REPUBLIC OF RWANDA

RWANDA URBAN DEVELOPMENT PROJECT (RUDP II)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

May 2020

LIST OF ACRONYMS

AEHS: Annual Environmental Health and Safety

AESR: Annual Environmental and Social Report

CBD: Convention on Biological Diversity

CC: Community Committee

CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora

CMS: City Management Structure

CoK: City of Kigali

CPF: Country Partnership Framework

CPS: Country Partnership Strategy

DSM: Design Supervision Management

DRC: Democratic Republic of Congo

EMF: Environmental Management Framework

EMU: Environmental Management Unit

EPR: Extended Producer Responsibility

ESCP: Environmental and Social Commitment Plan

ESF: Environmental and Social Framework

ESIA: Environmental and Social Impact Assessment

ESMF: Environmental and Social Management Framework

ESMP: Environmental and Social Management Plan

GBV: Gender Based Violence

GEF: Global Environment Facility

GEMM: General Environmental Mitigation Measures

GGCRS: Green Growth and Climate Resilience Strategy

GHG: Greenhouse Gas

GIS: Geographic Information System

GoR: Government of Rwanda

GRC: Grievance Redress Committee

ICD: Institutional Capacity Development

ICK: Institut Catholique de Kabgayi

ICT: Information Communication Technology

IDA: International Development Association

ILO: International Labour Organization

IWMS: Integrated Waste Management Strategy

KUUT: Kigali Urban Upgrading Team

LMP: Labour Management Procedures

LODA: Local Administrative Entities Development Agency

LUDMP: Land Use Development Master Plan

M&E: Monitoring and Evaluation

MEA: Multilateral Environmental Agreements

MINALOC: Ministry of Local Government

MINECOFIN: Ministry of Finances and Economic Planning

MINEMA: Ministry of Emergency and Management

MINICOM: Ministry of Trade and Industry

MININFRA: Ministry of Infrastructure

MoE: Ministry of Environment

MoU: Memorandum of Understanding

NSC: National Steering Committee

NUP: National Urbanization Policy

OHS: Occupational Health and Safety

PAC: Political and Administrative Committee

PAC: Project Audit Consultant

PAD: Project Appraisal Document

PCU: Project Coordination Unit

PIU: Project Implementation Unit

PMS: Project Management Support

PTC: Project Technical Committee

RAP: Resettlement Action Plan

REMA: Rwanda Environment Management Authority

RHA: Rwanda Housing Authority

RLMUA: Rwanda Land Management and Use Authority

RPF: Resettlement Policy Framework

RTDA: Rwanda Transport Development Authority

RUDP I: Rwanda Urban Development Project I

RUDP II: Rwanda Urban Development Project II

RWFA: Rwanda Water and Forestry Authority

SCD: Systematic Country Diagnostic

SEP: Stakeholder Engagement Plan

SLMP: Safety Labour Management Plan

SMEs: Small and Medium Enterprises

SWM: solid waste management

TA: Technical Assistance

UNFCCC: United Nations Framework Convention on Climate Change

UR: University of Rwanda

WASAC Ltd: Water and Sanitation Corporation Limited

WB: World Bank

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EXECUTIVE SUMMARY

The Government of Rwanda in collaboration with the World Bank has prepared the second phase of the Rwanda Urban Development Project (RUDP-II). The development objective of RUDP-II is to improve access to basic services, enhance resilience and strengthen urban management in the City of Kigali and the six secondary cities of Rwanda. In summary, the activities under RUDP-II over five years from December 2020 will be structured into four components:

Subcomponent 1a: Integrated urban planning for resilient, inclusive infrastructure delivery

This subcomponent will support an integrated package of investments in four potential sites of unplanned settlements in Kigali (Mpazi, Gatenga, Nyagatovu and Nyabisundu). Settlements will be upgraded with access streets, pedestrian walkways, streetlights and storm water management solutions as well as be provided with community infrastructure such as water supply and sanitation, community centers, public parks and green spaces and local market improvements.

Subcomponent 1b: Evidence-based, sustainable wetland management, flood risk management and greenhouse gas monitoring in CoK

This subcomponent will support the design, implementation and monitoring of green infrastructure for wetland rehabilitation and flood risk reduction in the Gikondo valley and a large portion of the Nyabugogo wetland (directly upstream of the Mpazi confluence). Integration of reduction and treatment interventions in the buffer zone alongside the prioritized wetlands will further reduce flood risks and serve as a transitional zone between the built environment and wetland area. It will also mitigate the expected impact of increasing frequency of droughts. A Light Detection and Ranging (LiDAR) and photogrammetric survey will be undertaken to produce Digital Elevation Models and a base map of Kigali. The LiDAR survey will serve as input data for the storm water management master plan (SWMMP) study. Regarding the greenhouse gas, the project will support the development of a greenhouse gas (GHG) accounting and reporting framework to monitor GHG emissions from multiple sectors including the wetlands, solid waste, transport and buildings. The framework will be applied to CoK and later extended to secondary cities.

Component 2: Support to Secondary Cities

Subcomponent 2a: Infrastructure and service delivery in secondary cities

This subcomponent will support investments which include roads, drainage, pedestrian walkways and streetlighting in the six secondary cities of Musanze, Nyagatare, Rubavu, Rusizi, Huye and Muhanga. Infrastructure that will be upgraded will improve and expand access to services and build community resilience. Upgraded roads will improve connectivity linking unplanned settlements to other areas of socio-economic opportunities. Street lighting will improve human security through reduced crime.

Subcomponent 2b: Institutional capacity development of secondary cities

In the six secondary cities, the project will support the establishment and functioning of the proposed City Management Offices (CMO). CMOs will prepare annual Institutional Capacity Development (ICD) plans for urban management. The ICD plans will identify institutional/capacity constraints and bottlenecks to urban management in secondary cities, propose measures to address them, and spell out capacities to be built to take necessary actions to improve on urban management.

Component 3: Institutional Capacity Development and Project Management

Subcomponent 3a: Institutional capacity development at National level

This subcomponent will support the ICD in the CoK and secondary cities through a set of Technical Assistance activities in order to effectively meet the institutional and capacity building needs in the CoK and secondary cities. This subcomponent will support secondary cities to establish CMOs and make them functional through collaboration with other development partners. In addition, technical assistance for the development of a national waste management strategy and greenhouse gas (GHG) monitoring and reporting framework for the CoK will be supported to address major environmental concerns of Kigali and secondary cities and pave the way to significant GHG emission reductions across multiple sectors.

Subcomponent 3b: Project management

Project management activities to be supported include fiduciary (financial management and procurement), environmental and social management, implementation supervision, contract management, monitoring and evaluation (M&E), and communication and citizen engagement. This component will finance project staffing in MININFRA, LODA, CoK, REMA, and Project Implementation Units (PIUs) at the district level expected to be staffed with a project focal person (preferably with a background in urban planning or an engineer) and safeguards officers. They will be responsible for overall project coordination, environmental and social management and supervision, M&E and facilitation and follow-up on all institutional and capacity building activities at the district levels. Support will be provided to assist the secondary city districts in implementing and monitoring the Environment and Social Framework (ESF) instruments: Environmental and Social Management Framework (ESMF), Stakeholder Engagement Pland (SEP), Labor Management Plan (LMP), Environment and Social Commitment Plan (ESCP) and the Resettlement Policy Framework (RPF).

Component 4: Contingency Emergency Response

In accordance with the World Bank Policy on Investment Project Financing dated November 10, 2017, Paragraph 12 and 13 for situations of urgent need of assistance, the project includes as a project-specific Contingent Emergency Response Component (CERC). CERC will allow for the rapid reallocation of project funds in the event of a natural or man-made crisis during implementation of the project to address eligible emergency needs under the conditions established in an operational manual (to be prepared during project preparation). This component will have no initial funding allocation but will draw resources from other expenditure categories in the event of its activation.

The Project is classified according to the World Bank environmental and social categories as Substantial risk based on the activities' type, location, sensitivity, scale, and nature, magnitude of potential risks and capacity of the implementing entity and commitment of the Government of Rwanda. All proposed project activities will be assessed to meet the requirements of relevant Environmental and Social Standards (ESSs). An Environmental and Social Commitment Plan (ESCP) has been prepared, which sets out measures and actions that the project would institute to meet ESSs requirements.

The Project is designed to be environmentally and socially sound in order to prevent, avoid, mitigate or compensate any undesirable adverse consequences. The potential adverse environmental and social risk and impacts associated with the project include: air, water, soil and noise pollution; drainage congestion; erosion and siltation; road traffic and accidents; occupational health and safety; Community health and safety; impacts on archaeological/historical/social/cultural/religious sites; disturbance or loss of flora and fauna; fisheries and aquatic life; Biodiversity and presence of natural and/or critical habitats in the wetlands or other project areas; cumulative environmental impacts caused by the different works and investments in the project areas; solid waste management; change in hydrology and flood pattern. Social

risks and disruptions of access to homes; businesses; disruptions of utility services e.g. water/ electricity impacts include: temporary or permanent loss of agricultural land, housing and/or commercial structures; inadequate labour and working conditions including failure to implement of national labor laws, potential road traffic accidents and transmission of diseases as well as social ills associated with construction worker influx.

Gender Based Violence is also possible as a result of the presence of construction workers during the Projects civil works. Parallel to this ESMF, the Project will ensure implementation of relevant National Laws such as Environmental Law (2018). A Stakeholder Engagement Plan (SEP) has been developed in accordance with the requirements of ESS10 to ensure all Project stakeholders are adequately engaged in all stages of Project activities. The Stakeholder Engagement Plan provides for identification, means and methods applied to approach and engage each group into the Project activities. Continuous consultation and monitoring at all levels will be done during the entire project implementation period. A Grievance Redress Mechanisms (GRM) as prescribed by the ESS10 has also been included in this ESMF, Stakeholder Engagement Plan and Labour Management Plan to ensure all Project stakeholders' grievances are heard and addressed in accordance to the laid down procedures. Capacity building is planned to address capacity constraints at all levels to ensure environmental and social issues are properly managed during planning, design and implementation of the Project.

INSHAMAKE

Guverinoma y'u Rwanda ku bufatanye na Banki y'Isi yateguye icyiciro cya kabiri cy'Umushinga wo Guteza Imbere Imijyi y'u Rwanda (RUDP-II). Intego y'iterambere ry'uyu mushinga wa RUDP-II ni uguteza imbere no kwegereza abaturage serivisi z'ibanze, kongera imbaraga no gushimangira imicungire y'imijyi ya Kigali n' imijyi itandatu yunganira Kigali. Ibikorwa biri muri RUDP-II biri mu bice bine bikurikira kandi bizakorwa mu gihe cy'imyaka itanu uhereye mu Ukuboza 2020:

Igice cya 1a: **Igenamigambi ry'umujyi rihuriweho no gutanga ibikorwa remezo**

Iki gice kizashyigikira ishoramari ahantu 4 hatuwe mu kajagari mu mujyi wa Kigali (Mpazi, Gatenga, Nyagatovu na Nyabisundu). Imiturire izatezwa imbere binyuze mu kubaka imihanda, inzira nyabagendwa z'abanyamaguru, gushyira amatara ku mihanda hamwe n'imicungire y'amazi y'imvura ndeste n'ibikorwa remezo bigenewe abaturage nko kugagezaho amazi n'isuku, ibigo by'abaturage, aho abantu bashobora guhurira, ubusitani ndetse no guteza imbere amasoko y'abaturage aho batuye.

Igice cya 1b: **Kubungabunga mu buryo burambye ibishanga, guhangana n'imyuzure ndetse n'imyuka ihumanya ikirere**

Iki gice kizibanda ku bijyanye no gukora inyigo (design), gushyira mu bikorwa no kugenzura ibikorwa remezo bitangiriza ibidukikije bigamije gusana ibishanga no kugabanya ingaruka z'imyuzure mu kibaya cy'igishanga cya Gikondo ndetse n'igice kinini cy'igishanga cya Nyabugogo (mu buryo butaziguye hejuru y'isangano rya Mpazi). Iyinjizwa ry'ibikorwa byo kubungabunga ahantu hakomye (buffer zone) mu nkengero z'ibishanga by'ingenzi bizarushaho kugabanya ingaruka z'imyuzure hagati y'ibikorwa byubatswe (built environment) n'igishanga. Bizagabanya kandi ingaruka z'ibihe bizaza zituruka ku mapfa akabije. Ubushakashatsi bwa LiDAR buzatanga amakuru y'ingenzi yo gucunga neza amazi y'imvura. Ku bijyanye n' imyuka ihumanya ikirere ikomoka ahantu hanyuranye nko mu bishanga, imyanda y' ibishingwe, ubwikorezi n'inyubako, umushinga uzafasha gushyiraho uburyo bwo gukurikirana, kugenzura no gutanga raporo kuri iyo myuka. Ubwo buryo bushobora no kuzakwirakwizwa mu mijyi 6 yunganira umujyi wa Kigali.

Igice cya 2: Gufasha Imijyi 6 yunganira Umujyi wa Kigali

Ibice 2a: Kugeza ibikorwa remezo no gutanga serivisi mu mijyi 6 yunganira Umujyi wa Kigali

Iki gice cy'umushinga kizashyigikira ishoramari harimo kubaka imihanda, imiyoboro y'amazi, inzira z'abanyamaguru ndetse no gushyira amatara ku mihanda mu mijyi itandatu yunganira Umjyi wa Kigali ariyo Musanze, Nyagatare, Rubavu, Rusizi, Huye na Muhanga. Ibikorwa remezo bizavugururwa bizateza imbere kandi byongere serivisi n'imbaraga z'abaturage. Imihanda ivuguruye izahuza ahantu hatuwe mu kajagari n'ahandi hantu hafite amahirwe y'iterambere ry'imibereho myiza y'abaturage. Amatara yo ku mihanda azatuma haba umutekano w'abantu n'igabanuka ry'ubugizi bwa nabi bwa hato na hato.

Igice cya 2b: Guteza imbere no kubaka ubushobozi bw'inzego z'Imijyi 6 yunganira Umujyi wa Kigali

Muri iyi mijyi yunganira Umujyi wa Kigali, umushinga uzashyigikira ishyirwaho n'imikorere y'ibiro bishinzwe imicungire y'Umujyi (CMO). Izi CMOs zizategura buri mwaka gahunda yo kubaka ubushobozi bw'inzego zishinzwe imicungire y'umujyi. Izi gahunda zizagaragaza imbogamizi z'inzego mu bijyanye n'ubushobozi n'imbogamizi ku micungire y'imijyi mu mijyi itandatu yunganira Umujyi wa Kigali, kandi zinagaragaze ingamba zo kuzikemura, zinasobanure ubushobozi bukenewe kubakwa kugira ngo hafatwe ingamba zihamye zo kunoza imiyoborere y'imijyi.

Igice cya 3: Gubaka ubushobozi bw'inzego no gucunga imishinga

Igice cya 3a: Gubaka ubushobozi bw'inzego ku rwego rw'Igihugu

Iki gice cy'umushinga wa RUDP II kizafasha iyubaka ry'ubushobozi bw'inzego mu mujyi wa Kigali no mu mijyi 6 iwunganira binyuze mu bikorwa byinshi byo gufasha mu rwego rwa tekinike hagamijwe gukemura neza ibikenerwa mu nzego no kongera ubushobozi mu mujyi wa Kigali n'Imijyi 6 yunganira Umujyi wa Kigali. Iki gice kizafasha imijyi yunganira Kigali gushyiraho ibiro bishinzwe imicungire y'Umujyi no gutuma bishobora gukora binyuze mu bufatanye n'abandi bafatanyabikorwa mu iterambere. Byongeye kandi, ubufasha bwa tekinike mu guteza imbere ingamba z'igihugu zo gucunga imyanda n'imyuka ihumanya ikirere. Hazashyirwaho kandi uburyo Umujyi wa Kigali ndetse n'Imijyi 6 iwunganira bizajya bitangamo raporo hagamijwe gukemura ibibazo by'ibidukikije mu mujyi no kugabanya imyuka ihumanya ikirere n'ibidukikije ituruka ahantu hatandukanye.

Igice cya 3b: Gucunga imishinga

Ibikorwa byo gucunga imishinga bizashyigikirwa birimo ibyo gucunga imari n'itangwa ry'amasoko, kubungabunga ibidukikije n'imibereho myiza, kugenzura ishyirwa mu bikorwa ry'umushinga, gucunga amasezerano, kugenzura no gusuzuma (M&E), gutumanaho no gukorana n'abaturage. Iki gice kizatera inkunga abakozi bashinzwe imishinga muri MININFRA, LODA, Umujyi wa Kigali, REMA, hamwe n'ishami rishinzwe gushyira mu bikorwa umushinga (PIUs) ku rwego rw'Akarere biteganijwe ko rizakorwamo n'umuntu ushinzwe umushinga (uzaba yarize igenamigambi ry'imijyi cyangwa injeniyeri) hamwe n'ushinzwe kurengera ibidukikije n'imibereho y'abaturage. Aba bakozi bazaba bashinzwe guhuza ibikorwa by'umushinga muri rusange, kubungabunga ibidukikije n'imibereho myiza n'ubugenzuzi, korohereza no gukurikirana ibikorwa byose byo kubaka ubushobozi ku rwego rw'Akarere. Hari ubufasha buzatangwa bwo gufasha uturere tw'imijyi yunganira Kigali mu gushyira mu bikorwa no kugenzura ibikubiye mu nyandiko n'inyigo zigamije guteza imbere ibidukikije n'imibereho myiza: Urwego rw'ibidukikije n'imibereho myiza y'abaturage (ESMF), Gahunda yo Gufatanya n'abafatanyabikorwa (SEP), Gahunda yo gucunga abakozi (LMP), gahunda yo kubungabunga ibidukikije n'imibereho myiza (ESCP) hamwe na gahunda yo kwimura abantu bitewe n'inyungu rusange z'umushinga (RPF).

Igice cya 4: Gufasha mu bihe byihutirwa bidasanzwe cg by'amage

Hashingiwe kuri Politiki ya Banki y'Isi ku bijyanye no gutera inkunga imishinga y'ishoramari yo ku ya 10 Ugushyingo 2017, igika cya 12 n'icya 13 ku bijyanye n'ubufasha mu bihe byihutirwa bidasanzwe, umushinga uteganya gahunda yihariye yo gutabara mu bihe byihutirwa cg by'amage bije bitunguranye (CERC). Iyo gahunda ya CERC iteganya gusaranganya byihuse amafaranga y'umushinga mu gihe habaye ikibazo kidasanzwe cyaba giturutse ku mpamvu karemano cyangwa cyatewe n'umuntu mu gihe cyo gushyira mu bikorwa umushinga kugira ngo gikemurwe hashingiye ku biteganywa mu n'igitabo kigenga imikorere (kigomba gutegurwa mu gihe cyo gutegura umushinga). Iki gice ntikizagenerwa amafaranga mu ntangiriro ariko ashobora gukurwa ku yagenewe ibindi bikorwa by'umushinga mu gihe cyemerewe gukora (activation).

