AFRICAN DEVELOPMENT BANK GROUP

PROJECT: RIFT VALLEY RAILWAYS PROJECT
COUNTRY: MULTINATIONAL (KENYA AND UGANDA)

EXECUTIVE SUMMARY OF THE ENVIRONMENTAL AND SOCIAL ASSESSMENT

<table>
<thead>
<tr>
<th>Project team</th>
<th>Head of team:</th>
<th>A. NALIKKA</th>
<th>Investment Officer</th>
<th>OPSM3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team members:</td>
<td>K. LONSWAY</td>
<td>Manager</td>
<td>ONEC3</td>
<td></td>
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<td></td>
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<td>Investment Officer</td>
<td>OPSM3</td>
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<td>R. MSHANA</td>
<td>Investment Officer</td>
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<td></td>
<td>R. ARON</td>
<td>Social Dev. Specialist</td>
<td>ONEC3</td>
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<tr>
<td>Head of area division:</td>
<td>N. ANVARIPOUR</td>
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<tr>
<td>Area director:</td>
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<td>G. NEGATU</td>
<td>Director</td>
<td>OREA</td>
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Executive Summary of the Environmental and Social Assessment

Project title: RIFT VALLEY RAILWAYS PROJECT
Country: MULTINATIONAL (KENYA AND UGANDA)
Project reference: P-Z1-DC0-011

1. Introduction

The Governments of the Republic of Kenya and the Republic of Uganda agreed in 2004 to concession their respective railways together. Rift Valley Railways (RVR) signed Concession Agreements in 2006 and Amending Deeds in relation to these agreements in 2010. The agreements and deeds were signed through the respective legal entities, Rift Valley Railways Kenya Ltd. (RVRK) and Rift Valley Railways Uganda Ltd. (RVRU). The concessionaire is to rehabilitate, operate and maintain the rail networks as one railway system so as to improve the management, operation and financial performance of the two rail networks in a coordinated manner. The concession timetable for performance improvement was reset to August 25, 2010 with the entrance of new investors and therefore a new RVR Investors’ Environmental and Social Action Plan will be put in place as part of the project’s restructuring, updating an earlier agreement with IFC and KfW, the original lenders.

RVR is seeking financing from the African Development Bank. As part of the requirements for financing, the Bank requires that RVR complies with the Bank’s Environmental and Social Assessment Procedures and the Environmental and Social Auditing Guidelines. To ensure compliance, RVR contracted a consulting firm, GIBB Africa Ltd (GIBB), to undertake an Environmental and Social Audit on the entire concede railway network in both countries and prepare a report on the current status of management and compliance of railway operations with regard to Environmental Health and Safety (EHS) issues. GIBB prepared an Environmental, Health and Safety Audit Report for the entire railway reserve in both countries. GIBB also prepared Resettlement Action Plan (RAP) Reports on the majority of the railway reserve in both countries. The World Bank financed the RAP for the Kibera/ Mukuru section of the railway in Kenya.

This summary captures the Project’s environmental, health, safety, and social aspects, including resettlement. Additional details on the RAPs are provided in a separate consolidated executive summary.

2. Project Description and Justification

RVR’s headquarters are based in Nairobi, Kenya. The operations are spread all over Kenya and Uganda and are divided into three designated operational units:

- **Eastern Region** which begins from Mombasa and ends at Kibwezi (all in Kenya);
- **Central Region** begins from Kibwezi to Nairobi and extends to Eldoret (all in Kenya);
- **Western Region** which runs from Eldoret to Kisumu and Malaba (all in Kenya) crossing over to Uganda through Tororo, Jinja and terminates at Kampala. A branch line route extends from Kampala to Port Bell at the shores of Lake Victoria.

RVR’s system comprises a total track length of 2,350 km (1920 km in Kenya and 431 km in Uganda), from Port of Mombasa in Kenya to Tororo in Uganda (refer to Figure 1).
The system has 219 locomotives (175 in Kenya and 44 in Uganda) and approximately 7500 wagons and three water ferries (approx. 6000 wagons and one ferry in Kenya and 1433 wagons and two ferries in Uganda). The concession system included about 87% and 35% of KRC’s and URC’s railway networks respectively.

