adequacy of the amount allocated for each item.

Purpose of disbursement of the Fund

28. Money from the Fund shall only be disbursed for works, goods and services that form part of the approved annual expenditure programme.

Withdrawal procedure

29. Money may be withdrawn from the Fund on presentation of a cheque signed by

- (a) the chairperson of the Board and the Executive Director of the Authority, or
- (b) the chairperson of the Board or the Executive Director of the Authority and the member of the Board representing the Minister responsible for Finance.

Staff of the Fund

30. The Board may assign staff of the Authority that it considers necessary for the management of the Fund and the staff shall be accountable to the Board.

Execution of contracts

31. (1) The use of the seal of the Authority shall be authenticated by the signature of the Executive Director or another member of the Board authorised by the Board to authenticate the use of the seal.

(2) The Authority may under its common seal empower any person as its attorney to execute deeds on its behalf in any place outside Ghana and a deed signed by the attorney on behalf of the Authority and under the seal of the attorney is binding on the Authority and has the same effect as if it were made under the seal of the Authority.

(3) An instrument or contract which is not required to be under a seal if executed or entered into by a person other than a body corporate may be executed or entered into on behalf of the Authority by the Executive Director or a member of the Board previously authorised by a resolution of the Board to execute or enter into that particular agreement or contract.

Vesting, management and improvement of the railway assets

32. (1) On the commencement of this Act, assets belonging to the Ghana Railway Company Limited shall vest in the Authority.

(2) The Authority shall keep and manage the assets and may make any improvements that it considers expedient to the assets in accordance with its objects.

(3) The Authority may sell, grant a concession, convey, lease, or otherwise dispose of the assets on terms and subject to conditions that the Authority considers desirable but ownership of the right of way of a line of railway, and all structures, works and other enhancements on these shall at all times remain vested in the Authority.

Liabilities arising from the operations of the Ghana Railway Company Limited

33. (1) The liabilities incurred by the Ghana Railway Company Limited or any of its predecessors to any person before the coming into force of this Act are assumed by the Authority subject to the right to transfer those liabilities or any portion of them to any party who has entered into a contract or other transaction with the Authority.

(2) The Board may advise the Minister responsible for Finance and the Minister on repayment terms in respect of debts incurred by the Ghana Railway Company Limited.

Stay of arrest in certain cases

34. Where a person authorised by the Authority is in the process of performing a function related to the safety of railways, that person shall not be arrested and removed until a substitute is provided by the appropriate officer if the removal of that person might result in danger to life or property.

Protection of officers

35. An officer or employee of the Authority or a person acting on the directive of that officer or employee is not personally liable to a civil suit for anything done in good faith for the purpose of executing this Act.

Power to obtain information

36. (1) The Authority and the Railway Complaints, Appeals and Review Panel established under section 99, may

- (a) by notice in writing, invite any person to give information in the form and manner and within the time specified in the notice, and
- (b) interview any person and require that person to furnish any particulars

that the Authority requires for the performance of the functions of the Authority under this Act.

(2) The notice shall include a general statement of the purpose for which the information or response is required.

(3) A person who

- (a) fails to respond to a request from the Authority made in accordance with this Act,
- (b) knowingly provides misleading or false response or information, or

(c) wilfully obstructs the Authority or any officer, agent or employee of the Authority in the performance of a function of the Authority
commits an offence and is liable on summary conviction to a fine of not more than two hundred and fifty penalty units or to a term of imprisonment of not more than one year or to both.

(4) Despite subsection (3), a person who
(a) knowingly provides misleading or false response or information, or
(b) wilfully obstructs the Authority in the performance of a function of the Authority in relation to safety or in respect of a railway accident or operation
that endangers or has the likelihood to endanger life or property commits an offence and is liable on summary conviction to a fine of not more than two thousand and five hundred penalty units or to a term of imprisonment of not more than ten years or to both.

Confidentiality and prohibition

37. A member of the Board, official, employee or agent of the Authority or a person whether in the private or public sector who
(a) wilfully discloses any data or information obtained under section 36 to a competitor of a railway operator or to a person not authorised to receive the information,
(b) uses the information obtained under section 36 directly or indirectly to the detriment of a railway operator or for a commercial purpose including speculation in any stock, bond or other security or any goods or services, or
(c) otherwise contravenes section 36,
commits an offence and is liable on summary conviction to a fine of not more than five hundred penalty units or to a term of imprisonment of not more than two years or to both.

PART TWO—OPERATION OF RAILWAYS

Licensing and regulation of railways

Railway licences

38. (1) A person shall not construct, manage or operate a railway, or carry a passenger or freight by railway except in accordance with a railway licence issued by the Authority.

(2) An application for a licence to construct, operate or manage a railway shall be made to the Authority.

(3) The application for the railway licence shall be in the form and be accompanied with the documents and fees determined by the Authority.

(4) The Authority may by Regulations prescribe the requirements for a railway licence.

(5) Despite Regulations made by the Authority, an application for a railway licence shall indicate

- (a) the termini and route of each line of railway proposed to be operated, and
- (b) the nature of the services to be provided by a railway company.

Common or private carrier

39. (1) A railway licence shall specify whether the company is to operate the railway as a common carrier or as a private carrier.

(2) A company which operates as a private carrier is exempt from compliance with sections 64 to 72 and 75 to 84.

(3) A company which intends to operate wholly or in part on the railway of another company or on a railway in which ownership is vested in the Authority must include in its application for a railway licence,

- (a) a list showing those portions of the railway lines which belong to the other company or which are vested in the Authority, and
- (b) a copy of a written agreement authorising the railway company to use those portions of the railway.

Grant of licence

40. (1) The Authority shall

- (a) acknowledge receipt of the application, and
- (b) within a period of not more than one hundred and twenty days of receipt of the application, inform the applicant in writing of the decision of the Authority.

(2) The Authority shall grant a licence to the applicant where it is satisfied that the railway operation in respect of which the application is made is technically suitable for the service intended to be rendered.

(3) The Authority may refuse to grant an application, where there are compelling reasons founded on technical or economic grounds, national security, public safety or other reasonable justification for doing so.

(4) Where the Authority refuses to grant an application, the reason shall be communicated to the applicant within fourteen days after the decision.

(5) A person whose application for a licence is refused may apply to the Railway Complaints, Appeals and Review Panel established under section 100 for a review of the decision.

Conditions of licence

41. (1) A licence granted by the Authority under this Act shall be subject to the conditions specified in the licence.

(2) Without limiting the effect of subsection (1) a railway licence may require the railway operator to

- (a) interconnect to another railway company or to permit the connection to its operations or facilities including stations by another railway company,
- (b) determine the tariffs, charges, terms or conditions that apply to the provision of the service as specified in the licence,
- (c) publish a notice indicating the methods that are to be adopted to determine the charges, the terms and the conditions that apply to the service provided,
- (d) pay the fees determined by the Authority to the Authority during the existence of the licence,
- (e) provide documents, accounts, estimates, returns or other information that the Authority requires to the Authority,
- (f) operate the railway in accordance with the standards of performance prescribed by the Authority, and
- (g) abide by the terms specified in the licence unless written approval is given by the Authority to do otherwise.

Condition for transfer of licence

42. A licence granted is not transferable except with the written approval of the Authority.

Renewal of licence

43. (1) A licence granted is for a period of five years in each instance and may be renewed under terms specified by the Authority.

(2) A person who desires to renew the licence shall submit an application for the renewal to the Authority not later than six months before the licence expires.

(3) The procedure for the renewal of the licence is the same as that for the grant of the original licence except that the fees for renewal shall be lower than that payable for an original licence.

(4) An operator who fails to renew the licence or whose application for renewal is rejected by the Authority shall cease to operate the railway service.