Uyu mushinga wa RUDP II washyizwe mu cyiciro cy'imishinga ifite 'ingaruka zikomeye' (substantial risks) hashingiwe ku byiciro by'ibidukikije n'imibereho bya Banki y'Isi ndetse no ku bwoko bw'ibikorwa, aho biherereye, ingaruka bishobora gutera ku bidukikije, uko biteye n'uko bingana n'ubushobozi bw'urwego rwa Leta y'u Rwanda ruwushyira mu bikorwa. Ibikorwa byose byateganijwe bizasuzumwa kugirango byuzuze ibisabwa by'ubuziranenge n'ibidukikije (ESSs). Hateguwe gahunda yo kubungabunga ibidukikije n'imibereho myiza y'abaturage (ESCP), igaragaza ingamba n'ibikorwa umushinga uzashyiraho kugira ngo ibisabwa by'ubuziranenge n'ibidukikije (ESSs) byuzuzwe.

Umushinga watekerejwe kandi wateguwe mu buryo butabangamira ibidukikije bushingiye ku kwirinda no gukumira, kugabanya cyangwa kwishyura ingaruka mbi zitifuzwa. Ibishobora guteza ingaruka mbi ku bidukikije no ku mibereho myiza y'abaturage n'ingaruka zikomoka ku mushinga harimo: guhumanya ikirere, amazi, ubutaka n'urusaku rw'imashini zubaka; ubwinshi bw'amazi; isuri; ikoresha ry'umuhanda

n'impanuka zo mu muhanda; ingaruka ku buzima n'umutekano biturutse ku kazi, ingaruka ku buzima n'umutekano by'abaturage; ingaruka ku bucukumbuzi / amateka / imibereho / umuco / ahantu h'amadini; guhungabana cyangwa gutakara ku ibimera n'ibinyabuzima by'inyamaswa; uburobyi n'ubuzima bwo mu mazi; ibinyabuzima bitandukanye n'ahantu karemano cyangwa mu bishanga cyangwa ahandi hantu h'umushinga; ingaruka ku bidukikije ziterwa n'imirimo itandukanye y'ibikorwa by'ishoramari ahantu hatandukanye h'umushinga; gucunga neza ibishingwe; impinduka z'imigezi n'imyuzure. Ingaruka ku mibereho y'abantu zirimo: gutakaza by'agateganyo cyangwa burundu ubutaka bw'ubuhinzi, amazu yo kubamo cyangwa ibikorwa by'ubucuruzi; uburyo butanoze bwo gukora akazi harimo kutubahiriza amategeko agenga umurimo mu gihugu, impanuka zishobora guturuka mu muhanda n'ikoreshwa ryawo no kwanduza indwara kimwe n'uburwayi bujyanye no kwinjiza abakozi mu bwubatsi.

Ihohoterwa rishingiye ku gitsina (GBV) na ryo rirashoboka bitewe n'uko hari abakozi bakora mu bwubatsi mu mishinga ya Leta. Umushinga wa RUDP II uzashyira mu bikorwa amategeko y'Igihugu harimo n'ayajyanye no kurengera ibidukikije (2018),

Gahunda yo Gufatanya n'abafatanyabikorwa (SEP) yateguwe hakurikijwe ibisabwa n'amabwiriza y'ibidukikije n'imibereho myiza (ESS10) kugira ngo abafatanyabikorwa bose bagire uruhare mu byiciro byose by'ibikorwa by'umushinga. Gahunda yo gufatanya n'abafatanyabikorwa igena uburyo ibyiciro bitandukanye by'abantu bigira uruhare mu bikorwa by'umushinga. Gukomeza kungurana inama, ibitekerezo no gukurikirana mu nzego zose bizakorwa mu gihe cyose cyo gushyira mu bikorwa uyu umushinga.

Uburyo bwo gukemura ibibazo (GRM) nk'uko byateganijwe n'amabwiriza y'ibidukikije n'imibereho myiza (ESS10) nabwo bwashyizwe mu nyandiko yo kubungabunga ibidukikije n'imibereho myiza (ESMF) no muri Gahunda yo gufatanya n'abafatanyabikorwa (SEP) ndetse na gahunda yo gucunga abakozi kugira ngo ibibazo by'abafatanyabikorwa bose byitabweho kandi bikemurwe hakurikijwe inzira zashyizweho.

Kubaka ubushobozi birateganijwe kugira ngo hakemurwe imbogamizi z'ubushobozi mu nzego zose kugira ngo ibibazo by'ibidukikije n'imibereho myiza bikemurwe neza mu gihe cyo gutegura, gukora design no gushyira mu bikorwa uyu mushinga wa RUDP II.

Rwanda Urban Development Project II
Environmental and Social Management Framework

I. INTRODUCTION

1.1 Background

This Environmental and Social Management Framework (ESMF) is being prepared to support the environmental and social management and implementation of the Rwanda Urban Development Project (RUDP II) which is a continuation of the current RUDP I [1] project under implementation with an additional scope of interventions in wetlands restoration, flood control, urban planning and several technical asistance topics to be supported.

RUDP II project is an investment of US$ 158.7 million dollars with 4 components to support i) basic urban infrastructure (roads, drainage works, footpaths, street lighting) in six secondary cities (Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi) and in the City of Kigali (CoK), including here flood control works; ii) restoration of modified/urban wetlands and recover them to support the greening urban strategy of Rwanda with suport of the GEF 7 funding; iii) technical assistance for urban planning, waste management, etc.

The ESMF has been prepared according to the Environmental and Social Framework of the World Bank[2] and its Environmental and Social Standard 1 (ESS1)[3] and has considered the regulations and requirements of Environmental Impact Assessment of Rwanda.[4] The ESMF is an umbrella instrument that includes requirements of other relevant Environmental and Social Standards for the project which are ESS2, ESS3, ESS4, ESS6, ESS8, and ESS10.

Four other instruments have been prepared for RUDP II environmental and social management which will also be mandatory for the the project implementation and complements the ESMF.

i) Resettlement Policy Framework (RPF) to guide the development of site specific RAPs which will be prepared during project implementation;
ii) Labour Management Procedures (LMP) which will define the procedures for labor, health and safety;
iii) Stakeholder Engagement Plan to guide the communication and consultation protocols and the grievances mechanisms;
iv) Environmental and Social Commitment Plan (ESCP) which will summarize all obligations of the project for environmental and social management during project implementation.

RUDP-II will support the strengthening of urban governance and management systems, participatory strategic and spatial planning, enhanced citizen engagement in decision making of districts, and improve

[1] https://projects.worldbank.org/en/projects-operations/project-detail/P150844
[2] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework
[3] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards?cq_ck=1522164538151#ess1
[4] https://elaw.org/rwanda-environmental-impact-assessment-law-and-regulations

the quality of life for urban residents and promote economic development through increased access to services such as roads, drainage, and sanitation.

RUDP II is aligned with the World Bank's current Country Partnership Strategy (CPS) 2014-2018, systematic Country Diagnostic (SCD) completed in June 2019 and the proposed Country Partnership Framework–CPF (FY21–FY25) under preparation. The SCD of Rwanda recognizes environmental sustainability and building resilience to climate change as key priorities and underlines the critical need to manage urbanization, strengthen decentralization and support climate resilience and make it compatible urban development in achieving Rwanda's aspirations for growth.

The Government of Rwanda and its implementing agencies confirm that they will develop RUDP II in line with the current ESMF actions and measures here presented and with all measures, plans and protocols describe in the RPF, SEP, LMP, ESCP prepared for the project implementation. It is also agreed that a team of environmental and social specialists will be hired to ensure adequate supervision and monitoring of mitigation measures, that an agreed budget will be allocated to apply the measures described in this ESMF and futures ESIAs, that reports will be provided to the World Bank team on any project-related incidents (accidents) or changes in project design that will require the update of this document, during implementation or as required during the supervision of the project.

PROJECT INTERVENTION AREA

RUDP II will benefit inhabitants of poor urban areas of the City of Kigali as Rwanda's Capital city and of villages in six Secondary Cities of Rwanda (Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi) as shown in the map featured in Figure 1. Half of the urban population outside Kigali is found along emerging corridors around secondary cities: the Musanze-Nyabihu-Rubavu corridor (one-third) and the Muhanga-Huye corridor including Nyanza and Ruhango districts (18 percent). Much of Rwanda's remaining urban population is spread between Kigali and Bugesera, Kayonza and the more isolated settlements of Nyagatare and Rusizi.[5]

Selected under the second phase of the Economic Development and Poverty Reduction Strategy (EDPRS-II), the six Secondary Cities were envisioned as poles of growth and centers of non-agricultural economic activities. The largest concentration of economic activities outside Kigali is in the Rubavu-Nyabihu-Musanze area, accounting for 7 percent of formal private sector jobs as per the 2014 Establishment Census, although far behind Kigali's share of 54 percent.

FIGURE 1 MAP OF RWANDA FEATURING THE CITY OF KIGALI AND 6 SECONDARY CITIES, NATIONAL ROAD NETWORK LINKING THEM AS WELL AS SENSITIVE WETLAND ECOSYSTEMS AND NATIONAL PARKS

[5] Diao, Randriamamonjy, and Thurlow. 2017.

TABLE 1 KEY DATA ON PROJECT CITIES TO BE BENEFITED WITH THE RUDP -II PROJECT.

City	Total urban resident population	Urban Sector Population Density (persons/km^2)	Urban Poverty Rate*	% Households living in urban informal settlements
Huye	41,880	1,506	28.8	70.8
Muhanga	44,800	2,229	13.4	52.0
Musanze	69,220	2,933	19.4	61.3
Nyagatare	17,929	356	53.7	5.9
Rubavu	143,019	3,195	20.0	29.6
Rusizi	24,300	2,593	24.9	51.8
Kigali	845,730	3,556	8.3	78.0

Source: Census 2012 (unless noted otherwise) and EICV 5
**Urban poverty rate for districts with secondary cities; urban poverty rate for Kigali districts and Kigali*

***Source: gadm.org GIS shapefiles*

1.2 Project interventions

The Rwanda Urban Development Project (RUDP II) will support a number of infrastructure activities, such as: construction of urban roads, drainage, street lighting, upgrade unplanned settlements, site servicing/or servicing of housing plots, upstream waste management, and storm water management in six Secondary Cities and the City of Kigali (CoK).

The project will support:

- Provision of basic infrastructure in secondary cities of Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi.
- Investments in four potential unplanned settlements in the City of Kigali to upgrade them with access streets, pedestrian walkways, streetlights and storm water management solutions.
- Water supply and sanitation infrastructure as well as community facilities such as community centers, public parks and green spaces and local market improvements.
- Flood risk management in Kigali with a combination of investments and technical assistance prioritized in synergy with the urban upgrading activities: (a) rehabilitation of an urban wetland; (b) green and gray infrastructure along the wetland buffer zone and major hot spots in the City to reduce flood risk and enhance livability.
- Design and implement wetland restoration activities that integrate biodiversity and ecosystem values in urban development and enhance ecosystem services in a priority wetland. Wetland restoration activities may include: earthworks to re-shape the profile of the wetland, flow and erosion control structures, flood attenuation features, ponds for enhancing water treatment functions and aesthetics and re-vegetation.

Although activities of infrastructure upgrading of unplanned informal settlements in the City of Kigali and the beneficiary villages in the Six Secondary Cities including waste management and wetland rehabilitation intend to bring about environmental and climate change mitigation and resilience benefits, they could also impose temporary and/or unforeseen negative impacts.

SCOPE AND ROLE OF THE ESMF for the implementation of the RUDP II

This ESMF defines the mandatory procedures for assessment and management of environmental and social impacts of all activities planned under RUDP II in order to meet the requirements of the national legislation and Environmental and Social Framework of the World Bank and relevant Environmental and Social Standards to all project investments.

The exact locations and boundaries of investment sites for unplanned informal settlement upgrade and wetland function rehabilitation, creation of green spaces and recreational facilities have not yet been determined, nor have feasibility studies been carried out. It is therefore not possible at this stage to prepare Environmental and Social Impact Assessments (ESIAs) and the environmental and social management plans (ESMPs) for the RUDP II infrastructure sub-projects.

The preparation of an Environmental and Social Management Framework (ESMF) was therefore deemed appropriate in order to inform the designs, define the scope for the preparation of ESIAs for sub-projects in the overall RUDP II documents, Stakeholder Engagement Plan (SEP), Labor Management Plan (LMP), Resettlement Action Plans (RAPs) and the Environmental and Social Commitment Plan (ESCP).

These documents are required to guide compliance with the relevant laws of Rwanda and the World Bank Environment and Social Standards (ESS),

ESS1: Assessment and Management of Environmental and Social Risks and Impacts,

ESS2: Labor and Working Conditions,

ESS3: Resource Efficiency and Pollution Prevention and Management,

ESS4: Community Health and Safety, ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement,

ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources,

ESS8: Cultural Heritage and

ESS10: Stakeholder Engagement and Information Disclosure.

1.2 Rationale and Objectives of this ESMF

The main purpose of the ESMF is therefore to avoid, minimize adverse social and environmental impacts by:

- Establishing mandatory procedures and methodologies for the environmental and social assessment, review, approval and implementation of investments to be financed under this project component;
- Specifying the roles and responsibilities, and outlining the necessary reporting procedures, for managing and monitoring environmental and social concerns related to component investments;
- Determining the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF; and
- Defining requirements for the ESIA/ESMP to be developed during implementation of the project
- Defining the minimum budget, grievance mechanism, consultation and communication procedures, among others requirements as ESS1, ESS2, ESS3, ESS4, ESS6, ESS8, ESS10.

The ESMF will have the following specific objectives:

- Describe the institutional, policy, legal and political framework mandatory for environmental and social management of the project.
- Evaluate the potential environmental and social risks and impacts of the proposed interventions to be financed by the project and make sure that prevention, mitigation and compensation measures are integrated into planning, design and implementation of all project activities to prevent, minimize or mitigate these potential adverse impacts.
- Put in place the mechanism for handling grievances related to environmental and social issues during project implementation.
- Define the protocols to be use in all communication and consultation activities with the stakeholders to achieve project objectives and outcomes.
- Define and clarify the responsibilities and roles of the RUDP II implementers at different levels from the National to district level.
- Ensure environmental and social sustainability of the project activities by complying with environmental and social management procedures to meet the World Bank and Rwanda requirements for environmental and social management.

1.3 ESMF Preparation Approach and Methodology

The ESMF preparation started in November 2019 in Rwanda with the support of the World Bank Team. It has been prepared in accordance with applicable World Bank Environmental and Social Framework and the 8 ESSs relevant to the project and the Rwanda Environmental Impact Assessment laws, regulations and guidelines.

The study methodology comprised the collection and review of primary and secondary baseline data, identification and consultations with key institutional stakeholders and potential project area community members and land users, site visits to all the six Secondary Cities and priority urban wetlands in the CoK as well as report preparation. The study methodology comprised collection and review of primary and secondary baseline data; preliminary identification and appropriate levels of consultation with key stakeholders.

The ESMF preparation team used different methods and techniques with a focus on the potential environmental and social impact of the planned RUDP II activities and recommend a management plan for avoiding or minimizing the potential negative impacts.

The ESMF study was conducted on the basis that key project activities in the 6 Secondary Cities and the City of Kigali will involve:

- Upgrade investments in four yet to be confirmed unplanned settlements of Kigali with access streets, pedestrian walkways, streetlights and storm water management solutions;
- Upgrade investments in the four potential unplanned settlements of Kigali with water supply and sanitation infrastructure as well as community facilities such as community centers, public parks and green spaces and local market improvements;
- Investments in integrated flood risk management in Kigali urban upgrading activity areas including: rehabilitation of an urban wetland; green and gray infrastructure along the wetland buffer zone and major flooding hotspots in the City to reduce flood risk; and enhance livability;
- Support roads and drainage investments yet to be identified in Secondary Cities; and

- Investments for Secondary Cities may include community centers, public parks and other recreational facilities and spaces, upgrading of markets as well as infrastructure upgrading in unplanned settlements.

The preparation process involved the following steps to ensure the ESMF is practical for use, ethical and accurate:

a) Desktop research;
b) Consultations with urban informal settlement dwellers, wetland users and key institutional stakeholders;
c) Identification and analysis of potential environmental and social impacts the implementation processes will likely trigger and generate;
d) Development of screening process for negative impacts for potential project sites and project activities;
e) Identification of appropriate mitigation measures for the predicted impacts and compilation of a management plan and other instruments for addressing environmental and social impacts during implementation, operation and maintenance of the project activities and;
f) Preparation of an Environmental and Social Management Plan.

A biophysical and socio-economic baseline information was collated and reviewed through desktop research and through consultations with a sample of urban informal settlement dwellers, wetland users and key institutional stakeholders. The sites visits were done to identify potential sub-projects sites in Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi and CoK in order to familiarize with the issues on the ground and appreciate the concerns. A wide range of project beneficiaries, supervisors, contractors as well as Secondary City district officials of RUDP I were interviewed in order to identify the main impacts similar works caused under RUDPI, and to apply good practice to prevent similar problems or challenges in RUDP II. A list of people consulted is appended to this ESMF document.

Various discussions in meetings and workshops were held with officials of key stakeholder institutions including MININFRA and MOE and affiliated agencies including CoK, REMA, LODA, RWFA and RHA. Extensive consultations were held bilaterally and multilaterally with relevant World Bank officials in the country office and with those from Washington DC. These discussions were insightful in understanding the issues and guided the identification of measures prescribed in this ESMF. There are direct environmental impacts associated with urban informal settlement infrastructural upgrading and wetland rehabilitation works which may be associated with potential earth works, masonry and other construction activities involving heavy and light machinery with associated negative social and environmental impacts.

1.4 Users of the EMSF

This ESMF has been prepared as a mandatory manual for all implementers of the RUDP-II including but not limited to the following:

a) Ministries responsible for urban development
   - Ministry of Infrastructure (MININFRA)
   - Ministry of Local Government (MINALOC)
   - Ministry of Environment (MoE)

b) RUDP implementing institutions
   - The City of Kigali (CoK)
   - Local Administrative Entities Development Agency (LODA)
   - Rwanda Environment Management Authority (REMA)

c) Development Partners

d) Senior government officials responsible for policy making and development planning

e) Administrations of the 6 targeted Secondary Cities and the City of Kigali

f) Consultants, Contractors and Subcontractors

2. PROJECT DESCRIPTION

2.1. Project Development Objective

To improve access to sustainable infrastructure and services and strengthen urban management and resilience in low income areas in the City of Kigali and the 6 Secondary Cities of Rwanda.

