PROJECT: MULTINATIONAL: UGANDA/RWANDA: KIBUYE-BUSEGA-MPIGI AND KAGITUMBA-KAYONZA-RUSUMO ROADS PROJECT

COUNTRY: UGANDA AND RWANDA

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT SUMMARY

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ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)
SUMMARY

Project Title: Multinational: Uganda–Rwanda (Kibuye-Busega-Mpigi And Kagitumba-Kayonza-Rusumo Roads) Project
Project Number: P-Z1-DB0-105
Country: Uganda and Rwanda
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1. INTRODUCTION

The Government of Uganda (GOU) and the Government of Rwanda (GOR) through their respective road agencies, Uganda National Roads Authority (UNRA) and Rwanda Transport Development Agency (RTDA) is seeking funding from the African Development Bank (AfDB) to finance the multinational Uganda-Rwanda road from Kampala (Kibuye)-Busega-Mpigi road (32Km) in Uganda and Kagitumba-Kayonza-Rusumo road section (208 Km) in Rwanda. The Road section in Kampala involves the construction of an expressway on completely new alignment while the road section in Rwanda involves rehabilitation and widening of the NR3 Kayonza-Rusumo road (92km) and NR5 Kagitumba-Kayonza road (116Km) road section. The Kibuye-Busega-Mpigi road section traverses Wakiso and Mpigi Districts whereas Rusumo – Kayonza- Kagitumba road section traverses Kayonza, Gastsibo, Kabarondo and Nyagatare districts.

The Government of Uganda through UNRA contracted M/s H.P. Gauff Ingenieure GmbH-JBG in association with Gauff Consultants (U) Ltd to offer consultancy services for the Feasibility Study and Detailed Engineering Design and Tender Documents for the Capacity Improvement of Kibuye-Busega-Mpigi Road. Similarly the Government of Rwanda through RTDA contracted SCET Tunisie in joint venture with CCC to undertake the Feasibility, Detailed Design and Tender Documents for the Kagitumba-Kayonza-Rusumo Road.

According to AfDB Environmental and Social Assessment Procedures (ESAP), projects involving construction, upgrading and rehabilitation of major roads, are classified Category 1, and these require detailed environmental and social impact assessment studies to be carried out prior to project financing and implementation. Similarly, according to the requirements of Uganda’s National Environmental Act (Cap 153) and Rwanda’s Organic Law, 2005 the proposed project is under the list of projects requiring an Environmental Impact Assessment.

The ESIA studies for each road in each country were therefore carried out in fulfilment of these requirements. The ESIA studies have been submitted to the National Environment Management Authority of Uganda and the Rwanda Development Board (RDB) for review and disclosure to the general public in accordance with the respective environmental legislation and regulations. This ESIA Summary has been prepared from the project documents in accordance with AfDB’s Environmental and Social Assessment Procedures (ESAP). In addition, over 200 persons will be involuntarily displaced by the proposed project roads. Full Resettlement Action Plans (RAPs) have been prepared for both road sections and is included as Annex 1 and Annex 2.
2. POLICY LEGAL AND ADMINISTRATIVE FRAMEWORK

The relevant policy and legislative framework on environmental and social safeguards in each country was reviewed to make sure that the proposed project is in line with the applicable national policies, legislation and institutional/administrative framework. The 1995 Uganda Constitution is the principal law governing all environmental policies and regulations. Article 39 of the Constitution gives every Ugandan a right to a clean and healthy environment. Article 245 among others pertains to the protection and preservation of the environment from abuse, pollution and degradation as well as managing the environment for sustainable development; and promoting environmental awareness.

The Uganda National Environment Management Policy (1994) aims to promote sustainable economic and social development mindful of the needs of future generations. The EIA is recognized as one of the vital tools considered necessary to ensure environmental quality and resource productivity on long-term basis. The policy requires projects or policies likely to have significant adverse ecological or social impacts to undertake an ESIA before implementation. This is also reaffirmed in the Uganda National Environment Act, Cap 153 which makes ESIA a requirement for eligible projects including roads. Both the Uganda National Environmental Management Policy and the National Environment Act Cap 153 are under review to include emerging environmental and social concerns.

Other policies reviewed by the project include Uganda Forestry Policy (2001); the Transport Sector Policy; the National Water Policy (1999); the National Development Plans (NDP); Wetlands Policy (1995); the Ministry of Works & Transport Policies (on Gender, HIV/AIDS, Occupational Health and Safety) 2008 and the National Gender Policy (1997). Several multi-sectoral laws relevant to the project were also reviewed to ensure that the project will comply with all national legislation during implementation.

The Rwandan legislation for environmental management is based on the Organic Law (2005), which establishes a comprehensive legal framework to regulate the protection and management of the environment in Rwanda. In addition to this law, the environmental legal framework consists of a series of laws, decrees and orders that mainly include: Law No. 47/1988 of 05/12/1988 for organizing the forest regime; The Decree of 05.06.1952 on easements relating to groundwater, water in lakes and rivers and their use; The Ministerial Order of 07.01.1914 on pollution and contamination of water sources, lakes, rivers and parts of rivers; The Decree of 07.19.1926 on hygiene and public safety; Law No. 11/82 of 30/03/1982 on the protection, conservation and land use; The mining legislation formed by the Law of 04.27.1971 amending the Law of 30.01.1967 on the Mining Code, Decree-Law No. 34/76 of 10.13.1976 on the quarrying; and The Expropriation law No 18/2007 of 19 April 2007 among other sectoral legislation.

The Uganda National Environment Act (Chapter 153) establishes and defines functions and authority of the Uganda National Environment Management Authority as a body responsible for management, monitoring and supervision of all environmental conservation activities (Section 4). This act provides for various strategies and tools for environment management, which also includes the ESIA (Section 19) for projects likely to have significant environmental impacts. The Rwanda National Environment Policy and the Organic Law Nº16/2006 led to the creation of REMA in 2006, which raised the importance of environmental management in Rwanda. REMA is currently under
the auspices of the Ministry of Natural Resources (MINIRENA) and is recognized as the key authority in environmental monitoring, regulation and enforcement whereas the Rwanda Development Board Environmental Impact Division is mandated to review, approve and issue ESIA licenses.

The African Development Bank’s Integrated Safeguards System has been reviewed in preparation of the ESIA for both road sections. The proposed roads exceed the Bank threshold of 50Km and there are likely to be significant disturbance and impacts on the traders, businesses and settlements along the road corridor hence Operational Safeguards (OS) 1 on Environmental Assessment and OS2 on Involuntary Resettlement are triggered. The project road on Uganda Section is new construction on anthropogenically modified habitat whereas the Rwanda section of the project will largely follow the existing paved road. As such, the environment along the project roads corridor shall be modified on the peri-urban environmentally sensitive sections in Uganda hence OS 3 on Biodiversity is triggered. OS 4 on Pollution Prevention and Hazardous Substances is triggered since construction will involve use of fuels and possibly some hazardous materials. OS 5 on Labour, Working Conditions, Occupational Health and Safety is triggered since the construction will involve a significant number of construction workers. On Climate Change, the project has been classified as Category 2 according to the Bank’s Climate Safeguards System. This implies that the proposed project could be at risk from climate change and further review is therefore required to consider broad climate trends and identify practical risk management and adaptation measures that should be integrated into the project design and implementation plans.

3. PROJECT DESCRIPTION AND JUSTIFICATION

On the Uganda Section, the Kibuye-Busega-Mpiigi Expressway is divided into two major sections. The first section is an 8.5km partly lifted dual carriageway beginning about 800m on Queensway before the current Kibuye Roundabout traversing the crowded mixed commercial and informal settlements of Ndeeba and Natete terminating at the interchange to the Kamapala – Entebbe Expressway in Busega. The second section is a grade level dual carriageway to the North of the existing highway traversing sparsely populated areas for a distance of 23.7km.

The proposed alignment for section 1 runs is between the existing highway and the railway line to the south. Much of this section is lifted, supported by concrete piers and earth embankments. Three new interchanges are provided along the route that provides grade separation between the dual carriageway that runs above and new ramp connection tie-ins to the existing roads below. The new interchanges are located at: Kibuye Km 0+800, where the existing roundabout will be replaced, Natete (Km 5+700) and Busega (Km 7+700). The dual carriageway is elevated on bridge deck and pier supports for a total of 4.7 km. These occur in three sections.

The elevation of the road allows the existing side roads, footway connections and other important infrastructure underneath to remain intact and connected. For the remaining section of 3.8km of the total 8.5km, the dual carriageway is supported on earth embankment. At the new Kibuye Interchange, connections will be made to the existing Entebbe Road and Mobutu Road to the south, Katwe Road to the North East and the beginning of Masaka Road to the North West. This Interchange will consist of a dumb bell roundabout at grade level, with the dual carriageway passing over. The interchange is designed to have 4 connecting ramps to the over bridge and 5 at-grade
connecting ramps and roads. The existing railway line alignment will be maintained and it will pass under the at grade roads. At the Natete Interchange, 4 single point ramps will connect the dual carriageway over bridge to a new gyratory roundabout below. At Busega, a new clover leaf interchange will be provided with loop ramp connections to the Kampala Entebbe Expressway over bridge (recently constructed, in 2014). The Busega interchange will connect to the new dumb bell Interchange at the end of the Northern Bypass which has also been recently constructed as part of the Entebbe Expressway. The railway line will pass to the south of the Interchange and pass under the main over-bridge. The section of existing Masaka Road that runs under the Busega Interchange will be removed from the existing Busega Round-about south. New connections to Masaka road will be formed to the south west of the Interchange.

Section 2 begins at km 8+500 west of the Busega Interchange. The new dual carriageway continues through to Mpigi at km 32+200 through a Greenfield terrain, giving a total of 23.7km of new dual carriageway. The alignment crosses the railway line at km 9+400 and then runs to the south of the railway line in a westerly direction. Two new half clover leaf Inter-changes are planned to give connection to the north south roads. At km 15+400 the alignment runs in a south westerly direction to connect with the existing Masaka Road at Km 32+200. A trumpet Interchange is proposed at km 29, giving connection to Nsangi Road.

On the Rwanda Section, the Kagitumba-Kayonza-Rusumo road is 208Km. It is divided into two major sections namely; 116 Km Kagitumba - Kayonza road section connecting with Uganda at the Mirama Hills/Kagitumba One Stop Border post and 92Km Kayonza - Rusumo section connecting with Tanzania at Rusumo One Stop Border Post. Kagitumba-Kayonza loop is 116 km long and is currently constructed to asphalt standards. The entire road is currently constructed to asphalt standards of approximately 6m wide. The road will be rehabilitated and widened to 7m carriageway with 2m wide road shoulders in urban centres and 1.5m road shoulders in the rural sections. On the Kayonza – Rusumo Section, there is a planned re-alignment of 1.8Km at Cyunuzi to address an accident black spot.

The project road crosses about 5 wetland sections draining into Lake Muhazi with where the crossings are constructed with culverts to facilitate free flow of water through the wetlands. 325 hydraulic and drainage structures were identified. Most of the drainage structures were found to be satisfactory however some will either be cleaned, rehabilitated, provided with scour protection or replaced with more durable cement concrete culverts. The designed speed is variable between 60 and 80km/hour and in some sections can reach 100km/hour.

The construction of the Kibuye-Busega-Mpigi Expressway blends with the priorities of the Uganda National Development Plans (NDP1) 2010/11-2014/15 and the Second National Development Plan (NDPII) 2015/16-2019/20 which prioritize infrastructure development. For Rwanda, the Kagitumba-Kayonza-Rusumo road project is consistent with the Government’s Vision 2020 and the second phase of Rwanda’s Economic Development and Poverty Reduction Strategy for 2013-2018 (EDPRS II). The EDPRS II, through its two pillars, i.e. (i) economic transformation; and (ii) rural development, focuses on the improvement of external and internal connectivity in order to increase exports, improve access to basic social services and promote regional integration. The project is also in line with the infrastructure development pillar of the 2012-2016 Country Strategy Paper (CSP) for Rwanda.
The multinational project will hence support regional integration and cross border trade with Uganda at Kagitumba and Tanzania at Rusumo. The project road is of significance because of the centrality of its location in connecting the northern and central transport corridors in East Africa. It is an international link to Rwanda, Tanzania, Democratic Republic of Congo (DRC) and Burundi. The Uganda road segment is further justified through its anticipated functionality roles, its operationalization will enhance the functionality and effectiveness of three other major road projects; the Kampala-Entebbe Expressway, The Northern Bypass and the Proposed Jinja Road – Kitum House-Mukwano Road-Queensway Flyover. Without this project, functionality of the above road projects will be constrained with a high potential of missing targeted improvements.

4. DESCRIPTION OF THE PROJECT ENVIRONMENT

*Topography:* The proposed Kibuye-Busega-Mpigi expressway is located in a biophysical region generically described as the Lake Victoria shores. This is a broad configuration of landscapes to the northern shores of Lake Victoria comprised of low undulating flat topped hills some of which are capped with laterite and separated by broad swamp filled valleys with sluggish flowing streams. However, continued occupancy has led to dredging and infilling of much of the wetlands in the valleys. The proposed road alignment snakes through the lower slopes and on the margins of the extensive wetlands.

The Kagitumba-Kayonza road section passes through flatter terrain and some ridges. The longitudinal slope of the road is generally soft and rarely exceeding 7%. The road the tributaries of Lake Muhazi five times. The Kayonza – Rusumo section has flat terrain in some section and hilly relief in other areas. Sections with low slopes include; Kayonza – Ngoma, Gatore Rwanteru and Nyamugari–Rusumo; Flat terrain is found between the valleys of Kibaya and Cyunuzi; hilly terrain is found in: Ngoma Kibaya, Cyunuzi Gatore and Rwanteru–Nyamugari.

*Geology:* The Kibuye-Busega-Mpigi road project area is found within the Proterozoic Ruwenzori fold belt which trends approximately E-W also known as the Buganda-Toro System. The rocks in this region belong to the Buganda Group which comprise of basal quartzite s and conglomerates and followed by a thick sequence of red and grey shales, slates and schists with frequent intercalations of sandstones, greywackes and arkoses. These are followed by slates, phyllites and shales which are succeeded by basic volcanics, amphibolites and tuffs. The basic suite consists of massive and pillowsed lava flows with tuffs and volcanic agglomerates accompanied by dolerites and quartz dolerites. These rocks overlie undifferentiated gneisses and granite gneisses of the Basement Complex. The area has low seismicity.

The geology of Kagitumba-Kayonza-Rusumo road comprises sedimentary rocks, metamorphic rocks and intrusions of basic rocks. The tectonic point of view, the dominant structural unit in the area is the Synclinorium NNE-SSW direction of Ngoma and consists of 4 cylindrical folds inclined towards the south.

*Climate:* Climate in the lake region where Kibuye-Busega-Mpigi road lies is described as humid tropical equatorial climate characterized by a double maxima rainfall regime and high temperatures through-out the year. Humidity is also high all year round. Mean annual rainfall totals range between
900-1200mm received in two seasons. The long first rains are received from late March to mid-May, while the shorter second rains are received from late August to mid-November.

Eastern Province of Rwanda where the Kagitumba-Kayonza-Rusumo lies enjoys a moderate equatorial climate, characterized by average temperatures oscillating between 16°C and 23 °C, depending on altitude, and an annual rainfall varying between 800 to over 1600 mm. Distribution of rainfall in the year is the long rainy season from March to June with 40 and 60% of annual rainfall and a maximum in April and the short rains from October to January, with 30 to 40% of annual rainfall and a maximum in November (more than 20 days of rain).

*Climate Change Projection in Uganda:* Climate change is a reality that will have strong bearing on project design, functionality and significance of impacts. IPCC fourth assessment report climate change models project an increase in average temperatures in Uganda of up to 1.50°C in the next 20 years and up to 4.30 by 2080. Changes in rainfall patterns and annual totals are also expected. Prediction models, indicate an increase in rainfall of 10-20%. From the predictions it is estimated that runoff will increase in the magnitude of 10-20% (UN-Habitat 2009). Data from the European Center for Medium –range Weather Forecast (ECMWF) Reanalysis shows average near-surface temperatures increased in Kampala between 1979 and 2005 by about 10°C though data from the Global Precipitation Center (GPCC) and Uganda Bureau of Statistics (2014) show that rainfall did not change significantly in Kampala from 1954 and 2014.