The railway network comprises of the main line from Kenya to Uganda, which runs from Mombasa through Nairobi, Nakuru, Eldoret, Malaba, Jinja, and Kampala to Kasese in western Uganda (a distance of approximately 1660 km). A branch line runs from Nakuru to Kisumu on Lake Victoria (217 km), from where there is a wagon ferry link with Jinja and Port Bell in Kampala. The RVR line is a metre gauge and runs through the sections outlined in Table 1.

**Table 1: Railway line network and gauge**

<table>
<thead>
<tr>
<th>Line Section</th>
<th>Line Type</th>
<th>Rail Type</th>
<th>Length</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mombasa - Nairobi</td>
<td>Main line</td>
<td>95lb</td>
<td>530.3Km</td>
<td>Operational</td>
</tr>
<tr>
<td>Nairobi – Nakuru – Malaba</td>
<td>Main line</td>
<td>80lb</td>
<td>551.88Km</td>
<td>Operational</td>
</tr>
<tr>
<td>Malaba - Kampala</td>
<td>Main line</td>
<td>80lb</td>
<td>239.62Km</td>
<td>Operational</td>
</tr>
<tr>
<td>Nairobi – Thika</td>
<td>Branch line</td>
<td>80lb</td>
<td>54.0Km</td>
<td>Operational</td>
</tr>
<tr>
<td>Thika – Nanyuki</td>
<td>Branch line</td>
<td>50lb</td>
<td>181.43 Km</td>
<td>Partially operational</td>
</tr>
<tr>
<td>Line Section</td>
<td>Line Type</td>
<td>Rail Type</td>
<td>Length</td>
<td>Status</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
<td>-----------</td>
<td>---------</td>
<td>---------------</td>
</tr>
<tr>
<td>Voi – Taveta</td>
<td>Branch line</td>
<td>50lb</td>
<td>118.6Km</td>
<td>Not operational</td>
</tr>
<tr>
<td>Nakuru – Mau Summit</td>
<td>Branch line</td>
<td>80lb</td>
<td>64Km</td>
<td>Operational</td>
</tr>
<tr>
<td>Mau Summit – Kisumu Viaducts</td>
<td>Branch line</td>
<td>60lb</td>
<td>-</td>
<td>Operational</td>
</tr>
<tr>
<td>Mau Summit – Kisumu line</td>
<td>Branch line</td>
<td>50lb</td>
<td>152.73</td>
<td>Operational</td>
</tr>
<tr>
<td>Kisumu – Butere</td>
<td>Branch line</td>
<td>50lb</td>
<td>69.05km</td>
<td>Operational</td>
</tr>
<tr>
<td>Leseru to Kitale</td>
<td>Branch line</td>
<td>50lb</td>
<td>64.95km</td>
<td>Operational</td>
</tr>
<tr>
<td>Tororo – Mbale</td>
<td>Branch line</td>
<td>50lb</td>
<td>55.82km</td>
<td>Operational</td>
</tr>
<tr>
<td>Mbale - Parkwach</td>
<td>Branch line</td>
<td>50lb</td>
<td>447.08Km</td>
<td>Not operational</td>
</tr>
</tbody>
</table>

Along the railway line, there are various station buildings, maintenance sheds, workshops, depots, stores and warehouses / goods sheds and the marine facilities. The summary of these facilities is presented in Table 2.