2.2. Project Components

Component 1: Support to the City of Kigali

This component will support: (i) integrated urban planning for resilient, inclusive infrastructure delivery, and (ii) evidence-based, sustainable wetland management, flood risk management and greenhouse gas monitoring in Kigali.

Subcomponent 1a: Integrated urban planning for resilient, inclusive infrastructure delivery

This subcomponent will support the comprehensive upgrading of four unplanned settlements in Kigali (Mpazi, Gatenga, Nyagatovu and Nyabisundu), including detailed designs, construction supervision and Enviromental and Social ESF instruments. An upgrading committees comprised of five members representing the community will also be established at the cell level in each of the four settlements. They include a president, vice-president, secretary, women's representative and youth representative. The upgrading committees are expected to be involved in key review and decision-making steps along the planning and implementation process. The investment menu will include roads, pedestrian walkways, streetlights, storm water drainage, as well as more comprehensive water supply and sanitation infrastructure and community facilities such as community centers, public parks and playgrounds and local market improvements, to enhance living conditions and improve basic infrastructure and service delivery. These infrastructure investments will be designed to climate-resilient standards. Proposals would also endeavor to incorporate nature-based solutions to infrastructure provision.

In addition, the project will finance the provision of flood risk reduction infrastructure in flood-prone areas located near the upgrading sites to mitigate erosion, reduce and manage storm water run-off along settlements, enhance wetland buffer zones, and address flood hotspots. Investments will include the rehabilitation of culverts, channels, and drains, as well as implementation of suitable nature-based solutions (NBS) to increase infiltration capacity, retain stormwater and reduce the speed of stormwater runoff. A stormwater management master plan for the City of Kigali will also be developed building on the hydrologic/hydrodynamic analysis carried out during project preparation. The main outcome will be a long-term prioritization of investments for a resilient stormwater management system for the city, including its wetlands, that will enable acceptable and optimum safety against flood risks for the current situation in Kigali, as well as for a 2040 scenario as the city continues to densify, expand and encounter various climate and disaster risks. A system for monitoring rainfall, water level and discharge data, as well as a detailed digital terrain model (DTM) (e.g. LiDAR) and aerial photographs of CoK's projected urban development area in the coming 20 years will be financed and used as input data (see Subcomponent 1b) to the storm water management master plan.

This subcomponent will also support institutional capacity development (ICD) of the city to strengthen its economic and spatial planning for efficient infrastructure and service provision in view of optimal allocation of space and resources. Support to CoK will focus on two main urban management functions: (i) implementation of the CoK master plan through detailed area planning, sites and services schemes and capital investment planning, and (ii) revenue and expenditure enhancement.

Subcomponent 1b: Evidence-based, sustainable wetland management, flood risk management and greenhouse gas monitoring

This subcomponent will support the design, implementation and monitoring of green and gray infrastructure for wetland rehabilitation and flood risk reduction in the Gikondo and Nyabugogo wetlands, as well as the wetland linking these wetlands. Works will focus on the Gikondo wetland, but the scope of interventions will be expanded from ecological restoration activities to include support for excavation and removal of foundations, construction of basic recreational infrastructure, and formalizing stormwater outlets. Technical assistance will also be provided to identify potential impact-driven, innovative financing options for private sector engagement around environmental sustainability in the wetland sites. Green investment planning would, for example, include recommendations such as provision of wetland space for small and medium entrepreneurs to develop tourism development and recreational purposes, and support efforts to prevent water contamination and degradation in the future. The NDF is expected to provide parallel financing for additional wetlands potentially including the Rwampara and Nyabugogo wetlands. The scope of activities and allocated financing is still to be concluded.

A LiDAR and photogrammetric survey will also be undertaken to produce a Digital Elevation Model (DEM) and a base map of the City of Kigali. It will also serve as input data for the SWMMP study in Subcomponent 1a. This survey will cover the complete urbanized area of Kigali, as well as urban development areas planned for the coming 20 or even 30 years. Besides flood management, the resulting DEM and aerial photographs will serve multiple purposes, including urban planning, land registration, road planning and design, and urban upgrading, among others. Finally, the subcomponent will support the development of a greenhouse gas (GHG) accounting and reporting framework to address GHG emissions from multiple sectors including the wetlands, solid waste, transport and buildings. The framework will be applied to CoK and later extended to secondary cities.

Component 2: Support to Secondary Cities

This component will support: (i) infrastructure and service delivery, and (ii) institutional capacity development of secondary cities.

Subcomponent 2a: Infrastructure and service delivery in secondary cities

This subcomponent will support infrastructure investments in secondary cities in two phases (Phases 3 and 4). While Phase 3 will support prioritized roads, footpaths and standalone drains investments that have already been identified, Phase 4 investments have yet to be identified but will be selected from a comprehensive menu of options for upgrading unplanned settlements. This includes investments in placemaking (including recreational spaces, community centers, social halls, and upgrading of markets), roads, drains, footpaths, streetlighting, water supply, solid waste collection infrastructure together with supporting trunk infrastructure and stormwater management infrastructure particularly in Rubavu. A long list of unplanned settlements has been identified in all six secondary cities.

Subcomponent 2b: Institutional capacity development of secondary cities

The project will support the establishment and functioning of the proposed CMOs. Once established, the project will help the CMOs to prepare medium-term (five-year) and annual ICD plans for urban management in order to identify institutional/capacity constraints and bottlenecks to urban management, propose measures to address them, and spell out capacities to be built in order to improve on urban management. In addition, CMOs will receive support to implement the master plans for their

respective secondary cities, implementation and monitoring of the National Urban Policy and any related national strategies. Master plan implementation will focus on the development of detailed area plans for one or more unplanned settlements in each city.

Component 3: Institutional Capacity Development and Project Management

This component will support: (i) institutional capacity development at the national leveol, and (ii) finance project managements costs of MININFRA PCU, LODA SPIU, CoK KUUT, REMA SPIU, as well as two project staff within District PIUs.

Subcomponent 3a: Institutional capacity development at national level

This subcomponent is comprised of the following activities, all of which will be led by MININFRA in coordination with other relevant ministries such as MINALOC and RHA: (i) development of a roadmap for sub-national implementation and monitoring of the National Urbanization Policy; (ii) implementation of the National Housing Policy and National Informal Settlement Upgrading Strategy through a stocktaking of existing upgrading pilots, guidelines for urban upgrading and strategy development for scaling up sites and services schemes benefitting low-income households; (iii) development of a national solid waste management strategy and feasibility studies for waste disposal facilities in secondary cities.

Subcomponent 3b: Project management

Project management activities to be supported include fiduciary (financial management and procurement), environmental and social management, implementation supervision, contract management, monitoring and evaluation (M&E), and communication and citizen engagement. This component will finance project staffing in MININFRA, LODA, CoK, REMA, and PIUs at the district level expected to be staffed each with a project focal person (preferably with a background in urban planning or an engineer) and Environmental and Social Specialists at the national and distric level.

Component 4: Contingency Emergency Response

In accordance with the World Bank Policy on Investment Project Financing dated November 10, 2017, Paragraph 12 and 13 for situations of urgent need of assistance, the project includes as a project-specific Contingent Emergency Response Component (CERC). CERC will allow for the rapid reallocation of project funds in the event of a natural or man-made crisis during implementation of the project to address eligible emergency needs under the conditions established in an operational manual (to be prepared during project preparation). This component will have no initial funding allocation but will draw resources from other expenditure categories in the event of its activation.

Project Costs and Financing

The estimated total cost for the project is approximately US$ 158.1 million, of which US$ 150 million is financed through the IDA credit and US$ 8.07 million is from the GEF-7 Trust Fund. The IDA credit will finance about 95% of total project costs for the implementation of the subcomponents 1a, 2a, 2b, 3a and activities partially under 1b and 3b while the GEF-7 Trust Fund will implement the subcomponent 1b and project management costs partially under 3b.

Project Beneficiaries

The primary beneficiaries of RUDP II will be the residents of the participating six secondary cities, and unplanned settlements in CoK. They will have better access to basic infrastructure and services across a range of sub-sectors, including local roads, storm water drainage (and reduction of flooding), waste management (increased collection), and street lighting. The projects expected benefits will arise from investments in infrastructure – in particular, improvements in road quality and drainage - and from upgrading of unplanned settlements. They will also have improved flood risk management. In addition, residents will indirectly benefit from the institutional development activities aimed to strengthen the capacity of the districts to implement infrastructure upgrading interventions.

Gender Considerations

As in most developing countries, women and men in Rwanda experience urban areas differently due to their gender-based roles and responsibilities. The provision of basic services and infrastructure in unplanned settlements, and lack thereof, affects women more than men as most household responsibilities are still carried out by women. Women are the primary collectors, transporters and managers of domestic water and fuel, as well as the promoters of home and community sanitation activities. They also play a primary role in waste disposal and environmental management. Women in cities depend more heavily on public transport than men and use transport in different ways, including non-motorized transport. Thus, male and female priorities are often not the same for basic services such as urban housing, water and sanitation, solid waste management, and public transport.

RUDP II will deepen the efforts made under the ongoing RUDP to ensure that women benefit fully from the project. Under the proposed RUDP II, the project will hold regular community consultations that are meaningfully conducted and recorded to ensure that women are well represented and can influence the choice and location of infrastructure investments when prioritization of these infrastructure place under subcomponents 1a and 2a. Specifically, dedicated focus group discussion with women will be conducted to identify gender-sensitive investments, which will be given higher priority once identified.

Furthermore, neighborhood committees, as per national policy[6], must comprise at least one-third (1/3) female representatives to ensure that women can voice their views in the planning and prioritization process and benefit from the choice and location of infrastructure investments. Similarly, the composition of all Grievance Resolution Committees will be constituted in such a way that no committee has more than two-thirds (2/3) of the members being of the same gender. This level of representation greatly benefits women who more frequently bear the brunt of GBV and ensures women's issues are fairly addressed.

Additionally, GEF-7 will support the City Advisory Committee and the Social Development Unit of CoK

[6] Article 9 of the Rwandan Constitution of 2003 introduces a mandatory women's quota of 30% in all decision-making organs

in the coordination and provision of advisory services on women empowerment and participation in wetland rehabilitation activities. GEF-7 will actively promote inclusiveness and will finance monitoring and reporting on direct beneficiaries disaggregated by gender as co-benefit of GEF investment.

Citizen Engagement

Community institutions established through Umuganda[7] will continue to play a key role in the project. As with RUDP, the Grievance Redress Committees (GRCs) will participate centrally in the project. Community Committees (CC) at the level of cells, sectors and districts established will continue to serve as a bridging mechanism between communities and the Government. The CCs will play a role in project by mobilizing the communities to participate in the project activities, acting as the communication channel to and from communities and District governments, sensitizing the community on RUDP II, supporting the implementation of resettlement action plans (RAPs) and mobilizing people to address common issues such as solid waste management (SWM). CCs will play a key role in implementing an SWM mechanism agreed by the community to prevent clogging of storm drains with solid waste and will also act as a watchdog against the abuse of existing and installed community infrastructure. GRCs will continue to address conflicts and grievances that arise during the RUDP II interventions.

2.3. The project Institutional Arrangements

The project will have two advisory teams at high level formed by: i) national steering committee and ii) project technical committees.

National Steering Committee (NSC). RUDP II will therefore aim to institutionalize this coordination as in Figure 2 below through a high-level National Steering Committee (NSC), composed of MININFRA, MINECOFIN, MINALOC, MoE, MINEMA, LODA, REMA and CoK to discuss policy and strategic issues related to urbanization, as well as review and advise on overall budget and funding allocations to the cities. The NSC is expected to meet on a semiannual basis each year and as needed.

Project Technical Committee (PTC). The project will form a Project Technical Committee (PTC) comprised of relevant technical staff such as Department Heads involved in project implementation at LODA, CoK, REMA, RHA, RTDA, MINALOC, RWFA and WASAC, and chaired by MININFRA. The PTC will discuss day-to-day issues and operational aspects of the project and provide technical advisory support to guide implementation of RUDP II. The PTC meeting is expected to be on a quarterly basis each year and as needed.

- *Specifically, RWFA and REMA will support implementation of flood risk management and wetland rehabilitation interventions.*
- *WASAC will also be part of the PTC to provide technical input to the development of a national solid waste management strategy.*
- *The GEF-7 interventions will be implemented by REMA with technical support from relevant agencies in the PTC.*

The implementation arrangements of the project include several implementing agencies at the national and district levels comprising project staff of MININFRA PCU, LODA SPIU, REMA SPIU, CoK KUUT and District PIUs. These staff will be responsible for day-to-day project implementation, including project

[7] Practice of cooperation and self-help in Rwanda. Through this process community level institutions are set up at the cell, sector and district levels that are inclusive of women, disabled and other vulnerable groups.

reporting, M&E, procurement, supervision of works and implementation and monitoring of Environmental and Social Standards (ESS) instruments prepared under the project.

National Level

- **Ministry of Infrastructure (MININFRA)** and **Rwanda Housing Authority (RHA)** are the institutions in charge of urban development, planning and housing. The overall project coordination will be the responsibility of MININFRA Project Coordination Unit (PCU) given its institutional mandate for policy and coordination on urbanization.
- **Ministry of Local Government (MINALOC) and the Local Administrative Entities Development Agency (LODA)** jointly provides institutional and financial support to local governments (Districts).
- **LODA, the current Project Implementation Unit (PIU)** for the RUPD I project will continue supporting the RUDP II. LODA will therefore coordinate Component 2 related to support to secondary cities through its SPIU.
- **Ministry of Environment (MoE)** – The Ministry of the Environment (MoE) has the policy mandate for the environment, natural resource management and climate change issues.
- **REMA is the regulatory authority for environmental management**. REMA will implement all GEF activities under the project in close coordination with CoK, RWFA and WASAC. REMA will coordinate with the CoK the implementation of the GEF component and the flood control activities. REMA is also the Focal point for the GEF funds.
- **Rwanda Water Resources Board** is the agency in charge of flood control. REMA has experience in applying WB safeguard policies. REMA's SPIU is currently implementing the WB funded the Landscape Approach to Forest Restoration and Conservation (LAFREC) and implemented the completed regional 5-year project, the second phase of the Lake Victoria Environment Management Project (LVEMP-II).

CoK and District level

- **City of Kigali:** RUDP II implementation will be further decentralized by setting up project financed PIUs at the district level. The CoK has set up the Kigali Urban Upgrading Team (KUUT), staffed with a project focal person with appropriate urban development competencies and environmental and social specialists. These will be responsible for overall project coordination as well as environmental and social management according the ESF, M&E and facilitation and follow-up on all institutional and capacity building activities at the district and CoK levels.
- Law No. 87/2013 of 11/09/2013 (determining the organization and functioning of decentralized administrative entities) indicates notably in Articles 130 and 142 that districts and the CoK are responsible for planning, infrastructure, service delivery, among other things.

- **Districts** have staff with the role of environmental officers. However, there is no position of social specialist at the District level. Environmental officers are in charge of several duties and projects. The project will involve them in the supervision as much as they can and the project will hire one professional to work as combined environmental and social specialist (full time) for the project implementation. At the sub-national level, the districts and CoK are legally mandated to deliver a broad range of urban infrastructure and municipal services in their jurisdictions.

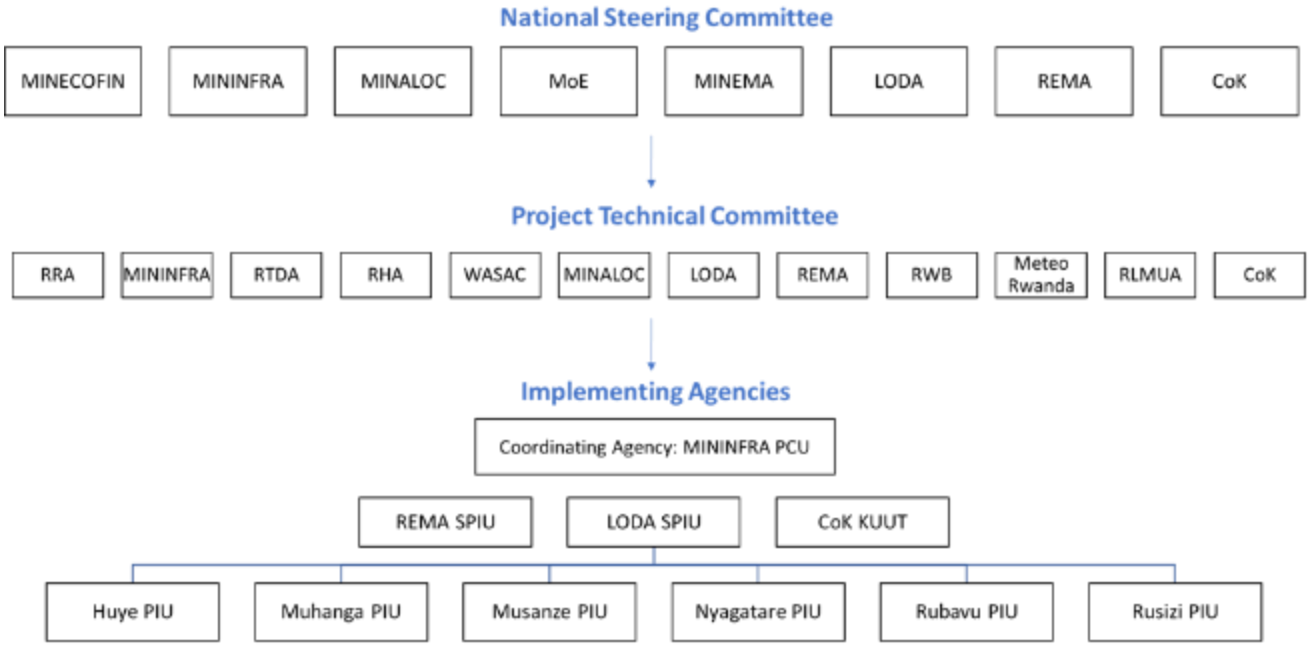


FIGURE 2. HIGH LEVEL IMPLEMENTATION ARRANGEMENTS FOR RUDP I (Please note that Arrangements chart for ESMF implementation is shown in figure 4)

There is also a need to strengthen vertical coordination between national and sub-national governments; as well as between districts and their citizens. RUDP II will also support closer coordination among the environmental and social specialists coordinating the ESIA and RAP preparations with the procurement teams preparing the tender documents so that the documentsare not disconnected with the obligations of contractors in the application of the ESIA for prevention, mitigation and compensation measures during construction.