Much as climate projections at a local scale are unavailable, the University of Pretoria as reported by Rautenbach (2014) has produced downscaled projections for Kampala. According to this report, climate model simulated projections for rainfall and near surface temperatures under conditions of a medium –to –low Carbon Dioxide (CO2) Representative Concentration Pathway (RCP4.5) and high CO2 Representative Concentration Pathway (RCP8.5), temperatures are predicted to increase by 1.50C by 2095 under RCP4.5 and by 30 over the same period under RCP8.5 changes in rainfall are predicted though not very clear. However, recent rainfall data appended to this report shows an element of variation which may explain the recurrent floods.

Climate change has a direct bearing on the frequency and/or severity of extreme weather events especially in urban areas. The most critical extreme weather events likely to impact on the proposed expressway are flood events. Frequency of occurrence and severity of floods is predicted to increase due to increased erratic rainfall and subsequent runoff.

*Climate Change Projection in Rwanda:* Rwanda has experienced a temperature increase of 1.4°C since 1970, higher than the global average, and can expect an increase in temperature of up to 2.5°C by the 2050s from 1970. Rainfall is highly variable in Rwanda but average annual rainfall may increase by up to 20% by the 2050s from 1970. Projections for East Africa over Rwanda and Burundi show an increasing trend in rainfall intensity for both rainy seasons which is likely to cause floods and storms which can result in landslides, crop losses, health risks and damage to infrastructure. Temperature rise may increase the spread of vector-borne diseases, air-borne and water-borne diseases, impacting on animal and human health, and could negatively affect crop yields, impacting food security and export earnings. Extreme weather already negatively impacts the economy and climate change could result in annual economic costs of just under 1% GDP by 2030.
Rwanda has one of the lowest emissions per capita in the world, estimated at 0.4 tCO2e/person, compared to a global average of 6.7 tCO2e/person, including land use change, in 2005. The baseline GHG emissions from 2005 used in the preparation of the Second National Communication to the UNFCCC set aggregate emissions or total CO2 equivalent, amounting to 5,010Gg, dominated by agriculture and energy. Four key sources contributed 91% of aggregate emissions: N2O from agricultural soils (57%), CH4 from enteric fermentation in domestic livestock (19%), CH4 from residential energy from fuel combustion (8%) and CO2 from road vehicles (5%). CO2 emissions are mostly from transport and industrial processes though forest sequestration made Rwanda a net carbon sink in 2005. There are uncertainties in the GHG inventory however, due to inadequate representation, lack of basic data and application of emissions factors for different conditions.

**Water Quality:** The Uganda section of the project stretches from an urban setting traversed by a number of water channels to rural country side environments with degraded wetland with permanent water streams. The Nalukolongo channel which is the main surface water stream shows elements of pollution mainly associated with runoff from a heavily polluted surrounding with open motor vehicle repair workshops, timber marts, agro-processing establishments.

In Rwanda, the rivers flowing along the road corridor include Kagende, Nyakavubu, Ntaruka, Rugezi, Kibaya and Akagera. The waters of these rivers are transported by the Nyabarongo, which becomes Akagera.

**Wetlands:** In Uganda road section, a series of streams and channels join the Mayanja Kato through papyrus choked wetlands. Among the major channels are Nalukolongo, Lubigi, Nabaziza, Namaya, Kasenso, Kateranduru among others. The urban section of the road between Kibuye and Busega is mainly drained by Nalukolongo channel. The channel is currently constructed with stone pitched embankments on some sections with plans for its expansion well advanced. The channel drains a catchment area of approximately 32.8 Km2. The once extensive wetland through which the channel navigates in areas of Ndeeba, Nalukolongo and Natete have been backfilled with rubble to pave way for the construction of temporary commercial and residential structures.

Section 2 of the proposed expressway alignment winds along the margin of River Mayanja Kato for a considerable distance and only crosses the stream at km19+100. Numerous other streams traverse the project area feeding mainly the Mayanja-Kato system which eventually discharges into the Kafu system and also directly into Lake Victoria.

In Rwanda the road crosses an area next to Lake Muhazi and at some areas is surrounded by a number of wetlands for which the ecological function needs to be maintained. This is the case for Ntende wetland (Km36-Km37), a rice field and the wetlands Rwabigariro and Mwerera respectively at Km 14-Km 15 and Km 21-Km 22. Two swamps were also identified at Kibaya and Cyunuzi crossed by the road and drained by hydraulic structures that need cleaning and reinforcement with concrete structures.

**Population:** In 2014, the project districts in Uganda had a total population of 3,775,482 of which 1,800,793 were males and 1,794,689 females. The total number of households in the project stood at 584,136. The eastern province of Rwanda which is traversed by the Kagitumba-Kayonza-Rusumo road covers a total surface area of 275 Square Km and a total population of 2, 660, 814 (2012) inhabitants. Women represent 51.53% of the total population of the province.
**Socio-Economic Activities:** The Uganda section of the project area houses one of the major hubs of informal sector and small scale enterprises in Kampala and indeed the country at large. The stretch from Kibuye through Ndeeba to Nateete houses thousands of small scale informal business enterprises employing the bulk of the population. The range of sectors within this impact area include metal works, wood and carpentry workshops, automobile repair workshops, grain mills, eateries, washing bays, small roadside shops, vending shops/mobile money transfer kiosks, and indeed many more.

Along the Kagitumba-Kayonza-Rusumo corridor, Agriculture and livestock keeping is the main socio-economic activity in the project area. Agricultural sector products such as cereals, legumes, tropical fruits such as pineapples, mangoes and bananas are grown. Most farmers keep cattle. Commercial trade includes retail, wholesale, distribution and hawking. The wholesale businesses are few and are located mainly in the major Trading Centres of Kayonza, Kabarondo, Gatsibo and Ngoma. The small-scale retail outlets include canteens and shops. The main goods offered for trade include; general consumer goods, hardware and electronics. There are a number of organizations, SMEs, youth and women groups who are engaged in Commercial Crafts some as exporters selling on order basis and others as local small entrepreneurs.

5. **PROJECT ALTERNATIVES**

**No Project or Zero Option Alternative:** The zero option refers to the “No Action Alternative” which in essence refers to not implementing the proposed project at all. This alternative would imply that the current status quo would continue. Project actions predicted in the zero alternative will comprises routine maintenance works and activities aimed at preserving the current asset using recurrent expenditure. It is important to note that this zero alternative is the baseline against which all other alternatives and the development proposal have been assessed. The zero option will not register any of the impacts (both positive and negative) associated with any specific alternative or the development proposal. Assessing the other alternatives would therefore inadvertently provide an assessment of the zero option.

In addition to the direct implications of retaining the status quo there are certain other indirect impacts, which may occur should the Zero alternative be followed. The zero option will entail continued poor road conditions perpetuating long duration traffic hold ups, road flooding at Natete, frequent repairs and clogged drainage whenever it rains. Such bad road carriage conditions will perpetuate slow connectivity.

**Multiple Alignment Combinations:** Qualitative matrices have been developed to evaluate and compare different section combination alternatives and; the least impact and economic cost has been selected. The sectional analysis of critical negative biophysical and socio-economic impacts associated with the various alternative alignments as presented in the table points to alignment/design option 1B as being the least negative environment and social impact option for the Kibuye-Busega Section, while 2A emerges the least impact alignment for Busega-Mpigi. Cumulatively, the least impact section combination is 1B+2A, implying that it is the alternative section combination that if implemented will register least negative impact on the biophysical and social environment.
The total financial project investment costs vary between a low of UGX 72.3 billion for the combination of option 1B and 2A and a high of about UGX 108.4 billion for the combination of option 1A and 2B.

Considering average financial project investment costs per kilometer of road, these range from UGX 3,684.4 million per kilometer for combination option 1B and 2A to UGX 5,065.6 million per kilometer for the combination of 1A and 2B. The economic analysis therefore returns the alternative combination of 1B for the Kibuye-Busega section and 2A for the Busega-Mpigi section.

On the Rwanda section of the Kagitumba-Kayonza-Rusumo road Section, the rehabilitation and upgrading will follow the existing corridor to the extent possible with dualling, widening and

| Kibuye-Busega | 1A | A dual carriageway to be constructed north of the existing Kibuye-Busega highway running for a total distance of 10.3 km. The option if implemented will entail working in a very crowded corridor to be created. Land acquisition and property expropriation shall be undertaken at very high cost given the high density of multi-storey commercial structures. All major junctions shall be modified to suit the proposed increased traffic volume. Since the highway shall all be constructed at grade level, existing access roads shall be used to access the highway with no ramps as is required with elevated designs. This option shall further involve redesigning drainage infrastructure along the entire stretch. |
| Busega-Mpigi | 1B | A dual carriageway constructed from Kibuye interchange to Busega roundabout south of the current highway, running between the current alignment and the railway line for 8.5kms. The design presents a combination of lifted sections and grade level sections. The first section from Kibuye will be lifted concrete bridge on concrete piers. The subsequent sections shall be a combination of concrete decks and piers and embankments. The last section to the crossing point of the Entebbe-Kampala Expressway shall be constructed at grade level. |
| 2A | Construction of a completely new dual carriage expressway north of the existing road to traverse the less densely populated rural areas and running parallel to the railway. The expressway joins the existing road at Katende. The remaining section to Mpigi is then widened to dual carriageway specifications. |
| 2B | Construction of a new expressway south of the existing road to traverse through the relatively populated rural landscapes. This then joins the existing road at Katende. The remaining section to Mpigi is then widened to dual carriageway specifications. |
junctions improvement as well as drainage enhancements. There are hence limited opportunities for alternatives and the Zero option alternative was not acceptable to the Government of Rwanda. There is however a re-alignment at Cyunuzi in Rwanda which is projected to limit accidents along the road section.

6. POTENTIAL IMPACTS

Positive Impacts

*Regional Integration:* The multinational project will support regional integration and cross border trade with Uganda at Kagitumba and Tanzania at Rusumo. The project road is of significance because of the centrality of its location in connecting the northern and central transport corridors in East Africa. It is an international link to Rwanda, Tanzania, Democratic Republic of Congo (DRC) and Burundi.

*Employment opportunities:* The design, feasibility and planning phase has provided financial benefit and employment for local and foreign consultants. However many of these are non-resident though this was a positive, short-term and reversible socio-economic impact. The construction phase is bound to provide more employment avenues to local people. Contract provisions for road construction require 30% of the labour force to be drawn from the local population with particular emphasis on women. Since construction is estimated to take about 3 years, this phase will provide short-term job opportunities for local people along the road. Districts within the project area have specified conditions that require labour on such projects to be sourced within their boundaries. This should apply to this project specifically for non-skilled positions.

*Road-side business opportunities:* Road construction will stimulate roadside businesses mostly owned by women, such as vending food to construction workers. The project areas will experience an upsurge in food kiosks. Although short-term and reversible, this is a positive impact to women (and their households) who would be involved.

*Rental Income:* Land will be required on which to set up temporary workers’ camps and equipment yards. Owners of land on which these facilities will be erected will earn a rental income negotiated with contractors. This is a positive but short-term and reversible benefit ceasing with project completion or whenever such facilities are no longer required in a given location.

*Improve Trade and Access:* The project will result in socio-economic development induced with opportunities for rapid flow of commodities and enhancement of agricultural production and cross border trade. There are cross-border markets planned at Kagitumba and Rusumo. The construction of the expressway for faster movement of goods out of Kampala and widening of the Kagituma – Rusumo road corridor to enhance road safety and faster travel times will be a boost for transporters and traders. This will have the overall effect of improving the living conditions of the people.

*Reduced travel time:* Travel time on the current Kibuye-Busega –Kyengera section of the Mpigi highway increases every year due to traffic build ups at key critical junctions that have been redesigned or avoided by the expressway. The expressway design has introduced a dual carriageway with extra lanes to accommodate more traffic relieving the existing narrow carriageway in
operation. On the Kagitumba-Kayonza-Rusumo road section, the road widening, provision of road shoulders and in some locations climbing lanes is likely to reduce travel time.

**Safer and Lower travel cost:** The expressway is expected to improve road safety since city bound and out bound traffic has been separated and carriageway lifted in the urban area, leaving all connecting roads on grade and joining the expressway via rumps where needed. This has reduced or even eliminated conflicting traffic flows that exist when all flows are maintained at grade level. The Kagitumba-Kayonza-Rusumo road will be widened and a re-alignment is planned at Cyunuzi where there is a dangerous bend. Traffic accidents are expected to reduce on completion and sensitization on Road Safety is planned for the communities and road users.

**Negative Impacts**

**Climate Change Impacts:** The most critical climate change event that has bearing on the proposed expressway is flood occurrence and severity. Section A of the proposed expressway traverses an urban lowland area with surface streams that feed the Nalukolongo channel and Lubigi stream eventually draining into River Mayanja. On account of the low landscape, patch work of streams and degraded extensive wetlands, flood severity and occurrence will impact the project.

Data on flood occurrence and intensity for the Lake Victoria region is quite scanty. There appears to be no authentic data recorded or even functional gauged streams and channels. The ESIA has therefore relied on secondary data. A computation and prediction of flood damage by 2050 will be used to give an indicative magnitude of floods as one of the severe climate change events expected to influence project design and decisions.

Climate and Development Knowledge Network CDKN (2013) computed estimates of costs of damage and costs of adaptation for Kampala following IPCC methodology and considering specifically down scaled slow onset trends of floods. The study provides estimates of damage to 2050 for the same frequency of flooding as at present and a doubling of the frequency. According to CDKN, if the intensity and frequency of extreme events leading to flooding do not change, current annual damages of between USD 1.3 and USD 7.3 million in 2013 could rise to USD 3.7 and USD17.6 million by 2025 and between USD 33.2 and 101.7 million by 2050. However, the increase in damage may not completely be attributable to floods but also due to increasing population and asset ownership. Should the frequency of extreme floods double by 2050 and increase linearly between 2013 and 2050, damages would range from USD 5.6 to 26.3 million in 2013 and USD 66.5 to USD 203.3 million by 2050.

**Land Take:** The engineering design report and RAPs for the roads detail properties affected by the road construction project. Both commercial and residential buildings may be demolished or partially affected. Major areas affected will be from Kibuye to Busega. The ROW through Kibuye, Ndeeba, Nalukolongo, Nateete and Busega is within a high activity intensity urban area of mixed commercial, informal sector mills/timber workshops and low income squalid residential one room tenements. On the Kagitumba – Rusumo Road, the resettlement impacts are found in the Kayonza-Rusumo section especially at the re-alignment at Cyunuzi. Much as efforts have been made to avoid high value structures along the existing highway, the chosen alternative impacts a population with
limited options be it livelihood sustenance options or resettlement alternatives. The likelihood of this impact occurring is certain and magnitude high especially on the low income groups.

**Impact on surface water courses and wetlands:** Both the Kibuye-Busega-Mpigi expressway and the Kagitumba-Kayonza-Rusumo road will traverse through a number of both seasonal and permanent wetlands with important surface water channels. Major wetlands, of critical concern is the portion of Lubigi wetland from chainage 5+500 to 6+500 at the interchange on the Kampala-Entebbe Expressway. The expressway will cross a “refugee” wetland of approximately 8-10 hectares sandwiched between two expressways, a railway line to be upgraded and a wildly expanding settlement around Busega. The remaining wetland patch represents a much larger ecosystem that has been reclaimed though not known to house any endangered species. Though much reduced in area, Lubigi is a major flood control system. On the Kagitumba – Kayonza-Rusumo road, the project crosses at least five wetlands.

Inappropriate work methods and practices at these sites are most likely going to increase level of sediment deposition in wetlands and streams that flow through. Disposal of cut-to-spoil, cleared vegetative biomass during grubbing could end up choking wetlands and natural water ways. Other forms of construction waste include waste concrete, bitumen, lime, paper bags, scrap metal among others may be deposited in wetlands and water courses. Increased soil erosion could result from bush clearance and grubbing near water course.

**Impacts of Material Sourcing:** Construction of the project roads will require two types of earth materials; sub-base (natural gravel commonly known as murram) and base course materials (hard rock/crushed rock/aggregate or stones). Design engineers have identified candidate borrow pits along each of the roads. The choice to select borrow pits and quarries however rests with the contractor. Some of the candidate sites identified will be far away from the alignment. Whether materials are obtained from existing borrow pits or new ones, near or away from the alignment, there will be negative environmental and social economic impacts.

The method of their extraction, haulage and state in which sites are left upon project completion all have potential for socio-environmental impacts as follows: (i) Stripping of vegetative biomass to create access to material sources; (ii) Excessive noise, vibrations and dust from borrow operations and rock blasting at quarries will occur. Noise would affect local communities and quarry workers and vibrations will crack structures and affect health of especially elderly people. (iii) Fly rock which damages crops, dwellings/structures or injure people and livestock, (iv) Haulage impacts including accident risks and road dust will be realized, (v) Safety and public health risks of unrestored quarries and borrow pits including breeding of insect vectors, poisonous reptiles and possible drowning of children. Direct and secondary effects (noise, vibrations, dust, fly rock injuries, etc) associated with stone/rock quarrying and excavation of gravel can pose negative and sometimes irreversible social impacts. Unrestored quarry or borrow pits cause visual blight and scarring of landscapes besides posing public health and safety risks.