**Table 2: RVR Facilities**

<table>
<thead>
<tr>
<th>Regions</th>
<th>Carriage and Wagon Examiners Sheds</th>
<th>CXR</th>
<th>Locomotive Shed</th>
<th>Goods Shed</th>
<th>Diesel Depot</th>
<th>Workshop</th>
<th>Treatment Plant(s)</th>
<th>Station Building(s)</th>
<th>Signal Cabin</th>
<th>Telecom Equip Room</th>
<th>Stores</th>
<th>Outside Storage</th>
<th>Paint Shops</th>
<th>Construction</th>
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</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>4</td>
<td>5</td>
<td>16</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>18</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Western</td>
<td>31</td>
<td>54</td>
<td>58</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>73</td>
<td>17</td>
<td>6</td>
<td>13</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Nairobi</td>
<td>2</td>
<td>2</td>
<td>13</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>15</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Eastern</td>
<td>4</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>49</td>
<td>38</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>62</td>
<td>103</td>
<td>12</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>18</td>
<td>156</td>
<td>58</td>
<td>32</td>
<td>30</td>
<td>21</td>
<td>5</td>
</tr>
</tbody>
</table>

The governments conceded the assets to the private sector so as to improve the management, operation and financial performance of the two rail networks in a coordinated manner. Though legally separate, the objective of the joint concession process is to seamlessly operate the two concessions as one railway system. This is particularly important for Uganda, a landlocked country, which depends upon the Kenyan port of Mombasa for sea access.
RVR intends to embark on an investment program which will include rehabilitation of the track to allow safe passage of trains at designed speed, upgrading and modernisation of the locomotive fleet, rehabilitation of the rolling stock, purchase of new locomotives and wagons; renovations of buildings, workshops, depots and machinery; and installation of new information technology (IT) systems. The investment program, when implemented, is expected to create significant economic and social benefits in both Kenya and Uganda, and will contribute to regional efforts to accelerate economic growth and alleviate poverty. The investment program will also ensure more effective transportation of freight and passengers.

3. Policy, Legal and Administrative Framework

The management of railway operations in both in Kenya and Uganda are governed by various legislation covering different sectors and issues. Similarly no single policy document has been prepared specifically to direct RVR operations. There are several legislation, regulations and international conventions triggered by the operations of RVR in Kenya and Uganda. The Project’s EHS Audit and RAP studies were therefore done in consideration of the policies, regulations and procedures by the following entities:

*The Constitutions.* The Constitutions of Kenya and Uganda require that every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.

RVR is expected to cooperate with the National Environment Management Authority (NEMA) in each country for this matter that are charged with responsibility of general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment.

**Kenya**

*Environmental Management and Coordination Act (EMCA), 1999.* This Act of Parliament provided for the establishment of a legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto. Just as in the new constitution Part II of EMCA confers to every person the right to a clean and healthy environment and to its judicial enforcement. The new Constitution and EMCA therefore obligates RVR to work in a clean environment and not to contravene the right of any person within its zone of influence, to this entitlement. EMCA has provided for the development of several subsidiary legislations and guidelines which govern environmental management and are relevant to the operations of RVR. These include:

- The Environmental (Impact Assessment and Audit) Regulations, 2003 Legal Notice No. 101;
- The Environmental Management and Coordination (Waste Management) Regulations, 2006 Legal Notice No. 121;
- The Environmental Management and Coordination (Water Quality) Regulations, 2006 Legal Notice No. 120;
- The Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009 Legal Notice No. 61;
- The Environmental Management and Coordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006 Legal Notice No. 160;
- The Environmental Management and Coordination (Fossil Fuel Emission Control) Regulations, 2006 Legal Notice No. 131;
- The Environmental Management and Coordination (Controlled Substances) Regulations, 2007 Legal Notice No. 73.

_The Occupational Safety and Health Act, 2007._ This is an Act of Parliament to provide for the safety, health and welfare of all workers and all persons lawfully present at workplaces, to provide for the establishment of the National Council for Occupational Safety and Health and for connected purposes.

**Uganda**

_The National Environment Act Cap 153_. The National Environment Act, Cap 153, is the framework legislation that guides sustainable management of environmental and natural resources in Uganda. Section 3 bestows every individual a right to a decent environment. Further, the National Environment Management Authority (NEMA) founded under section 4 is mandated to co-ordinate, monitor and supervise all activities to ensure that provisions under section three of the act are not violated. The Act provides for environmental audits for industrial concerns that were in existence at the time that the Act entered into force as a Statute in 1995 (Section 22). Rift Valley Railways (RVR) is an industry that falls in this category and is required to undertake environmental audits in accordance with the Act and provisions of the National Environment (Audit) Regulations, of 2006 for operational projects. The Act provides for the establishment of standards for air quality, water quality, effluent discharge, control of noxious smells and control of noise and vibration pollution. These include;