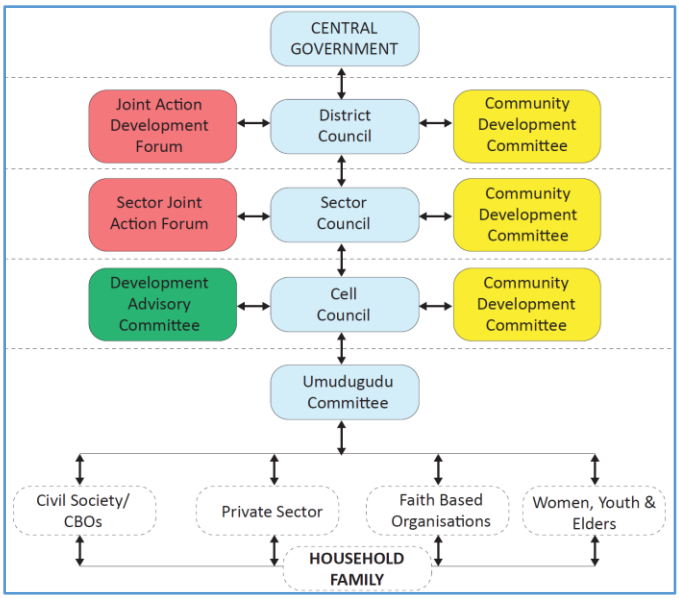


FIGURE 3 RWANDA ADMINISTRATIVE STRUCTURE. SOURCE: MINALOC, 2008

2.4 Administrative Context of EACH Implementing Agencies and capacity assessment for implementation of the ESF

2.4.1. MININFRA

The Ministry of Infrastructure (MININFRA) will be responsible for the overall project coordination through the Project Coordination Unit (PCU) given its institutional mandate for policy and coordination on urbanization.

Experience working with Bank Projects:

MININFRA has implemented various Bank funded operations and has experience in safeguards application. No experience in the ESF. MININFRA has the overall responsibility for infrastructure development in the country

FOR Environmental and social management of RUDP II:

- MININFRA has two environmental and social specialists in the Division of Urbanization, Human Settlement and Housing Development but they will not have time to participate in the project.
- It is been agreed to hire an Environmental and Social Coordinator for RUDP II to coordinate the work with all implementing agencies.

2.4.2. LODA

Rwanda is governed through a highly decentralized administrative structure to increase citizen participation in influencing development. Central government sits at the top of the hierarchy while five provinces (Northern, Eastern, Western and Southern and the City of Kigali) occupy the second tier of the administrative structure followed by 30 districts. Figure 3 shows the country's administrative structure of local governance entities steered by elected councils at every level.

- **Local Development Planning, M&E Division:** This division is responsible for planning, funding and implementation support of Local Economic Development projects and programmes in Local Government as well as monitoring and evaluation of all activities.
- **Local Economic Development Division:** This division provide technical advice during implementation of programs and projects to ensure quality delivery. It also develop the overall strategies for engaging the participation of local population in the development their respective districts.
- **Social Protection Division:** This division coordinates the implementation process of Vision 2020 Umurenge Program (VUP) and Ubudehe Program.

LODA's human resources capacity is outlines below:

DGs Office:	DG, Advisor to DG + 6 staff
Corporate Services Division:	Division Manager + 4 staff
Finance Administration Unit:	Director + 7 staff
Local Economic Development Division:	Division Manager + 4 staff
Local Development Planning and M&E Division:	Division Manager + 14 staff
Social Protection Division:	Division Manager + SP Skills Dev & Finance Literacy Specialist + 1s staff

FOR nvironmental and social management of RUDP II:

- LODA throught a Single Project Implementation Unit (SPIU) will be responsible of project implementation
- LODA has one environment and one social specialist working in the RUDP I project. These positions are existing. It is expected these consultants will have their contracts extended when the project is approved.
- LODA has experience working with the Bank and is currently implementing four Bank funded operations which are following the World Bank safeguards policies.

All staff working in the implementation of this ESMF and other ESF instruments need to fullfil the Terms of reference for this position are included in Annex 6

2.4.3. City of Kigali (CoK)

The CoK is made up of 3 districts: Nyarugenge, Gasabo and Kicukiro. The administrative structure of the City was recently changed to differ from districts in the rest of the country. The restructuring will lead to institutional consolidation and a single tier city management structure. The CoK delivers its services through departments comprising Public Health and Environment; Construction and Urban Planning One Stop Centre; Infrastructure; Economic Development; Social Development and Good Governance.

- **Public Health and Environment:**

The CoK integrates functions of public sanitation and waste management, greening and beautification, environment inspection, public and Community hygiene and primary health care. The Public Health and Environment Department has 4 full time staff who insure the application of health, public hygene and environmental regulations. None will have time to participate in the project.

- **The Kigali construction and urban planning One Stop Centre:**

The OSC is mainly tasked with to ensure respect for safety standards in the construction sector; develop and review key area detailed physical plans; to ensure quick service delivery mostly in building permit issuance and to monitor and advise Districts' land bureau for efficient service delivery. The OSC is also tasked with the role of implementing the Kigali Master Plan that includes among others, becoming a model city for environmental protection and preservation that minimizes pollution and waste disposal.

- **Infrastructure Development:**

The Infrastructure Development department is responsible for delivering services in areas including Roads and Drainage, Energy and Lighting, Water and Sanitation as well as Traffic Management and Public Transport. The department collaborates with various sectoral institutions, utility companies and districts in the City of Kigali in delivering its mandate. Roads & Drainage, Energy and Lighting, Water and Sanitation, Traffic Management and Public Transport.

- **Economic Development:**

The Economic Development department is tasked with the enhancing services that facilitate investors and support to the business community. The department collaborates with the Private Sector Federation in facilitating the Kigali Investors Forum as an avenue for dialogue between the City of Kigali and the business community on issues of mutual interest.

- **Social Development:**

The department coordinates the implementation of policies, programs, plans and activities related to social protection, gender and family promotion, sports and culture promotion, youth empowerment and education as well as programs and strategies that support social assistance to vulnerable groups in the city including persons with disabilities, street people (youth, children, vendors), sex workers, the elderly, etc. The department is responsible for organizing stakeholders' engagement meetings on social protection programs such as associations and cooperatives, youth associations and companies. The department has mobilized youth associations sign to take up street clean ing and maintaining gardens through performance contracts.

- **Good Governance and Territorial Administration:**

The City of Kigali is responsible for coordinating governance in its three districts of Gasabo, Nyarugenge and Kicukiro which are together made up of 35 sectors and 161 Cells. The City of Kigali also coordinates the territorial administration of these three districts. The Governance and Territorial Administration is *mandated with addressing disputes and queries from citizens from the lowest administrative level of Umudugudu to city level.*

Experience working with Bank Projects:

- The CoK has experience working on various World Bank funded operations.
- The CoK has no experience in the new ESF

FOR Environmental and social management of RUDP II:

The CoK has assigned a social specialist to work in the project. The project expects this person to work full time with the project.

The CoK will contract or assign a full-time environmental specialist for RUDP II. The professional needs to fulfill the Terms of reference for this position which are included and agreed in Annex 6

2.4.4. REMA

The Rwanda Environmental Management Authority (REMA) was established under Law No. 16/2006 of 2006 and amended in 2013. The law provides that REMA is the authority in charge of supervising, monitoring and ensuring that issues relating to environment are integrated in all national development programs. Article 3 of the REMA law defines the environmental regulation mandate including Section 6 that stipulates close monitoring and assessment of development programs to ensure compliance with the laws on environment during their preparation and implementation.

In this regard, through its Environmental Regulation and Pollution Control, REMA put in place environmental management tools and guidelines, including general and sector-specific guidelines for EIA that are available to the public via various media, including internet resources. REMA was initially responsible for reviewing and approving EIA reports. However, this function has been delegated to the Rwanda Development Board (RDB).

REMA is an independent agency under the political oversight of the Ministry of Environment. It is organized in four main technical units, an administrative unit and the office of the Director General (DG) Office.

DGs Office:	DG, DDG + 8 staff
Administration and Finance Unit:	Director + 10 staff
Environmental Regulation and Pollution Control:	Director + 7 staff
Research, Environmental Planning and Development Unit:	Director +6 staff
Environmental Education and Mainstreaming Unit:	Director + 4 staff
Climate change & International Obligations unit:	Director + 5 staff

In addition the above staff complement, REMA has a Single Project Implementation Unit (SPIU) with approximately 52 people. However, SPIU staff are on contract basis and funded by levies charged on REMA projects.

Experience working with Bank Projects:

- Experience working with Bank projects: no yet
- Experience in the new ESF: None. However, REMA has implemented a 5 year WB supported project and is currently implementing LAFREC.

REMA is the national environmental regulator and its participation in the project will be very beneficial to bring up environmental compliance and performance at a higher interest.

For Environmental and Social management of RUDP II

- At each District, the project will hire one professional to work as combined environmental and social specialist (full time) for the project implementation. These professionals will need to fulfill the Terms of reference for this position are included and agreed in Annex 6
- The project will involve the district environmental and social officers in the supervision as much as their interest and capacities allow them. They will be invited to all field visits, training, capacity building, communication, etc.

2.4.5. Secondary Cities

Secondary Cities are developing and governed within the existing district administration structures, with each district headed by a Mayor and 2 Vice Mayors who make the Executive Committee. The committee is governed by a 22-member District Advisory Council that includes a Chairperson and 2 deputies. Below the Council and Executive Committee in the administrative hierarchy is the District Executive Secretary and Corporate Services Division Manager and Directors of Human Resources and Administration, Planning and M&E, Agriculture, Good Governance, Social Development, Health, Business Development, Construction Permitting, Education, Finance and an Advisor to the Executive Committee.

The District services are provided under administrative and operational units including:

- Office of the District Executive Secretary;
- One Stop Centre (land administration, infrastructure and property management, maintenance engineering; building inspection, water and sanitation, ICT and GIS);
- Health Promotion and Disease Promotion Unit (Hygiene and sanitation, M&E, Fortified Blended Food);
- Education Unit;
- Business Development Unit (Investment promotion, SMEs and Cooperatives Development);
- Human Resources Unit;
- Finance Unit;
- Agriculture and Livestock and Forestry (The Environmental officer is in charge of all these aspect in the district)
- Social Development Unit (Social affairs, disability support, trauma counselling) (The Social Officer is in charge in all these topics)
- Good Governance Unit.

Sector administration is made up of the Sector Council as political organ elected from the Cells to approval of sector action plans and programmes and to ensure follow-up of their implementation. Sector services are provided through a Sector Executive committee composed of 10 members and monitors, elected by the Sector Council. The Sector Executive Committee is supported by the Political and Administrative (PAC) and the Community Development technical sub-committees.

Cell administration is made up of a Cell Council that is composed of all citizens of the cell who are over 18 years of age. The CEC executes functions related to administration and community development including the policy orientation and technical advisory for the implementation of the decisions taken by the Cell Council. The Cell Executive Committee works through its technical committee (the Community Development Committee) to identify and prioritize needs, design development plans, mobilize development resources and implement the plans.

Experience working with Bank Projects:

- Experience working with Bank projects: all these districts have implemented works under the RUDP I project
- Experience in the new ESF: None
- The Districts have staff with the role of environmental officers. Environmental officers are in charge of several duties and projects. At the moment there is no position of social specialist at the District level.

For Environmental and Social management of RUDP II

- At each District, the project will hire one professional to work as combined environmental and social specialist (full time) and one project focal person engineer (preferably with urban planning or civil engineering background) for the project implementation. These professionals will need to fulfill the Terms of reference for this position are included and agreed in Annex 6
- The project will involve the district environmental and social officers in the supervision as much as their interest and capacities allow them. They will be invited to all field visits, training, capacity building, communication, etc.

2.5. Lessons learned from RUDP-I for the implementation of RUDP-II

Some of the lessons learnt during the implementation of the current RUDP project are:

- The key lesson learned from RUDP I implementation is the need to strengthen vertical and horizontal coordination, particularly between agencies at the national level, notably, MININFRA and MINALOC/LODA. Urban programs are inherently multi-sectoral and will also require continuous involvement of technical agencies such as Rwanda Transport Development Authority (RTDA), WASAC, RHA and Rwanda Land Management and Use Authority (RLMUA).
- Sustainability is a key consideration in the Project. A lesson from the previous project is that attention needs to be paid to post-project operations and maintenance of the infrastructure that has been constructed. Institutional strengthening will emphasize the ability of cities to maintain the infrastructure, implement the local development plans and identify financing mechanisms to maintain the infrastructure upgrading process.
- Upgrading works of unplanned settlement in Agatare area in CoK, experienced significant challenges associated with expropriation and compensation since 2018 until now.
- Securing the budget for expropriation has been and continue to be a challenge to CoK and the same for the secondary cities and will also be for the new project. With expansion of new works in informal settlement in the same secondary Cities, this challenge is likely to continue for this project.
- For the Phase II works, EIA evaluations were not yet completed when procurement process had been completed. EIA evaluation, consultations and mitigation plans (ESMP) need to be prepared before procurement process begin, contract are awarded or signed. Contracting clauses are needed to ensure the obligation of the contractors for repairing the impacts/damages caused to properties during project constructions.
- A high number of unexpected damages were caused to houses during road construction especially while compacting the roads/vibration and excavations.
- Cumulative impacts to the environment and people, project constructions across the seven cities have not been considered in the preparation of RUDP I or RUDP II
- Voluntary land donation (VLD), where it seems it was well explained to the participation community members; before the start of civil works, the community members can change their mind and requested for compensation. This approach must be well explained to the beneficiaries.
- Supervision and monitoring records are on paper and found mostly at the district. RUDP II will support new tools like those been applied in transport projects in other regions where IT tools is helping to improve supervision.
- Application of Environmental/Social instruments is not consistent across many contractors' construction sites/districts/agencies. Under RUDP II, all implementing agencies and Districts would need to be trained in the new ESF and in the ESF instruments prepared for the project.

2.6. Institutional Arrangement for Environmental and Social Management of RUDP II

2.6.1. Implementing Entities

A proper success of the proposed environmental and social assessment depends on several factors including clear identification and allocation of responsibilities and functions, as well as the capability of the project management team in collaboration with the implementing agencies, to take proper actions throughout various stages of the proposed project activities.

RUDP II will have 4 National and 6 regional (district) Implementation agencies.

The proposed coordination among government institutions and non-government institutions is illustrated in Figure 4. These agencies will be responsible of the environmental and social management of the project and the application and compliance with the ESF documents prepared for the project ESMF, RPF, SEP, LMP and the ESCP.

- Ministry of Infrastructure (MININFRA)
- Ministry of Environment (MoE)
- Ministry of Local Government
- Local Administrative Entities Development Agency (LODA)
- City of Kigali (CoK)
- Rwanda Environment Management Authority (REMA)
- Districts of the six secondary cities
- Consultants

Ministry of Infrastructure

The overall project coordination will remain the responsibility of MININFRA Project Coordination Unit (PCU) given its institutional mandate for policy and coordination on urbanization. MININFRA has a technical responsibility for urban development, planning and housing.

Ministry of Environment

The inclusion of the Ministry of the Environment (MoE) and REMA is based on their technical mandate with respect to the environment, natural resource management and climate change issues. REMA will implement all GEF activities under the project in close coordination with CoK, RWFA and WASAC.

Ministry of Local Government

The Ministry of Local Government (MINALOC) and LODA as its implementing agency jointly have institutional support and finance mandates with respect to local governments. LODA will therefore continue to coordinate Component 2 related to support to secondary cities through its SPIU.

Kigali City and Secondary cities

At the sub-national level, six districts of the secondary cities (Nyagatare, Muhanga, Huye, Rusizi, Rubavu and Musanze) and CoK are legally mandated to deliver a broad range of urban infrastructure and municipal services in their jurisdictions.

Consultants

Experienced environmental consultancy firms working with environment aspects in different development projects will be hired to carry out environmental assessment studies. Individual expert consultants and/ or companies can also be engaged to carry out environmental monitoring of the ESMP.

The consultant will be responsible for supervising all environmental and social measures and protocols that are outlined in the ESMP. They are also responsible for verifying if all environmental and social management and measures included in the ESMP are reflected correctly and clear in the bidding documents, in the BOQs and in the works contracts.

Aside from the environmental and social management specialists, the PIU will engage design and supervision management consultant (DSM) to supervise the contractors including environmental and social management requirements and measures on their execution of construction-related, infrastructural development and other activities that have significant negative environmental impacts identified in the ESMF/ESIA. The DSM will ensure adherence to the monitoring parameters including quality requirements, as well as all ESMP measures.

Contractors

Constructions firms will be contracted through a tendering process as per the national procurement laws for the implementation of the development projects. The main responsibilities of contractors during the implementation of the projects include new construction and rehabilitation of planned project activities and infrastructures in accordance with the bidding documents, including compliance with the ESMP, prepared during ESIA studies. The contractors will be responsible for implementing community and occupational health and safety measures.

All implementing agencies of the project must ensure the compliance of the Contractors with all measures included in the ESMF, SEP, LMP, ESCP.

Communities:

The project will use community groups to support the supervision of the projects and to support the implementation of the SEP and the participatory nature of the project in subprojects definition, wetlands works, flood control measures, etc.

TABLE 2: IMPLEMENTING AGENCIES ACCORDING TO THE COMPONENTS TO BE RESPONSIBLE IN THE PROJECT

Implementing agencies	Name - Acronim	Main tasks	Components
MININFRA	PCU (Project Coordination Unit)	Overall project coordination unit	Oversight all components
CoK	KUUT (Kigali Urban Upgrading Team)	Coordination with LODA and REMA	Subcomponent 1a. Integrated urban planning for resilient, inclusive infrastructure delivery
REMA	SPIU (Single Project Implementing Unit)	Coordination with CoK, RWA, others	Subcomponent 1b: Evidence-based, sustainable wetland management, flood risk management and greenhouse gas monitoring in CoK
LODA	SPIU (Single Project Implementing Unit)	Coordination with the Districts and CoK	*Subcomponent 2b: Institutional capacity development of secondary cities*
District offices	Huye PIU, Muhanga PIU, Musanze PIU, Nyagatare PIU, Rubavu PIU; Rusizi PIU.	Coordination with LODA	Subcomponent 2a. Infrastructure delivery in secondary cities

2.6.2. Detailed Institutional arrangements for environmental and social management in RUDP II

At the National Level:

LODA: Since this is the agency with more experience in environmental and social asessement and management and will manage the majority of the civil works to be supported, an Environmental and Social Management Unit (ESMU) will be formed with the following staff:

i) One environmental management specialist (EMS) – position exist
ii) One social management specialist (SMS) -position exist as Social Safeguards Specialist
iii) Short term environmental and social consultants to support ESIA/ESMP, RAP preparation, supervision, etc.