**Impacts of Utilities along the roads:** The start of the project runs through the suburbs of Kampala with dense networks of utility service lines. There exists a dense network of water pipes including major supply lines. Electricity transmission line both high voltage and low voltage lines pass through the project area as well as telecom fibres for the different networks. Surface water drainage channels have also been constructed in section A most critical being the Nalukolongo Channel. The
proposed road project will share the corridor with the existing railway. On the Kagitumba-Kayonza-Rusumo road, the widening will disrupt utilities at the trading centres. This will necessitate relocation of utility service lines causing temporary disruption of service delivery to clients including industrial and commercial enterprises. This could translate into financial losses to both utility companies and their clients.

**Cumulative Impacts**

**Flooding:** Cumulative impacts of flooding are anticipated on the Nalukolongo channel due to the implementation of multiple road projects at Busega namely; Kampala-Entebbe expressway, the Northern by-pass, and the proposed Kibuye-Busega-Mpigi expressway effects. UNRA, the design consultants and Kampala Capital City Authority met and discussed the project designs. KCCA noted that there had been exacerbated flooding incidents due to contractors dumping soil on the wetlands on the on-going construction of Northern by-pass and Entebbe Expressway. The regulatory Authorities especially the Wetlands Department have been strict in monitoring and requested the spoils to be removed from the wetlands. Overall, it was proposed that an integrated drainage system for all the projects in the Busega area be done by UNRA to establish the adequacy of the drainage designs in relation to the proposed designs for the Nalukolongo Channel.

**Resettlement:** To avoid double impacts of compensation, some communities had been identified between the Kibuye-Busega-Mpigi expressway RoW and Nalukolongo Channel and also between the expressway and the Railway Line. This kind of scenario is likely to create island communities residing between the Nalukolongo channel/railway and the expressway and poses safety risks to people’s livelihoods and is unacceptable to AfDB. UNRA and KCCA therefore agreed that due to the multiple projects in the same project area, it was important to share the RAP strip maps to avoid double compensation and also establish any island communities and residual pieces of land which should be acquired during the preparation of the Standard Gauge Railway RAP and update the Expressway RAP.

On the Kagitumba-Kayonza-Rusumo road section improvement of the project road has been identified to have overall positive impacts to social and economic aspects and notable improvement on the environment. Other transport related interventions in the same region include the construction and operation of the Kagitumba and Rusumo one stop border posts (OSBPs), the proposed Standard Gauge Railway and connecting district/feeder roads improvement which will effectively enhance the overall project benefits.

The cumulative impacts could be described as follows; (i) Overall reduction in travel time; (ii) Improved efficiency at the Gatuna, Kagitumba and Rusumo OSBPs; (iii) Improved access to social facilities, schools, hospitals; (iv) Increasing demand for road construction material – aggregate, gravel, water, sand; (v) Creation of multiple construction camp sites for each project putting pressure on land and other social services; (vi) Development of more settlements and commercial premises along the road corridor therefore increasing demand for water, power, sanitation in the 5 districts.

**7. MITIGATION MEASURES AND COMPLIMENTARY INITIATIVES**
Adaptation and Mitigation Measures

Adaptation of Climate Change considerations in Design: The proposed road section in Uganda has opportunely been designed to enhance resilience to impacts of climate change most especially flood episodes in section A. Further attention on adaptation has been focused on fills and cuts on hill slopes to improve resilience to slope failure. The following measures have been designed to improve resilience to climate change stress:

Adaptation Strategies included in the design are; (i) Section A of the expressway has been lifted and the carriageway is to be constructed on piers. The wetland and channels below will continue discharging surface water. This will improve resilience to flooding characteristic on the Natete and Ndeeba areas; (ii) Raised embankments have been planned for areas were piers terminate, this will ensure that the road is above the flood plain of the Mayanja Kato and Lubigi streams; (iii) Drainage facilities especially culverts have been increased in number and size. The current highway has 600mm culverts, the new expressway will have 900mm culverts installed and at shorter intervals; Concrete pipe culverts and box culverts have been designed to replace galvanized iron culverts that are prevalent in the project area; (vi) All cut slopes shall be protected by either stone pitching of concrete surfaces. (vii) A series of bridges have been designed, these have been used to connect access road; (viii) On gentler slopes grass planting will occur to prevent erosion; (ix) Back benching of steep slopes shall be undertaken to avoid excessively steep slopes; (x) Stream courses shall be protected by bar racks to avoid clogging by rubble and waste hence reduce flooding incidences on the new expressway.

Management Resilience building Strategies proposed include; (i) Undertake integrated catchment based planning to ensure coordination of environmental management of the many development projects in the areas; (ii) Sensitize residents on appropriate waste management approaches; (iii) Develop early warning systems to reduce flood causality.

Mitigation for Land Take: Full Resettlement Action Plans have been prepared for the properties to be affected by the project roads and a summary of the Plans is included as an Annexes to this ESIA Summary. Both UNRA and RTDA shall ensure smooth and effective implementation of the RAP by (i) providing prompt, fair and just compensation to Project Affected Persons (PAPs) prior to commencement of civil works; (ii) provide adequate vacation notices to PAPs before construction commences. This will also allow affected property owners to plan appropriately or take any salvageable material from their demolished structures without delaying contractor’s work. (iii) Institute a strong grievance committee so that complaints and dissatisfaction about the resettlement/compensation process do not unduly delay contractors progressing works.

Mitigation for Impacts on Water Courses and Wetlands: The proposed mitigation include: (i) The design shall maintain a lifted section through Lubigi wetland and part of Nalukolongo areas. The pavement has been designed to sit on concrete decks and piers to allow surface water flow under the road; (ii) Where the expressway runs along the Lubigi wetland, the statutory distance of 100m shall be maintained between the wetland and road alignment. (iii) Construction work at all wetland must be preceded by production of methods statement. (iv) No stockpiling of construction materials in a distance of 200-300m of a wetland; (v) Diversion of water courses should be done in such a way so as to avoid sedimentation and should not be longer than 1 month. (vi) Work in wetlands should be scheduled during the dry season. (vii) Disposal of cut-to-spoil indicating quantity
generated, disposal and disposal locations / potential locations should be presented in the Construction Environment Management Plans (CEMPs) to exclude wetlands and ease monitoring.

**Mitigation for Material Sourcing:** All borrow pits and quarry sites should be operated in accordance with a plan to be agreed in writing by the Engineer and the Contractor and approved by the regulatory authorities in each country NEMA (Uganda) and RDB and REMA (Rwanda). Each plan will clearly cover the following operational requirements: (i) Pit or quarry location and area; (ii) Access arrangements; (iii) A working plan giving an outline of the direction, phasing and depth of working; (iv) A reclamation/restoration plan giving details of final grading, drainage and sediment control, resoling and re-vegetation measures and design after use.

Materials not capable of supporting vegetation shall be used as fill and subsequently evenly covered with soft materials. Spoils from road building, excess stockpiled material etc. can only be used for fill in the borrow pit, provided it does not affect the hydrology of the site. If soft material/ top soil is not sufficient, the remaining portions shall be scarified along the contours to avoid erosion. Quarries sites have to be fenced to avoid people and animal falling into the pits. In additions, pits and quarries should preferably be away from the roads so as not to destroy the scenic view along the road. Final restoration should establish a full vegetation cover and restore the site to productive use (e.g. establishment of pasture or wood lots).

**Mitigation for Impacts of Utility Relocation:** Utility relocation plans shall be designed by the contractors before operations commence. UNRA and RTDA shall facilitate joint planning with the utility companies to ensure minimum disruption of services to host communities.

**Mitigation and Management of Cumulative Impacts:**

Integrated collaborative environmental planning and management will be required to manage cumulative impacts some of which could be adverse for example drainage impairment and floods. This approach will eliminate the `anonymity` complex where each firm or even agency will blame another for environmental and social breaches. When there is no mechanism for joint action and monitoring such difficulties and complex situations are bound to surface. Mitigation and management of cumulative impacts will therefore involve the following procedures and mechanisms:

- Form a joint technical Coordinating committee with representation of all infrastructure projects commissioned in the direct impact area. Government Agencies most especially UNRA, NEMA, URC, District Local Governments among others will have representation on the joint coordinating committee.
- Undertake to produce an integrated infrastructure drainage plan for the northern Lubigi watershed covering areas of Kibuye, Ndeeba, Nalukolongo, Natete and Busega.
- Produce a joint integrated Construction Environment Management Plan detailing commencement dates for respective projects, traffic management plans and general activity schedules.
- Share activity schedules and information on location of material source areas to avoid concentration of similar activities in the same place at the same time. This will reduce ambient noise and air pollution and excessive land take.
• All company employees shall be encouraged to wear company uniforms with clear unique company color coded high visibility jackets to ease identification in case of crime and fomenting social disquiet.

• All Contractor’s Environment Officer (CEO) shall maintain a site journal documenting all his communications whether verbal or written.

Complimentary Initiatives

Tree Planting program: The project shall include tree planting of approximately 40,000 tree seedlings at selected locations along the road corridor. For the towns and trading centers traversed by the road, the tree planting will serve to support the towns and districts in the beautification initiatives. RTDA in conjunction with the relevant District officers or local administration shall assess the locations suitable for tree planting along the corridor to serve the triple purposes of carbon sequestration, protect degraded areas along the road catchment and consequently protect the drainage structures from intense siltation during the rains and to support conservation initiatives in the Districts traversed by the road. RDB recommended that some of the tree seedlings can be provided to the women and youth groups who are establishing tree nurseries for conservation initiatives in the Districts.

Awareness and Sensitization Program: The project has included in its design implementation sensitization and awareness activities to cater for the prevention of the spread of HIV/AIDS, STI; sensitization and orientation on gender mainstreaming and participation of women in the project process including implementation; and road safety awareness and educational campaigns. The project will emulate a similar approach to that on other Bank’s financed road project where a Consultant was hired to provide these services. In this program at least 100 schools and 200 local community associations will be formed comprising 50 members in each association. Information pamphlets in local language will be adopted for this project comprising behavioural change messages, issues to do with working conditions, road safety messages, signage, and road users’ information. To ensure appropriateness of messages and activities, the HIV/AIDS interventions shall be prepared in collaboration with the National AIDS Control Commission and district health offices. Similarly, the road safety awareness and educational campaigns shall benefit from inputs from the Traffic and Road Safety Directorate of the Rwanda National Police (RNP/TRS) whose wide-ranging tasks include behavioural change and educational campaigns at school level. Gender awareness and gender mainstreaming shall be guided by the policies and strategies of the Gender Monitoring Office, which has shown commitment to gender equality, and the positive developments this has brought about in the country. The project shall aim at including women and youth in all aspects including participation through employment opportunities to arise during construction.

Support to Milk Traders: The project will render support to milk producers and traders through enhancing the capacities of the Milk Collection Centers (MCC). The difficulties faced by these farmers are linked to lack of all-weather rural transportation services and inadequate facilities at the MCCs themselves. While transportation accounts for the highest risk posed to the traders, lack of reliable sources of clean water have been equally jeopardizing. The project zone of influence has a production capacity of 10,700 m³ of milk per year from 28 cooperatives with 6,204 members among which 1,006 are women. Participation of women is much lower due to transportation constraints as much of the milk is transported on bicycles due to road conditions. It is envisaged that by providing
water sources to at least 10 MCCs and carrying out small rehabilitation works to the said MCCs; the project would be complementing the rural feeder roads program supported by USAID in enhancing the social economic wellbeing of the communities in the area. The provision of water to communities shall not be limited to water for MCCs only but also an additional 10 water boreholes shall be drilled in communities that have poor water sources alongside water requirements for the contractor’s work.

Support to Cross Border Informal and Formal Trade: The project, being a regional road that connects three countries (Tanzania, Rwanda and Uganda), trade is an important factor that will enhance the benefits to the investment. Working with the Ministry of Trade and Industry, the project shall facilitate trading activities at the two borders of Rusumo and Kagitumba through provision of border markets and a training and capacity building program for the informal (mostly women, 80%) and formal traders. The main objective of this inclusive cross border trade capacity development initiative is to improve the livelihoods and earnings of cross border traders, through increased trade, and reduce poverty among women and youth.

Improving the cross-border market facilities: Cross border markets will help reduce the cost of doing business and to improve competitiveness of Rwandan goods in neighboring markets, strengthen market linkages between producers, traders and markets. This will contribute towards achieving sufficient and sustained increased cross border trade leading to local economic development and attainment of the 28% export growth by 2020 as is earmarked in the EDPRS II. Consistent with the National Cross Border Trade Strategy, the envisaged training shall be tailor-made to focus on Border Agencies, border officials (customs, immigration) on appropriate behavior and treatment of small informal cross border traders. The training will include appropriate ways of providing services for informal cross border traders, such as when documentation beyond ID should be requested, what goods should be allowed through and what relevant documentation should be requested from traders. The training shall also include a section on trading under the simplified trade regime within the EAC. RRA officials shall be expected to fully be aware that no taxes should be applied to traders when exporting from Rwanda, etc. The training program shall be implemented with guidance from Rwanda Institute of Cooperatives and Entrepreneurial Management (RICEM) under the Ministry of Industry’s Single Project Implementation Unit (SPIU).

8. RESIDUAL IMPACTS AND ENVIRONMENTAL HAZARD MANAGEMENT

During the operation phase, adverse impacts similar to the environmental problems observed on the existing project roads will continue to manifest if mitigation measures are not implemented and work camps and sites are not reinstated after completion of the construction and defects liability period. These impacts include: (i) Soil erosion on slopes and embankments cut and built up during construction phase; (ii) Landscape scars at un-rehabilitated quarries and borrow sites. (iii) livelihood loss for PAPs unable to restore businesses or access clients. (iv) disruption of the hydrological flows and frequent flooding if the wetlands are not protected during construction.

Loss of livelihoods: When equitable compensation and appropriate resettlement is provided to restore livelihoods and property of affected households, residual impact of involuntary resettlement will be of low or moderate significance. Some PAPs may find it difficult to restore livelihoods to pre-exposure levels most especially due to loss of their informal enterprises including grain milling
facilities, timber yards/carpentry workshops, metal fabrication, automobile repair workshops, and eateries among others. This category normally locates near the market or where accessibility is easy. It could turn out to be difficult to engage in a similar enterprise on evacuation.

_Blasting / Explosives safety:_ the contractor will ensure the following: (i) Stone blasting is only done by licensed blasters; (ii) All explosives are delivered to quarry sites (under security escort) on the day of blasting and any remnants returned into security custody after blasting. (iii) After each blast, site inspection will be conducted for un-detonated explosives. (iv) Advance warning is given to local communities near quarry sites before a blasting episode. (v) After each blasting incident, inspection is conducted in communities around quarry sites to identify any offsite damage to private property, which shall be duly and equitably compensated. (vi) All workers shall be adequately protected from risk of fly rock and blasting noise.

**Emergency Response Plan:** The contractors will develop and maintain an Emergency Response Plan. This shall include provision of a medical clinic and a standby vehicle to immediately transport any accident victims to a nearby hospital. First Aid facilities will be provided on construction sites, equipment yards and in camps. Only trained/ certified operators will operate motorised equipment. Should accidents occur on the construction sites or on the road during construction, the accident shall be immediately reported, recorded, investigated and measures to prevent recurrence shall be implemented.

_Fire safety:_ Fire safety equipment and personnel will be provided in the workers’ camp. Warning signs will be provided at areas of potential fire source, e.g. at fuel storage areas. Risk of burns/ scald at asphalt plant will be averted by contractors using only licensed operators following stringent safety guidelines and operation procedures. Operations involving hot bitumen shall be limited to daytime in adequate natural light.

_Oil/ fuel spills:_ Accidental oil and/ or fuel spills would occur when the contractor’s trucks or vehicles are involved in road accidents or negligence of staff while on duty. Accidents may be caused by improper use of equipment, mechanical faults in equipment or vehicles among others. Spills or leakages would result in contamination of soils and water resources with hydrocarbons. Hydrocarbons and particulate matter if released into the soil will affect its productivity and pose a health risk to the community, animals and plants around. In water resources, it would affect the aquatic vegetation and fauna in addition to disrupting water supply to the community that rely on these water resources. No vehicle or equipment shall be allowed to be used if any oil or fuel leak is observed. The contractor shall have spill control equipment on standby both at the workers camp and the road construction site to ensure that any leakage or spill is contained and cleaned on time.