Power to suspend, cancel or modify licence

44. (1) The Authority may suspend, cancel or modify a licence with prior notice to the Minister if it has good reason for the cancellation or modification.

(2) The Authority shall not suspend, cancel or modify a licence under subsection (1) unless the Authority has given to the holder of the licence,

(a) at least a thirty working days written notice, in the case of suspension, or

(b) at least a ninety days written notice, in the case of cancellation or modification.

(3) The notice shall state

(a) that the Authority proposes to suspend, cancel or modify the licence, and

(b) the reason for the suspension, cancellation or modification of the licence.

(4) The notice shall be given

(a) by publication in a manner that the Authority considers appropriate to bring the suspension, cancellation or modification to the attention of a person likely to be affected by the notice, and

(b) by sending a copy of the notice to the railway company.

(5) On receipt of a notice, the operator may make representation to the Authority.

(6) The Authority shall consider a representation or objection made to it before the suspension, cancellation or modification is made.

(7) A person dissatisfied with a decision of the Authority in respect of section 43 or this section may apply for review to the Railway Complaints, Appeals and Review Panel in accordance with section 99 to 104.

*Construction of railways***Construction without approval by the Authority**

45. Despite the grant of a licence, a railway company shall not construct a railway line without the written approval of the Authority for the construction of the railway line.

Grant of approval for construction of railway line

46. (1) The Authority may, grant approval to construct a railway line if it considers that the location of the railway line is reasonable, taking into consideration the requirements for railway operations and services,

the interests of the localities and persons that may be affected by the line or its construction.

(2) An approval for the construction of a railway line across the railway line of another railway company shall be subject to the provisions on railway, road and utility crossings in sections 52 to 54.

Powers in relation to natural or man-made obstacles

47. (1) A railway company may exercise the following powers to construct or operate its railway

- (a) make or construct tunnels, embankments, aqueducts, bridges, roads, conduits, drains, piers, arches, cuttings and fences across or along a railway, watercourse, canal or road that adjoins or intersects the railway;
- (b) divert or alter a watercourse or the course of a road, raise or lower the course in order to move the course more conveniently across or along the railway;
- (c) make drains or conduits into, through or under land adjoining the railway for the purpose of conveying water from or to the railway ; or
- (d) divert or alter the position of a water or gas pipe, sewer or drain, telegraph, telephone or electric line, wire or pole across or along the railway.

(2) A railway company shall limit the amount of damage and make good any damage caused either directly or indirectly in the construction of a railway line.

(3) A railway company shall pay compensation for any damage caused to property in the construction of a railway line.

(4) A railway company shall not exercise its powers without

- (a) consultation with the relevant agency responsible for or connected with the construction,
- (b) the approval of other relevant authorities responsible for giving specific approval for the construction, including
 - (i) the Environmental Protection Agency in respect of an environmental permit,
 - (ii) the Water Resources Commission in respect of construction related to water courses, and
 - (iii) the appropriate district assembly in respect of a development permit, required under the Local Government Act, 1993 (Act 462).

Acquisition of land for railway purposes

48. (1) Where the Authority is satisfied that

- (a) it is necessary for a railway company to acquire a particular piece of land for the construction or operation of its railway,
- (b) the owner of land has failed to consent to the acquisition of a particular parcel of land by agreement, despite diligent efforts made by the railway company, or
- (c) there is no reasonable prospect of the land being acquired by agreement,

the Authority may take steps to acquire the land for the use of the railway company under the State Lands Act, 1962 (Act 125) and the land shall vest in the Authority but the railway company shall bear part or all of the cost of the land acquisition including the compensation payable to the owner as determined by the Authority.

(2) The minimum width of right of way, which a railway company may acquire shall unless the Authority otherwise prescribes be thirty metres.

Power to enter and inspect land

49. (1) The Authority may, enter land which is earmarked or required for the construction or operation of a railway for inspection in order

- (a) to establish the location of the railway,
- (b) mark and delimit the areas of land required for the construction or operation of the railway, and
- (c) determine the extent of the work necessary to be carried out before the acquisition of a parcel of land by agreement or by the Authority.

(2) The Authority shall exercise the power to enter and inspect land after forty-eight hours notice in writing has been given to the owner or occupier of the land.

Accommodation works on new lines of railway

50. (1) A railway company shall, during the construction of a railway or as soon as practicable after the construction, construct and maintain accommodation works for the benefit of the owners or lawful occupiers of adjoining lands.

(2) The accommodation works include

- (a) road crossings, bridges, culverts, drains or works that are necessary for the purpose of making good any interruption caused by the construction of the railway, and

- (b) works which are necessary to restore the owner or lawful occupier to quiet enjoyment of related facilities including water, electricity, telephone or other utilities from or to adjoining lands.

(3) This section does not authorise a railway company to construct or maintain accommodation works

- (a) in a manner that prevents or obstructs the proper operation of the railway,
- (b) where the owners or lawful occupiers or their predecessors in title have received compensation instead of the construction or maintenance of the accommodation works, or
- (c) after a period of five years from the date on which the railway passing through the land was first opened for the public carriage of passengers or goods.

Additional accommodation works

51. (1) If at any time, the owner or lawful occupier of land on which a railway is constructed desires accommodation works beyond what has been planned or constructed by the railway company under section 50, the owner or lawful occupier may request the railway company in writing to construct the accommodation works

- (a) agreed on between the railway company and the owner or lawful occupier, or
- (b) if no agreement is reached, as determined by the Authority.

(2) The cost of constructing or maintaining the additional accommodation works shall

- (a) except for road crossing or utility crossing be borne by the owner or lawful occupier who requires them, or
- (b) with respect to road crossing or utility crossing be borne
 - (i) by the appropriate utility or road agency that requires them,
 - (ii) by the railway company, or
 - (iii) in a manner determined by the Authority.

(3) Where the additional works required by the owner or lawful occupier of land or an appropriate authority are as a result of the insufficiency of the works undertaken by the railway company, then the cost shall, be borne by the railway company as determined by the Authority.

*Railway, road and utility crossings***Constructions across a railway line**

52. (1) A person shall not

- (a) construct a railway line across the railway line of another railway company, or
- (b) construct a road or utility line across a railway line, or
- (c) alter
 - (i) a railway line to make that railway line cross the railway line of another company, or
 - (ii) a road or utility line to make that road or that utility line cross a railway line

without the prior approval in writing of the railway company whose railway line is to be crossed and without an express approval issued by the Authority which permits the construction or alteration.

(2) Where the railway company whose line is to be crossed fails to give its consent, the Authority may grant approval if it is of the opinion that the construction or alteration of the line is in the public interest.

Agreement on construction or maintenance

53. If a person is not successful in negotiating a written agreement with a railway company for the construction, alteration or maintenance of a railway, road or utility crossing, then the Authority may, authorise the construction, maintenance or alteration of the railway, road or utility crossing on application.

Failure to agree on apportionment of costs

54. (1) If a person is not successful in negotiating a written agreement with a railway company in relation to

- (a) the apportionment of the costs of construction,
- (b) alteration or maintenance of a railway, or
- (c) road or utility crossing,

the person or the railway company may refer the apportionment of liability for the construction or maintenance costs of the railway, road or utility crossing to the Authority for determination.

(2) The referral may be made either before or after the construction, alteration or maintenance of the crossing begins.

(3) Where the Authority is to adjudicate a referral, the Authority shall take into consideration,

- (a) the relative benefits that the person requesting the crossing and the railway company stand to gain from the crossing, and

(b) any other factor that it considers relevant in the circumstances to determine the proportion of construction, alteration or maintenance costs to be borne by each party.

(4) A person dissatisfied with a decision of the Authority under section 53 and this section may apply to the Railway Complaints, Appeals and Review Panel for a review of the decision.