The Environmental and Social coordinator at MININFRA will be responsible to oversee all environmental and social specialists working at the other three implementing agencies (CoK, REMA and LODA) and at the district level, ensure coordination among agencies, compliance with the ESF instruments and lead comprehensive reporting of monitoring programs.

- CoK: will assign one social management specialist (SMS) and environmental specialist (EMS) full time for the project.
- REMA: will assign social and environmental specialists full time for the project. An Environmental specialist is already been assigned to the project.

At Secondary City (District) Level

- Districts: the project will hire one professional to cover both environmental and social issues at the six districts. Training for these consultants in the ESF instruments will be critical. The District Environmental and Social Specialist will coordinate closely with the District and Project engineer, the ESMU and the other implementing agencies as needed.
- Contractors: there will be many contractors per community works. It is expected that each contractor will hire a manager in charge of the Environmental, Health and safety management plus additional supervisor and technical specialists.

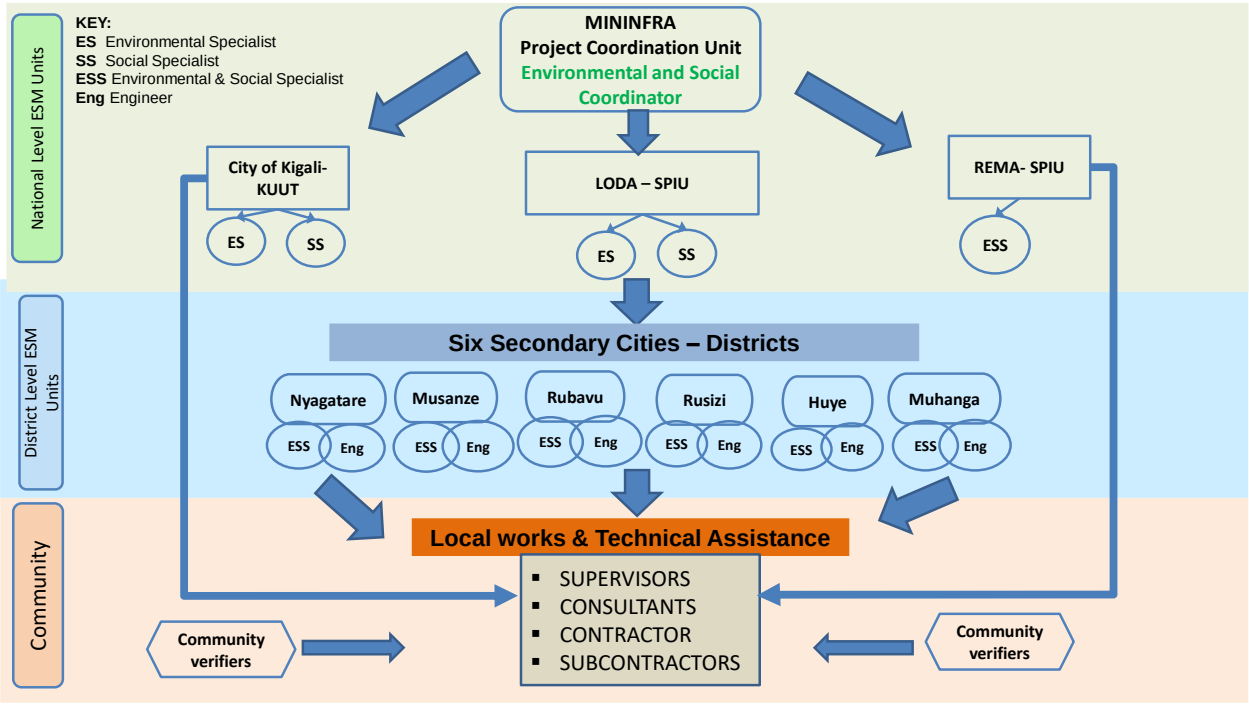


FIGURE 4. DETAILED INSTITUTIONAL ARRANGEMENT FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT IN RUDP II IMPLEMENTATION

2.6.3. Responsibilities of the Implementing agencies

The implementation of RUDP II will be led by the Project Implementation Unit (PIU) of the LODA SPIU/REMA SPIU that are already established within LODA and REMA. Additional details of the institutional arrangement for the overall RUDP II management.

The main responsibilities of the all implementation agencies including the Single Project Implementation Unit (SPIU) and they include the follows:

- Hire the agreed environmental and social specialists based on the Terms of Reference included in this ESMF
- Define the role and responsibilities of the staffs in the project implementation of the environmental and social aspects;
- Preparation of Terms of Reference for the project incorporating the environmental issues;
- Provide suggestions in different stages of the subprojects such as: project planning, site selection, feasibility study, design and implementation;
- Evaluation of construction related environmental impacts and monitoring;
- Preparation and implementation of environmental management plans during construction and maintenance stages of the subprojects;
- Ensure incorporation of appropriate environmental specifications into the respective bidder and contract documents;
- Facilitate the appointment of appropriate environmental consultants for successful environmentally friendly implementation of the project;

- Supervision and monitoring of the progress of environmental activities of the consultant for implementation of subprojects;
- Assisting implementing agencies' engineers at district level by providing appropriate environmental advices and developing appropriate environmental mitigation measures as per the subprojects;
- Monitoring of occupational health and safety of project workers (such as: provision of safe drinking water, sanitation, personal protective equipment etc.);
- Facilitate the carrying out participatory consultation during planning, design and implementation of the subprojects;
- Resolve grievances during the different stages of subproject implementation;
- Maintain liaison with other government and non-government organizations, development partners, stakeholders and other institutions regarding environmental and social management for efficient project implementation;
- Report accidents alongside the implementation of ESMPs

2.6.4. Institutional Arrangements for ESMF implementation

During the Project Implementation

A PIU has been already set-up in each implementing institution with qualified staff in its regular organogram. This PIU will assist on issues related to civil works and environmental and social management. It will oversee the design, supervision and management of the project, the management of the consultants and other contractors (to be engaged in project activities implementation) and will compile quarterly monitoring reports on ESMP compliance, to be sent to the World Bank, throughout the project implementation period. The PIU will also provide trainings to the RUDP II field personnel responsible for monitoring of environmental compliance during both implementation and subsequent post project period of the program.

The overall responsibility of environmental performance including ESMP implementation of the RUDP II will rest with the PIU. The PIU will have adequate numbers of environmental and social scientists/specialists and maintain coordination and liaison with Supervision consultatnts (DSM) and the secondary cities for effective ESMP implementation. Equally, the DSM and districts will also have environmental and social monitors who will supervise and monitor the contractors for effective

ESMP implementation. The contractors in turn will also have a manager for Environmental, Health, Safety (EHS supervisors who will ensure ESMP implementation during implementation of different activities (including construction) and will be tasked to develop necessary detailed HSE plans as per this ESMP, and oversee their implementation. The PIU may also engage an independent organization to carry out third party environmental monitoring during project implementation.

TABLE 3 ROLES AND RESPONSIBILITIES OF ESMF IMPLEMENTATION

Institution/Organization	Responsibilities
PIU at LODA, REMA, CoK	✓ Ensure that all sub-project activities are well-managed and coordinated ✓ Procurement of works and goods ✓ Payment of compensation to the project affected ✓ Recruitment and supervision of Design Supervision Management Consultants (DSM) ✓ Recruitment and supervision of external monitoring consultant ✓ Ensuring inclusion of ESMP in bidding documents

Institution/Organization	Responsibilities
	✓ Providing training on ESMP principles and requirements to DSM, contractors, RUDP field staff, and others as needed to ensure effective implementation of ESMP ✓ Supervise civil works, ensuring compliance with all design parameters including quality requirements and supervise all other project activities that have significant environmental impact ✓ Supervising the DSM for the implementation of ESMP and all other ESF instruments agreed for project implementation ✓ Ensure that all the project activities are carried out in environmentally sound manner ✓ Closely coordinate with other concerned agencies, local governments and communities to support implementation of ESMP ✓ Preparation of progress reports on implementation of ESMP ✓ Ensure effective implementation of ESMP components not directly tasked to the contractor including components dealing with indirect, induced and cumulative effects, as well as operations and maintenance (post project) stage plans and measures ✓ Commissioning and oversight/review of consultant reports for ESIAs/ESMPs
DSM	✓ Supervise civil works, ensuring compliance with all design parameters including quality requirements and supervise all other project activities that have significant environmental impact ✓ Supervising contractors for ESMP implementation ✓ Prepare monthly reports and submit to PIU ✓ DSM will have dedicated environmental and social staff
Contractor	✓ Responsible for implementation of mitigation and monitoring measures proposed in the ESMF, ESMP, SEP, LMP, ESCP, ✓ Each contractor will recruit an Environmental, Health, and Safety ✓ Hired a Manager (EHSM), who will be responsible for implementing the contractors' environmental, health and safety responsibilities, and liaising with government agencies. S/he will have adequate number of staff to support him/her for these tasks

3. POLICY LEGAL AND INSTITUTIONAL FRAMEWORK

This Chapter discusses a summary of the national legislation and regulatory framework relevant to the environmental and social management of RUDP-II. The World Bank ESF is also discussed as applicable to RUDP-II.

3.1 National Environmental Legislation and Regulatory Framework

Key environmental and other legislation and regulations and their applicability to RUDP-II activities are summarized in Table 5 below.

TABLE 4 KEY ENVIRONMENTAL AND OTHER LEGISLATION AND REGULATIONS AND APPLICABILITY TO RUDP-II

Policy/Law/Regulation	Key provisions	Applicability to RUDP-II
Environment		
National Environment and Climate Change Policy (2019)	Rwanda to be a nation that has a clean and healthy environment, resilient to climate variability and change that supports a high quality of life for its society.	Policy requires sub-project to consider principles that complement ESF including: *Assessment of environmental risks and impacts for development projects; Mitigation and Adaptation; Information dissemination and community awareness raising in the conservation and protection of the environment; Promoting Circular Economy and industrial symbiosis*
Green Growth and Climate Resilience Strategy (2011)	Vision for Rwanda to be a developed climate-resilient and low-carbon economy by 2050	GGCRS stipulates strategic objectives aligned with the ESF requiring sub-projects to practice sustainable land use and water resource management that results in food security; Appropriate urban development and preservation of biodiversity and ecosystem Services; and Social protection, improved health and disaster risk reduction that reduce vulnerability to climate change.
Law N°48/2018 on Environment	Article 3: Precautionary principle - Activities considered or suspected to have negative impacts on environment must not be implemented pending results of a scientific assessment ruling out the potentiality of such impacts.	The law will apply to sub-projects involving construction activities that may have negative environmental and social impacts which will need EIA certification from RDB before any works start.
National Strategy for Transformation (2019)	NST-1 Transformational Governance Pillar stipulates its Priority area 6 as "Increase citizens' participation, engagement and partnerships in Development". Environmental and Social Impact Assessments, biodiversity and ecosystem management, pollution and waste management are stated among the Environment and Climate Change key strategic interventions.	NST1 requires sub-project to consider principles that complement ESF including: Assessment of environmental risks and impacts for development projects.

Policy/Law/Regulation	Key provisions	Applicability to RUDP-II
Rwanda National Biodiversity Strategy and Action Plan (NBSAP) (2016-2020)	The NBSAP reflects a framework for conservation, sustainable use and equitable sharing of benefits from biodiversity use and ecosystem services of the country. It also provides a framework for maintaining the necessary environmental conditions to reduce poverty, ensure sustainable development and food security in the country.	An ESIA for wetlands rehabilitation under RUDP II will provide insights on biodiversity use and ecosystem services, environmental sustainability and restoration of degraded ecosystems. Additionally, flood risk management will enhance overall resilience of urban planning and infrastructure development.
Ministerial order N° 003/2008 relating to the requirements and procedure for EIA	Provides roles and responsibilities of all participants in the EIA process and a General Guidelines and Procedure for Environmental Impact Assessment-by-step guide of the procedures.	The order will apply to sub-projects involving construction activities that may have negative environmental and social impacts in the preparation of EIAs according to Rwandan law.
Natural Resources and Ecosystems (Forest, wetland, water)		
Law No. 32/2015 Relating to Expropriation in the Public Interest	Defines expropriation in the public interest as well as fair compensation in terms of value of land and the activities performed thereon given to the person to be expropriated and calculated in consideration of market prices as well as compensation for disturbance due to expropriation'.	The law will apply to sub-projects whose activities will entail resettlement and compensation. A separate document, RPF, detailing the modalities of resettlement and compensation will be developed
National Policy for Water Resources Management (2011)	Provides policy objectives on use and protection of natural environment including water resources: Rivers, artificial lakes, underground water, springs, and natural lakes.	The project will ensure that its activities do not pollute water bodies and guarantee an effective use of water resources. If any liquid waste is generated from project activities, it must be collected in a treatment plant for purification before being released into a river, a stream, a lake or a pond. Furthermore, separate water supply and sanitation will be provided for the temporary facilities including offices, construction camps and workers workshops in order not to cause shortages and/or contamination of existing drinking water sources. A Plan for water drinking will be prepared by the contractors on basis of the ESMP
National Policy and Strategy for Water Supply and Sanitation Services (2016)	Recommends sustainable and affordable access to a safe water supply, sanitation and waste management services policy and specifies that waste disposal shall be planned and managed with a view to minimize environmental impact and	Sub-projects will endeavor that urban upgrade activities will not hinder access to safe water supplies and sanitation as well as waste disposal services. Flood risk reduction and wetland rehabilitation activities will ensure water resources enhancement and protection

Policy/Law/Regulation	Key provisions	Applicability to RUDP-II
	ensure the protection of water resources	
National Water Law: Law n°62/2008 of 10/09/2008 putting in place the use, conservation, protection and management of water resources regulations	This Law defines the applicable rules to the use, conservation, protection and management of water resources. The law further defines water reserves, public water domain of the State in the districts, natural public water domain and provides modalities of compensation for damage to a water resource and penalty on water polluting	The project contractors will carry out the construction of the civil works while observing the applicable rules to the use, conservation, protection and management of water resources. In case the water utility services are to be relocated or damaged, the contractor will be responsible for expenses for relocation by the utility providers and compensation.
Wetlands Law: Prime Minister's order No 006/03 of 30/01/2017	Wetlands (and lakes) are protected by levels of exploitation published in a list of swamp lands, their characteristics and boundaries and determining modalities of their use, development and management. The order prescribes three management levels for specific lakes and wetlands: "Full Protection"; "Use under Specific Conditions" and; "Use without Specific Conditions"	The project will carry out an ESIA which will among other, determine the legal management level prescriptions of wetlands and/or lakes that may be affected by sub-project works and recommend mitigation measures.
Forest Law: Law Nº47bis/2013 of 28/06/2013 determining the management and utilization of forests in Rwanda	The law provides modalities of protecting the State forests and isolated trees. The law also stresses on planting trees in urban areas and on roadsides, protection and conservation of protected trees	The project contractors will record the number of trees to be cut and get an approval from the districts. Trees cut will be planted, upon completion of civil works, in urban areas and on roadsides for protection and beautification purposes. The EIA/ESMP will recommend the tree species to be planted but following ESS these species will be only native or fruit trees not exotic species.
Ministerial Order No 007/2008 Establishing the List of Protected Animals and Plant Species in Rwanda	Establishes protected animal and plant species list in Rwanda. The lists of animals that include Mammals, Birds and Reptiles and protected plant species are shown in Appendices I and II of the Order.	The order will apply to sub-projects that will entail clearance of natural vegetation or affect any of the listed protected animals and plant species
Labor		
Law no 66/2018 regulating labor in Rwanda	Stipulates several provisions for employment contract, Occupational Health and Safety (OHS) and general working conditions.	The law will apply to sub-projects that will entail employment of workers to ensure their health and safety. Any form of sexual harassment will be prohibited. Contractors will conclude an employment contract with workers and paid their salary as agreed by two parties. The project will put in place mechanisms and strategies to prevent and / or report any work- related accident or death

Policy/Law/Regulation	Key provisions	Applicability to RUDP-II
		of a staff/worker in accordance with established modalities. Occupational Health and Safety (OHS) Plan: will be prepared and implemented by each contractor on the basis of the WBG EHS Guidelines, mitigation plan, and other relevant standards. More details are found in a separate document, LMP.
Urban Development and Housing		
National Urbanization Policy (2015)	The purpose of the Policy is to enhance institutional capacity to manage urbanization in a coordinated manner and integrate urban planning and management to ensure sustainable growth, improve Urban quality of life, provide job opportunities and increase urban productivity.	RUDP will provide basic services of sustainable infrastructure (roads and drainage), upgrade informal settlements in Kigali City and six secondary cities and assist in urban planning and service management. Well-planned urbanization will help achieve the proper use of investment into infrastructure services, and initiate local economic development. In addition, the project will provide capacity building support to secondary city districts and City of Kigali.
National Housing Policy (2015)	This National Housing Policy outlines the principles pursued by the government when supporting housing development. It focuses on upgrading the existing informal housing units to achieve the creation of livable and inclusive built environment. Furthermore, the policy emphasizes on the construction of basic infrastructure on planned sites.	The project will provide basic infrastructure and urban services (roads, drainage, walkways, street lighting, public parks, etc.) and informal settlement upgrading in urban areas of the secondary cities and city of Kigali will improve living conditions of urban dwellers, support commercial and industrial investment, as well as investment into touristic and recreational activities.
Smart City Rwanda Master Plan	This Smart City Master plan provides a framework to help Rwandan towns and cities manage the transition of the 21st century and help ensure the future prosperity of all Rwandans and provides mechanisms for a higher quality of life to their citizens, businesses and visitors.	The project, through roads and drainage construction, will increase and facilitate the connectivity between different urban settlement areas of the secondary cities and city of Kigali. In addition, the livelihoods of the population will be enhanced, there will be an improvement of commercial activities, transportation of goods and people due to the provision of basic and access infrastructure.
Rwanda Green Building Minimum Standards (2017) and Ministerial order N° 04/Cab.M/015 of 18/05/2015 determining urban planning and building regulations	Green building minimum standards recommend the reduction of the GHG emission from the building sector through the reinforcement of the Green Building Minimum Compliance System. The ministerial order provides urban planning and building principles as well as the building Code with minimum requirements	-The project activities and construction of civil works will promote energy saving and water efficiency, reduce the need for air-conditioning by taking full advantage of Rwanda's cool, upland climate combined with appropriate building orientation, maximize day lighting and natural ventilation, use water-saving fixtures. The project will adopt the climate-resilient design standards and ensure the quality of construction materials and emphasize on the use of locally produced building materials that do not compromise the natural ecosystem.