_Utility Disruption:_ If service relocation is not coordinated and service ducts introduced, haphazard relocation will result into frequent service outages and costly multiple relocation.

9. **ESMP IMPLEMENTATION AND MONITORING PROGRAM**

The primary oversight to ensure environmental mitigation actions and the overall ESMP are implemented will rest with the Executing Agencies in their respective countries, UNRA (Uganda) and RTDA (Rwanda). The Executing Agencies shall each appoint a Project Engineer working with
the Environmental and Social Unit (ESU). The national regulatory agencies, NEMA Uganda and REMA Rwanda shall provide regulatory supervisory and monitoring roles.

UNRA and RTDA shall require contractors to comply with the ESMP and assign a fulltime staff (Environmental Officer) to undertake environmental supervision during construction. UNRA and RTDA confers full mandate to the supervising engineering consultant to supervise the road project on a day-to-day basis. The Supervising Engineer oversees the work of the contractor by recruiting an environmental specialist, this specialist shall guide the contractor’s fulltime Environmental Officer in undertaking his/her own responsibilities, including reporting.

Monitoring procedures will comprise; (i) Institution of a qualified environmentalist and social expert by the contractor and supervision consultant. (ii) Formulation of enforceable contractual terms to ensure that contractors implement the ESMP. (iii) Ensuring a project completion and handover process that will necessitate the Executing Agencies and Environmental Regulators approval for environmental and social aspects such as site restoration and removal of road construction waste.

Contractor(s): Upon project commencement, the contractors will each prepare a site-specific Construction ESMP (CESMP) based on requirements of the ESIA and the approval license conditions in each country. These include securing quarry licenses, permits for borrow sites, permits for work in wetlands, permits for tree felling and water abstraction permits. The CESMP will be reviewed and approved by the supervising consulting engineer and the respective Executing Agency Environmental Staff. At project completion, the Contractors will prepare a final environmental completion and decommissioning report to be approved by the supervising consultant, the Executing Agencies and the national Environmental Regulatory Agencies.

The Supervising Consulting Engineer: Before construction, the supervising engineer will review the works contract and document environmental and social requirements, road safety, and quality assurance systems and plan the supervision functions to ensure that works are implemented while protecting the social and environment aspects. During the construction phase, the supervising engineer: (a) Monitors implementation of the CESMP and (b) prepares monthly and quarterly environment and social compliance reports, which are submitted to Executing Agencies for consideration, as well as annual environment and social audit reports submitted to the national environmental regulatory agencies. The Quarterly Reports and the Annual Report certified by the NEMA and REMA for respective contracts shall be made available to the Bank for review.

NEMA and REMA: During the construction phase, depending on the implementation status of environmentally and socially sensitive project activities, NEMA and REMA shall a) commit and review annual or biannual environmental monitoring reports and b) give its opinion and recommendation in which environmental concern raised by the project reviewed alongside project implementation.

Compensation: For the compensation, UNRA and RTDA will monitor implementation with assistance of the respective District Administrators. Progress of land acquisition will be monitored by the Executing Agencies. An independent consultant will undertake quarterly review of implementation activities and submit bi-annual reports to UNRA and RTDA who will review the
reports and through supervision verify milestones, livelihood restoration until compensation implementation is completed.

**Internal Monitoring:** Monitoring will verify if predicted impacts have actually occurred and check that mitigation actions recommended in the ESIA are implemented and check their effectiveness. Monitoring will also identify any unforeseen impacts that might arise from road project implementation. Monitoring will be undertaken by both the Independent Consultant and the Environmental Sections of UNRA and RTDA.

**External Monitoring:** External monitoring shall be done by NEMA and REMA according to their regulatory mandate as prescribed in their respective Environmental laws. The Occupational Health & Safety (OHS) Department in Uganda and REMA shall also undertake external monitoring of labour issues and Occupational Health and Safety compliance. The OHS Department has authority to inspect any facility for compliance with national requirements on safety in workplaces. Monitoring will be done through site inspection, review of grievances logged by stakeholders and ad hoc discussions with potentially affected persons. Monitoring will be undertaken monthly over the construction period.

**Reporting:** Detailed monthly and quarterly monitoring reports shall be compiled by the contractor’s environmental officer under oversight of the supervising engineer. The reports will be based on records kept as per requirements of the contract to be signed. These detailed reports with evidence of compliance shall be prepared and appended to summary monthly reports. An Annual Monitoring and Audit Report shall be prepared, verified by NEMA and REMA and submitted to the Bank for review.

The estimated costs for key Environmental and Social Management and Monitoring measures are provided in Tables 2 and 3.

### Table 2: Key Environmental and Social Management and Monitoring Measures for Kampala-Busega-Mpigi Road

<table>
<thead>
<tr>
<th>No</th>
<th>Description of key Environmental and Social Measures</th>
<th>Estimated Cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Biodiversity Management Plan</td>
<td>90,000</td>
</tr>
<tr>
<td>2.</td>
<td>Road Safety and HIV/AIDS Sensitization for communities</td>
<td>40,000</td>
</tr>
<tr>
<td>3.</td>
<td>Road Safety Sensitization for Schools</td>
<td>20,000</td>
</tr>
<tr>
<td>4.</td>
<td>Utility Relocation</td>
<td>50,000</td>
</tr>
<tr>
<td>5.</td>
<td>Physical Cultural Resources Plan</td>
<td>50,000</td>
</tr>
<tr>
<td>6.</td>
<td>Tree Planting</td>
<td>50,000</td>
</tr>
<tr>
<td>7.</td>
<td>Gender Mainstreaming and formation of women and youth co-operatives</td>
<td>80,000</td>
</tr>
<tr>
<td>8.</td>
<td>Health, Safety and Security of Construction Workers</td>
<td>100,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>480,000</td>
</tr>
</tbody>
</table>
Table 3: Key Environmental and Social Management Measures for Kagitumba-Kayonza-Rusumo Road

<table>
<thead>
<tr>
<th>No</th>
<th>Description of key Environmental and Social Measures</th>
<th>Estimated Cost (Rwf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Environmental Management, Monitoring and Capacity Building</td>
<td>38,400,000</td>
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<tr>
<td>2.</td>
<td>Tree Planting</td>
<td>88,000,000</td>
</tr>
<tr>
<td>3.</td>
<td>Road Safety Measures for Schools</td>
<td>75,000,000</td>
</tr>
<tr>
<td>4.</td>
<td>Complimentary Initiatives including Gender Mainstreaming</td>
<td>1,076,007,000</td>
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<tr>
<td>5.</td>
<td>HIV/AIDs, Road Safety Sensitization</td>
<td>16,500,000</td>
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<tr>
<td>6.</td>
<td>Security and Safety for construction workers</td>
<td>14,400,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1,308,307,000</strong></td>
</tr>
</tbody>
</table>

10. PUBLIC CONSULTATION AND DISCLOSURE

In compliance with the National Environmental Act, CAP 153 and the EIA Regulations 1998, consultations for the Kibuye-Busega-Mpigi expressway were undertaken from February 2015 to May 2015. Consultations are still ongoing with PAPs and will continue into project implementation with various stakeholders. The consultations were aimed at introducing the road project and its objective to lead agencies, district authorities, NGOs and adjacent communities along the proposed expressway to seek views and concerns on proposed road construction from all stakeholders. A two-tiered process was used during the ESIA process to carry out consultations with stakeholders. A consultative approach was used to seek views from Lead Agencies and local Government officials and local leadership at LC five and three levels, while focused discussions, consultative meetings and personal interviews were used to seek views from residents along the proposed expressway alignment.

Generally there was broad support for the project. The most critical issues arising from the stakeholder consultation were; on land and property expropriation, injurious damage during and after construction, runoff and flood management, road safety and general public safety, residual plots of land sandwiched between the road projects and Nalukolongo Channel or the Railway, loss of livelihoods especially for informal sector operators, employment of local people, access to properties, access to the expressway, management of material source areas, establishment of a grievance redress mechanism, disruption of service lines, illicit sexual relationships among others. Issues raised by other service providers include streamlining and inclusion of service ducts along the proposed expressway, modalities for sharing the corridor especially with the Standard Gauge Railway and power lines.

On the Rwanda side, the GoR EIA regulation of 2005 set out requirements for stakeholders’ consultation. In particular, Eco Design and Protection initiated stakeholder consultations from 8th to 18th December 2014. Consultations were organized in two levels, for targeted groups and individual discussions through meetings and focus group discussions. The outcomes of the stakeholders’ consultation were accounted for in assessing impacts and developing mitigation measures.
There was overwhelming support for the project both locally and nationally and an expectation of the contribution to economic development. There are also high expectations of the project and in particular the benefits that will accrue from job creation, training and the provision of a secured supply of goods through and from neighboring countries. However there was also the interest that the project is done without incurring unacceptable environmental and social impacts.

There were eight (8) public consultation meetings organized at various venues along the project corridor. Notices to the public were posted in the media between 1 and 2 weeks prior to the meetings with clear schedules and details of the venues and timelines. The meetings were facilitated by the consultants but chaired by the local administration and chiefs. A perception survey was also carried out in each of the five districts prior to the public meetings. The perception survey results indicated that 8% of all respondents were aware of the proposed development while 92% were unaware. The minority of the respondents (8%) heard about the development by “word of mouth” or via personal view on the proposed development. Almost 70% of respondents indicated that the proposed development will have a positive impact on the community; 14% indicated that it will negatively affect the community; 8% indicated both positive and negative impacts; and 8% responded that they did not know what kind of impact the development will have on the community. The respondents were also asked what effects they think the proposed development will have on employment, trade development, the environment and them personally. The majority of the respondents indicated that the proposed development would have a positive impact on employment as jobs should be created during construction and afterwards. The impacts on trade development was mixed as some respondents indicated that the new development would not benefit the local community, while others stated that business and socio-economic opportunities would be increased with the new development.

Consultations and community participation is proposed to continue with regards to risk and mitigation management, including engagement with the community during implementation as follows: (i) Consultation meeting at all districts at the start of construction activities; (ii) Consultation meeting at all districts during construction activities; (iii) Consultation meeting at completion of the construction.

11. CONCLUSION

The proposed Kibuye-Busega-Mpigi expressway will follow a relatively Greenfield alignment through a landscape that has been greatly modified by anthropogenic activities. The once extensive wetlands have been invaded and in filled for establishment of residential, commercial and informal manufacturing establishments. The current biophysical landscape does not exactly mirror the Lake Victoria shoreline environment but a degraded landscape which may benefit from some of the mitigation measures contained in the ESIA report if appropriately implemented. The Kagituma-Kayonza-Rusumo road section largely follows the existing road alignment with a 1.8Km realignment proposed at Cyunuzi.

Despite the identified impacts including impacts on drainage, wetlands, material extraction areas, land and property expropriation, public health, occupational safety, HIV/AIDS, ambient air quality, aesthetics, traffic accidents among others, the project roads are expected to meet environmental
sustainability criteria. Mitigation measures have been proposed and when implemented, shall eliminate, reduce or compensate for the negative impacts assessed. The project implementing team shall be guided by the ESIA and ESMP to ensure environment and social specifications are adhered to hence increasing the probability of achieving project objectives.

Indirect benefits to the local people include increased access to social services such as education and health. Local community members shall benefit from improved access to external markets for their agricultural products. Trade and exchange between Uganda, Rwanda and Tanzania will be improved through the new rehabilitated and widened road in the zone of influence.

However, on the Uganda road section there are a number of infrastructural projects being implemented in the same area raising concerns over cumulative impacts. These are likely to complicate environmental and social management. To ease and smoothen project operations in Uganda, a joint integrated environmental planning committee has been recommended, UNRA with the parent Ministry of Works and Transport has established a joint technical committee comprising of all projects within the project area and key agencies.

Overall, the project has been found to have significant positive benefits to the region and to the local communities, the negative impacts will be mitigated through design and good engineering practices.
# RESETTLEMENT ACTION PLAN

## SUMMARY

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Kibuye – Busega – Mpigi Express Highway Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Number:</td>
<td>P-Z1-DB0-105</td>
</tr>
<tr>
<td>Country:</td>
<td>Uganda</td>
</tr>
<tr>
<td>Department:</td>
<td>OITC</td>
</tr>
<tr>
<td>Division:</td>
<td>OITC.2</td>
</tr>
<tr>
<td>Project Category:</td>
<td>1</td>
</tr>
</tbody>
</table>

## 1. Description of the project, project area and area of influence

The Uganda National Roads Authority (UNRA) has secured and allocated funds to be used for the upgrading of the Kibuye-Busega-Mpigi (KBM) Express Highway that will run from Kampala (Kibuye) through Busega to Mpigi town. In this report, this is abbreviated as the KBM Project. The UNRA commissioned H. P. Gauff Ingenieure GmbH & Co. –JBG– in association with Gauff Consultants (U) Ltd to prepare a Resettlement Action Plan (RAP) whose summary is presented here below. The proposed KBM Project road is part of the Kampala-Masaka highway and is linked with the Kampala-Mityana road to the north and the Kampala-Entebbe express road to the south. The road is also part of the international trunk route, connecting Rwanda, Burundi and Eastern Congo to the port of Mombasa in Kenya; and through Mirama Hills, it connects to Rusumo (Border with Tanzania) through Kayonza in Rwanda.

The proposed KBM project road (33 km) is split into two distinct sections. Section 1, runs from Kibuye to Busega, is about 8 km in length and crosses a developed urban section with limited right of way (RoW), while Section 2, runs from Busega to Mpigi, and is about 25 km in length and passes through rural and semi-urban settings. Section I of the proposed KBM Project road starts on Queensway, and traverses westwards between the existing Kibuye-Busega road and the Kampala-Kasese railway line and crosses the new alignment of the Kampala-Entebbe express road and terminates at 8.7 km where it connects with section II. Section II starts from Busega and runs to Mpigi town, heads south-west, continuing in a parallel alignment south of the Kampala-Kasese railway line for about 5 km and continues in this southerly direction through several villages until it merges with the existing road alignment at Lungala trading centre. From Lungala trading centre, it continues on the existing alignment until it reaches the exit junction at Mpwami-Bikondo in Mpigi town.

## 2. Potential impacts

Potential impacts of implementing the project shall emanate from land acquisition and property relocation and/or destruction due to project activities. The major project activity will involve acquiring the Right of Way (RoW) and construction of the carriageway, shoulders, drainages, central median, and other accessories. While the required width of the RoW is 60m, to minimize impact in the highly built areas of section I, the RoW width has been reduced to 30m. The major project component that will trigger resettlement therefore is the acquisition of RoW and construction of the carriageway, the interchanges, the shoulders, drainages and other...
accessories. Ancillary operations like workers camps, site offices and material camps have not been considered under this RAP since the sites are not yet known.

From the census carried out, it is estimated that project implementation will directly affect 1,544 households with a total of 5,204 household members or project affected persons (PAPs) of which 2,723 are in section I, while 2,481 are in section II. The potential impacts of this project will, therefore, be in:
Loss of land
Loss of buildings and structures (including fences, hedges and gates)
Loss of livelihood enterprises
Associated impact on socially and economically disadvantage/vulnerable groups like the widows, unemployed, orphans and the elderly

Below is a summary of affected assets in all PAPs.