- The National Environment (Standards for Discharge of Effluent into Water or on Land) Regulations 1999
- The National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2000
- The National Environment (Waste Management) Regulations, 1999
- The National Environment (Noise Standards and Controls) Regulations, 2003

_The Occupational Safety and Health Act, 2006._ This is an Act of Parliament to provide for the safety, health and welfare of all workers and all persons lawfully present at workplaces, to provide for the establishment of the National Council for Occupational Safety and Health and for connected purposes.

**Other**

_Kenya Railways Corporation and Uganda Railways Corporation_, through the respective Concession Agreements; East African Railways and Harbours Engineering Manual (1962).

RVR through its Rift Valley Railways (Kenya) Limited work practices, Rift Valley Railways (Uganda) Limited work practices.

_African Development Bank_, the Environmental and Social Assessment Procedures and the Environmental and Social Auditing Guidelines; the Involuntary Resettlement Policy; the Gender Policy; the Policy on Poverty Reduction and the Policy on the Environment.

4. Description of the Project Environment

Kenya

The railway network traverses 7 provinces, namely Coast Province, Eastern Province, Nairobi Province, Central Province, Rift Valley Province, Western Province and Nyanza Province. The project area description is in line with administrative boundaries. However, in areas where the administrative jurisdictions overlap, the description begins with a station from the previous province.

Mombasa – Malaba Main Line

Coast Province: The railway line commences from Mombasa Island and connects westwards to the mainland through Makupa Causeway. Land use on the reserve consists of human settlements comprising of informal settlements, with a mixture of residential and business structures. The line traverses the coastal plain towards the semi arid areas in the Nyika Plateau. Land use is mainly characterised by range land and scattered rural settlements. The line traverses two gazetted wildlife conservation areas namely; Tsavo West National Park and Tsavo East National Park.

Eastern Province: The railway enters Eastern Province from Tsavo East National Park and traverses the semi-arid Nyika Plateau. As the line exits Eastern Province the flat terrain persists into the Athi-Kapiti plains near Konza Station. Land use in this section is mainly subsistence farming. From Konza station human activities are minimal due to the wildlife that is present through to Lukenya Station. The predominant land use is farming and semi-permanent business structures.

Nairobi Province: The railway line enters Nairobi Province from Embakasi District and exits through Dagoretti District. However, this study was confined to the sections within Dagoretti District. Land use in Dagoretti District is mainly subsistence and cash crop farming. The other sections of the railway line in Nairobi Province were studied under the World Bank funded Kibera - Mukuru RAP Study.

Central Province: The railway line enters Central Province from Kikuyu area and exits at Kijabe area as it enters Rift Valley Province. The land use on the railway reserve is mainly subsistence farming. Town Centres of note in this section are Limuru, Kikuyu and Kijabe.

Rift Valley Province: The largest section of the railway line traverses Rift Valley Province. The line descends from the central highlands to the valley floor towards Lake Naivasha area before ascending at the Maji Mazuri and Timboroa area. The line then descends toward Eldoret before exiting into Western Province. Land use is mainly subsistence and commercial farming.

Western Province: The railway line enters the province through Lugari Station and ends at Malaba Station. Land use in the reserve in this section is mainly farming.
Nakuru-Kisumu-Butere Branch Line

The branch line traverses three provinces, namely; Rift Valley, Nyanza and Western.

In Rift Valley Province the districts traversed by the line include Nakuru, Njoro, Molo, Kuresoi and Kipkelion districts. Land use is mainly subsistence farming.

In Nyanza Province, the line enters through Muhoroni to traverse Kisumu East, Kisumu North and Kisumu West districts. Land use is mainly commercial farming.

In Western Province, the line traverses Emuhaya and Khwisero districts. Land use is mainly subsistence farming.