Policy/Law/Regulation	Key provisions	Applicability to RUDP-II
National Building construction code	Rwanda Building Code adopted of 2015 provides the minimum requirements to safeguard public health during construction and occupancy	The project will control and regulate the design and construction of the civil works, quality of materials, sanitation and safety to life of contractors' staff and workers.
Access to information		
LAW N° 04/2013 relating to access to information	Provides the public with right to information. This law enables the public to access information possessed by public organs and some private bodies. It also sets out the methods for promoting the publication and sharing of information.	The project will avail information and involve the public and project stakeholders in assessing activities, documents or records related to the project activities. The project documents will be disclosed to public in in any electronic form or print outs copies. These ESF documents will be disclosed on websites of MININFRA, LODA, REMA and City of Kigali
Cultural Heritage		
Law nº 28/2016 on the preservation of cultural heritage and traditional knowledge	Defines tangible cultural heritage, provides classification criteria , organs in charge of classification and stresses on the preservation of cultural heritage and traditional knowledge	The project will protect and preserve the historical area, building, visual representation, and monuments showing artistic talent.

EIA process in Rwanda

In Rwanda, the environmental assessment procedure starts with the submission of a project description note to the RDB One Stop Center. RDB officials responsible for EIA then conduct field visits as part of a screening process and prepare ToR for the EIA study. The project proponent then submits the EIA report which is reviewed by RDB and an EIA certificate to proceed is issued. If the project is not approved, the proponent is given an opportunity to appeal as featured in Figure 5.

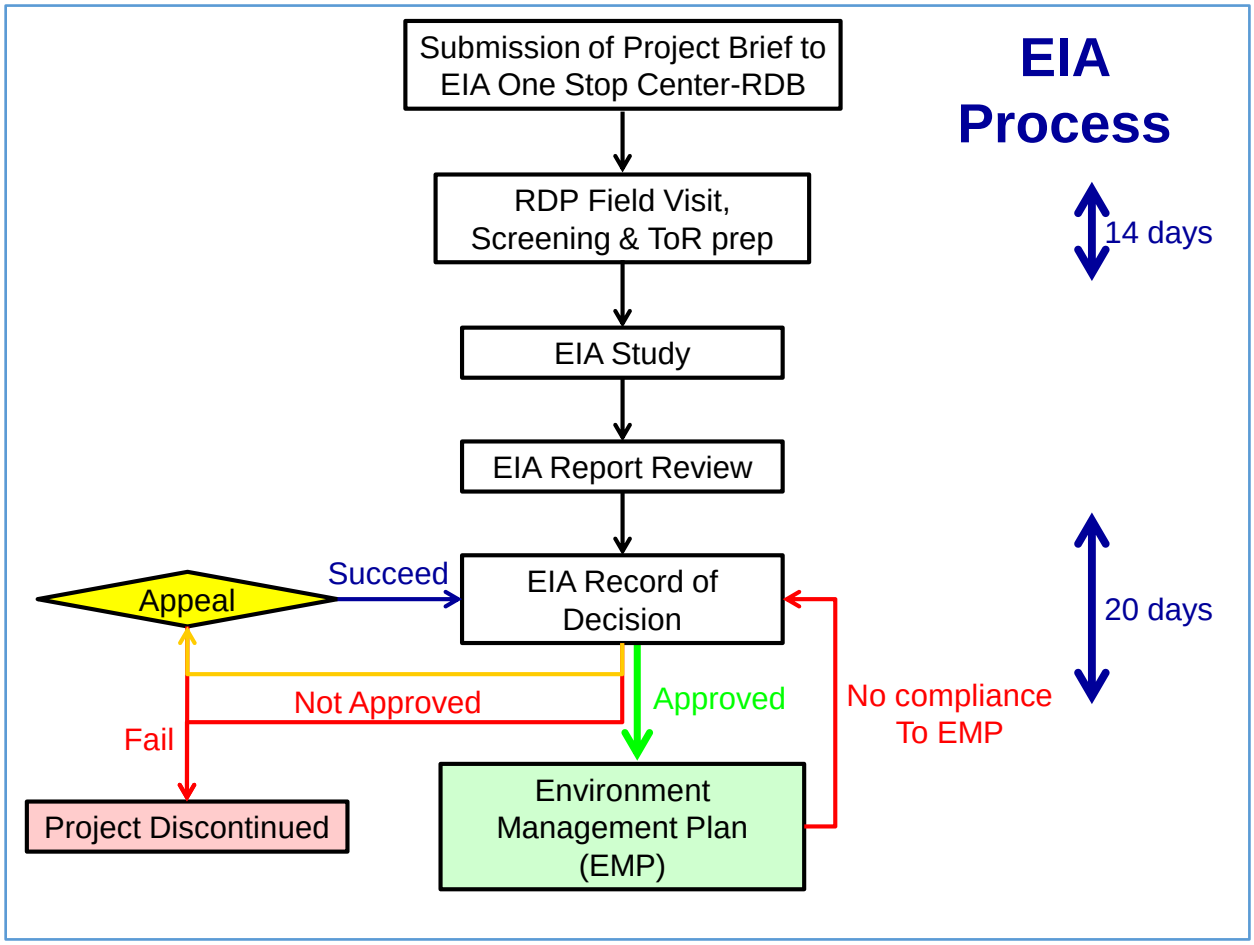


FIGURE 4. EIA PROCEDURE IN RWANDA ACCORDING TO CURRENT LEGISLATION OF MARCH 2020.

3.2 International Conventions

Environmental Impact Assessment (EIA) process operates within and towards the global concept of sustainable development. EIA process in Rwanda provides a basis for future international cooperation and conflict resolution concerning environmental impacts at a regional level. Rwanda signed and ratified international environmental and climate change conventions some of which apply to RUDP II as summarized in Table 5 below.

TABLE 5 SUMMARY OF INTERNATIONAL CONVENTIONS AND RESPECTIVE APPLICABILITY TO RUDP-II

International Treaty / Convention	Stipulations/ Requirements	Relevance to RUDP-II
Convention on Biological Diversity (CBD, 1992)	Aims to conserve biological diversity, promote the sustainable use of the components of biological diversity, and ensure fair and equitable sharing of the benefits arising out of the utilization of genetic resources.	Sub-projects especially wetland rehabilitation may require the clearing of vegetation but also may affect aquatic ecology if environmental flow is not maintained.
The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization	Provides legal framework for effective implementation of fair and equitable sharing of benefits arising out of the utilization of genetic resources. Addresses traditional knowledge associated with genetic resources with provisions on access, benefit-sharing and compliance. It also addresses genetic resources where indigenous and local communities have the established right to grant access to them.	May be relevant in rehabilitation of wetland biodiversity.restoration through the application of traditional knowledge in possible reintroduction of wetland indigenous/endemic species.
Convention on the Conservation of Migratory Species of Wild Animals (CMS)	A framework convention which provides a global platform for the conservation and sustainable use of migratory animals and their habitats.	RUDP-II wetland rehabilitation activities may temporariry affect migratory bird habitats, especially in the Nabugogo wetland.
UN Framework Convention on Climate Change (UNFCCC)	Provides a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change, and coping with its impacts.	RUDP-II focusses on sustainable urbanization and requires a climate risk assessment to be undertaken in order to guide detailed sub-project designs in coping with climate-related impacts on livelihoods.
Kyoto Protocol to the UNFCCC (1997)	Legally binds developed country Parties to emission reduction targets.	
Paris Agreement to the UNFCCC (2015)	Aims to strengthen global response to climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Also aims to strengthen ability of countries to deal with the impacts of climate change	
Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention, 1972)	Requires state parties to recognize that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage situated on its territory, belongs primarily to that State.	Will apply to sub-projects that will entail clearance of natural vegetation, earth and engineering works

3.3. The World Bank Environment and Social Framework

The new World Bank Environmental and Social Framework (ESF) adopted in October 2018 set out the commitment to sustainable development through a set of environmental and social standards (ESS) that are designed to support borrower projects. The ESSs set out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank.

RISK CLASSIFICATION

The World Bank has categorized the RUDP-II with a "Substantial Risk" rating based on the ESS1 and expected potential environmental and social impacts and risks.

ENVIRONMENTAL AND SOCIAL STANDARDS

The World Bank Environmental and Social Framework (ESF) comprises the following 10 ESSs:

ESS1: Assessment and Management of Environmental and Social Risks and Impacts
ESS2: Labor and Working Conditions
ESS3: Resource Efficiency and Pollution Prevention and Management
ESS4: Community Health and Safety
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
ESS8: Cultural Heritage
ESS9: Financial Intermediaries
ESS10: Stakeholder Engagement and Information Disclosure

Of these 10 ESSs, only 8 are relevant to RUDP- II. The two ESSs which are not relevant to the project are ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities and ESS9: Financial Intermediaries.

The link below provides the requirements including the 10 Environmental and Social Standards (ESS) that apply to Borrowers: https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-framework-resources

ESS1: Assessment and Management of Environmental and Social Risks and Impacts

The Assessment and Management of Environmental and Social Risks and Impacts standard (ESS1) applies to all projects supported by the Bank through Investment Project Financing. ESS1 sets out the Borrower's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project. The ESS is designed to help borrowers to conduct environmental and social assessment of projects proposed for Bank financing to help ensure that projects are environmentally and socially sound and sustainable. The environmental and social assessment has to be proportionate to the risks and impacts of the project. The environmental and social assessment is seen as a tool to improve decision making, and as a process whose depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed investments. Table 9 below features a summary of all the 10 standards, their objectives, requirements and relevance to RUDP-II.

The World Bank Groups's Environment and Social Policy for Investment Project Financing (IPF) sets out the mandatory requirements of the Bank in relation to the projects it supports through IPF. It considers stakeholder views in project design and during implementation. It prescribes an Environmental and Social Commitment Plan (ESCP) with a summary of material measures and actions that will be carried out in an

agreed time frame. It provides for monitoring and reporting as the basis for tracking performance of the project and verifying compliance with the ESCP and the requirements of the ESSs. Table 5 features a summary of the 10 ESSs, their requirements and respective applicability to RUDP-II.

The Environmental and Social Framework of RUDP-II

This ESMF is prepared following the requirements of the ESS1 and it is a mandatory document for the project implementing units, to ensure any work to be financed is first assessed in the terms of the potential environmental and social impacts and risks. Any proposed sub-project whose exact dimensions and locations have not yet been defined prior appraisal is assessed at a later stage and ESIA or ESMP preparation are ensured during implementation of the project.

This ESMF defines the requirements for ESIA development for the proposed urban infrastructure and wetland rehabilitation sub-projects and investments under the RUDP II in compliance with relevant laws of Rwanda and the ESF of the World Bank. All project investments are subject to the application of the relevant ESS agreed with the World Bank. This ESMF defines the procedure to be followed by all units in the proposed RUDP II components/sub-projects and in the six Secondary Cities and CoK in order to comply with the relevant ESSs. These procedures are described in the following sections.

Borrower guidance notes for ESSs are available on the following link:
https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-framework-resources#guidancenotes

Environmental, Health and Safety (EHS) guidelines from the WBG

The World Bank Group has produced the Environmental, Health and Safety (EHS) guidelines to ensure government/borrowers apply industry and international good practices and standards for pollution, waste management, etc in the construction of civil works. RUDP-II will consult and apply these guidelines as relevant in the project development. The EHS guidelines can be accessed by the link following link: https://www.ifc.org/wps/wcm/connect/90231ba8-5bb3-40f4-9255-eaf723d89c32/1-5%2BHazardous%2BMaterials%2BManagement.pdf?MOD=AJPERES&CVID=ls4XLqS

TABLE 6 WORLD BANK ESS REQUIREMENTS AND RESPECTIVE APPLICABILITY TO RUDP-II SUB-PROJECTS.

World Bank ESS	Objectives	Borrower Requirements	Applicability to RUDP-II	Instruments prepared
ESS1 - Assessment and Management of Environmental and Social Risks and Impacts	Identify, evaluate and manage the environment and social risks and impacts of the project in a manner consistent with the ESSs; Adopt a mitigation hierarchy approach to: avoid, minimize (reduce), mitigate and compensate(offset) Utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects, whenever appropriate.	Types of ES risk and impacts that should be considered in the environmental and social assessment. Use and strengthening of the Borrower's environmental and social framework for the assessment, development and implementation of World Bank financed projects as appropriate.	ES risks and Impacts have been preliminarily identified based on field visits, consultations with primary stakeholders including communities and implementing agencies (Secondary City district offcials, LODA, REMA and CoK). Detailed ESIA and ESMP will be prepared.	ESMF Preparation During implememtation: ESIA/ESMP will be prepared The ESIA/ESMP will include a GBV action plan
ESS2: Labor and Working Conditions	Promote safety and health at work; Promote the fair treatment, nondiscrimination and equal opportunity of project workers; Protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers, community workers and primary supply workers, as appropriate; Prevent the use of all forms of forced labor and child labor; Support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law; Provide project workers with accessible means to raise workplace concerns.	Prepare and adopt labor management procedures with provisions on: Treatment of direct, contracted, community, and primary supply workers, and government civil servants; Terms and conditions of work, nondiscrimination and equal opportunity and workers organizations: Child labor and forced labor; Requirements on Occupational Health and Safety, in keeping with the World Bank Group's Environmental, Health, and Safety Guidelines (EHSG).		A Labor Management Plan (LMP) has been prepared, which defines measures to be taken to address this standard (ESS2) Also a Code of Conduct (CoC) for contractors have been included in the ESMF and LMP

World Bank ESS	Objectives	Borrower Requirements	Applicability to RUDP-II	Instruments prepared
ESS3: Resource Efficiency and Pollution Prevention and Management	Promoting sustainable use of resources, including energy, water and raw materials; Avoiding or minimizing adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities; Avoiding or minimizing project-related emissions of short and long-lived climate pollutants; Avoiding or minimizing generation of hazardous and non-hazardous waste	Provide an estimate of gross greenhouse gas emissions resulting from project (unless minor), where technically and financially feasible; Management of wastes, chemical and hazardous materials, and contains provisions to address historical pollution; Make reference to national law and good international industry practice and World Bank Groups' EHSGs.	Sub-project ESIA process (es) will establish the following: • Targets for Greenhouse Gas Emissions Mitigated (metric tons of CO2e) • Efficient energy use, water usage during construction • Maintain balance for demand of raw materials use by exploring use of local materials, recycled aggregates, use of innovative technology so as to minimize project's foot prints on finite natural resources. • Identify pollution management practices: offset risks and impacts of pollution from dust and emission, spills, wastes etc.	-MEASURES INCLUDED IN THIs ESMF -During implementation: -ESIA/ESMP will include ESMF measures and additional based in the assessment of impacts and risk -BIDDING DOCUMENTS -CONTRACTORS ESMP
ESS4: Community Health and Safety	Anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances; Avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials; Have in place effective measures to address emergency events; Ensure that the safeguarding of personnel and	Implement requirements for community health and safety regarding infrastructure, and climate change, and applying the concept of universal access, where technically and financially feasible. Implement requirements for traffic and road safety, including road safety assessments and monitoring. Address risks arising from impacts on provisioning and regulating ecosystem services. Measures to avoid or minimize the risk of water-related,	RUDP-II urban upgrade activities for the unplanned settlements in Scondary Cities and CoK will entail construction activities including access roads, pedestrian walks, street lighting. entailing use of vibratory equipment, handling and disposal wastes; exposure construction related traffic and equipment	-MEASURES INCLUDED IN THIs ESMF -During implementation: -ESIA/ESMP will include ESMF measures and additional based

World Bank ESS	Objectives	Borrower Requirements	Applicability to RUDP-II	Instruments prepared
	property is carried out in a manner that avoids or minimizes risks to the project-affected communities.	communicable, and noncommunicable diseases. Implement requirements to assess risks associated with security personnel, and review and report unlawful and abusive acts to relevant authorities.	especially at road sections traversing settlement areas with limited carriageway/roadway width, and sensitive receptors such as schools, religious places, health centres/hospitals; high dust levels from earthworks/hill cutting, high noise and emission level from traffic congestion and idling of vehicles; and influx of migrant workers could potentially cause local discomfort potential conflicts with residents.	in the assessment of impacts and risk -BIDDING DOCUMENTS -CONTRACTORS ESMP
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives.; Avoid forced eviction; Mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use; Improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure; Conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant; Ensure that	Ensure that acquisition of land and assets happens only after payment of compensation and resettlement has occurred. Implement community engagement and consultation, disclosure of information and put in place a grievance mechanism.	A separate RPF has been prepared to address ESS5. Land will be required for urban informal settlement upgrade works in identified sub-projects and possibly for wetland rehabilitation and flood risk reduction. Hence impacts on land, private and community owned assets including structures, trees and crops (in wetlands rehabilitation sites) are likely.	Measures included in the RPF During implementation: Measures will be included in the RAPs GRMs

World Bank ESS	Objectives	Borrower Requirements	Applicability to RUDP-II	Instruments prepared
	resettlement activities are planned and implemented with appropriate disclosure.			
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Protect and conserve biodiversity and habitats; Apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity; Promote the sustainable management of living natural resources; Support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.	-Implement requirements for projects affecting areas that are legally protected designated for protection or regionally/ internationally recognized to be of high biodiversity value. -Implement requirements for sustainable management of living natural resources, including primary production and harvesting, distinguishing between small-scale and commercial activities. Implement requirements relating to primary suppliers, where a project is purchasing natural resource commodities, including food, timber and fiber.	-Site clearance activities for road, building and other unplanned urban settlement upgrading constructions as well as wetland rehabilitation and flood risk reduction may involve removal of vegetation and felling of trees. Sub-project feasibility studies will among others include principles and approaches for preventing impacts to biodiversity;	MEASURES INCLUDED IN THE ESMF During project IMPLEMENTATION MEASURES TO BE INCLUDED IN THE ESIA/ESMP, BIODIVERSITY ACTION PLANS, BIDDING DOCUMENTS and CONTRACTORS ESMP
ESS8: Cultural Heritage	Protect cultural heritage from the adverse impacts of project activities and support its Preservation; Address cultural heritage as an integral aspect of sustainable development; Promote meaningful consultation with stakeholders regarding cultural heritage; Promote the equitable sharing of benefits from the use of cultural heritage.	Put in place a chance-finds procedure. Ensure peoples continued access to culturally important sites, as well as the need for confidentiality when revealing information about cultural heritage assets that would compromise or jeopardize their safety or integrity. Put in place a mechanism for fair and equitable sharing of benefits from commercial use of cultural resources. Establish provisions for archaeological sites and material, built heritage, natural features with cultural significance, and moveable cultural heritage.	ESIA process (es) will prescribe measures to that subproject activities avoid ancient monuments and/or archaeological site(s), protected, and religious structures/shrines of local importance.	-MEASURES INCLUDED IN THIs ESMF -During implementation: -ESIA/ESMP will include ESMF measures and additional based in the assessment of impacts and riss

World Bank ESS	Objectives	Borrower Requirements	Applicability to RUDP-II	Instruments prepared
				-BIDDING DOCUMENTS -CONTRACTORS ESMP
ESS10: Stakeholder Engagement and Information Disclosure	Establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties; Assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance; Ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format; Provide project-affected parties with accessible and inclusive means to raise issues and grievances and allow Borrowers to respond to and manage such grievances.	Preparation and implementation of a Stakeholder Engagement Plan (SEP). The SEP involves early identification of stakeholders, both project-affected parties and other interested parties, and clarification on how effective engagement takes place. Stakeholder engagement to be conducted in a manner proportionate to the nature, scale, risks and impacts of the project, and appropriate to stakeholders' interests. Specifies what is required for information disclosure and to achieve meaningful consultation.	The project includes large group of stakeholders (government agencies, urban inhabitatants, farmers, rural communities, NGOs, etc). The project will interact with the stakeholders during planning, construction and delivery of works. Affected stakeholders will have GRM mechanisms to reach the project implementing agencies.	-A separate SEP has been prepared for RUDP-II. -The ESMF includes a communication plan, GRM, a report on the consultation process and disclosure information.