<table>
<thead>
<tr>
<th>Type of Asset</th>
<th>Name of District</th>
<th>Kampala</th>
<th>Wakiso</th>
<th>Mpigi</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Buildings</td>
<td></td>
<td>636</td>
<td>411</td>
<td>336</td>
<td>1383</td>
</tr>
<tr>
<td>Semi-Permanent Buildings</td>
<td></td>
<td>11</td>
<td>3</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>Temporary Structures</td>
<td></td>
<td>134</td>
<td>8</td>
<td>54</td>
<td>196</td>
</tr>
<tr>
<td>Pit latrines/ Bathrooms</td>
<td></td>
<td>354</td>
<td>41</td>
<td>136</td>
<td>531</td>
</tr>
<tr>
<td>Metallic Kiosks</td>
<td></td>
<td>160</td>
<td>1</td>
<td>21</td>
<td>182</td>
</tr>
<tr>
<td>Timber kiosk</td>
<td></td>
<td>40</td>
<td>5</td>
<td>19</td>
<td>64</td>
</tr>
<tr>
<td>Block wall / Brick wall fence</td>
<td></td>
<td>29</td>
<td>41</td>
<td>15</td>
<td>85</td>
</tr>
<tr>
<td>Live Hedge / Barbed Wire Fence</td>
<td></td>
<td>11</td>
<td>15</td>
<td>8</td>
<td>34</td>
</tr>
<tr>
<td>Paved/ Concrete yards/ Retaining walls</td>
<td></td>
<td>28</td>
<td>9</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>Shades/ Stalls</td>
<td></td>
<td>68</td>
<td>8</td>
<td>7</td>
<td>83</td>
</tr>
<tr>
<td>Graves</td>
<td></td>
<td>143</td>
<td></td>
<td>228</td>
<td>371</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>18</td>
<td>8</td>
<td>18</td>
<td>44</td>
</tr>
<tr>
<td>Total No. of affected structures</td>
<td></td>
<td>1489</td>
<td>693</td>
<td>865</td>
<td>3047</td>
</tr>
</tbody>
</table>

3. Organizational and Institutional Responsibilities

There are four main agencies, at the central government level, involved in carrying out resettlement and/or compensation for projects of this nature. These are:

(i) The Ministry of Works and Transport (MoW), which is the road sector lead agency and supervising entity for the project developer;

(ii) The Ministry of Lands, Housing and Urban Development which houses the Office of the Chief Government Valuer (CGV); this is the regulatory lead agency for property valuation, compensation and Office of the Registrar of Titles that handles land rights registration and transfer;

(iii) The Uganda National Roads Authority (UNRA) or project developer that represents the MoWT with the overall project execution mandate; and
At the local government and community level, there are departments that are directly involved in resettlement compensation activities such as: The District Land Board (DLB), District Land Office (DLO) and the District Land Tribunal (DLT).

The Table below presents a summary of the organizational responsibility structure proposed for RAP implementation

**Organizational Responsibility for RAP implementation**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Roles Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Works and Transport (represented by the project developer – UNRA)</td>
<td>Overall RAP implementation, sourcing for counterpart funds for RAP implementation, monitoring of compensation/resettlement, Evaluation of RAP implementation, coordinating between different stakeholders, and supervision of RAP implementing team and overall RAP implementation administration.</td>
</tr>
<tr>
<td>Ministry of Lands, Housing and Urban Development (MLHUD)</td>
<td>Provide support, supervision and technical back-stopping to Local Governments and other agencies on matters regarding lands administration including transfers, valuation ratings; monitor national standards for matters regarding resettlement compensation and sustainable use and development of land for safe, planned and improved human settlements and resettlements.</td>
</tr>
<tr>
<td>Ministry of Lands, Housing and Urban Development-Uganda Land Commission(ULC)</td>
<td>The Uganda land commission (ULC) was established by the 1995 Constitution of the Republic of Uganda. The expected roles of ULC as derived from the objectives of setting it up include; acquiring the land on behalf of the central government/developer, develop &amp; maintain an updated inventory and data base for all Government land and property; and ensure that all Government land is titled and secured.</td>
</tr>
<tr>
<td>Ministry of Lands, Housing and Urban Development-Office of Chief Government Valuer (CGV)</td>
<td>Responsible for approving the valuation estimates, ascertaining the compensation rates and values of property and structures, and regulatory oversight and advisory support supervision to the RAP implementation team and resolving public complaints that arise from land acquisition valuations and compensation.</td>
</tr>
<tr>
<td>DLB and DLO</td>
<td>Holding and allocating land in the district which is not owned by any person or authority; facilitating the registration and transfer of interests in land; taking over the role and exercising the powers of the lessor in the case of a lease granted by a former controlling authority; causing surveys, plans, maps, drawings and estimates to be made by or through its officers or agents; compiling and maintaining a list of rates of compensation payable in respect of crops, buildings of a non-permanent nature; reviewing every year the list of rates of compensation.</td>
</tr>
<tr>
<td>Land committees</td>
<td>Ascertaining ownership and boundaries of affected lands, facilitating the registration of acquired land and community mobilization.</td>
</tr>
<tr>
<td>Local Councils I, II, and III</td>
<td>Ascertaining ownership, community mobilization and sensitization and providing guidance for the compensation process to PAPs.</td>
</tr>
<tr>
<td>KCCA, district and town local governments</td>
<td>Community mobilization/guidance, RAP information dissemination, monitoring the compensation process, receiving complaints /grievances, representation to relevant RAP structures such as the compensation grievance handling committees at the division/sub-county level, advisory RAP committee at the district level.</td>
</tr>
</tbody>
</table>
This RAP will be implemented by UNRA, as the lead project developer, while MLHUD will provide the relevant sector supervision over resettlement and compensation implementation. Central government institutions and the project developer mentioned above are considered to have sufficient structures, resource capacity and skills to undertake their institutional responsibilities for resettlement and compensation implementation, which are within their mandate. However, the district and local government councils, area land committees, local council committee and community leaders will need orientation and capacity enhancement about resettlement compensation and implementation in order to enhance their active participation in RAP implementation.

4. Community participation

Extensive community and stakeholder consultations were held within the PA. Community members, including PAPs, were also informed of the property identification and valuation principles to be followed during assessment, as well as the resettlement compensation options available to them. Views of the community and PAPs were documented and have been integrated in resettlement measures and strategies outlined in this RAP. Below is a summary of some of the issues raised.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target group(s)/areas</th>
<th>Level</th>
<th>Methods and techniques</th>
<th>Key issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PAP census</td>
<td>All PAPs in the PA (1544 Households)</td>
<td>Household</td>
<td>PAPs Households interviews</td>
<td>See Chapter 6 of RAP</td>
</tr>
<tr>
<td>2 Key institutional stakeholders-District</td>
<td>Local government authorities of Mpiigi and Wakiso district and KCCA (21 Interviews and 02 meetings).</td>
<td>Local Gvt</td>
<td>Key informant interviews and records review</td>
<td>Cumulative impacts, prompt payments and collaboration with local gvs, replacement of public facilities and resources, re-alignment to minimize impact</td>
</tr>
<tr>
<td>3 Key institutional stakeholders-Central</td>
<td>Key stakeholder consultations (11) with central government agencies: Ministry of Internal Affairs, Ministry of Water and Environment (MWE), Ministry of Land, Housing and Urban Development (MLHUD), Uganda Land Commission (ULC), Uganda Police Force, Uganda Railways Corporation (URC), National Water and Sewerage Corporation (NWSC), Uganda Electricity Transmission Company (UETCL), Uganda National Roads Authority (UNRA), Kampala Capital City Authority (KCCA),</td>
<td>Central Gvt</td>
<td>Key informant interviews and records review</td>
<td>Cumulative impacts, prompt compensation payments and collaboration with other developers, protection of women and children</td>
</tr>
<tr>
<td>4. Community members (24)</td>
<td>Affected Community members and PAPs</td>
<td>Community level</td>
<td>Community dialogues</td>
<td>Project impacts, prompt resettlement compensation, entitlement and</td>
</tr>
</tbody>
</table>
5. Integration with host communities and Selection of Alternative Sites

Community members and other institutional stakeholders consulted recommended that community infrastructure and facilities should be restored within the same community so as to restore service levels and benefits. Therefore, replacement of project-affected community infrastructure and facilities will not necessitate being hosted in completely new communities. Also large-scale or group relocation of PAPs to centralised new areas is not anticipated given the linear nature of the project. In addition, most of the PAPs consulted indicated preferences for cash compensation to enable them restore their properties and other livelihood activities on their residual lands or in a manner and place that is satisfactory to their choice. Site selection for relocation of community infrastructure and facilities has not been done except for Kibuye market, where one site within the same neighbourhood has been suggested by the market managers and is owned by the same landlord. Once site selection for relocation of community resources and facilities is complete, these relocation sites, will be subjected to an environmental and impact assessment and site clearance will commence after approval of the ESIA.

6. Socio-economic studies

The objective of the PAP census was to generate socio-economic characteristics of the PAP households and understand their livelihood and production systems, establish the nature of project impacts on their households and generate baseline data for RAP monitoring and evaluation.

Key findings of the socio-economic survey are summarized as follows:

### Key findings of social-economic census of PAPs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Key finding</th>
<th>Conclusion/Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender and household headship</td>
<td>Few of the PAPs household heads were female (14.3%) and the rest were males</td>
<td>Highly patriarchal society. Need to plan and take care of the interests and rights of women</td>
</tr>
<tr>
<td>Length of stay in project area (PA)</td>
<td>Over half of the PAPs in section I (77%) and 45% in section II had stayed in the PA for more than 5 years</td>
<td>Indicating relatively high levels of integration in the PAs.</td>
</tr>
<tr>
<td>Impact level</td>
<td>Project implementation will directly affect 1544 households with a total of 5,204 project affected persons (PAPs) of which 2,723 are in section I, while 2,481 are in section II.</td>
<td>More PAPs affected in section I</td>
</tr>
<tr>
<td>Education level of Heads</td>
<td>PAPs household heads (21.2%) had primary education and (55%) secondary level of education in section I. A similar trend was observed for section II. Most of the PAPs household heads could read and write in any language with ease (74.8%) in section I, and 77.6% in section II.</td>
<td>Literacy and education level fairly high</td>
</tr>
<tr>
<td>Education attendance by children</td>
<td>School attendance was moderately high, 71% in section I and 75% in section II. There is also marked preference for private schools</td>
<td>Education attendance high. Adequate and prompt compensation to ensure children stay in school.</td>
</tr>
<tr>
<td>Variable</td>
<td>Key finding</td>
<td>Conclusion/implication</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Accessibility to market facilities</td>
<td>Access to markets in Section I had 65% less than 1 km; while in Section II there were 45% within less than 1 km.</td>
<td>Quality of market facilities/service are rated as good. Adequate and prompt compensation to ensure households still are able to access markets commonly used</td>
</tr>
<tr>
<td>Accessibility to public health facilities</td>
<td>Perception of quality of service is high 72.4% in Section I and 56% in section II, respectively.</td>
<td>Adequate and prompt compensation to ensure service levels. Replace facilities affected to maintain service levels</td>
</tr>
<tr>
<td>Accessibility to safe water sources</td>
<td>Most of the PAP households in section I used piped water (65%) followed by protected springs (21%). In Section II, a third of the PAP households used piped (32%) followed by protected springs (24%) and Boreholes (20%)</td>
<td>Adequate and prompt compensation to ensure PAP households can afford the service levels. Replace facilities affected to maintain service levels</td>
</tr>
<tr>
<td>Occupation</td>
<td>More of the PAP household heads were own account workers (business, cash farming etc.) in section I (60.4%) and about half in section II (48%) followed by subsistence farming</td>
<td>Most of the affected livelihood activities in section I are non-farm enterprises. Plan livelihoods restoration that takes care of such PAPs occupation</td>
</tr>
<tr>
<td>Source of income</td>
<td>Main source of PAP household income was household business/enterprise in section I (76.4%) and section II (66.7%).</td>
<td>Plan livelihoods restoration that takes care of such PAPs occupation</td>
</tr>
<tr>
<td>Land tenure</td>
<td>Mailo and customary leasehold (bibanja holders)</td>
<td>Multiplicity of interest in same pieces of land. Expect competing interest and provide redress mechanisms</td>
</tr>
<tr>
<td>Income levels of the PAP household</td>
<td>Very few households earn less than UGX 100,000 per month in section I (1.2%) and section II (0.6%), while 21.6% and 30% earned between UGX 500,000-1,000,000 per month in section I and section II respectively. Relatively more households in section I (27.3%) compared to section II (21.4%) earned more than UGX 3,000,000 per month</td>
<td>Income levels still low for some households. Plan for livelihood restoration interventions</td>
</tr>
<tr>
<td>Residence structures</td>
<td>Most of the PAP household residences were of permanent materials</td>
<td>Compensation should enable the PAPs regain such level of welfare</td>
</tr>
<tr>
<td>Preference for mode of compensation</td>
<td>Most of the PAP households expressed preferences for cash compensation</td>
<td>Expect to enable them re-establish their properties or livelihood activities in a manner/strategy and place of their choice</td>
</tr>
</tbody>
</table>

7. Legal framework, including mechanisms for conflict resolution and appeal

The position of the Uganda Government in relation to compensation to be paid if damage is caused to land or developments on land is clear under the 1995 Constitution, the 1998 Land Act, the Land Acquisition Act (1965) and other laws of Uganda. The emphasis of Ugandan legislation is on the right to own property either individually or in association with others in a variety of tenure systems, including that based on tradition and customs, and that no deprivation should take place before prompt and adequate compensation.

Applicable AfDB standards:
• Involuntary Resettlement Policy, 2003
• AfDB Integrated Safeguard Standards, 2013 – Operational Safeguard (OS 2) on Involuntary Resettlement
• AfDB Gender Policy, and
• Handbook on Stakeholders Consultations

The following are key legislations governing land, resettlement and compensation matters in Uganda:

**The Uganda Constitution (1995):** Article 237(1) of the Ugandan constitution vests all land of Uganda in the citizens of Uganda. However the constitution, under article 237(1) (a), gives the government or local governments powers to acquire land in the public interest.


**Land Acquisition ACT (1965):** The Land Acquisition Act (1965) makes provision for the procedures and method of compulsory acquisition of land for public purposes whether for temporary or permanent use. Before government acquires such land, it must timely, fairly and adequately compensate (article 26 of the Constitution and section 42 of the Land Act).

**Land tenure regimes and Administration:** Land tenure in the country is clearly laid out in the Land Act (Cap 227). The Land Act repeats, in sections 3 and 4, provisions of article 237 of the constitution which vests land ownership in the citizens of Uganda, to be held under customary, freehold, mailo or leasehold tenure systems.

**Land Rights:** The National Constitution (1995) and the Land Act (Cap 227) give landowners and users rights, including that to fair and prompt compensation for the landowners for lost land and other affected developments on land (section 42, sub-section 7, paragraph (b). The Land Act also recognizes the rights of the spouse and children of the owner of the affected or acquired land.

**The Local Government Act (1997):** The Local Government Act (1997) provides for the system of local governments, which is based on local councils for the district and sub-counties in rural areas; and municipalities, municipal divisions and town councils for urban areas. The functions of local governments include, among others under the DLO, facilitating land registration, administration and regulation, including the development of valuation rates for crops and temporary structures.

**Registration of Titles Act (RTA, Cap 230):** The Registration of Titles Act Cap 230 governs land acquisition and the leasing of registered land, through which most of the proposed KBM Project alignment will pass.
The Land Regulations: The Land Regulations (2004) guide the DLB in the development of property valuation rates and emphasizes that in lieu of compensation for illegally grown crops, but allow owner to harvest seasonal crops and that market value should be used for compensation of other crops and trees, while replacement costs should be considered for temporary structures.

The Roads Act (1964): The Roads Act (1964) is a key piece of legislation with respect to the public development along road reserves and prohibits putting up private developments in road reserves.

International Development Policy Frameworks: A number of safeguard policies from international development partners have informed the preparation of this RAP, particularly AfDBs’ Safeguard Policies and Operational Safeguards (OSs). These are briefly described below:

**AfDB OS1: Environmental and Social Assessment:** The objective of this overarching OS 1, along with other OSs that support it, is to mainstream environmental and social considerations, including those related to climate change vulnerability, into Bank operations and thereby contribute to sustainable development in the region.

**AfDB OS 2: Involuntary Resettlement: Land Acquisition, Population Displacement and Compensation:** This Operational Safeguard (OS 2) aims to facilitate the operationalization of the Bank’s 2003 Involuntary Resettlement Policy in the context of the requirements of OS1 and thereby mainstream resettlement considerations into bank operations.

Comparison and identification of gaps between Uganda and AfDB policies are summarized in the following table below showing key gaps identified between Ugandan and AfDB legal framework:

<table>
<thead>
<tr>
<th>Uganda Law</th>
<th>AfDB Policy Guidelines</th>
<th>Variance</th>
<th>Recommendation</th>
</tr>
</thead>
</table>

Comparison and identification of gaps between Uganda and AfDB policies are summarized in the following table below showing key gaps identified between Ugandan and AfDB legal framework:

1 A road reserve is defined as that area bounded by imaginary lines parallel to and not more than 50 feet distant from the centreline of any road, and declared to be a road reserve. The act also states that no person shall erect any building or plant, trees or permanent crops within a road reserve.