Running rights and joint track usage for railway companies

Running rights and joint track usage

55. A railway company may in furtherance of the provision of railway services apply to the Authority for the right to

- (a) take possession of, use or occupy land which belongs to another railway company,
- (b) use the whole or any portion of the right-of-way, tracks, terminals, stations or station grounds of another railway company, or
- (c) run and operate its trains over and on any portion of the railway of another railway company.

Grant of approval

56. (1) The Authority may grant the right under section 55, in the public interest and may make an order and impose a condition on either or both railway companies with respect to the restriction of the right as may appear just or desirable.

- (2) Where the right is granted to a railway company
 - (a) the railway company to whom the right is granted shall pay compensation to the other railway company for the right granted,
 - (b) the Authority may, fix the amount to be paid by order, if no agreement is reached on the compensation,
 - (c) where a railway company is dissatisfied with the amount fixed by the Authority, that company may appeal to the Railway Complaints, Appeals and Review Panel.

Safety

Power of railway company to enter land adjoining railway line

57. (1) A railway company may, in order to prevent a threat to safe railway operations or to restore safe railway operations,

- (a) enter land adjoining the land on which the railway is situated, if no other reasonable access to the railway line is available, to maintain or alter railway works, a road crossing or utility crossing or remove obstructions to them, or

(b) enter adjoining land at any reasonable time, on giving notice in writing to the owner or lawful occupier of the adjoining land, to cut down trees or bush that are likely to threaten safe railway operations.

(2) The railway company shall within seven days of exercising its power under subsection (1) notify the Authority of the specific action taken and the circumstances which led to it.

(3) The Authority may take any appropriate action to

(a) prevent a threat to life or property,

(b) ensure the safety and security in relation to railway construction, operations and management, and

if it is convinced that a railway company has neglected to take the appropriate action or has not done so to the satisfaction of the Authority.

(4) Where the Authority takes action, the cost of the action shall be paid by the railway company responsible for the neglect or unsatisfactory action.

(5) A railway company dissatisfied with the action, decision or reimbursable amount fixed by the Authority may appeal to the Railway Complaints, Appeals and Review Panel.

Compensation

58. (1) Where the owner or lawful occupier of adjoining land suffers a loss because a railway company has exercised a power conferred by section 57, the railway company shall pay compensation to that owner or lawful occupier in respect of that loss.

(2) If the railway company and the owner or lawful occupier are unable to reach an agreement on the quantum of compensation, the matter shall be referred to the Authority for determination.

(3) The payment of compensation shall not be a condition precedent to the exercise of the power under section 57.

(4) The Authority shall ensure that any compensation due is paid to the person who has suffered the loss.

Regulations for construction, alteration, maintenance and others

59. The Minister may by legislative instrument make Regulations for the construction, alteration, maintenance, safety or operation of railway works, road crossings, utility crossings, and the maintenance and operation of railway equipment.

Appointment of Railway Safety and Security Inspectors

60. (1) Subject to section 15, the Authority shall appoint Railway Safety and Security Inspectors from among its staff.

(2) The Authority shall prescribe the qualification of a Railway Safety and Security Inspector.

(3) Notice of the appointment of each Railway Safety and Security Inspector shall be published in the *Gazette*.

(4) A Railway Safety and Security Inspector shall

- (a) enforce this Act and the Regulations made under this Act, and
- (b) perform any other function that the Authority directs in relation to the safety and protection of passengers or goods carried by railway.

Powers of Railway Safety and Security Inspector

61. (1) A Railway Safety and Security Inspector may

- (a) enter, inspect and examine the premises of a railway company at reasonable times,
- (b) interrogate and take written statements from an employee or agent of a railway company,
- (c) make inquiries regarding the state and condition of a building, railway works, railway equipment or other things used, or intended to be used for, or in connection with the carriage of passengers or freight by railway, and
- (d) by notice in writing addressed to the railway company require an employee or agent of the railway company
 - (i) to appear personally to provide answers to inquiries that the inspector may make from the employee or agent, or
 - (ii) to submit returns determined by the Inspector.

(2) A Railway Safety and Security Inspector is not personally liable for an act or omission in good faith by that Inspector in the exercise of the powers of an Inspector under this Act.

Accident

Reporting of railway accidents

62. (1) Where an accident occurs in the course of the operations of a railway company that railway company shall immediately report the accident to the Police and give notice of the accident to the Authority.

(2) In this section and section 63, 'accident' means an unexpected and unpleasant event that

- (a) causes harm or injury to a person or damage to equipment or property as a result of railway operations,

- (b) affects the safety and security of a person or property connected to railway operations.

Inquiry into an accident

- 63. (1) The Authority may order an inquiry into an accident.
- (2) Expenses incurred in connection with an inquiry shall be paid in equal shares by
 - (a) the Authority, and
 - (b) the railway company on whose railway the accident occurred.

Tariffs and rates

Rates to be charged

- 64. Subject to section 69, a railway company shall charge the rate for the carriage of passengers or freight that is set out in a tariff approved by the Board and issued and published by that railway company.

Minimum information on tariff

- 65. The following information shall be included in a tariff:
 - (a) a statement of the rates, in local currency for each
 - (i) designated unit of weight or volume, for each type of freight,
 - (ii) service rendered, or
 - (iii) passenger;
 - (b) a brief description of the category of traffic that is transported;
 - (c) the point of origin and point of destination of any traffic;
 - (d) a description of the route over which a rate applies, or a reference to a routing guide to describe that route;
 - (e) the date of issuance, commencement and expiration of the tariff;
 - (f) terms and conditions of the tariff or an explanation with reference to where the terms and conditions can be found; and
 - (g) an explanation of the symbols or abbreviations used in the tariff.

Other requirements in relation to tariff

- 66. (1) A railway company shall publicly display in a prominent manner the applicable tariff in conspicuous writing at its offices and railway stations.

(2) A railway company shall provide a copy of the tariff, or any portion of it, to any person who requests for it and pays a fee which shall not be more than the cost of making the copy.

(3) A railway company shall keep a record of the tariff for at least three years after its cancellation.

(4) Where a railway company proposes to increase its rates in a tariff for the carriage of freight and passengers the company shall publish a notice of the increase at least twenty-one days before the effective date of the increase.

(5) The notice of the increased rate shall be displayed in conspicuous writing and in a prominent manner in a public place at the offices and railway stations of the company.

Request for tariff by shipper

67. (1) A railway company shall issue a tariff in respect of the movement of traffic on its railway line at the request of a shipper, not later than thirty days after the request.

(2) If traffic is to move over a continuous route and portions of the route are operated by two or more railway companies, the companies shall, agree on a joint tariff for the continuous route and on the apportionment of the rate in the joint tariff.

Compensation to shipper for providing own railway equipment

68. Where a shipper provides railway equipment for the carriage by a railway company of the shipper's traffic, the railway company shall, at the request of the shipper, establish in the tariff specific compensation for the provision of the railway equipment by the shipper.

Confidential contract for the carriage of traffic

69. A railway company may enter into a contract with a shipper to keep confidential.

- (a) the rates that the railway company charges the shipper,
- (b) the reductions or allowances pertaining to rates and tariff that have been issued and published in accordance with this Act,
- (c) rebates or allowances pertaining to rates in tariff or confidential contracts that have previously been lawfully charged,
- (d) conditions relating to the traffic to be moved by the railway company, and
- (e) the manner in which the railway company fulfils its service obligations.

Discrimination among shippers with respect to rates and conditions of service

70. (1) Subject to subsection (2) a railway company shall not unjustly
- (a) discriminate among shippers or a class of shippers,
 - (b) give undue or unreasonable preference to a shipper or a class of shippers, or
 - (c) subject a shipper, or class of shippers to unreasonable disadvantage, in terms of rates charged or services rendered.
- (2) A railway company may implement policies that differentiate shippers or classes of shippers on the basis of the volume or value of goods shipped or on any basis that is generally accepted by commerce and industry.