4. RUDP-II ENVIRONMENTAL AND SOCIAL BASELINE

4.1. CoK Environmental and Social Profiles for Component 1

RUDP-II will support an integrated package of investments in four potential unplanned settlements of Kigali to upgrade them with access streets, pedestrian walkways, streetlights and storm water management, including Nature Based Solutions (NBS) for managing runoff. Further, RUDP II will consider a more expanded set of investments including water supply and sanitation infrastructure as well as community facilities such as community centers, public parks and green spaces and local market improvements.

Wetland rehabilitation activities will entail: earthworks to re-shape the profile of the wetland, construction of flow and erosion control structures, development of flood attenuation features such as ponds for enhancing water treatment functions and aesthetics and re-vegetation. CoK urban wetland pollution and flooding hotspots for investment will be selected from the degraded Rwampara, Gikondo valley, Rwezangoro, Kibumba and Nyabugogo in the Nyabugogo sub-catchment and Nyandungu-Kitaguzirwa wetland in the Mulindi sub-catchment. Run-off from surrounding urban settlements significantly increases flood flows into these wetlands and introduces pollutants that affect downstream biota and water users. Flood risk and buffer zone investment will be integrated in a comprehensive approach to managing risks across the natural and built environment, upstream to downstream of the catchments, and from the top to bottom of the hills in Kigali, as shown in Figure 7.

FIGURE 5 ILLUSTRATED MODEL OF FLOOD MITIGATION THROUGH INTEGRATING UNPLANNED SETTLEMENT UPGRADE WITH STORMWATER MANAGEMENT, NBS RUNOFF MANAGEMENT AND WETLAND REHABILITATION

Wetlands of Nyabugogo and Gikondo have been identified as potential sites for rehabilitation in the framework of the integrated approach illustrated in Figure 8. Pre-feasibility studies for unplanned settlement and for wetland rehabilitation upgrading and how they are linked have been planned.

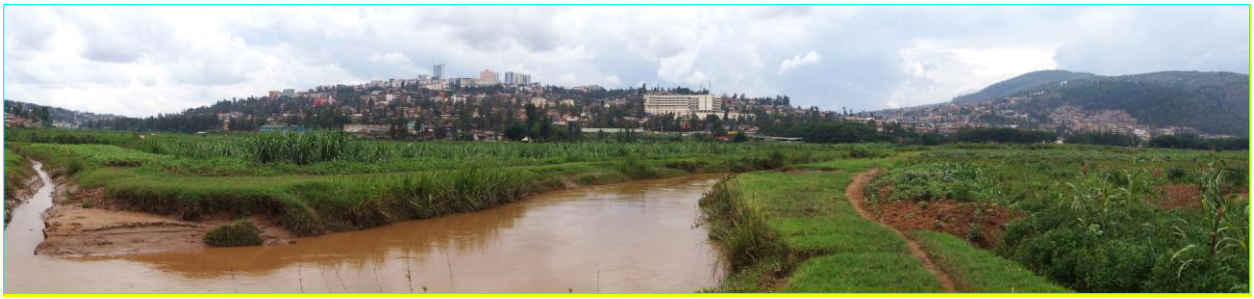


FIGURE 6 NYABUGOGO DOWNSTREAM WETLAND VIEWED FROM NORTH WITH KIGALI CITY CENTRE IN THE BACKDROP

Figure 8 shows a map of potential intervention sites of the RUDP-II Component 1: Support for the City of Kigali, overlaid in a Google Earth image of Dec 14th 2019. The map features the area of influence for Component 1 situated centrally in the City of Kigali and bound by Upper-Left coordinates: Latitude 1°54'32.93"S and Longitude 30° 2'18.53"E and Lower Right coordinates: Latitude 1°59'26.74"S and Longitude 30° 7'22.98"E.

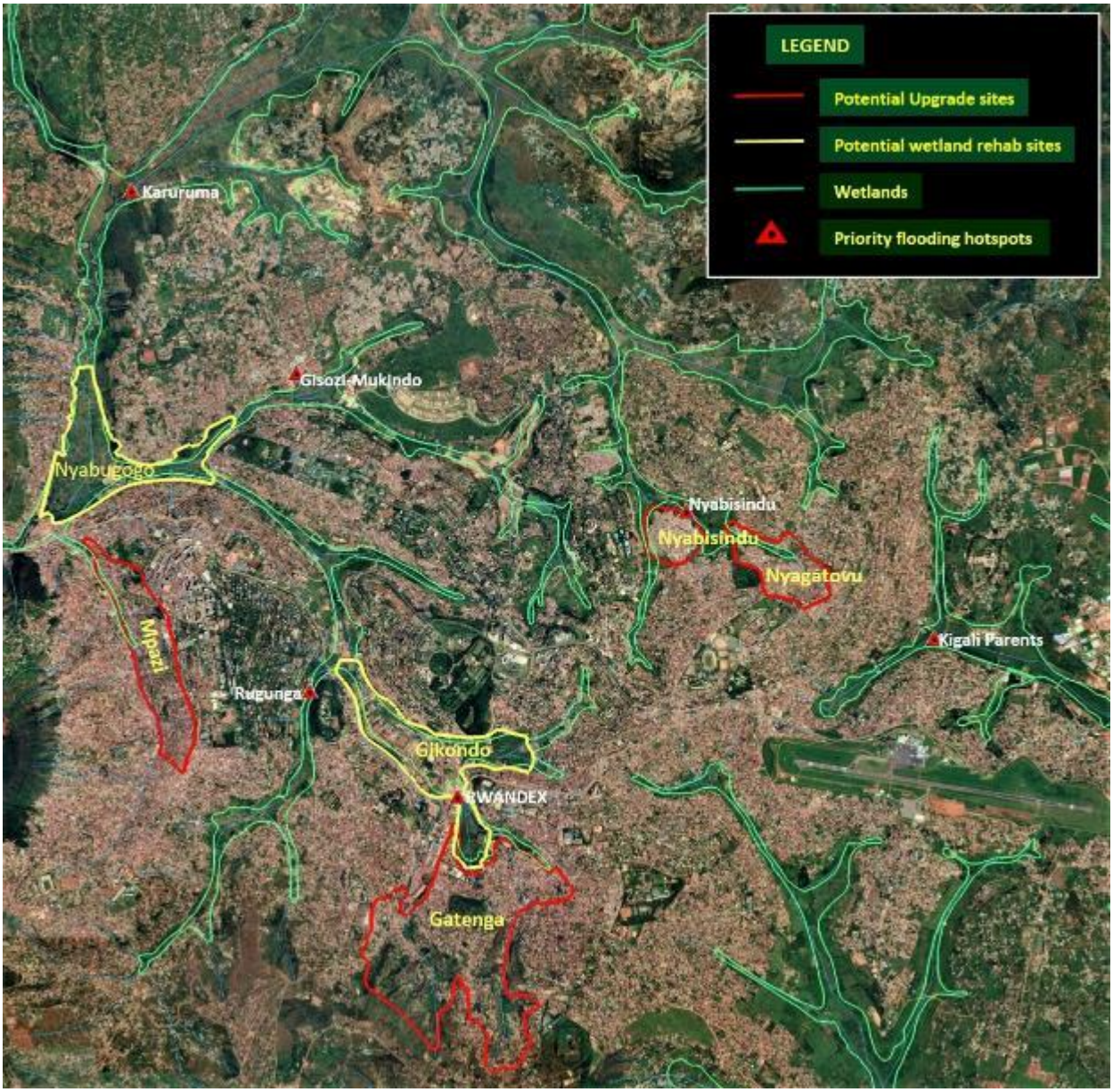


FIGURE 7. RUDP-II POTENTIAL SITES FOR URBAN UPGRADING, WETLAND REHABILITATION AND FLOODING HOTSPOTS (BACKGROUND GOOGLE EARTH IMAGE GENERATED ON 4 MAR 2020)

4.1.1 Topography and Hydrology

Kigali is built on many hills and ridges with valleys in between characterized by rivers, streams and wetlands covered by sub-catchments with a total area of about 730 km2 (Figure 9). The highest ridge is 1,600 m above mean sea level in elevation and the valleys are 1,300 m above mean sea level. At 1,850 m,

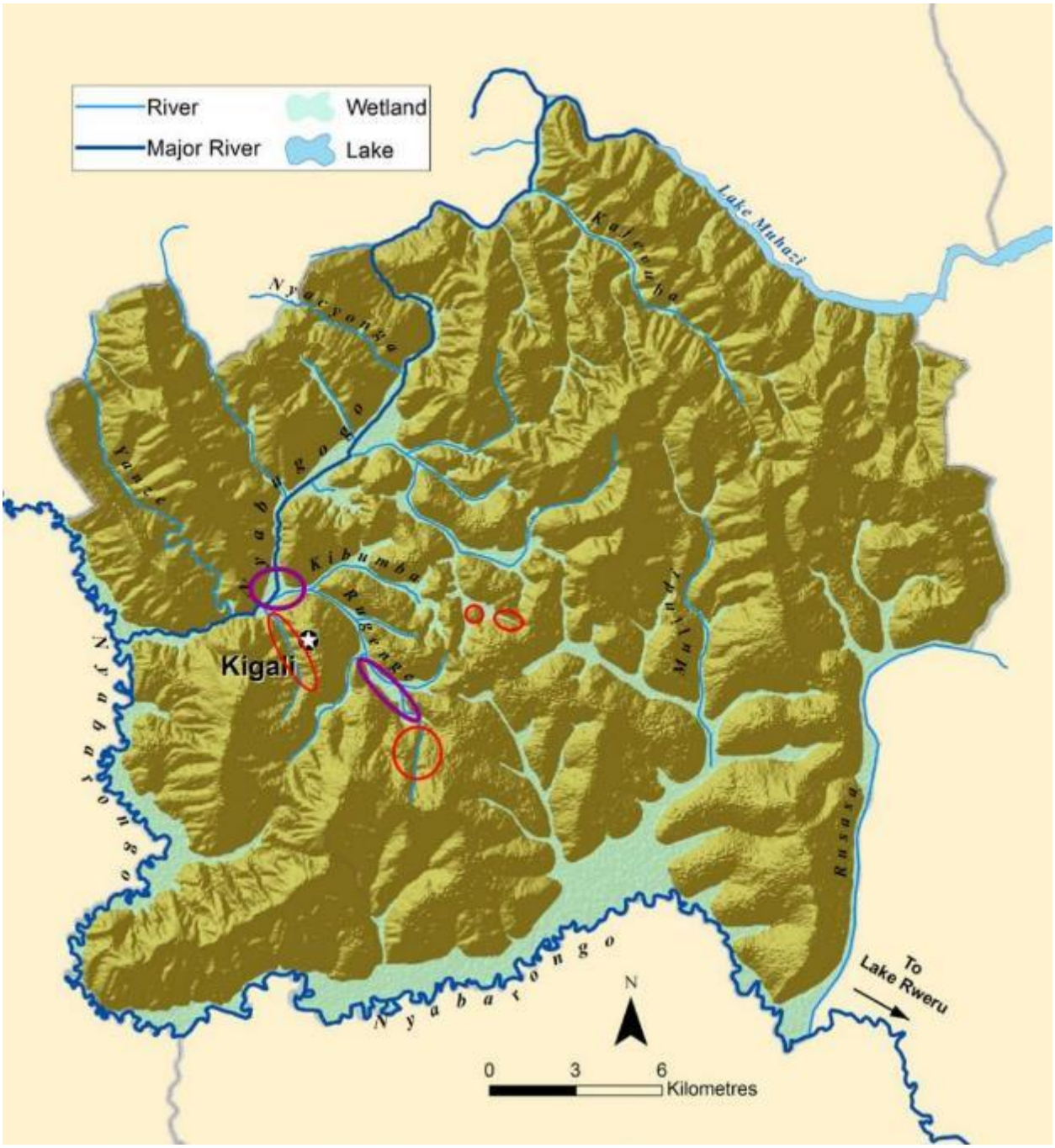


FIGURE 8. TOPOGRAPHIC MAP MODEL OF KIGALI CITY OVERLAID WITH, HYDROLOGY AND WETLANDS. SOURCE REMA, 2013.

Mount Kigali, is the highest peak followed by Mount Rebero in the south of the city and Mount Jali in the west. The slopes of the city's hills vary in steepness from inclines from 30% to 50% on hillsides to less than 2% at the valley bottom areas. The Central Business District (CBD) is located on Nyarugenge ridge while the administrative and judiciary institutions are mostly located along the Kacyiru ridge. All the four investment sites of Mpazi, Gatenga, Nyagatovu and Nyabisindu are dense unplanned settlements on these characteristic steep slopes with grossly inadequate road, stormwater management and utility infrastructure indicated in red line shapes in Figures 8 and 9. It can also be seen in Figures 8 and 9 that the settlement areas are hydrologically linked to the Gikondo and Nyabugogo wetlands that receive stormwater they generate.

The City of Kigal jurisdictional boundary is marked by the Nyabarongo River in the west and south, and partly by Lake Muhazi in the north and east. Kigali is located within the Lake Victoria basin and the larger Nile river basin. The River Nyabarongo, which has its source in Nyungwe Forest, flows along the western boundary of the city, then turns east marking the border with the Southern and Eastern Provinces (Figure 9). It is an important part of Kigali's urban water network. The tributaries of the Nyabarongo from the Kigali jurisdictional area include the Kibumba, Rwazangoro, Rwintare, Ruganwa and Yanze as shown in Figure 9. About 11 km of the north-eastern border of Gasabo district is made up of Lake Muhazi.

4.1.2 Climate

Kigali has a temperate climate. The hottest months of the year are February and March, while June and July are the coldest, and there are two rainy periods that generally occur from February to May and from November to January. The 2019 Wetland Master Plan for Kigali City [8] prepared for the Ministry of Environment features the most recent climate and hydrological data and information of the City of Kigali. The mean annual rainfall from Kigali International Airport, the longest historical weather recording station of over 50 years is 980 mm (1966 to 2018) with a standard deviation of 162 mm whereas the mean monthly rainfall amounts to 83.5 mm with a standard deviation of 58.7 mm.

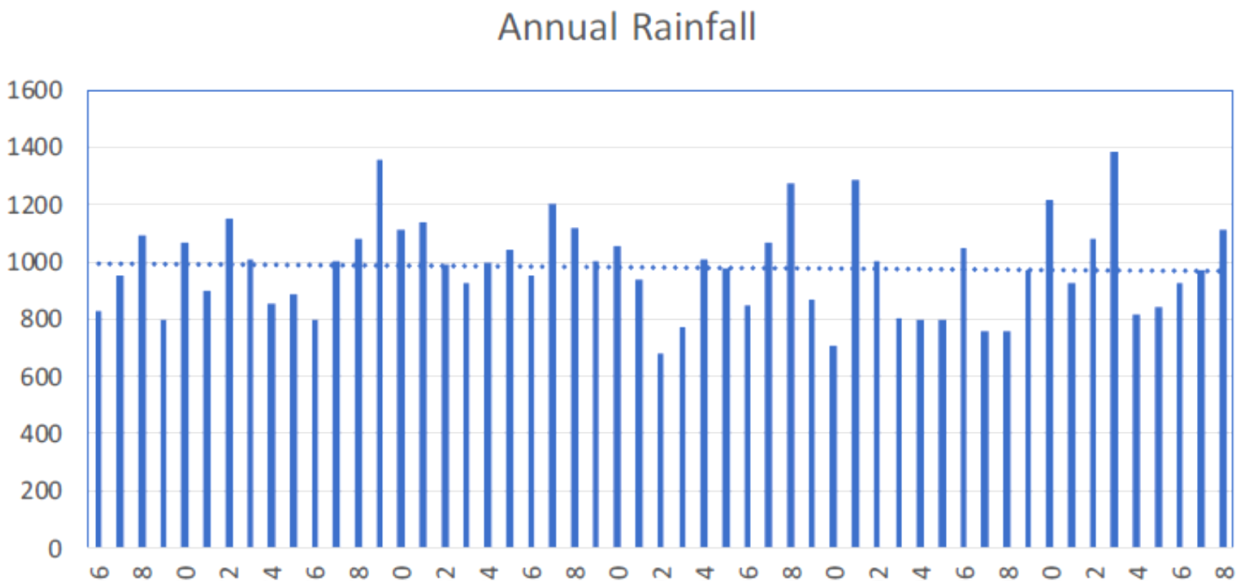


FIGURE 9 ANNUAL RAINFALL AT KIGALI INTERNATIONAL AIRPORT (1966-2018). SOURCE: MOE, 2019.

[8] WETLAND MASTER PLAN Technical Support for Development of Wetland Master Plan for Kigali City Prepared for Ministry of Environment, Rwanda. 2019.

The rainfall regime is bimodal, with seasonal convective rain occurring mainly during the months of March – May (main rainy season) and October – December (secondary rainy season). Typical rainfall events are characterised by high intensities of short duration with high temporal and spatial variability which leads to pluvial flooding (Meteo Rwanda, 2012).