2 These OSs are part of the Bank’s Integrated Safeguards System (ISS) or framework. The ISS builds on the two previous AfDB’s safeguard policies—Involuntary Resettlement (2003) and Environment (2004). The OSs are a set of five safeguard requirements that Bank clients are expected to meet when addressing social and environmental impacts and risks. The ISS is designed to promote the sustainability of project outcomes by protecting the environment and people from the potentially adverse impacts of projects.
<table>
<thead>
<tr>
<th>Compensation is based on formal legal interests in land. Compensation emphasis is cash compensation based on market rates for land and permanent buildings; Compensation based in valuation rates from DLB/DLO for crops and temporary structures alternative land equivalent to the value ascertained</th>
<th>Recommends full replacement costs for all properties affected; advocates for in-kind compensation</th>
<th>Payment of compensation in monetary terms as opposed to in-kind</th>
<th>Respect PAPs preferences for cash payments. PA is heavily built and looking for alternative centralised land to settle PAPs is challenging and difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grievance redress mechanism is provided in Land Tribunals and formal courts</td>
<td>The mechanism is clear</td>
<td>Legal process for dispute resolution are time consuming and expensive</td>
<td>Establish grievance system which is affordable, accessible and prompt.</td>
</tr>
<tr>
<td>Livelihood restoration and assistance</td>
<td>There are no explicit provisions under resettlement compensation for livelihood assistance.</td>
<td>The AfDB OSs provide for resettlement assistance so that their standards of living, income-earning capacity, production levels</td>
<td>Ugandan legislation would need to be aligned with AfDBs policy on livelihood restoration and assistance.</td>
</tr>
<tr>
<td>Land Owners</td>
<td>The Constitution of Uganda, 1995 vests all land directly in the Citizens of Uganda, and states that every person has the right to legally own property and are entitled to compensation based on the location and open market value principles.</td>
<td>Affected people are compensated for all their losses at full replacement costs before their actual move; before land and related assets are taken. Preference for compensation-in-kind. Reiterates the importance of resettlement assistance.</td>
<td>Locally, the right to resettlement compensation is applicable only to those with legal proprietary interest in the affected land</td>
</tr>
<tr>
<td>Computation/valuation for compensation</td>
<td>According to the Land Act, Cap 227 (section 77), the value of customary land shall be the open market value of the unimproved land. Value of the buildings shall be at open market value for urban areas and depreciated replacement cost for</td>
<td>The criteria for assessing the value of land, housing and other property are full replacement values and other provisions including resettlement assistance valuation.</td>
<td>There are no equivalent provisions on in-kind resettlement and resettlement assistance. In the local legislation Rates set by the DLO/DLBs may not reflect full replacement cost. Project shall ensure compensation is</td>
</tr>
</tbody>
</table>

8. **Grievance Redress Mechanism**
The Project Grievance Management system is intended to put in place and facilitate accessible, prompt and cost-effective handling of grievances at the nearest points of service to community members and the PAPs. The aim and purpose of this system is to make the grievance handling procedures accessible, acceptable, prompt and affordable to the PAPs and other community members. The objective of the grievance management system is to establish for the PAPs and other community members mechanisms for raising complaints related to compensation for loss of land and other livelihood properties and assets and having such complaints resolved as amicably as possible through acceptable and binding corrective actions. This grievance management system will be in place for a period of 18 months, including the exit period.
Flow Chart Indicating Process for Grievance Handling

1. **Step 1: Receipt of complaint/grievance**
   - Grievance received by the responsible officer or assigned agent
   - **TIME FRAME:** Immediately

2. **Step 2: Determination of corrective action**
   - A description of the action; the time frame in which the action is to take place; and the party responsible for implementing the action
   - **TIME FRAME:** Grievances will be resolved and status reported back to complainants within 30 days

3. **Step 3: Meeting with the complainant**
   - Written agreement to proceed with the corrective action will be sought from the complainant
   - **TIME FRAME:** Within 07 Working Days

4. **Step 4: Implementation of corrective action**
   - Agreed corrective actions will be undertaken by the project developer or its representative
   - **TIME FRAME:** 30 days

5. **Step 5: Verification of corrective action**
   - GO to verify that the corrective action has been implemented after the 30 days in step 4.
   - **TIME FRAME:** Within 07 days after time frame in step 4

6. **Step 6: Action by local leaders and project contractors**
   - If the GO and independent observer cannot solve the grievance, it will be referred to relevant parties such as local leaders, District Officers
   - **TIME FRAME:** 30 Working Days

7. **Step 7: Action by Grievance Committee**
   - If the grievance cannot be solved by GO or at step 6, it will be handled by the Grievance Committee
   - **TIME FRAME:** Within 30 working days after receipt of complaint from GO

8. **Step 8: Action by Developer (UNRA)**
   - If no satisfactory solution is reached by the Grievance Committee the complainant will lodge the complaint with the project developer
   - **TIME FRAME:** Within 30 working days after receipt of complaint

9. **Step 9: Alternative Action by Chief Government Valuer (CGV): Beyond this step, the aggrieved person can resort to the judicial process**
   -TIME FRAME: Within 60 working days after receipt of complaint

9. **Institutional framework**
This section summarizes the institutional framework for RAP implementation, mainly the RAP Implementation Unit and the RAP implementation advisors. The institutions that will be involved in the implementation of the RAP will include the following:

(i) The UNRA (project lead agency and developer);
(ii) The Office of the Chief Government Value;
(iii) Representation from independent local CSOs; and
(iv) Local governments.

**The RAP Implementation Unit Structure**

The RAP Implementation Unit (RIU) will comprise a core unit responsible for day-to-day operations and technical support staff (working on part-time and as when required from the district and civil society). Composition of the core RIU will be as follows:

- Implementation Manager (1);
- Implementation Officer (1);
- Monitoring Officer (1);
- Administrators (2). One of the administrators can be the designate GO.
- Valuer (1);
- Sociologist (1);
- Part-time representative from the district (District Land Officer); and
- Part-time representative from an independent CSO.

The day-to-day role of the RAP implementation team will be:

(i) Planning and coordinating prompt compensation payments;
(ii) Planning and coordinating special assistance to vulnerable groups;
(iii) Ensuring the compensation process and entitlements adhere to legal provisions such as spousal and children’s consent where it applies, working through the office of the Administrator General in the case of the death of a PAP;
(iv) Reporting to the senior management team of the developer and district-based advisors and stakeholders;
(v) Ensuring that the information needs of the PAPs are disseminated promptly and effectively;
(vi) Managing and updating the RAP implementation database;
(vii) Contributing to the regular monitoring and evaluation of the RAP implementation; and
(viii) Consulting and sensitizing the community and PAPs on RAP implementation process.

**RAP Implementation Advisors**

The RAP implementation team will have and benefit from advisors from local administration, preferably public administrators in the PA. It is recommended that an advisory committee to the RAP Implementation Unit (RIU) be established and be composed of the following:

(i) The Chief Administrative Officers (CAO), Mpigi and Wakiso district governments (2);
(ii) The Town Clerk, Lubaga and Makindye divisions (2);
(iii) The Town Clerk, Mpigi town council (1);
(iv) The sub-county chiefs (2) of Nsangi and Kiringente sub-counties; and
(v) An independent CSO/ NGO representative (1).

The core team will report to the senior management of the developer (UNRA) and, through consultative regular meetings, to a local government-based advisory committee described above. In addition, the UNRA senior management will retain an oversight and support supervisory role for the RIU to ensure that RAP implementation is planned and executed efficiently and effectively.

10. Eligibility

The concept eligibility is used in respect of the definition of PAPs and the criteria for determining their qualification for compensation and other resettlement assistance. The entitlement ‘cut-off’ date for this RAP was declared as 4\textsuperscript{th} June 2015. A statutory disturbance allowance (under Section 77 (2) of the Land Act) is payable on the amount for compensation. Eligibility criteria for different types of losses

Project-affected persons (PAPs): These are persons who will lose their land and other assets that may result in direct economic and/or social adverse impacts, regardless of whether or not they physically relocate.

Land: Persons who own land are, irrespective of their status, eligible for some form of assistance if they occupied the land at the affected sites before the entitlement ‘cut-off’ date.

Permanent buildings and structures: Owners of permanent buildings are eligible for compensation if they have formal and non-formal legal rights to prove ownership. A summary of the project impacts by zone/area is presented here. The total number of permanent structures that will be affected is 1383 (636 in Kampala, 411 in Wakiso, and 336 in Mpigi).

Non-permanent buildings and structures: A total of 229 of the semi-permanent buildings and temporary structures of which 145 in Kampala, 11 in Wakiso and 73 in Mpigi.

Other buildings and structures: A total of 1058 other structures (temporary structures, pit latrines, bathrooms, metallic kiosks, timber kiosks, block wall and brick wall fences of which 714 are in Kampala, 96 in Wakiso and 245 Mpigi).

Fences, hedges, and Other: A total of 624 such structures were counted of which 143 were in Kampala, 209 in Wakiso and 272 in Mpigi.

Livelihood Restoration: In order to enable PAPs to restore their livelihoods and income earning capacities quickly, the following livelihood restoration interventions are proposed.

(i) Market vendors in Kibuye market will be assisted with relocation allowances to the proposed new site

(ii) Market vendors in Kibuye Market will be assisted will market rental fees for the first 6 months after relocation to the new site

(iii) Market vendors from Kibuye Market will be assisted with publicity facilities to announce and direct potential customers to the relocated site.

(iv) There will be dedicated access and exit facilities and operating stalls for market vendors who are disabled in the new site for Kibuye market.
(v) There are also other PAP vendors with temporary and make shift timber and metallic stalls/shade/Kiosks scattered across the PAs will also be assisted with relocation allowances for their stalls/shades/kiosks.

(vi) All PAPs with graveyards will be given transport to move their dead to other sites.

Land: The required land take for the acquisition of the RoW and construction of the project road is 226.3 hectares (556.281 acres). Land acquisition will impact on 721 persons; majority of whom are bibanja holders (467).

Livelihoods: A number of livelihood activities will be impacted upon. Most of these are informal enterprises. Twenty two (22) formal commercial enterprises, 09 social service institutions and 796 informal business enterprises will be affected.

Disturbance allowances: All those whose property and livelihood activity are affected are entitled to a disturbance allowance. This is in addition to the compensation values. This is a statutory disturbance allowance (under S77 (2) of the Land Act (1998) and is payable on the amount for compensation in case vacation notices were less than 6 months.
Vulnerable Groups: A number of vulnerable groups, 265, were identified and special resettlement assistance is earmarked for them. Of these 30 were unemployed, 138 were female headed households, 41 chronically ill, 23 people with disabilities and 33 elderly (70 years+).

11. Valuation of, and compensation for losses

The rates of valuation and compensation are determined under section 60 (sub-section 1, paragraph f) under the Land Act (1998). Rates of compensation for crops and non-permanent buildings are determined by respective DLBs property valuation rates on an annual basis. This RAP has applied the 2014 KCCA, Wakiso and Mpiги district local government updated valuation/compensation rates deemed reflective of the market rates. For properties that are not covered by the DLBs property valuation rates, section 78 of the Land Act (1998) allows the property valuer, using skills and methods available to him/her as a professional in the field, to determine the market value or replacement cost value (as the case may be) of such properties. The following are specific approaches to valuation under the project.

Permanent Buildings and Other Improvements: Values of improvements of a permanent nature such as buildings and structural works, fences – including chain link fences, block walls, gates etc. – are assessed on the basis of current ‘replacement costs’ of similar or comparable structures derived from the project area in accordance with prevailing construction costs.

Semi-Permanent Buildings and Other Temporary Improvements: Buildings and other improvements (non-permanent) are assessed in accordance with the relevant figures provided in the 2013 updated compensation rates for KCCA, Wakiso and Mpiги district local government.

Crops and Trees: Crops and trees are assessed using district compensation rates provided for the KCCA, Wakiso and Mpiги district local governments. The value of standing crops on the land, excludes annual crops, which would be harvested during the period of notice given to the affected owner.

Private Land: Permanent structures and land are valued based on current market value. The 1998 Land Act, in paragraph (b), sub-section (1), section 77 states that the district land tribunal shall, in assessing compensation, take into account the following:

(i) In the case of a customary owner, the value of land shall be the market value of the unimproved land;

(ii) The value of the buildings, which shall be taken at market value in urban areas and a replacement cost in rural areas.

Public Land: Public land is held by the government on behalf of the people of Uganda. State-owned land may be allocated for free or sold on a commercial basis to individuals or communities by the Minister responsible for land administration.

3 Replacement cost is defined as the present day cost of acquiring a substantially similar present day asset that could provide a similar level of service to the asset in question. Replacement cost is based on current market values and technology of the day.
**Disturbance Allowance:** In addition to the compensation values, a statutory disturbance allowance is payable on the amount for compensation. If notice given to vacate is less than six months, a 30 per cent disturbance allowance is given; while if the vacation notice given is more than six months, a 15 per cent disturbance allowance is given. For this RAP, a disturbance allowance of 30 per cent has been considered because of the urgency of the project.

**Vulnerable Groups among PAPs:** The RAP implementation team will identify and update special assistance packages for the vulnerable PAPs. Special resettlement assistance include sensitization, counselling and guidance of the PAPs and household members during pre-payment and post payment consultations. Priority in payment of compensation; capacity building for small-scale business development; and new business opportunity development. Give priority of employment in project for members of the vulnerable households; and special support for female-headed households to access support from the Administrator Generals office or designated representative at the district and sub-county levels to enable them to process their entitlements.

**Other Livelihood Restoration Strategies:** There are several groups of PAPs operating in the PAs that should be targeted differently for resettlement assistance to enable them restore and improve their livelihoods and income earning capacities:

1. Market vendors in Kibuye market will be assisted with relocation allowances to the proposed new site within the same neighborhood.
2. Market vendors relocating from Kibuye Market will be assisted with market rental fees for the first 3 months after relocation to the new site.
3. Market vendors from Kibuye Market will be assisted with publicity facilities to announce and direct potential customers to the relocated site.
4. There will be dedicated access and exit facilities and operating stalls for market vendors who are disabled in the new site for Kibuye market.
5. Vendors with temporary and make shift timber and metallic stalls/shade/Kiosks will receive relocation allowances.
6. PAPs with grave yards will be assisted with transport allowances to transport the remains of their dead to sites of their choice.

**12. Implementation schedules**

The detailed schedule for the actual implementation of RAP activities will be developed by the RIU and agreed upon between the RAP implementation team, KCCA, Mpiigi and Wakiso districts, Nsangi and Kiringente sub-counties, Lubaga and Makindye divisions, Mpiigi town council authorities and representatives of the PAPs. The implementation schedule will be broadcast through relevant channels to inform the PAPs about the program. The messages will include:

(a) the dates for the start and completion of compensation payments;
(b) the timetables for and places of compensation payments;
(c) the prerequisites for compensation payments and other legal requirements by PAPs;
(d) the timetable for special assistance to vulnerable groups;
(e) the dates for vacant possession of the acquired land from the PAPs (after payments of resettlement compensation); and
(f) the link between RAP activities and the implementation of the project component(s).

The RAP implementation will be carried out over a period of 18 months from January 2016-June 2017, including three months for exit. Other activities, such as project monitoring and grievance management, will run throughout the RAP implementation cycle.

**RAP Implementation Schedule**

<table>
<thead>
<tr>
<th>Time (months)</th>
<th>Project activities</th>
<th>RAP approval/disclosure</th>
<th>Three month notice to PAPs/Notifications</th>
<th>Grievance Management</th>
<th>Compensation payment</th>
<th>RAP monitoring</th>
<th>RAP completion and audit</th>
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<tbody>
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**13. Costs and budget**

RAP costs are a part of the project costs and met by the Government as counterpart financing. An adequate budget is necessary in order for the RAP to be fully implemented. The proposed budget presented covers the estimated costs for land acquisition, structures, crops and disturbance allowances costs of the RAP implementation; and 5% implementation overhead costs. The overall RAP implementation cost is UGX 300,549,066,326 (three hundred billion, five hundred and forty nine million, sixty six thousand and three hundred and twenty six Uganda Shillings).

**RAP Implementation Budget Estimates**

(A) **VALUATION ESTIMATES FOR PROPERTY AND DISTURBANCE ALLOWANCE**

<table>
<thead>
<tr>
<th></th>
<th>Land Values</th>
<th>Building and Other Structure</th>
<th>Crops</th>
<th>Estimated Totals</th>
<th>Disturbance Allowance at 30%</th>
<th>TOTAL</th>
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</thead>
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<tr>
<td></td>
<td>98,077,493,328</td>
<td>131,910,000,000</td>
<td>50,250,000</td>
<td>230,037,743,328</td>
<td>69,011,322,998</td>
<td>299,049,066,326</td>
</tr>
</tbody>
</table>

(B) **IMPLEMENTATION COSTS** (including special assistance for vulnerable groups and livelihood restoration activities)

<table>
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<tr>
<th></th>
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<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>(i) Personnel costs</td>
<td>12 people for 18 months</td>
<td>500,000,000</td>
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<tr>
<td>(ii) Administrative</td>
<td>Logistical costs</td>
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<td>(stationary, fuel/transport for</td>
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<td>fieldwork/monitoring activities,</td>
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<td>public notices/announcements,</td>
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<td>including legal fees and unfore-</td>
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<td>(iii) Administrative</td>
<td>Physical space costs (rent)</td>
<td>100,000,000</td>
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<td>estimated at a monthly cost of</td>
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<tr>
<td>Mid-term/end-term</td>
<td>Evaluation and completion report</td>
<td>200,000,000</td>
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<td>© ASSISTANCE FOR</td>
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<td>Resettlement</td>
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<td>and livelihood restorations</td>
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<td>initiatives;</td>
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Page 17
14. Monitoring and evaluation

A system of monitoring and evaluation will be put in place to report on the effectiveness of the implementation of the RAP, and the outcomes and impact of resettlement compensation in relation to the objectives and goals of the RAP. There will be both internal and external monitoring. Internal monitoring will be carried out at two process levels, during the resettlement compensation payment period, and post-compensation payment period. The external monitoring will conducted at the end of the RAP. An independent consultant appointed by the project developer will undertake evaluations. Evaluation will be necessary in order to ascertain whether resettlement compensation goals and objectives have been realized. The relevant monitoring indicators against which to measure RAP implementation effectiveness are presented in the table below.