Uganda

The railway traverses 12 Districts, namely: Tororo, Butaleja, Iganga, Mayuge, Jinja, Buikwe, Mukono, Wakiso, Kampala, Manafwa, Mbale and Port Bell. The project area description is in line with the respective railway stations and administrative boundaries.

Malaba-Kampala Main Line

This line passes through 9 administrative districts namely, Tororo, Butaleja, Iganga, Mayuge, Jinja, Buikwe, Mukono, Wakiso and Kampala. Land use on the reserve mainly consists of human settlements comprising of semi permanent residential and business structures. Other economic activities on the reserve include subsistence and cash crop farming.

Tororo Station to Mbale Station Line (TRR-MBL)

Tororo and Magodes Stations are in Tororo District while Manafwa and Mbale stations share names with the respective districts. Magodes and Manafwa stations are closed. The human settlement pattern on this line is sparse, with scattered farms. Land use is mainly subsistence farming.

Jinja Station to Jinja Pier Line

This line is within Jinja District. It starts at the Jinja Station and ends at the Jinja Pier. There was no encroachment within the railway reserve at the time of the study.

Kampala Station to Port Bell Line (KPL-PBL)

This line is within Kampala District. It starts at Kampala Station and ends at Port Bell on Lake Victoria. Human settlement within the reserve is mainly semi-permanent residential structures.

Kampala Station to Nalukolongo Workshop Line (KPL-NLG)

This line traverses two districts, Kampala and Wakiso districts. It starts at Kampala Station and ends at Nalukolongo Workshops. Human settlement within the reserve is mainly temporary business structures and mobile vendors.

5. Project Alternatives

The Bank’s investment in RVR will support the restructuring of a railway system “the Project” that was previously concessioned by the two governments to a single private operator in 2005. RVR embarked on improvements to its system at takeover, but progress has more recently been constrained by lack of capital. Currently, the only viable alternative to the Project is ‘no action’ on the restructuring, in which
case further improvements will not occur. The “no action” option would result in RVR’s facilities continuing to be non-compliant in relation to waste management and employee and public health and safety. A shutdown of RVR could result in sizeable unfunded liabilities and the loss of a key link in the transportation network in the region.

RVR’s network and facilities were developed at a time when essentially all railway activities were conducted in-house; many options are now available, especially in Nairobi, Mombasa, Kampala, and Jinja. RVR plans to actively consider various alternatives for its operations going forward, including shutting down polluting or underperforming facilities in favor of new facilities or subcontracting those functions to other private or government entities. As the restructuring is only recently underway, detailed analyses of possible alternatives is still ongoing.

6. Potential Impacts and Mitigation/Enhancement Measures

The principal and inherent environmental risks and liabilities of RVR detailed in the EHS Audit Report include:

Contaminated land: Historical land contamination is a significant liability for railway operations in Kenya and Uganda. A number of sites have been identified and a register of contaminated sites is being compiled. Documentation of historical spills or other chemical releases from derailments and accidents will be established. Mitigation Measures: The respective governments will retain responsibility and bear the cost for remediation of past environmental contamination, and each through the established Environmental Steering Committee (ESC) will engage consultants to carry out environmental assessment and remediation of contaminated land on conceded assets. Contractual obligations in the concession agreements bind the governments in undertaking this responsibility.

Spill prevention and control: The audit found that none of the active bulk oil and fuel storage sites in RVR’s network have appropriate secondary containment, including procedures for the management of containment systems. There are also several abandoned and redundant fuel storage facilities across the network. Mitigation Measures: RVR will implement a time-bound program to replace or upgrade the bulk oil and fuel storage facilities to current standards, and will put in place a spill prevention and control plan supported by the necessary resources and training. These requirements will also be extended to supply contractors while operating on RVR’s network.

Solid and liquid waste: The audit noted lack of standards and procedures on handling, collection, and disposal of various waste types with the exception of hazardous waste. Effluent discharges are not being periodically monitored as required by law, and main oil interceptors are not fully functional. Mitigation Measures: A Waste Management Plan will be developed at each RVR operating facility that generates waste, including a strategy for waste prevention or minimization and for reuse/recycling.