*Matters incidental to carriage of passengers***General right of persons to be carried as passengers**

71. A person who has tendered to an authorised employee of the railway company the proper fare for a ticket, is entitled to obtain that ticket and to be carried as a passenger by the railway company in accordance with the conditions subject to which that ticket is issued, if

- (a) there is room available in the train or vehicle of the class for which that ticket is issued,
- (b) in the opinion of the authorised employee of the railway company the person who tendered the fare for a ticket does not appear to be
 - (i) suffering from mental disorder,
 - (i) suffering from contagious or an infectious disease, or
 - (ii) under the influence of alcohol or drugs to an extent that is likely to be a nuisance or cause injury to other persons, and
- (c) the person who tendered the fare for the ticket has not contravened the conditions of carriage for passengers including restrictions
 - (i) that may be imposed by the company, and
 - (ii) relating to the carriage of loaded firearms and offensive weapons.

Conditions of carriage of luggage

72. (1) A passenger who pays the appropriate tariff rate may deliver the luggage of that passenger to an authorised employee for carriage by the railway company in the appropriate part of the train or railway vehicle and obtain a receipt for the luggage delivered.

(2) Luggage shall be carried by a railway company on conditions made known to the passenger and the conditions shall include the provision that

- (a) unless the luggage is delivered to an employee of the railway company for carriage the luggage is carried at the risk of the passenger, and
- (b) the provisions in this Act in respect of the carriage of goods apply.

Liability of a railway company to a passenger in respect of accident

73. (1) A railway company is liable for loss or damage suffered because of the death of, personal injury to, or any other bodily or mental harm to a passenger caused by an accident through

- (a) the operation of the railway, or
- (b) the want of care, diligence and skill on the part of its employees

where the passenger is in, entering or alighting from a train or a railway vehicle.

(2) A railway company is liable for loss or damage from the total or partial loss of luggage and personal articles belonging to an accident victim.

(3) Despite subsections (1) and (2), a railway company is not liable if the loss, damage, death, injury or harm resulted from circumstances arising from the fault of the injured party or to circumstances over which the railway company has no control.

Delay to passenger

74. A railway company is not liable for loss from the delay to a passenger caused

- (a) by the failure of a train or vehicle to start or complete a journey, or
- (b) by the late start or late arrival of a train or vehicle.

Matters incidental to the carriage of goods

General duties of a railway company as a carrier of goods

75. (1) A railway company which receives payment of the rate for traffic shall provide adequate and suitable accommodation

- (a) to receive and load the traffic offered for carriage on the railway,
 - (i) at the point of origin,
 - (ii) at the junction of the railway with another railway,
 - (iii) at all stopping points established for that purpose, and

(b) for the carriage, unloading and delivery of the traffic and shall receive, carry and deliver the traffic.

(2) The railway company, on receipt of the payment of the rate for traffic shall provide

(a) and use proper appliances, and other necessary means to receive, load, carry, unload and deliver the traffic; and

(b) any other service incidental to transportation that is customary with the business of a railway company.

(3) A railway company shall provide the services specified in subsections (1) and (2) despite the fact that the rate for the traffic has not been paid, if there is an agreement which permits payment for the traffic to be made after the delivery of the service between the railway company and the person who submits the traffic.

(4) A railway company is exempted from the performance of its obligations under subsection (1) where

(a) the shipper does not comply with the conditions set out in the applicable tariff, or

(b) carriage is prevented by circumstances which the railway company cannot avoid and which the railway company is not in a position to remedy.

Liability of a railway company in respect of goods

76. (1) A railway company is not liable, for loss of or damage to goods in its possession or for the delay in the transportation of the goods if the loss or damage is as a result of

(a) an act of God,

(b) an act of war or an act of an enemy of the Republic,

(c) orders or restrictions imposed by the Government or a department or agency of the Government,

(d) riots or civil disorder,

(e) a defect in the goods, or

(f) any act, negligence or omission of the shipper or owner of the goods.

(2) Despite subsection (1), a railway company is liable for the loss of or damage to goods that occurs during the transportation of the goods if the loss or damage is as a result of the negligence or recklessness of the railway company.

(3) The loss of or damage to goods include

(a) shrinkage, and

(b) the differences in weight of grain, seed or any other commodity caused by natural causes.

(4) Subject to subsection (5), where goods are transported, stored or held in open cars in accordance with general practice or at the shipper's request, the railway company is liable only for

(a) loss of or damage to those goods, or

(b) the delay in the transportation of those goods caused by the negligence of the railway company.

(5) If the goods are lost or damaged because of fire, the railway company's liability is the same as for goods that are transported in closed cars.

(6) The onus of proving that there was no negligence in respect of goods is on the railway company.

Notice of loss, damage or delay

77. A railway company is not liable for the loss of or damage to or delay in the delivery of goods unless a written notice of the loss or damage is received by the originating railway company or delivering carrier within one hundred and twenty days after the delivery of the goods.

Stoppage in transit

78. (1) A railway company is not liable for loss of or damage to goods or for delay that occurs while goods are stopped and held in transit at the request of a person who is entitled to make the request except where a railway company is negligent.

(2) The onus of proving that there was no negligence or delay in respect of the goods while the goods were held in transit is on the railway company.

Liability of originating railway company

79. (1) Where the transportation of goods involves more than one carrier, an originating railway company is liable for loss of or damage to goods or for delay in respect of the goods while the goods are in the possession of another carrier to whom goods have been delivered.

(2) The onus of proving that loss of or damage to goods or delay in respect of goods was not caused by an act, negligence or omission of a carrier to whom the goods have been delivered is on the originating railway company.

(3) The originating railway company may recover from another carrier the amount paid by the originating railway company in respect of liability for loss of or damage to goods while those goods were in the possession of that other carrier.

(4) Nothing in this section limits or affects a remedy or right of action a person may have against a carrier.

Valuation for loss or damage to goods

80. (1) The amount of loss of or damage to goods for which a railway company is liable in respect of the transportation of goods shall be determined by the computation of

- (a) the market value of the goods at the time of their shipment,
- (b) other costs incurred including freight,
- (c) other charges that affect the value of the goods, if paid,
- (d) the customs duties if paid or payable and not refundable,
- (e) the value represented in writing by the shipper,
- (f) the value agreed to by the railway company and the shipper, and
- (g) the value determined in accordance with the tariff classification of the goods on which the rate is based.

(2) Despite subsection (1), the Authority may by Regulations, set out the limit on liability for loss of or damage to goods where the value of the goods is not declared.

Goods of extraordinary value

81. A railway company is not liable for the loss of or damage to goods of extraordinary value that the railway company transports if the shipper of the goods does not disclose in writing the value of the goods to the railway company or the railway company's agent before shipping.

Liability for dangerous goods

82. (1) A railway company is not liable for loss or damage caused to explosives or other dangerous goods, if the shipper of the goods does not disclose in writing to the railway company or the railway company's agent the nature of the goods before shipping.

(2) Despite subsection (1), the railway company and the shipper are jointly and severally liable to third parties for loss or damage caused by explosives or other dangerous goods carried by the railway company and it is for the railway company to seek compensation from the defaulting shipper after it has compensated the third party.

Unclaimed goods

83. (1) Where goods come into the possession of the railway company for carriage or otherwise and are not claimed by the owner or other person who appears to the railway company to be entitled to the goods, the railway company shall cause a notice in printed or electronic form to be served on that owner or person requiring that owner or person if known to remove the goods.

(2) Where

- (a) that owner or person is not known,
- (b) the notice cannot be served on that owner or person, or
- (c) that owner or person does not comply with the notice,

the railway company may within a reasonable time sell the goods in accordance with the commercial value and shall pay to the person legally entitled to the payment any surplus remaining after the deduction of the sum due to the railway company and expenses incurred by it in connection with the sale of the goods.