Proposed monitoring indicators

<table>
<thead>
<tr>
<th>Activity/Parameters</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation payments to PAPs</td>
<td>Number of PAPs promptly paid</td>
</tr>
<tr>
<td></td>
<td>Number of PAPs not paid promptly and reasons</td>
</tr>
<tr>
<td></td>
<td>Amounts of money paid to PAPs</td>
</tr>
<tr>
<td>Restoration of livelihoods and assets</td>
<td>Number of PAPs with restored assets and livelihood activities</td>
</tr>
<tr>
<td></td>
<td>Number of community facilities restored</td>
</tr>
<tr>
<td></td>
<td>Number and types of vulnerable PAPs assisted</td>
</tr>
<tr>
<td></td>
<td>Type of assistance provided to vulnerable PAPs</td>
</tr>
<tr>
<td>Community participation and public engagement</td>
<td>Number of local consultative meetings held</td>
</tr>
<tr>
<td></td>
<td>Number of local government leaders engaged</td>
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<tr>
<td></td>
<td>Number of CSOs engaged</td>
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<td>Number of PAP consultative meetings held</td>
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<tr>
<td>Grievance management</td>
<td>Number of grievances received</td>
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<td>Number of grievances resolved promptly</td>
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<td>Number of grievances not resolved promptly</td>
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<td></td>
<td>Number of outstanding grievances not resolved</td>
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<td>Number of grievances referred</td>
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<td></td>
<td>Nature of outcomes from referred grievances</td>
</tr>
<tr>
<td>Mutation and registration of land rights</td>
<td>Number of mutation forms signed by PAPs</td>
</tr>
<tr>
<td></td>
<td>Number of land titles received</td>
</tr>
<tr>
<td></td>
<td>Number of land titles processed and returned to PAPs</td>
</tr>
<tr>
<td></td>
<td>Number of land titles not processed and reasons</td>
</tr>
<tr>
<td></td>
<td>Number of percentage of encumbrances entered on PAPs’ titles</td>
</tr>
</tbody>
</table>
An external evaluation will be undertaken by an independent agency appointed by the project developer in collaboration with other national stakeholders represented by the Ministry of Works and Transport and the funding agency (AfDB). The external evaluation will examine RAP implementation effectiveness and outcomes as outlined in the table below.

External evaluation thematic issues

<table>
<thead>
<tr>
<th>Thematic Issues</th>
<th>Outcome indicators (the main design of outcome evaluation will be a pre- and post-compensation analysis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process indicators that measure effectiveness of RAP implementation processes</td>
<td></td>
</tr>
<tr>
<td>(i) Adequacy indicators (staff numbers/skills/knowledge levels; and facilities) at RIU.</td>
<td></td>
</tr>
<tr>
<td>(ii) Compliance indicators (legislative compliance to local and AfDB Oss)</td>
<td></td>
</tr>
<tr>
<td>(iii) Effectiveness indicators (resource utilization against outputs of the RAP implementation)</td>
<td></td>
</tr>
<tr>
<td>(iv) Coordination indicators (adequacy and promptness of collaboration of RAP implementing agencies)</td>
<td>Livelihood and property changes among PAPs’ households, including accessibility to social services and civic participation</td>
</tr>
</tbody>
</table>

At the end of it a RAP Implementation Completion report will be submitted by the developer to the funding agency and responsible sector ministry (Ministry of Works and Transport). Similarly, a RAP Audit shall be conducted by the developer and shared with the financier and Government institutions.
ANNEX II

MULTINATIONAL: UGANDA/RWANDA: KIBUYE-BUSEGA-MPIGI
AND KAGITUMBA-KAYONZA-RUSUMO ROADS
PROJECT

**Project Title:** Multinational Uganda/Rwanda: Kibuye-Busega-Mpigi and Kagitumba-
Kayonza-Rusumo Roads

**Number:** P-Z1-DB0-105

**Country:** Rwanda

**Department:** OITC

**Division:** OITC.2

**Project Category:** 1

1. Description of the project, project area and area of influence

The project under financing in Rwanda is the rehabilitation and upgrading of the road which
covers a total distance of 208 Km respectively ranging from 92 Km between Kagitumba and
Kayonza, to 116 Km from Kayonza to Rusumo. The Kayonza – Kagitumba (National Road 5)
and Kayonza – Rusumo (National Road 3) roads are part of the international road network,
which link, respectively, to the Kenyan port of Mombasa through Uganda and to Tanzanian port
of Dar Es Salaam. Located in the Southeast of Rwanda, the Kayonza – Rusumo road traverses
Kayonza, Ngoma and Kirehe districts. Located in the Northeast of Rwanda, the Kayonza –
Kagitumba section road traverses Kayonza, Gatsibo and Nyagatare districts. The works
envisaged include widening and strengthening of the pavement; and it shall entail creation of a
deviation at Cyunuzi corner, in Gatore sector of Kirehe district, which will be 1.813 km long
with a maximum slope of 10 percent and an 8m maximum of cutting.

2. Potential impacts

The project works shall imply acquisition of land for the widening and creation of deviation, in
addition to creation of contractor’s camp. Property owners and project affected persons (PAPs)
have been identified through community consultations and surveying of the road corridors. In
this context, 63 houses will be physically displaced, and an additional 50 households will lose
agricultural land due to the deviation. The 63 households initially identified fall in two sub-
categories. The first is made of 50 commercial houses, which will be slightly affected, and 13
residential houses located on the Kayonza-Rusumo road section. The second category is 50
households to be economically displaced due to the cyunuzi road deviation section in Kirehe
district, Gatore sector, in respectively, Nyamiryango and Cyunuzi cells to avoid the sharp corner
and avoid accidents. In the final analysis, a total number of households either to lose residence,
businesses or agricultural activities is 113 which comes to an estimated number of affected
persons of 565 for the entire Kagitumba-Kayonza-Rusumo road.

3. Organisational responsibility

*The RTDA & MININFRA:* The Rwanda Transport Development Authority (RTDA) shall have
the main responsibility of ensuring that the RAP is successfully implemented. On the other
hand, the local authorities shall have the responsibility of executing and validating and payment
for resettlement and compensation. The Ministry of Infrastructure, MINIFRA, shall ensure that
a budgetary allocation has been made and communicated to the Ministry of Finance. On the other hand, Monitoring will be the responsibility of the RTDA.

**District leadership:** The District authorities in the project area are the coordinating body for any resettlement activities at the district level. They oversee, coordinate and facilitate the implementation process of resettlement activities across local governments under its jurisdiction. The District-level departments (infrastructure, water and energy officers in case of this RAP) in collaboration with grassroots administrative officials (Sectors and Cells’ executive secretaries) provide a review and monitoring role, and provide political and administrative support for the implementation of the Resettlement Action Plan.

**District Land Bureaus:** The District Land Bureaus (DLBs) is the executive body responsible for ensuring activities undertaken comply with the National and District level Land Use Master Plans. They assess the validity of land tenure rights of affected persons and eventually provide the land use permit for the new activity proposed. In addition, they are responsible for ensuring effective grievance mechanisms are in place. They also play a part in the design of the RAP as much as possible in order to reduce disputes or grievances. The District Land Bureaus will play a major role in RAP implementation by establishing the sub-project level Resettlement and Compensation Committees at Sector/ Cell level; by clarifying the policies and operational guidelines of these Resettlement and Compensation Committees; and coordinating and supervising RAP implementation by Resettlement and Compensation Committees.

**Land Adjudication Committees:** The Land Adjudication Committee will be responsible for the coordination of individual land registration and ensure that compensation payments are included in the requests for funds, and that they are allocated accordingly.

**Village Level Land Committees:** At the village/Umudugudu level, there are in place village-level mediators (abunzi) whose work is to hear disputes, especially social-based including land disputes. The abunzi, or mediation committees, have mandatory jurisdiction over land disputes involving amounts less than three million Rwf, which means over most land disputes. The Abunzi also have mandatory jurisdiction over succession and boundary disputes involving less than three million Rwf. The abunzi will be useful in this project as the first stop for resolving disputes and grievances following land acquisition. They will be involved in the compensation process from the beginning to the end.

**Role of the Contractor:** The contractor shall undertake the major role of respecting the terms of the RAP as well as those of ESMP are followed to the detail. In actual period of rehabilitation of the road, the contractor shall be undertaking regular monitoring of all the activities occurring at the project site to ensure compliance with the RAP by respecting the boundaries of plots to be expropriated and to ensure safety of the remaining properties in the course of the road rehabilitation. The contactor will bear all the costs related to monitoring activities or damaged properties during the construction or rehabilitation phase of the road.

**Role of Rwanda Environment Management Authority (REMA):** As the lead agency responsible for the protection of environment in Rwanda, REMA will play the leading role of monitoring the activities of the project according to the Organic Law establishing REMA and its functions. In terms of the RAP, REMA will invigilate whether environmental principles are catered for along the PAPs relocation and resettlement.
4. Community participation

Community participation commenced with stakeholder and community consultation meetings that were held mainly at the sector levels related to the Kagitumba-Kayonza-Rusumo road rehabilitation project. Different people from governmental units, representatives of NGO’S, local leaders attended these meetings and attendance lists maintained. The overall intention of these consultation meetings was to prepare the Environmental and Social Impact Assessment (ESIA) of the project and Resettlement Action Plan (RAP) along the line corridor and to raise the awareness to the above-mentioned participants about this project. The meetings also performed as information forums to correct any misunderstandings of the project. The meetings granted an opportunity to the local population to express their concerns on the resettlement action plan to be implemented for the project.

In most meetings, the discussions involved stakeholder representatives from the following institutions and communities:

- Ecodesign &Protection Ltd on behalf of SCET TUNISIE and CCC Rwanda Representatives (Consultants)
- District leadership (Vice Mayor for Socio-economic Affairs, Leaders at sector, cell and village levels, etc.)
- Rwanda Development Board (RDB)
- Rwanda Energy Group (RTDA)
- Youth and women committees
- Opinion leaders
- Religious organs
- Community members expected to be affected by the project

The following is a summary of anticipated negative impacts that were presented and discussed. During construction, there will be impacts related to noise and vibration, gas and dust emissions (earthworks, asphalt production and application of asphalt), the risk of accidental, spillage hazardous materials, use of materials and quarry sites, the proliferation of sexually transmitted diseases. Both during implementation and operation of the road will cause an increase in road accidents related to the increase in construction vehicles and increased speed of traffic, pollution of water due to motor vehicle lubricants, the risks of spreading diseases such as AIDS and other communicable diseases.

The outcomes of the consultation meetings were acknowledged and noted for inclusion into the Environmental and Social Management Plan (ESMP) and RAP and where necessary into the project design. The community members and local leaders embraced the proposed project as it was envisaged that it would bring a lot of positive impacts. The RTDA representative, however, urged the project-affected persons not to start new construction projects in anticipation for added compensation. The participants proposed adequate mitigation measures to make sure that impacts resulted from the project are addressed through an adequate Environmental Management Plan and a Monitoring Framework. The participants insured the RTDA, RDB and REMA team that the rehabilitation project and its related works will increase their three pillars.
of development, which are social welfare, economic development, and protection of the environment by creating new small income generating projects.

5. Integration with host communities

The type of resettlement envisaged does not warrant moving of households to different locations. The majority of impacts will be on cultivation fields with a few houses that will all be able to simply move back within their compounds. Hence of resettlement occasioned by the proposed rehabilitation of the Kagitumba – Kayonza – Rusumo road rehabilitation, which is linear, will not involve complete relocation of affected persons from one geographical location to another. Instead, affected persons will be required to step-back within their compounds. Thus, the issue of host communities did not arise.

6. Socio-economic studies

Households’ demographic Indicators: Key demographic indicators of the household members provides a picture of members of each household in terms of age of the head of the household as well as the total number of people living in it, the income, expenses and savings. Households with less than 4 members was 11%, those less than 7 and more than 3 members was 40% and those with more than 7 members was 49%. The majority of the household heads (71.4%) were at least 40 years old with the rest (28.6%) below 40 years old. Female population constitutes a slightly higher proportion of the entire eastern province population with 51.8% with the districts of Ngoma (52%) and Kirehe (51.9%) have even a higher female population reaching up to 52% while districts of Nyagatare (51%) and Kayonza (51.6%) approach the average provincial proportion.

Access to basic Education: Among the key social indicators was education levels among the PAPs. Key social indicators include the level of education of the head of the household and access to the nearest school primary school. Three fifth of respondents (60.0%) have either never been to school or have only attended primary school. One and three respondents either have respectively benefited from a vocational training course or have attended the university level education. This presents a consistent pattern for most heads of the households in rural areas where the main income generating livelihood activity is agriculture and livestock rearing. As regards proximity to schools, around 60% of respondents are estimated to be within 1 km to the nearest primary school. The remaining 40% are within 2 km to the nearest primary school, which is within the recommended walking distance for young pupils. School enrolment ratio for primary school was estimated at 92 percent with girls depicting a slightly higher percentage than boys do.

Access to clean water and sanitation: Access to clean water is critical as it is related to disease prevention and good wellbeing of family members. Eastern Province has around a third of households that source water from wells and springs with 29% fitted with tap water supplies. An estimated 22% of residents use clean water while 56% use rain-water due to lack of alternatives. About 3% of the population have to make a journey of between 500m to 1 km to fetch water and some of the eastern Province inhabitants fetch water from Muvumba swamps,
which constitute a health risk. As regards sanitation, nearly 80% of housing units have a private toilet.

**Vulnerability:** The national classification considers vulnerable children under five years old, elderly people aged 60 and over, and people with disabilities. Among the project affected people are 9 widows, 12 aged and 12 lower Ubudehe category. The government delivers a core set of social protection program through the Ministry of Local Government (MINALOC), supported by a number of complementary initiatives delivered by other ministries, significant among which was the Vision 2020 Umurenge Program (VUP) which contains three pillars: VUP public works, VUP direct support, and VUP financial services. The three pillars represent public works for the poor who are able to work, cash transfers for very poor households without labor capacity, and financial services such as the Ubudehe Credit Scheme.

**Household Livelihood:** A review of the types of activities and sources of income was carried out. The observation has been the level of diversification in the activities for heads of households within the road zone of influence of the Kagitumba-Kayonza Rusumo road. The majority of respondents are occupied with farming (60%), followed by off-farm skill related activities namely trade, carpentry, masonry, weaving, welding, etc. Only 4% of respondents are involved in business activities while 8% are salaried employees.

**Total land use by household:** The study report presents type of land use by heads of households in different districts covered along road corridor. In general, a big number of households have more than 5 ha (86%), while some other few members share the remaining proportion with 8% utilizing between 2 and 5 ha, 4% having less than 1 ha, and 2% having between 0 and 2 ha.

7. **Legal framework, including mechanisms for conflict resolution and appeal**

Although the land tenure is governed by formal written law (basic and supplementary provisions), many provisions still obey the rules and practices of customary law. Therefore, if the law takes precedence over formal customs, always a certain legal duality characterizes the property rights of individuals. A summary of the statutes governing resettlement and compensation include:

- Law no. 22/99 of 12/11/1999 completing the first book of the Civil Code and establishing the fifth part relating to matrimonial regimes, gifts and inheritance (inheritance law);
- Rwandan Constitution of 4 June 2003;
- Organic Law o. 04/2005 of 08/04/2005, which defines the modalities of protection, conservation and promotion of environment in Rwanda;
- Organic Law No. 08/2005 of 14/07/2005 determining the land in Rwanda (Land Law). The law also determines the use and management of land in Rwanda and establishes principles for rights on all land within the national territory (Article 1).
- Law No. 18/2007 of 19/04/2007 relating to "expropriation in the public interest" published in the special issue of the Official Gazette of 21/5/2007, governs the expropriation in Rwanda; this law has a crucial importance for the Resettlement Action Plan,

**Customary law**
Custom and local customs governed the land until the adoption of the land laws of the 2000s. Depending on circumstances, the widespread custom is to use it in the management of land conflicts in Rwanda. This is particularly the case for disputes over rights of succession and inheritance.