Vegetation: Vegetation within railway right-of-way was not regularly maintained and thus interfered with train operations and track maintenance. Unchecked growth of trees and plants covered signals, compromised sight lines, or fell onto the tracks and prevented workers from getting to places of safety when trains are passing. Mitigation Measures: RVR will implement an integrated approach to vegetation management that will include the use of herbicides to control fast-growing vegetation within railway rights-of-way. Detailed procedures will be prepared for herbicide use to protect workers, communities, and the environment.
Asbestos containing materials: Asbestos was commonly used in the past because it was durable, heat and fire resistant, and an excellent insulator, and can be found in older buildings and equipment. The audit found asbestos containing materials (ACM) in workshops, locomotive sheds, depots and stations, as well as on some train vehicles. ACM-containing roofing and building siding is common. Mitigation Measures: RVR will develop an Asbestos Management Plan that identifies locations where ACM is present, its condition, and procedures for protecting intact ACM in place and for safe removal and disposal where required.

The EHS Audit also included an assessment of occupational health and safety risk management at RVR; some of the risks and liabilities identified for improvement included the following:

Personal Protective Equipment (PPE): RVR has procedures for the provision and use of PPE for its employees, but has been unable to provide sufficient supplies of PPE such as uniforms, gloves and eye and hearing protection. Additionally, the procedures did not adequately address provision and use of PPE by contractors and suppliers while at RVR workshop and maintenance facilities. Mitigation Measures: RVR will address these shortcomings in its EHS management system, and ensure that contracts for maintenance and other contracted work include appropriate requirements for supply and use of PPE.

Medical surveillance: The audit found that medical examinations for RVR staff are conducted on an irregular basis, and that recordkeeping is incomplete. Mitigation Measures: RVR will prepare a guidance document on medical surveillance, and prioritize medical examinations for key employees such as locomotive drivers.

Fire Safety: RVR had initiated development of a fire safety program early in the concession, and will update the program and its implementation. Mitigation Measures: RVR’s integrated EHS management system will provide for recordkeeping and training for the fire safety program. RVR will proceed quickly with the provision of fire extinguishers and marking of fire exit routes.

The principal risks and liabilities linked to involuntary resettlement as detailed in the RAPs include:

Level crossings safety: Level crossings where railway lines cross streets or highways represent high risk accident locations for railways. A review conducted in 2007 found unsafe conditions at many level crossings on the system. A comprehensive update to that study was conducted by GIBB Africa as part of the RAP fieldwork for both Kenya and Uganda, as the RAP field teams were already engaged in an inventory of the railway lines. Encroachments were found at many level crossings and were captured in complimentary studies, which were part of the RAPs. Mitigation Measures: The encroachments at the level crossings will require resettlement for safety purposes as part of the RAP processes in both countries.

Encroachment: The RAP fieldwork by GIBB Africa identified the encroachment of various assets, such as crops, trees, residential structures, and business structures, along the railway reserve in Kenya and Uganda. The RAPs focused on the operational corridor of 10.4m (5.2m on each side of the centerline), which was concessioned to RVR. Given safety considerations beyond the 10.4m corridor and the necessity of adhering to the Bank’s environmental and social requirements, the RAPs included complimentary studies on encroachment at level crossings (as mentioned above) and at heavily populated areas within the project area. Mitigation Measures: The encroachments will be addressed in line with the RAPs and the complimentary studies to ensure all of those areas are cleared for smooth operation of RVR trains and to preserve community safety.
RVR has committed to undertaken certain actions in order to further mitigate against environmental and social impacts linked to the project and its overall operations.

The EHS Audit Report resulted in the development of EHS Action Plan, consisting of site-specific management plans for the entire railway network. The EHS Action Plan provides concrete proposals emanating from the EHS Audit Report recommendations, which RVR will implement.

RVR appointed a senior practitioner as General Manager for Safety, Health, Risk, Environment and Quality Assurance (SHREQ) Department in February 2011. The GM SHREQ has day-to-day responsibility for occupational health, safety and environmental management systems and reports directly to the Group CEO who has the overall corporate responsibility for safety and environmental performance.