(3) Where the person entitled to receive the goods or notice is known or the railway company is in a position to serve notice on the person entitled to receive the goods, the railway company shall not sell the goods unless at least five working days have elapsed since the notice was served on the person entitled to the goods or notice.

Railway company not represented by agent

84. (1) Where a railway company transports goods in carloads from a private siding, station, wharf or landing at which there is no agent of the railway company, the goods are at the risk of the owner until the railway company removes the car from the private siding, station, wharf or landing and after that, the goods are at the risk of the railway company.

(2) Where a railway company transports goods in carloads to a private siding, station, wharf or landing at which there is no agent of the railway company, the goods are at the risk of the railway company until the goods are placed on the delivery siding at the private siding, station, wharf or landing.

Offences relating to railway operations

Threat to safety

85. (1) A person

- (a) whose wilful, negligent, reckless conduct or omission
 - (i) obstructs or causes any train or vehicle using a railway line, to be obstructed, or

- (ii) endangers or causes the safety of a person in or on a train or vehicle using a railway line, to be endangered, or
 - (b) who aids, assists, counsels or procures the act or omission under paragraph (a)commits an offence and is liable on summary conviction to a fine of not more than two thousand and five hundred penalty units or to a term of imprisonment of not more than ten years or to both.
- (2) A person who, intentionally
 - (a) uses any material,
 - (b) does any work, or
 - (c) conceals any defect,in relation to railway that endangers or is likely to endanger the safety of a person who
 - (d) uses the railway, or
 - (e) who is on board a train or any vehicle which uses the railway,commits an offence and is liable on summary conviction to a fine of not more than two thousand and five hundred penalty units or to a term of imprisonment of not more than ten years or to both.
- (3) A person who intentionally or negligently supplies for use on board a train or in connection with a railway, stores or instruments
 - (a) of inferior quality, or
 - (b) in a condition which makes them unfit for the purposes for which those stores or instruments are supplied,and which are likely to endanger life, commits an offence and is liable on summary conviction to a fine of not more than seven hundred and fifty penalty units or to a term of imprisonment of not more than three years or to both.
- (4) A person who in relation to a railway
 - (a) knowingly causes the safety of an engine, carriage, or train to be endangered, with intent to cause harm or danger to a person, or
 - (b) carries out or assists in an act of terrorism on a train or in connection with railway operationcommits an offence and is liable on trial by indictment to a term of imprisonment of not less than seven years.
- (5) A person who unlawfully interferes with or obstructs the working of a signal, or other apparatus or thing which is used or maintained for the safety of railway operation, commits an offence and is liable on summary

conviction to a fine of not more than seven hundred and fifty penalty units or to a term of imprisonment of not more than three years or to both.

Other offences

86. (1) A person who unlawfully

- (a) places, or throws wood, stone or other matter or thing, on or across a railway line,
- (b) removes or displaces a rail, sleeper or other matter or thing connected to a railway line,
- (c) removes or diverts points or other machinery belonging to a railway company,
- (d) makes or shows, hides or removes a signal or light on or near to a railway line,
- (e) does or causes to be done any thing with intent to
 - (i) obstruct, upset, overthrow, damage or destroy a train or vehicle which uses a railway line, or
 - (ii) endanger the safety of a person travelling by railway,
- (f) throws or causes wood, stone or other matter to fall or strike at, against, into or on a train or vehicle used on a railway line with intent to injure or endanger the safety of a person on the train or vehicle,
- (g) sets fire to, destroys or damages
 - (i) a railway track, or rail and attachments laid on the railway track or rail,
 - (ii) a station, engine house, warehouse or other building, or
 - (iii) a train, or vehicle

which belongs to or is part of the railway, or

- (h) sets fire to any matter or thing which is against or under a building, train or vehicle belonging to a railway company

commits an offence and except as provided in subsection (2) is liable on summary conviction to a fine of not more than two thousand and five hundred penalty units or to a term of imprisonment of not more than ten years or to both.

(2) A person who commits an offence under subsection (1) (b), (e) or (g) is liable on trial by indictment to a term of imprisonment of not less than seven years.

- (3) A person who
- (a) enters or leaves or attempts to enter or leave a train while it is in motion, or opens an outer door of a coach on a train while it is in motion,
 - (b) at any time enters or leaves or attempts to enter or leave a train otherwise than by the door provided for the purpose on the side of the train adjacent to the platform or any other similar place appointed by the Authority,
 - (c) travels in the part of a train not intended for the use of passengers, or
 - (d) spits on the floor of a carriage or compartment of a train, or on a station building or public place on a railway,

commits an offence and is liable on summary conviction to a fine of not more than two hundred and fifty penalty units or to a term of imprisonment of not more than twelve months or to both.

Dangerous goods

87. (1) A person who

- (a) takes explosives or other dangerous goods on to a train or vehicle of a railway company, or
- (b) delivers explosives or dangerous goods to a railway company for carriage or warehousing,

and who fails to disclose possession of the explosives or dangerous goods, commits an offence and is liable on summary conviction to a fine of not more than two thousand and five hundred penalty units or to a term of imprisonment of not more than ten years or to both.

(2) A person who is convicted of an offence under this section is also liable for the loss, injury or damage caused because of the goods being taken on the train or vehicle or delivered to the railway company for carriage or warehousing.

Employee demanding improper amount

88. An employee of a railway company who demands, solicits or receives a greater or lesser amount than that charged by the railway company for the service or other thing of value

- (a) from a passenger or shipper delivering goods to the railway company for carriage or warehousing,
- (b) from a person making use of the facilities provided by the railway company,

commits an offence and is liable on summary conviction to a fine of not more than two hundred and fifty penalty units or to a term of imprisonment of not more than one year or to both.

Neglect of duty by employee of railway company

89. (1) An employee of a railway company who causes, aids or abets a situation

(a) which leads to or is likely to lead to the occurrence of a derailment or to a collision of a train or vehicle of a railway company, or

(b) in which the safety and security of a person travelling by or working on the railway is or is likely to be endangered,

commits an offence and is liable on summary conviction to a fine of not more than two thousand and five hundred penalty units or to a term of imprisonment of not more than five years or to both.

(2) An employee of a railway company who

(a) refuses or willfully neglects to carry out that employee's duties,

(b) carries out that employee's duties recklessly or with gross negligence, or

(c) willfully disregards a regulation, lawful order, directives or rules applying to or given to that employee,

shall be subject to disciplinary proceedings by the railway company.

Drunken employee on railway facility

90. An employee of a railway company who is found to be under the influence of alcohol or a narcotic drug while on duty

(a) on a train or vehicle of the railway company, or

(b) on a railway engine or in a guard's van,

commits an offence and is liable on summary conviction to a fine of not more than two hundred and fifty penalty units or to a term of imprisonment of not more than twelve months or to both.

Drunkenness on duty

91. An employee of a railway company who is found to be under the influence of alcohol or narcotic drug while on duty and responsible for

(a) the movement of traffic,

(b) the operation or maintenance of railway signalling or communication equipment,

(c) part of the permanent way,

(d) the repair of a train or vehicle,

(e) a train or vehicle of a railway company,

- (f) a railway engine,
- (g) guarding a railway van, or
- (h) any railway duty, the performance of which the safety and security of other persons depend

commits an offence and is liable on summary conviction to a fine of not more than five hundred penalty units or a term of imprisonment of not more than two years or both.

Test for alcohol or drugs

92. (1) An employee of a railway company who is suspected of being under the influence of alcohol or a narcotic drug shall be required to undergo a test by the Railway Safety and Security Inspector, a police officer or an appropriate enforcement officer qualified to carry out that function.