**African Development Bank Safeguard system**

The African Development Bank has established an Integrated Safeguard System (ISS) for a comprehensive projects review and ensuring across the board perspective of environmental and social linkages. The ISS comprises five components, all of which existed separately but with identifiable operational weakness. However, in the context of this Resettlement Action Plan, the AfDB second Operational Safeguard (OS 2) will be inspirational in designing the resettlement, expropriation and compensation process based on the Involuntary Resettlement Policy (2003).

**AfDB Guidelines on Cooperation with Civil Society Organization**

The AfDB considers the African civil society as a primary stakeholder and help to enhance transparency and accountability due to the need to ensure information disclosure policies and enhance participation of stakeholders in the Bank operations. The civil society includes groups such as non-governmental organization (NGO’s), community based organizations (CBO’s), associations, trade unions and religious groups among others. The civil society organizations are central to the Banks efforts to implement the participatory approaches especially in reaching out to the poor people and women which are the priority target groups who have little influence and control over decisions and actions that affect their lives.

8. **Comparative Analysis of the AfDB Policies with the Rwanda System**

The differences between the national policy on Involuntary Resettlement and OS2 and proposals have been provided in the RAP report. A summary of key areas is as follows:

Eligibility for compensation, cut-off date and types of compensation. In the Rwandan case
- Both national laws do not support irregular (squatters) occupants;
- Procedures for monitoring and evaluation do not exist in national legislation;
- Valuation at full replacement cost of the assets is not provided in the expropriation process of the rural land:
  - Economic rehabilitation is not provided;
  - The cost of relocation is not supported;
  - The PAP relocation is not expected;
  - The dispute resolutions are less flexible than in the texts of the AfDB;
  - Vulnerable groups are not mentioned; and
  - People’s participation is less taken into account as in comparison to the AfDB.

This notwithstanding, where deficiencies in any of the above regulations will appear, relevant principles from either of them will be applied to overcome issues and disputes without violating the law but within Bank’s Policies. It should be recognized that the national laws do not prohibit the participatory aspect highlighted in the resettlement process of the AfDB. In general, the AfDB OS2 is more complete (economic rehabilitation, relocation costs, alternative compensation, monitoring and evaluation) than Rwanda laws but nothing prevents the
government to be inspired. To ensure harmonization therefore, it will be necessary to apply the Rwandan law on expropriation in all its components, and then take into account the additional requirements of AfDB OS-2. Particular attention will be paid to implementation procedures for compensation, the principles relating to the calculation of the rate of compensation, protection of vulnerable groups; and monitoring and evaluation.

9. **Grievance Redress Mechanism**

Implementation of this type of project cannot be free of disputes. From experience, most of the grievances would originate from the following:
- Misidentification of assets or mistakes in valuation;
- Disputes over plot limits, either between the affected person and the Project, or between two neighbors;
- Dispute over the ownership of a given asset (two individuals claim to be the owner of this asset); e.g. due recent change of asset ownership
- Disagreement over the valuation of a plot or other asset;
- Successions, divorces, and other family issues, resulting in disputes between heirs and other family members, over ownership or ownership shares for a given asset;
- Disagreement over resettlement measures, for instance on the location of the resettlement site, on the type or standing of the proposed housing, or over the characteristics of the resettlement plot; and
- Disputed ownership of a business (for instance where the owner and the operator are different persons), which gives rise to conflicts over the compensation sharing arrangements.

Each of the affected persons will be able to trigger the grievance redress mechanism, while still being able to resort to the judicial system. Procedures relevant to this amicable mechanism are detailed below and include three different levels:
- Registration of the complaint, grievance or dispute case by RTDA in collaboration with local authorities (Sector level);
- Processing of the grievance or dispute until closure is established based on evidence that acceptable action was taken by RTDA; and
- In the event where the complainant is not satisfied with action taken by RTDA as a result of the complaint, an amicable mediation can be triggered involving a mediation committee independent from the Project.

While the Expropriation law is the supreme guide in matters relating to grievance handling if they cannot be handled at the committee level, Article 26 of the Expropriation Law No 18/2007 of 19/04/2007 provides complaints procedures for individuals dissatisfied with the procedures and related matters of their compensation. Articles 17-20 of the Expropriation Law obliges the representative government authority implementing the project to inform affected people of their rights at each stage of the process. The following Chart summarizes the various steps that a grievance shall typically follow.
10. Eligibility
Determination of the eligibility begun with setting of the cut-off date which was set at the time of conducting the census which was conducted between December 2014 and January 2015, hence the cut-off date was 31st January 2015. Eligible for compensation and support to PAPs shall apply to any person affected by the project (PAP) who, because of the Project lose rights of ownership, use or other rights of a building or other real or personal property, in whole or in part, permanently or temporarily.

Eligible persons belonging to one of the following three categories:
• Holders of a formal right to land (including customary and traditional rights recognized by the legislation of the country);
• Those who do not have formal legal rights to land at the time the census but have property or other securities - provided that such securities are recognized by the laws of the country or may be under a process identified in the resettlement plan;
• Those who have no formal right or title to be recognized on the land they occupy.

Persons under the first two categories are compensated for the land they lose and everything they have on it, and benefit from any other assistance under the project. Similarly, persons within the latter category receive resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, in order to achieve the objectives of the policy, provided that they have occupied the land in the project area before the cut-off date. In essence PAPs’ assets and activities that will be affected by the project and eligible for compensation are land, structures that have been constructed; residential (homes) or non-residential (buildings,
kitchens, latrines, fences, and a hutch). In addition, food and cash crops—perennial and seasonal; trees planted or not; and other areas such as loss of income from commercial activities, etc. shall also be eligible (See Entitlement and Eligibility Matrix Below)

11. **Entitlement Matrix**
The entitlement matrix that follows summarizes the main types of losses as described above and the corresponding nature and scope of entitlement.
### Entitlement and Eligibility Matrix

<table>
<thead>
<tr>
<th>Type of loss /Affected Asset</th>
<th>Entitled person</th>
<th>Eligibility Conditions</th>
<th>Legal entitlement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Agricultural land</strong></td>
<td>Holder of title deed</td>
<td>Held a registered land that was registered with relevant Authorities prior to the Cut-Off date</td>
<td>Cash compensation for land at market value or land for land compensation. Cash compensation for all immovable developments on the affected land, such as structures, soil improvement infrastructures, trees, etc (See below “Structures”)</td>
</tr>
<tr>
<td><strong>2 Residential land</strong></td>
<td>Untitled land: Held, prior to the cut-off date</td>
<td>Replacement of lost land by another piece of similar quality and characteristics.</td>
<td></td>
</tr>
</tbody>
</table>

**Land held under customary ownership, and not registered**
- Owner (legally unregistered), whether resident or non-resident—Individual

- Agricultural land of similar potential under similar customary tenure arrangements -Cash compensation for land or non-cash compensation of land (land for land)
- Cash compensation of all immovable developments on the affected land, such as structures.

**Rented Land:**
- Rights obtained temporarily as per a customary rental agreement
- Tenant as recognized by the customary landowner and customary
  - No compensation for the land itself
  - Cash compensation to the owner of immovable developments established by the owner and to the tenant of immovable developments that were established by the tenant, such as structures, soil improvement, etc Cash compensation of standing crops – See below “Crops”
| Land held under customary ownership and not registered | customary land and be recognized as such by local customary authorities | resettlement residential land of similar size with formal recognition of ownership of the resettlement plot by the relevant administrative authorities – Cash compensation for land or non-cash compensation of land (land for land)

Cash compensation of all immoveable developments on the affected land, such as structures, etc - See below “Structures” |

| **3 Structures** | **Residential houses:** inhabitable houses used as a permanent residence | Be the locally recognized owner of an inhabitable house permanently used as a residence | Resettlement house of similar or better quality on a resettlement plot and Cash compensation of the lost house per Rwanda law at full replacement value |

| Non-residential structures

Inhabitable house or other structure of any destination | Be the locally recognized owner of a non residential structure | Cash compensation at full replacement value |

| **Loss of Primary structures** (shops, houses) & secondary |

Structures located in the road expanded and deviated area | Cash compensation at full replacement costs with no deduction for depreciation or state of existing structure | Project should build all structures for the vulnerable households

All structures for the vulnerable households must be completed before destruction of the existing structure

Must be close to essential household resources such as sources of water. |

| Loss of Cultural Structures (E.g. church etc) |

Structures located in the road expanded and deviated area | Cash compensation at full replacement costs with no deduction for depreciation or state of existing structure/or provision of relocation places | RTDA and Local leaders implement the compensation process of the destroyed cultural structures in due time |
### Loss of Public Facilities (schools, sector’s office etc.)

<table>
<thead>
<tr>
<th>Public facilities located in the road area</th>
<th>Cash compensation at full replacement costs with no deduction for depreciation or state of existing structure/or provision of relocation places</th>
<th>All structures must be completed before destruction of the existing structure</th>
</tr>
</thead>
</table>

#### 4 Crops/woodlot/House lot/Forest

<table>
<thead>
<tr>
<th>Standing non perennial crops</th>
<th>The recognized owner of a standing crop and be unable to harvest it prior to the project construction phase</th>
<th>Cash compensation at full replacement value at the prevailing market rates.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Standing perennial crops</th>
<th>Be the recognized owner of a standing perennial crop</th>
<th>Cash compensation at full replacement value</th>
</tr>
</thead>
</table>

### 12. Valuation of, and Compensation for Losses

Compensation and entitlements will be triggered by particular and specific impacts resulting from the project. Using a holistic approach, these general impacts emanating from the project shall include losses at household and community level (public assets, commercial assets, and communal assets). Losses will mainly fall into the beneath categories:

- Loss of assets (structures and agricultural land)
- Loss of land,
- Loss of trees and crops,
- Loss of livelihood

The following are indicative criteria for compensation valuations:

1. Residential houses: The type of houses in settlement/umudugudu normally has a surface area of 48 m² with wall height of 2.4 m, burnt bricks and 3 to 6% cement mortar. The value from district valuers was on Rwf 18,000,000. Additional feature would be a latrine valued at Rwf 50,000.

2. Commercial houses: These differ from residential houses in regards to the size, construction material hence value. Districts valuers gave an average value of Rwf 75,000,000 per structure of 648 m².

3. Compensation for crops and trees: Both perennial and seasonal crops, and trees will compensated based market values. The RAP has provided unit values per type of crop and tree including fruit trees with a total estimated value of Rwf 23,393,618.

4. Land Compensation: Compensation for land will be based on replacement alternatives determined by the market land rates. Official Gazette n°19 of 10/05/2010 of Rwanda will be used which lists land compensation prices by district. Value for land in the project districts is on average Rwf 161 m². The total land cover affected is 21,729.72 m² hence the total compensation value is Rwf 3,388,406.

5. Compensation for loss of livelihood has been estimated at Rwf 21,600,000
6. Compensation for economic loss has been provided with a budget of Rwf 36,000,000.
7. Support for vulnerable PAPs has been budgeted for Rwf 14,400,000.

### 14. Implementation schedules

The project implementation timeframe is provided in number of months it would take to implement the RAP. While dates may not be possible to provide, the chart below shows the various steps that will be followed in order to complete the implementation including monitoring.

**RAP Implementation Schedule and Timeframe**

<table>
<thead>
<tr>
<th>Task Number</th>
<th>Task Details</th>
<th>Jul</th>
<th>Aug</th>
<th>Sept</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Ap</th>
<th>May</th>
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<tbody>
<tr>
<td>1</td>
<td>Approval of Draft RAP</td>
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<tr>
<td>2</td>
<td>Training of PAPs and other</td>
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<td>3</td>
<td>Implementation team</td>
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<td>4</td>
<td>RAP/Community Consultation</td>
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<td>5</td>
<td>Notification of entitlements</td>
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<td>6</td>
<td>Payment of compensation</td>
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<td>7</td>
<td>Notification to PAPs/Community of demolition of structures</td>
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<tr>
<td>8</td>
<td>Demolition of old structures and acquisition of land</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Replace any community facilities destroyed as part of acquisition</td>
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<tr>
<td>10</td>
<td>Grievance mechanism and procedures</td>
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<tr>
<td>11</td>
<td>Performance monitoring</td>
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<tr>
<td>12</td>
<td>External evaluation bi-annual for three years</td>
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</tbody>
</table>

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15. Costs and budget

The RTDA will budget and solicit funds from Ministry of Finance for meeting resettlement and compensation costs. The total compensation amount for the RAP Implementation is Rwf 4,601,810,216 equivalent of USD 6,391,403.08 at an exchange rate of $1=Rwf 720. This amount includes Rwf 115,200,000 for administrative and monitoring, and a contingency of Rwf 418,346,383.

**RAP Implementation and Administration Costs**

**Compensation costs by categories of assets**

<table>
<thead>
<tr>
<th>Categories of assets</th>
<th>Quantity</th>
<th>Amount /RWF</th>
<th>Amount /$</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Land plots for 50 economically displaced people at Cunuzi road deviation</td>
<td>21,046.30 m²</td>
<td>3,388,454.30</td>
<td>4,706.19</td>
</tr>
<tr>
<td>Land plots for the 63 houses</td>
<td>683.42 m²</td>
<td>481,811</td>
<td>669.18</td>
</tr>
<tr>
<td>Houses</td>
<td>63</td>
<td>4,041,000,000</td>
<td>5,612,500.00</td>
</tr>
<tr>
<td>Crops and trees</td>
<td>10547</td>
<td>23,393,618</td>
<td>32,491.14</td>
</tr>
<tr>
<td>Other RAP Implementation costs</td>
<td>NA</td>
<td>115,200,000</td>
<td>160,000</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>4,183,463,833</td>
<td>5,810,366.43</td>
</tr>
<tr>
<td>Contingencies</td>
<td>10%</td>
<td>418,346,383</td>
<td>581,036.64</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>4,601,810,216</td>
<td>6,391,403.08</td>
</tr>
</tbody>
</table>

Primary data, RTDA, Ecodesign, January 2015

16. Monitoring and Evaluation

Monitoring and evaluation ensure that the ongoing RAP implementation and budget are executed according to plan. This shall include checking on a continuous basis if the quality and quantity of the expected results are obtained in a timely manner. This will allow identifying any factors and unanticipated changes that may affect the RAP organization that may need to be reflected into management and decisions to be made.

1.1

The evaluation shall base its measures on the baseline which will compare the reference situation of the affected population before the start of the project in terms of the socio-economic and wellbeing conditions. This will entail defining, at regular intervals, some or all of the parameters, below, in order to assess and understand the changes. This will also allow the establishment, at the end of the project, of a new baseline for assessing the RAP impacts in socio-economic and wellbeing terms. It will also
offer the basis to analyze, programmatically or in response to the findings of monitoring / evaluation, some elements of the human environment and measures to improve the RAP effectiveness.

The following are, among others, indicators shall be used to monitor the situations:

- Number of households and people to be affected by the project activities,
- Number of households and people to be physically displaced by the project activities,
- Number of households and people to be resettled by the project,
- Total amount of compensation paid,
- Number of complaints, nature of complaints lodged.

In addition, the socio-economic indicators will be established and followed for a sample of PAPs in different areas of action or components for a period, for example:

- Average level of life (restoration of consumption and monetary income)
- Breakdown of average household expenditure
- Number of beneficiaries of various aspects of the restoration project.

On the housing and land resettlement sites, indicators related to livelihoods will be followed, such as:

- Quality of buildings (cracks, gutters, etc.)
- Access of the relocated persons to pure drinking water, education, health,
- Yields of the fields
- Replacement rate of fruit trees after 2 years
- Evolution of the people who kept the same activity
- Fate of those who changed jobs

Another instrument to be used for monitoring will be the Multipartite Monitoring Committee (MMC) which will comprise ten members from the entities involved in the project, representatives of local authorities, representatives of relevant ministries, representatives of the affected persons and representatives of NGOs and civil society. Multipartite Monitoring Committee will meet twice a year to monitor the implementation of the ESMP and RAP. It will have quarterly access to the environmental and social monitoring reports of the monitoring mission, and may summon special meetings when necessary. The commission may also provide support for the effective management of potential conflicts of interest between the various project stakeholders.

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