RVR had previously established and partially implemented an environmental management system. As part of the restructuring, RVR is undertaking mapping and alignment of the EHS audit recommendations and all existing documentation to ISO 9001 (Quality), ISO 14001 (Environmental) and OHSAS 18001 (Occupational Safety). Mapping the three standards will provide RVR with the framework for developing an integrated management system within a short time frame and with available resources.

RVR and its Investors, including the Bank, have agreed on an Investors’ Environmental and Social Action Plan (ESAP), outlining measures for implementing the EHS Action Plan and the RAPs and for bringing the railway network into compliance with local laws and regulations and with the Investors’ environmental and social policies and requirements. Under the ESAP, for example, RVR plans to conduct a Cleaner Production Audit of its operations to identify means to reduce energy consumption, water usage, wastewater, and solid waste in line with climate change considerations.

7. Environmental Hazard Management

The Project is the operation of an existing railway system, for which the technology risks are known and can be mitigated. The Project does not present major technological accident risks. RVR is developing and will put in place on an interim basis by end July 2011 an Emergency Response Management Plan for responses to train or ferry accidents, based on categories of cargo, potential impacted populations and environments. The Plan will be overseen by the SHREQ GM as an integral part of the Safety Management System, and include coordination with local authorities, drills and training, response equipment and readiness, etc. To facilitate finalizing the Plan, the company targets to conduct at least one Desk Top Drill in the third quarter 2011 and at least one field drill for each of the three regions by year end, including one marine vessel drill.

Freight and passenger ferries on Lake Victoria date from the early days of East African rail service. Until recently, both KRC and URC operated freight ferries, generally between Kisumu in Kenya to a railhead at Port Bell in Uganda. These ferries were to be refurbished and turned over to RVR as part of the concessions; the Kenyan ferry has been refurbished and was surveyed for relicensing in December 2010. Work has not yet started on the Ugandan ferries. RVR will coordinate with KRC and URC
regarding aligning all existing documentation and safety practices to the International Maritime Organisation (IMO) – International Safety Management code with the goal of interim international safety certification for the Kenyan ferry by end 2011.

8. Monitoring Program

RVR will undertake various activities in order to effectively monitor the project’s environmental and social impacts. Key activities include:

Establishment of an Independent Environment, Health and Safety Management Department: RVR is in the process of establishing a department, responsible for ensuring compliance and implementation of Safety, Health & Environmental policies at all levels of operations, and ensuring compliance with host country safety, health and environmental regulatory and Investors’ requirements. The SHREQ Department shall comprise of SHE Advisors, Technical Safety Auditors / Compliance officers, Environmental and ISO coordinators, Emergency/Incident management coordinators and Community Liaison officers.

Development of Environmental and Safety Management Plans (ESMPs): ESMP objectives are to prioritize key audit findings, propose remedial actions for implementation at each facility, allocating responsibilities and developing an agenda for implementation, monitoring and reporting. RVR shall develop an environmental and safety management system based on the risk management approach. RVR shall develop site specific ESMPs in line with the EHS Action Plan.

Systematic Monitoring and Reporting: Monitoring and reporting are integral to the successful implementation of each ESMP. Monitoring results shall be summarized within quarterly environmental, health and safety reports. At a minimum, the reports shall contain the following information:

- High risk environmental, health and safety incidents and resulting action
- Environmental health safety requests from government authorities and responses
- Complaints from Employees and/or the community and resulting action
- Non-compliance incidents and resulting action
- Summary of monitoring results
- OPEX and CAPEX necessary to address requirements of the ESMP
- Training needs analysis

The annual environmental, health and safety report shall have a summary of the yearly performance as well as findings from an annual environmental, health and safety self-audit.

The total cost for implementing the EHS Action Plan is approximately $800,000.

Since RVR is working towards ISO certification, the monitoring mechanism provided by ISO Standards shall be used. Day-to-day monitoring, corrective actions, and reporting to management will be conducted as part of the integrated management system now being implemented under the General Manager (SHREQ).