(2) A person shall be taken to be under the influence of alcohol where the alcohol concentration in that person's blood or breath as shown by any competent medical evidence or any other competent evidence is 0.08 percent or more when measured within two hours of the time of operating or attempting to operate a train.

Dismissal of convicted employee

93. An employee of a railway company who is convicted of an offence under this Act shall be dismissed from the service of the railway company.

Enforcement

Right to lodge complaint

94. (1) A person dissatisfied with any act or omission of the Authority may lodge a complaint with the Authority for redress.

(2) The Authority on receipt of a complaint under subsection (1) may make an order to grant the relief requested and grant further or other relief as the Authority considers just and appropriate.

(3) The decision of the Authority under subsection (1) is subject to sections 99 to 104.

Fact finding by the Authority conclusive

95. A finding or determination of the Authority on a question of fact in the course of implementing this Act is subject to appeal or review under section 100 to 104 and beyond that to the court.

Time for making decisions

96. Where the Authority receives a complaint it shall determine the matter within fourteen days unless an extension is made on application by either or both parties to the complaint.

Monitoring of railway equipment and compensation for damage

97. (1) The Authority may monitor the use of railway equipment to determine the standard of the railway equipment as well as its performance.

(2) Where a railway company operates railway equipment in a manner that causes damage to the equipment or to the operations of another railway company, the matter may be referred by either party to the Authority which shall determine the matter and award compensation that the Authority considers just and fair to the aggrieved person.

(3) Where the operations of a railway company causes damage to an equipment or asset of the Authority, the company shall restore the asset to its former status and pay the appropriate compensation to the Authority.

(4) Subsections (2) and (3) do not limit the rights of a person to lodge a complaint or seek review under sections 100 to 104 or to institute an action in court after the hearing of the initial complaint or review.

Prohibition of Authority from operating or managing railway

98. The Authority shall not operate or manage a railway company or railway services and nothing in this Act shall be construed to grant the Authority the power to operate or manage railways or a railway company.

Complaints, appeals and review rules

Establishment of Railway Complaints, Appeals and Review Panel

99. (1) A body known as the Railway Complaints, Appeals and Review Panel is established under this Act.

(2) The Railway Complaints, Appeals and Review Panel consists of seven persons at least three of whom are lawyers.

(3) A member of the Board of the Authority shall not be appointed a member of the Railway Complaints, Appeals and Review Panel.

(4) Five members of the Panel constitutes a quorum for the hearing of a complaint or review.

(5) Members of the Panel shall be appointed for a term of three years, and a member of the Panel may be reappointed.

(6) The Panel may co-opt any expert for the purposes of its work but a co-opted person may only advise the Panel and does not have voting rights.

(7) The Panel shall hear, review and deliberate on a complaint in accordance with this Act and rules of procedure made under this Act.

(8) The Authority or an agency of government shall not interfere with the appeal and review functions of the Panel.

(9) The decision of the Panel in respect of internal administrative review is final and shall be copied to the Authority for its information and records only.

(10) The Panel shall not entertain a complaint or a request for review if the complainant does not

- (a) submit the complaint, appeal or request in writing,
- (b) state the particulars of the complainant and the means by which the complainant may be reached,
- (c) state the nature and particulars of the grievance and, where applicable, the provision of this Act from which the complaint arose, and
- (d) pay the appropriate fee.

(11) The Minister shall make Regulations to stipulate fees that may be paid by a person qualified to submit a request to the Panel but fees shall not be fixed at a level that deters a person from lodging a complaint or making a request for review to the Panel.

(12) The Minister shall appoint members of the Complaints, Appeals and Review Panel not later than ninety days after the commencement of this Act to review complaints and appeals under this Act.

(13) Not later than fourteen days after the setting up of the Panel, the Minister shall cause the names and particulars of the Panel to be published in the *Gazette* and such newspapers of national circulation as the Minister may determine.

Power of the Authority to investigate and decide on complaint

100. (1) Unless this Act provides otherwise, a complaint or request for review shall in the first instance be made to the Authority.

(2) The Authority shall on receipt of a complaint, investigate and communicate its decision to the complainant within twenty-one days of receipt of the complaint but an aggrieved person may allow a longer period in writing to enable the Authority to communicate its decision on the complaint.

(3) The response of the Authority to the complainant, shall be in writing and shall state

- (a) the reasons for the decision,

- (b) whether the complaint is upheld in whole or in part, and
- (c) the corrective measures that are to be taken, where applicable.

(4) A person aggrieved or dissatisfied with

- (a) the decision of the Authority, or
- (b) the failure of the Authority to communicate its decision to the aggrieved person,

may make a request for review to the Panel.

Power and procedure of the Panel

101. (1) The Panel in the performance of its functions, may

- (a) review a decision of the Authority
 - (i) on any matter related to a railway licence,
 - (ii) in respect of any of the Authority's functions or the use of its power;
- (b) review any matter relating to dissatisfaction with the performance of a railway operation or management of a railway;
- (c) determine a matter
 - (i) between a railway company and the Authority, or
 - (ii) that relates to the construction, planning operation, development or management of railway, and
 - (iii) in connection with this Act.

(2) The Panel shall inform the Authority of the receipt of the complaint and particulars of the complaint and may invite the Authority or the person to provide information that the Panel requires.

(3) A complaint to the Panel shall be submitted in accordance with this Act and rules of procedure provided in Regulations made under this Act.

Power to request information and confidentiality

102. The Railway Complaints and Review Panel shall have the same powers as the Authority under section 36 and be subject to section 37.

Decision of the Panel

103. Except where a matter has already been conclusively dealt with by the Panel, the Minister may revise, amend, substitute or annul in whole or in part any act or decision taken by the Authority or any other person against whom the complaint or review was lodged.

Right to seek review

104. Nothing in this Act or any other enactment shall derogate from the right of a person to seek review of a decision of the Panel.

Rules applicable to review proceedings

105. (1) Where the complaint is received by the Authority or the Panel, the Authority or Panel shall deal conclusively with the complaint within sixty days.

(2) A summary of decisions made by the Panel may be made available to the general public.

(3) The Panel may review its own decision on request by a complainant, a party to the complaints, the Minister or the Authority for justifiable reason but neither the Minister nor the Authority has power to review or alter a decision of the Panel.

PART THREE—MISCELLANEOUS PROVISIONS*Miscellaneous***Regulations**

106. (1) The Minister may, on the recommendation of the Board, by legislative instrument make Regulations to prescribe

- (a) the requirements for a railway licence;
- (b) the conditions and procedure for the suspension, cancellation or modification of a licence;
- (c) for the construction, alteration, maintenance safety or operation of railway works, road crossings, utility crossings and the maintenance and operation of railway equipment;
- (d) for the manner in which notice of an accident is to be given to the Authority;
- (e) the limit on liability for loss or damage to goods where the value of the goods is not declared;
- (f) the fees to be paid by a person who makes a complaint to the Railway Complaints, Appeals and Review Panel; and
- (g) generally for the effective implementation of this Act.

(2) The Minister may on the advice of the Board make rules for the procedure of the Panel.