RVR is required to provide the Investors, including the Bank, with an Annual Monitoring Report on its environmental and social performance. As part of the restructuring, RVR will appoint an Independent Environmental and Social Monitor (Independent Consultant/Advisor) with responsibility for verifying its annual reporting and the implementation of the Investors’ ESAP.

Given the nature of the EHS Audit Report and its focus on an existing infrastructure, consultations were held with RVR staff managing the operations of the assets and maintaining security of the assets. Consultations were also held with staff members who were privy to the early operations of the assets and their associated environmental and other aspects. However, the preparation of the RAPs mandated extensive public consultations. The perspectives of project affected persons and other stakeholders were captured in very detailed Public Consultation and Disclosure (PCDP) Reports for both Kenya and Uganda. RVR will report to communities annually on implementation of the RAPs as carried out by the Kenyan and Ugandan Governments.

As part of its SHREQ management system, RVR will also design a Community Engagement Program for the communities along the railway lines in both Kenya and Uganda. The basis for the program will be the PCDP Reports. The program will be headed by a corporate community liaison officer, assisted by field-based staff. The program will rely heavily on stakeholder participation and priorities.

10. Complementary Initiatives

RVR will undertake complimentary initiatives aimed at not only mitigating negative environmental and social impacts but also at enhancing positive environmental and social benefits. These initiatives are captured under the RVR Investors’ ESAP and include numerous actions, some of which are featured below.

Appointment of an Independent Environmental and Social Monitor. RVR shall appoint an Independent E&S Monitor with responsibility for verifying the annual reporting by RVR.

Updating the Environmental Management Manual. RVR shall update the existing environmental management plan in accordance to the ISO 14001 guidelines. The implementation of the environmental management system is intended to result into improved environmental performance. RVR shall periodically review and evaluate its environmental management system to identify opportunities for improvement and their implementation.

Emergency Reponse Management Plan. RVR shall develop an emergency management plan to provide employees and contract service providers with procedures for the management of emergency or railway safety occurrences

Safety Management Programme for RVR. RVR shall review the existing Risk Management documentation. The risk management plan shall identify all risks associated with RVR operations, determine their risk levels and mitigation measures. The plan shall include measures to reduce risks to pedestrians and other from train operations, to include improved enforcement of track crossing near stations, sensitization of communities toward track use and risks from waste disposal on track, and train operating procedures for congested areas

Cross Level Safety Program. RVR shall in conjunction with the relevant stakeholders, develop a vehicle operator safety training program for highway safety and cross level usage. The program shall be part of the community safety program aimed at minimizing safety related risks to the public
Retrenchment Policy. It is expected that RVR will want to release additional staff as modernization programs are put in place. RVR is developing a Retrenchment Policy to comply with existing labor laws and Investors’ requirements, including the need for a plan, the principle of non-discrimination, and a commitment to consultation with employees and their organizations.

Code of Conduct for Security Service Providers. RVR shall develop a security management plan that shall include a code of conduct for private security service providers, including selection, rules of engagement, and training.

Resettlement Action Plans. RVR will carefully monitor the implementation of the three RAPs by government agencies, which are key to the Project’s sustainability, until such activities have been completed and will report on progress as part of its Annual Monitoring Report to investors. The RAPs include the World Bank-funded RAP for the Kibera/ Mukuru section; the RAP for the majority of the railway reserve in Kenya (prepared by GIBB Africa); and the RAP for the railway reserve in Uganda. The 3 RAPs address encroachment throughout the entire network by identifying project affected persons, collecting qualitative and quantitative baseline socio-economic data on the PAPs, establishing entitlements to the PAPs, conducting extensive public consultations, and assessing perspectives on resettlement options.

11. Conclusion

The EHS Audit and RAPs identified risks and issues arising from RVR’s current operations that must be systematically addressed as part of RVR’s investment program. These issues were captured in the Investors’ Environmental and Social Action Plan agreed with RVR and which will be included as a loan condition. Implementation of the specific agreed measures in the Investors’ ESAP is expected to ensure that the proposed project will comply with host country laws and regulations and the Bank’s environmental and social policies and requirements.
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