Interpretation

107. In this Act, unless the context otherwise requires

“assets” means property of any description, whether movable or immovable;

“Authority” means the Ghana Railway Development Authority established under section 1 of this Act;

- “Board” means the governing body of the Authority provided for under section 4;
- “Chief Executive” means the Chief Executive Officer appointed under section 13;
- “common carrier” means the carrier of passengers or freight for reward; whether the person operates on private or public land or both;
- “district assembly” includes a municipal or metropolitan assembly;
- “freight” means goods other than gratuitous goods delivered to a railway company by a shipper;
- “Fund” means the Railway Development Fund established under section 22;
- “Fund Committee” means the committee established under section 25;
- “Ghana Railway Company Limited” means the entity established as a statutory corporation in SMCD 95 of 1997 and subsequently incorporated as a limited liability company and registered on 7th March, 2001 under the Companies Act, 1963 (Act 179) with registration number 94,198;
- “goods” include items in solid, liquid or gaseous form or in tangible form and equipment and mail;
- “Minister” means the Minister responsible for Railways;
- “Inspector” means a Railway Safety and Security Inspector appointed by the Authority under section 60;
- “originating railways” means a railway company to which freight is first delivered by a shipper to be conveyed to a given destination or a specified consignee;
- “Panel” means the Railway Complaints, Appeals and Review Panel established under section 99;
- “party” in this Act does not include an employee or former employee of the Ghana Railway Company Limited or any of its predecessors in title;
- “passenger” means a person other than an official or employee on duty, lawfully traveling on a vehicle or train owned or operated by a company;
- “private carrier” means railway operation which takes place
- (a) exclusively within the confines of a private land for a purpose other than for hire or reward; or

Act 779

(b) on public land exclusively for the purpose of the operator and not for hire or reward;

“railway assets” includes assets which are vested in the Authority by law or otherwise, and includes the assets of the Ghana Railway Company Limited transferred to the Authority under section 32 and those acquired by the Authority pursuant to this Act;

“railway” includes

(a) branches, extensions, siding, railway bridges, tunnels, stations, depots, wharves, railway equipment, stores, or other things connected with the railway; and

(b) communications or signalling system and related facilities and equipment used for railway purposes;

“railway company” means a company issued with a railway licence by the Authority;

“railway work” includes

(a) a line of railway and any structure that supports or protects that line of railway or provides for drainage, of that line of railway,

(b) a system of switches, signal or other like devices that facilitates railway operations, or

(c) any other structure built across, beside, under or over a line of railway, that facilitates railway operations, but does not include a road crossing or utility crossing;

“relevant agency” means an agency, Ministry, department or institution which is required to grant permits or approvals for the development of a railway and railway works;

“road” includes bridges, railway-highway crossings, tunnels, drainage structures, traffic control devices, guardrails and protective structures connected with public ways, way or strip of land open to the public for the purposes of travel as a matter of right and over which an abutting property owner has the right of light, air, access, or right-of way;

“road crossing” includes the part of a road that passes across, over or under a railway line, and includes structure that supports or protects that part of the road or facilitates the crossing;

(d) may hire the services of an expert or consultant to provide it with technical assistance if prior to hiring those services it satisfies itself that it

- (i) has made use of all the information available to it,
- (ii) does not possess the required technical expertise to conduct the specific study or prepare the specific portion of the master-plan and has no means of acquiring its own expertise within the period of time needed to conduct the study or prepare the master-plan.

4. A person who

- (a) without reasonable excuse refuses or fails to attend an inquiry when summoned to do so by the Authority under paragraph 3(c),
- (b) without reasonable excuse fails to answer questions asked under paragraph 3(c) or knowingly provides a false answer, or
- (c) knowingly fails to bring or destroys, any paper, plan, book, document or thing which that person was asked to bring to the inquiry under paragraph 3(c)

commits an offence and is liable on summary conviction to

- (d) a fine of not less than twenty five penalty units and not more than two hundred penalty units or to a term of imprisonment of not more than one year or to both in respect an individual, or
- (e) to a fine of not less than two hundred and fifty penalty units and not more than two thousand penalty units in any other case.

5. Subject to the prior approval of the Minister, the Authority shall implement a master-plan which

- (a) uses available Ghana Railway Company Limited Assets or new assets to establish the right of way of the railway;
- (b) provides for the construction of railway or grants to any person, the right to construct a railway on terms and conditions that the Authority considers desirable including the provision of financial assistance for carrying out the construction of the railway; and
- (c) provides for the leasing or conveying of a railway constructed under subparagraph (b) to any railway company for its exclusive or shared use.

3 Annual Transport Data(2011 年 8 月)

1.0

ANNUAL TRANSPORT DATA

(i)

FREIGHT TRAFFIC FROM 1990 - 2010

TONNAGE (000)

YEAR	COCOA TONNAGE		TIMBER TONNAGE		BAUXITE TONNAGE		MANGANESE TONNAGE		OTHERS TONNAGE		TOTAL TONNAGE	
	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
1990	NA	67.00	NA	32.00	NA	362.00	NA	249.00	NA	17.20	NA	727.20
1991	80.00	44.00	40.00	24.00	390.00	360.00	280.00	304.00	19.99	11.00	810.00	743.00
1992	70.00	26.00	20.00	18.00	400.00	326.00	300.00	279.00	20.00	13.40	810.00	662.40
1993	60.00	24.00	30.00	36.00	480.00	439.00	320.00	273.00	30.00	8.00	920.00	780.00
1994	65.00	16.00	50.00	55.00	560.00	393.00	320.00	243.00	45.00	8.00	1040.00	715.00
1995	60.00	16.91	80.00	55.54	400.00	518.11	320.00	187.55	40.00	35.06	900.00	813.17
1996	100.00	34.79	80.00	47.87	500.00	463.90	300.00	247.74	100.00	62.78	1,080.00	857.08
1997	140.00	20.52	120.00	38.76	500.00	450.65	300.00	269.30	120.00	67.86	1,180.00	847.09
1998	140.00	31.05	120.00	60.13	500.00	362.18	300.00	300.53	120.00	62.11	1,180.00	816.00
1999	60.00	26.73	60.00	60.35	700.00	365.95	500.00	444.40	100.00	75.59	1,420.00	973.02
2000	25.00	19.08	60.00	55.04	450.00	398.17	520.00	652.36	60.00	32.81	1,115.00	1,157.46
2001	30.00	14.40	60.00	40.86	600.00	582.14	700.00	864.78	70.00	52.06	1,460.00	1,554.24
2002	20.00	11.61	40.00	40.30	850.00	655.29	850.00	917.01	40.00	57.48	1,800.00	1,681.69
2003	30.00	11.28	50.00	46.32	650.00	546.42	900.00	1184.66	60.00	78.36	1,690.00	1,867.04
2004	35.00	18.78	50.00	33.08	750.00	480.99	1200.00	1188.82	80.00	42.62	2,115.00	1,764.29
2005	45.00	22.02	50.00	36.53	750.00	526.45	1300.00	1203.97	80.00	37.60	2,225.00	1,826.57
2006	50.00	21.42	50.00	19.36	700.00	368.12	1300.00	1222.72	60.00	22.78	2,160.00	1,654.40
2007	40.00	9.12	50.00	8.19	650.00	249.50	1300.00	854.58	70.00	15.10	2,110.00	1,136.49
2008	35.00	0.90	20.00	15.31	500.00	150.77	1300.00	139.46	20.00	0.04	1,875.00	306.48
2009	3.00	0.00	11.77	1.42	303.99	88.41	191.10	64.53	0.00	0.36	509.86	154.72
2010	15.00	0.00	10.00	0.00	450.00	73.21	700.00	372.59	20.00	1.11	1,195.00	446.91

NB: NA (Not available)

(ii)

TONNE KILOMETRE (000,000)

FROM 1990 - 2010

YEAR	COCOA TONNAGE		TIMBER TONNAGE		BAUXITE TONNAGE		MANGANESE TONNAGE		OTHERS TONNAGE		TOTAL TONNAGE	
	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
1990	NA	14.80	NA	7.20	NA	87.40	NA	15.70	NA	4.30	NA	129.40
1991	NA	9.67	NA	4.90	NA	86.74	NA	19.12	NA	3.02	NA	123.45
1992	15.68	5.78	7.16	3.63	96.40	78.45	18.92	17.54	5.84	3.63	144.00	109.03
1993	12.92	4.78	6.60	8.57	115.68	105.90	20.16	17.17	6.64	1.52	162.00	137.94
1994	13.96	2.86	11.00	10.95	134.96	94.63	20.16	15.34	10.92	1.89	191.00	125.67
1995	12.92	3.63	8.80	13.35	96.40	124.87	20.16	11.79	9.80	3.73	148.08	157.37
1996	21.52	7.47	17.60	10.74	120.52	111.80	18.92	15.61	24.00	5.59	202.56	151.21
1997	30.12	4.95	26.40	9.83	120.52	108.57	18.92	16.96	28.80	11.00	224.76	151.31
1998	30.12	7.57	26.40	13.89	120.52	86.41	18.92	18.93	28.80	11.49	224.76	138.29
1999	7.52	6.32	13.20	15.01	120.52	88.18	28.36	27.98	24.00	13.11	193.60	150.60
2000	5.36	4.14	13.20	14.30	108.44	95.96	32.76	41.10	14.40	9.38	174.16	164.88
2001	6.44	3.25	13.20	9.99	144.60	140.28	44.12	54.48	16.80	11.66	225.16	219.66
2002	4.32	2.85	8.80	9.53	204.84	157.93	53.56	57.77	9.60	15.94	281.12	244.02
2003	4.32	2.84	8.80	10.78	156.64	131.68	53.56	74.63	9.60	21.61	232.92	241.54
2004	7.52	4.58	11.00	7.68	180.76	115.91	69.32	74.90	19.20	12.62	287.80	215.69
2005	9.68	4.85	11.00	6.04	180.76	126.88	81.92	75.86	19.20	10.35	302.56	223.98
2006	10.76	5.15	11.00	3.41	168.72	88.71	81.92	77.04	14.40	6.28	286.80	180.59
2007	8.60	1.94	11.00	1.36	156.64	60.11	81.92	53.85	19.32	4.44	277.48	121.70
2008	7.52	0.11	4.40	1.56	120.52	36.33	81.92	8.76	5.52	0.01	219.88	46.77
2009	1.00	0.00	1.20	0.14	73.28	21.31	24.08	4.07	0.00	0.06	99.56	25.58
2010	2.48	0.00	1.68	0.00	108.44	17.64	44.12	23.47	3.32	0.19	160.04	41.30

NB: NA (Not available)

(iii) PASSENGER TRAFFIC FROM 1990 - 2010

YEAR	NO. OF PASSENGERS		PASSENGER KILOMETERS	
	TARGET	ACTUAL	TARGET	ACTUAL
	' (000)		(000,000)	
1990	NA	2,228	NA	240
1991	NA	1,305	NA	157
1992	2000	1,270	200	140
1993	2200	1,459	236	128
1994	3500	2,300	350	218
1995	3500	2,200	350	233
1996	3500	2,077	350	211
1997	4000	2,105	400	177
1998	4500	2,208	450	192
1999	3000	1,469	300	129
2000	2000	844	200	83
2001	1500	546	200	53
2002	2100	1,543	105	61
2003	2200	2,335	110	86
2004	2500	2,564	125	80
2005	2500	2,134	130	64
2006	2600	1,458	130	38
2007	5600	988	280	26
2008	5600	950	104	15
2009	2000	1,120	44	20
2010	2600	1,377	130	27

NB: NA (Not available)

(iv) LUGGAGE AND PARCELS TRAFFIC FROM 1990-2010

YEAR	TONNAGE(000)	
	TARGET	ACTUAL
1990	NA	52.00
1991	NA	37.00
1992	45.00	44.85
1993	70.00	30.15
1994	70.00	51.55
1995	46.00	56.97
1996	70.00	74.24
1997	80.00	84.84
1998	90.00	71.50
1999	70.00	56.92
2000	90.00	55.29
2001	90.00	45.33
2002	90.00	36.94
2003	90.00	37.11
2004	45.00	27.12
2005	45.00	23.66
2006	40.00	15.45
2007	45.00	17.48
2008	30.00	8.41
2009	10.00	14.83
2010	15.00	14.40

2.0 TRANSPORT SHARE FOR EACH SUB-SECTOR (Passenger, Freight)- Figures not available

3.0 NUMBER OF STAFF:

	Unit	2005	2006	2007	2008	2009	2010
Drivers	No.	185	164	158	155	153	151
Station Staff	No.	133	119	119	119	111	108

* Drivers include Drivers Assistants.

**Train, Yard, and Signal staff are not included.

4.0 ACCIDENT	Unit	2005	2006	2007	2008	2009	2010
Derailment	No.	136	113	81	30	37	66
Collision	No.	1	8	8	8	2	6
Turnover	No.						
Fire	No.						
Railroad crossing	No.	NA	NA	NA	4	4	5

***Data for turnover and fire are not available

5.0

(i) NUMBER OF TRAINS RUN

The number of passenger and freight trains run for the period 2005 to 2010 are given below:

	Unit	2005	2006	2007	2008	2009	2010
Freight	No.	4,773	4,304	2,924	818	488	1,372
Passenger	No.	2,300	1,744	1,224	1,493	1,746	1,975

(ii) CANCELLATION CASE

	Unit	2005	2006	2007	2008	2009	2010
Passenger	No.	1,889	491	740	207	90	67

*The passenger train services on the central and eastern lines (Ejisu to Nsawam) have been suspended since 2002.

Passenger train services on the western line also suspended since 13th September, 2007.

Presently only two shuttle trains are running, ie. Accra - Nsawam, and Accra - Tema.

**Data for freight not available.

(iii) REASONS FOR CANCELLATION OF TRAINS

(a) Derailments

(b) Insufficient number of wagons due to lack of spares and damages caused by derailments.

(c) Occasional breakdown of tipping plants.

(d) Suspension of operation at customer's request.

(e) Lack of fuel and lubricants.

(f) Due to poor track condition between Dunkwa and Kumasi train services have been suspended since September 2007. Virtually all coaches in fleet require rehabilitation before passenger traffic can resume after the rehabilitation of the track.

(g) Shortage of locomotives.

*(h) Railway train services were suspended from 14th February, 2008 to 4th April, 2008 due to industrial action

(iv) DELAY CASE

(a) PASSENGER PUNCTUALITY

	Unit	2005	2006	2007	2008	2009	2010
DEPARTURE	%	75	41	75	82	71	70
ARRIVAL	%	64	13	50	64	42	35

*Data for freight not available.

(b) REASONS FOR TRAIN DELAYS

- (a) Bad condition of track.
- (b) Derailments.
- (c) Insufficient number of wagons.
- (d) Breakdown of off loading plants.
- (e) Lack of space at the Takoradi harbour for off-loading of mineral ore.
- (f) Lack of fuel and lubricants.
- (g) Late arrival to duty by operating staff.
- (h) Signaling and communication defects.
- (i) Occasional single line working on the double line between Takoradi to Manso.
- (j) Shortage of locomotives.
- (k) Temporal speed restrictions.
- (l) Occasional flooding on the track.

Investment amount

	unit	2005	2006	2007	2008	2009	2010	2011
Railway	GHe	1.990	0.960	1.120	0.000	0.936	1.897	0.000
Railway	USD	0.000	0.000	8.708	0.000	16.162	5.495	8.049
Aviation	GHe							

Equipment investment

	unit	2005	2006	2007	2008	2009	2010	2011
Structure (Track, bridge etc)	GHe	1.580	0.150	0.710		0.936	0.944	
cars	GHe	0.040	0.730	0.390			0.710	
Communication and radio system	GHe	0.230	0.030				0.240	
Equipment	GHe	0.090	0.050					
others	GHe	0.050		0.020			0.003	
Structure (Track, bridge etc)	USD					3.100	5.495	8.049
DMUS	USD			8.708		13.062		

NB: The amounts designated in USD is additional to that designated in Ghana Cedis