Kigali's average temperature is 20°C with monthly variations of about 1.5°C. Monthly variation of average minimum and maximum temperatures at Kigali International Airport is presented in Figure 11. Aggregated monthly pan evaporation data varies from a minimum of 88 mm in May to a maximum of 144 mm in August.

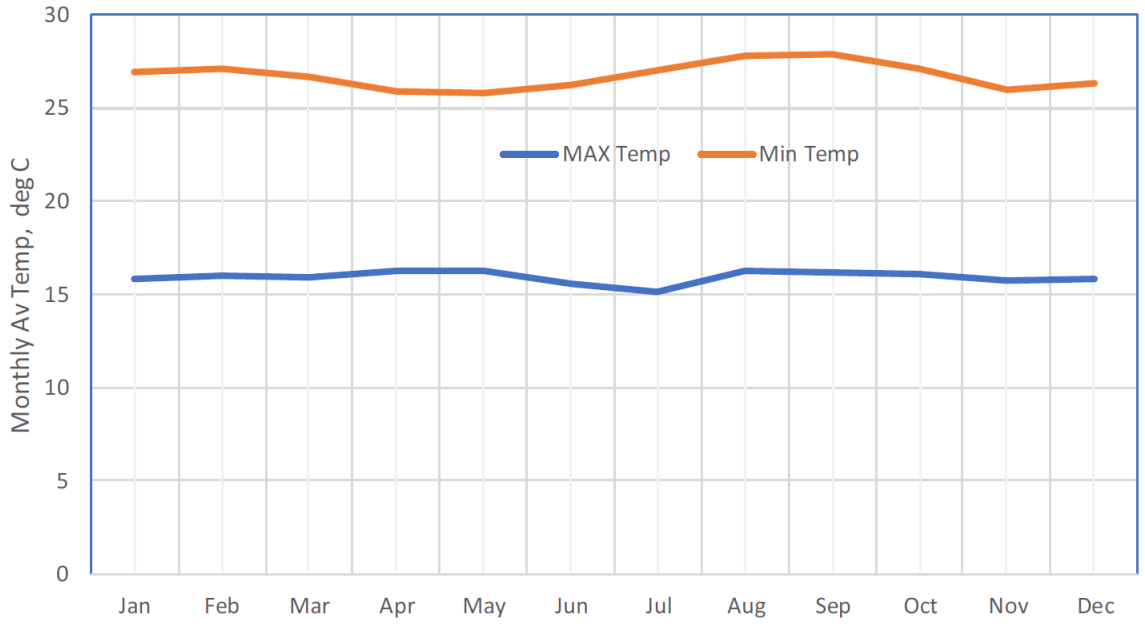


FIGURE 10. MONTHLY AVERAGE MINIMUM AND MAXIMUM TEMPERATURE VARIATION (DEGC) AT KIGALI INTERNATIONAL AIRPORT. SOURCE: MOE, 2019.

4.1.3 Geology and Soils

Granitic and meta-sedimentary rocks underlie the City of Kigali; these include schists, sandstones and siltstones (REMA, 2013). Lateritic soils, rich in iron and aluminum, dominate the city's hillside surfaces while alluvial soils (fertile soil deposited in river valleys) and organic soils are found in the lowlands that are characterized by wetlands (Figure 9). Unplanned and therefore inappropriate development on Kigali's hilly slopes has caused extensive soil erosion in some areas. The national Land Use Development Master Plan (LUDMP) classified Kigali's land area as being within a zone of medium-to-high risk for soil erosion and soils (REMA, 2013). Where soil erosion is aggravated, there has been a loss of soil fertility while the accumulation of heavy silt loads in the valleys is degrading river and wetland ecosystems. The potential investment sites for unplanned settlement upgrades are some of the areas that have serious soil stability problems due to poor stormwater management and flush floods.

4.1.4 Land Use

Urban land uses in the City of Kigali include residential, commercial, industrial, social and government infrastructure. According to REMA (2013), agriculture occupies the largest proportion of the city's land area (60.5 per cent) followed by wetlands (12.5 per cent). About half the wetlands are used by other land

uses such as agriculture. Residential areas, including high-rise, medium-rise, low-rise and single family housing, cover just over 9 per cent, distributed as follows: Kicukiro, 14 per cent; Gasabo, 7 per cent; and Nyarugenge, 10 per cent. Commercial areas account for less than 1 per cent of land.

4.1.5 Biodiversity and Wetlands

Faunal biodiversity in the City of Kigali includes birds, reptiles and fish. Lake Muhazi has three known endemics and nine introduced species, 47 species of phytoplankton and 11 orders of insects, as well as invertebrates and annelids, among others. A significant part of Lake Muhazi lies within the City of Kigali as the boundary with Gicumbi District is marked by an arbitrary mid-lake demarcation. Also significant is the fact that Lake Muhazi is the main source of the Nyabugogo River, a main hydrological feature of the City of Kigali.

The wetland systems around the City of Kigali area progressively contribute to the Nyabarongo wetland-river system which joined by the Akanyaru River to form the Akagera river meanders through the Rweru-Mugesera complex of freshwater lakes and wetland. The Akagera River itself is a major contributor to Lake Victoria that acts as a "reservoir" for the Nile River system. The Kigali City wetlands have therefore national and international significance.

These wetland and river systems are together with the protected forests the only remaining heritage of the country's biodiversity and critical ecosystem services. Wetlands generally, and particularly critical for the City of Kigali area, have functions and values that include the following:

- Provision of a slow and steady source of water for the downstream reaches of streams or rivers – *Transformation of wetlands mainly into agriculture has degraded this function.*
- Water quality functions: Filtering silt, metals, excess nutrients (nitrogen, phosphorus), pesticides and pathogens from the water thereby rendering the water exiting the system cleaner than it entered. *Studies revealed that these functions have been seriously compromised especially in Gikondo Industrial Park that is currently under uninstallation.*
- Hydrological functions: Acting as a buffer to stormwater runoff, effectively attenuating floods and preventing potential downstream erosion. *The country is densely populated and even more so in the Kigali City area that is still undergoing rapid construction development.*

In the Nyabarongo River system, alien plant and animal species, such as the water hyacinth (*Eichornia crassipes*) and fish species such as *Proteopterus aethiopicus* (first introduced in Lake Muhazi) and *Clarias gariepinus*re threatening some native species. Natural vegetation in the city is limited as it is being replaced by quick-growing foreign species, such as eucalyptus, as well as by infrastructure as urban development continues. The amount of vegetation in the wetlands and size of the lakes varies depending on precipitation. In Lake Muhazi, wetland vegetation includes *Papyrus, Phragmites, Miscanthidium and Cyclosorus*.

Agriculture is competing with the conservation of natural ecosystems such as wetlands and replacing indigenous plants in wetlands with cultivated crops. Agricultural biodiversity includes banana (*Musa sp*), barley (*Hordeum vulgare*), Beans (*Phaseolus vulgaris*), Cassava (*Manihot esculenta*), Coco yam (*Colocasia antignorum*), Finger millet (*Eleusine corocana*), Garden pea (*Pisum sativum*), Groundnuts (*Aachis hypogea*), Irish potato, Maize (*Zea mays*), rice (*Oryza sativa*), sorghum (*Sorghum*), Soya bean (*Soja hispada*), Sweet potato (*Ipomea durcis*) and Wheat (*Tricicum sp*).

Despite the fact that only about 10% of wetlands remain in the CoK area, a richness in biodiversity is still evident. Many species of birds were observed in the wetlands of Kigali include the Crested-crane, Ibis (black head), Ibis, Ploceus, Water-chicken, Heron, Eagle, Kingfisher, Cygonia, Pelican, and the threatened

Papyrus Gonolek. Evidence of breeding including nests of many bird species was abundant in the wetland areas. Evidence of fish was also recorded during field observations in those wetlands that had open water.

As many as 38 species of wetland plant species were recorded during field observations showing a rich diversity in the wetlands and within the designated fragile aquatic ecosystems. The varied species included: *Ageratum conyzoides, Azolla sp., Centella asiatica, Cladium mariscus, Commelina diffusa, Cyperaceae div. sp., Cyperus (sp 2), Cyperus latifolius, Cyperus papyrus, Cyperus sp., Digitaria abyssinica, Dryopteris gongylodes, Dryopterix sp., Echinochloa pyramidalis, Ethulia conyzoides, Hydrophila auriculata, Leersia hexandra, Leonotis nepataefolia, Ludwigia abyssinica, Melanthera scandens, Mentha aquatica, Mimosa pigra, Mimosaceae, Nymphaea nouchallii, Penissetum purpureum, Phragmites mauritianus, Pistia stratiotes, Polygonum salicifolium, Polygonum sp., Polygonum troupinii, Psitia stratoites, Ranunculus multifoides, Ranunculus sp., Saccharum officinarum, Sesbania sesban, Typha latifolia, Vernonia sp.* A summary of land use, natural vegetation cover and soils are summarised in Table 8.

4.1.6 Environmental issues in the RUDP-II potential investment site in the City of Kigali

AS mentioned earlier above, all the four RUDP-II potential investment sites of Mpazi, Gatenga, Nyagatovu and Nyabisindu are characterized by dense unplanned settlements on these characteristic steep slopes with grossly inadequate road, stormwater management and utility infrastructure. It was also mentioned that the settlement areas targeted for infrastructural upgrades are hydrologically linked to the Gikondo and Nyabugogo wetlands that receive the stormwater they generate. The Nyabogogo potential wetland rehabilitation area is downstream and contributed to by the stream-wetland systems of Rufigiza from the north, Kibumba-Rwezangoro and Rwampara-Gikondo-Rugenge-Rwintare from the east as shown in the map featured in Figure 9. Drainage from the four sites flow into the Nyabugogo River as the main drainage system of the Nyabugogo catchment.

Mpazi

The Mpazi unplanned settlement on an area of 137ha generates high volumes of stormwater that flows northwards through an international road transpo rt hub (Nyabugogo Bust Terminal) into the Nyabugogo downstream wetland. The Mpazi stream was channelized with masonry in order to accommodate and withstand the high volume and velocity of stormwater generated during torrential rain episodes. The stormwater has however often times washed away the bridge at the Nyabugogo transport hub causing serious disruptions. The flood attenuation function of the receiving Nyabugogo wetland downstream of Mpazi has been significantly reduced due to inappropriate agricultural uses that is characterized with drainage channels that continue the conveyancing the through a narrow exit channel and often leading to destructive flooding of the bus terminal area. The channel also carries polluted water from the unplanned settlement with inadequate sanitation. The receiving wetland is unable to treat the polluted water as the water quality enhancement function has been diminished by the

FIGURE 11. NYABUGOGO TRANSPORT HUB BRIDGE ON MPAZI CHANNELIZED RIVER THAT IS PERIODICALLY DAMAGED BY FLUSH FLOODING

degradation caused by channel drainage and cultivation. Upgrading activities in Mpazi will include widening the stormwater drainage channel, construction of stormwater drains in the upstream reaches of the settlement as well as other Nature Based Solutions.

Gatenga

The Gatenga unplanned settlement on an area of 137ha is very similar to Mpazi in as far as dense dwellings on steep topography as well as generating high volume and high velocity stormwater that caused flooding on the most important access roads into the city center at the RWANDEX crossroads also causing major disruptions. Gatenga drains into the converted wetland of Gikondo. The latter was previously an industrial area which was established in the 1970s and now is under a relocation programme to the new industrial zone and subsequent rehabilitation

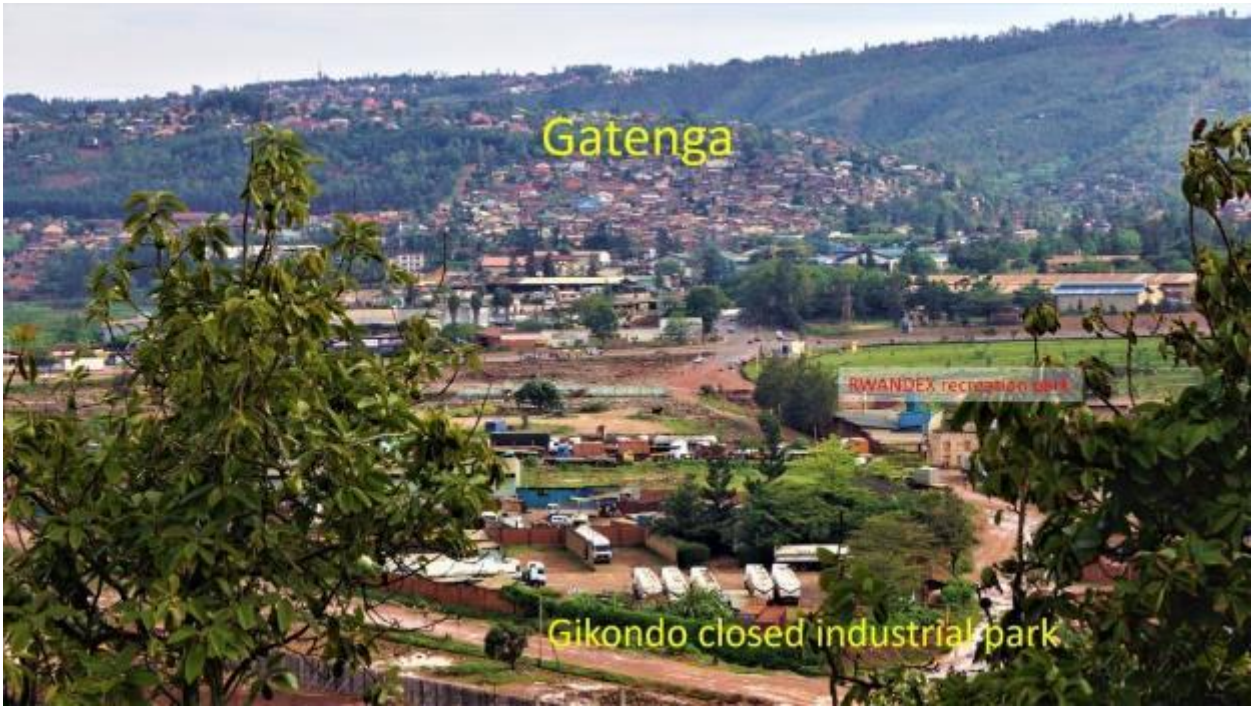


FIGURE 12. PHOTO SHOWING GATENGA POTENTIAL URBAN UPGRADE SITE LOCATION ABOVE THE GIKONDO POTENTIAL WETLAND REHABILITATION SITE

TABLE 7 SUMMARY DESCRIPTIONS OF COK URBAN WETLAND LAND USE, NATURAL VEGETATION AND SOILS

CoK Urban Wetland	Area (ha)	Perimeter (km)	Dominant land use and vegetation cover	Soil Description
Nyabugogo upstream (Karuruma)	67	5	Paddy rice; irrigated tubers and veges; sugarcane and patches of wetland vegetation including patches **Typha domingensis**, **Cyperus latifolius**, **Polygonum senegalense** and planted bamboo	**Rumuli series:** member of taxonomic family of "Fine, mixed, nonacid, isohyperthermic **Aeric Tropaquepts**". Developed from alluvial material, silty-clay texture, red in colour, poorly drained; shows a cambic development; not limited by a gravel pack and, found in an aquic isohyperthermic pedoclimate regime.
Nyabugogo downstream	118	8	Paddy rice; irrigated veges; banana and patches of wetland vegetation including pataches of **Typha domingensis**, **Cyperus latifolius**, **Polygonum senegalense** and planted bamboo	**Rumuli series:** member of taxonomic family of "Fine, mixed, nonacid, isohyperthermic Aeric Tropaquepts". Developed from alluvial material, silty-clay texture, red in colour, poorly drained; shows a cambic development; not limited by a gravel pack and, found in an aquic isohyperthermic pedoclimate regime.
Rwezangoro			Canoe transport for crossing wetland (open water); wetland vegetation includes **Cyperus papyrus, Typha domingensis, Cyperus latifolius, Polygonum senegalense and planted bamboo**	**Nyamatebe series:** member of taxonomic family of "Fine, mixed isohyperthermic **Cumulic Haplaquolls**". Developed from alluvial materials; clay texture; yellow in colour; poorly drained; shows a cambic development; not limited by a gravel pack and; found in an aquic isohyperthermic pedoclimate regime.
Kibumba (UTEXRWA, Gakiriro)	88	12	Recreation park; fishponds; irrigated veges; mixed crops and patches of wetland vegetation including patches **Typha domingensis**, **Cyperus latifolius**, **Polygonum senegalense** and planted bamboo	**Nyamatebe series:** member of taxonomic family of "Fine, mixed isohyperthermic **Cumulic Haplaquolls**". Developed from alluvial materials; clay texture; yellow in colour; poorly drained; shows a cambic development; not limited by a gravel pack and; found in an aquic isohyperthermic pedoclimate regime.

CoK Urban Wetland	Area (ha)	Perimeter (km)	Dominant land use and vegetation cover	Soil Description
Rugenge - Rwintare (La Colombe, Kinamba)	81	10	Abandoned institutional, commercial installations (few still operational); mixed and patches of wetland vegetation including patches **Typha domingensis**, **Cyperus latifolius**, **Polygonum senegalense** and planted bamboo	**Nyamatebe series:** member of taxonomic family of "Fine, mixed isohyperthermic Cumulic Haplaquolls". Developed from alluvial materials; clay texture; yellow in colour; poorly drained; shows a cambic development; not limited by a gravel pack and; found in an aquic isohyperthermic pedoclimate regime.
Rwampara (Agatare, Kanogo)	63	10	Mixed upland crops and irrigated veges and patches of wetland vegetation including patches **Typha domingensis**, **Cyperus latifolius**, **Polygonum senegalense**	
Gikondo (RWANDEX, MAJERWA, Gatenga)	149	13	Old factories and infrastructure (industrical zone under relocation programme). Patches of sweet potato, banana and maize and patached of of wetland vegetation **Typha domingensis, Cyperus latifolius and Polygonum senegalense. I**nvasive species are prevelent including **Lantana camara, Centella asiatica and Mimosa pudica.**	
Kitaguzirwa wetland (Masaka)	1,158	32	Wetland predominantly natural vegetation and open water with mixed upland crops on its fringes. Dominant wetland vegetation **Cyperus papyrus**.	**Cyarugira series:** member of the taxonomic family 'Euic, isohyperthermic Fluvaquentic Tropohemists'. Developed in organic materials mixed with alluvium; poorly drained and show a hémiste / fibriste development; not limited by any gravelly load; and found in an isohyperthermic aqua-climatic regime.

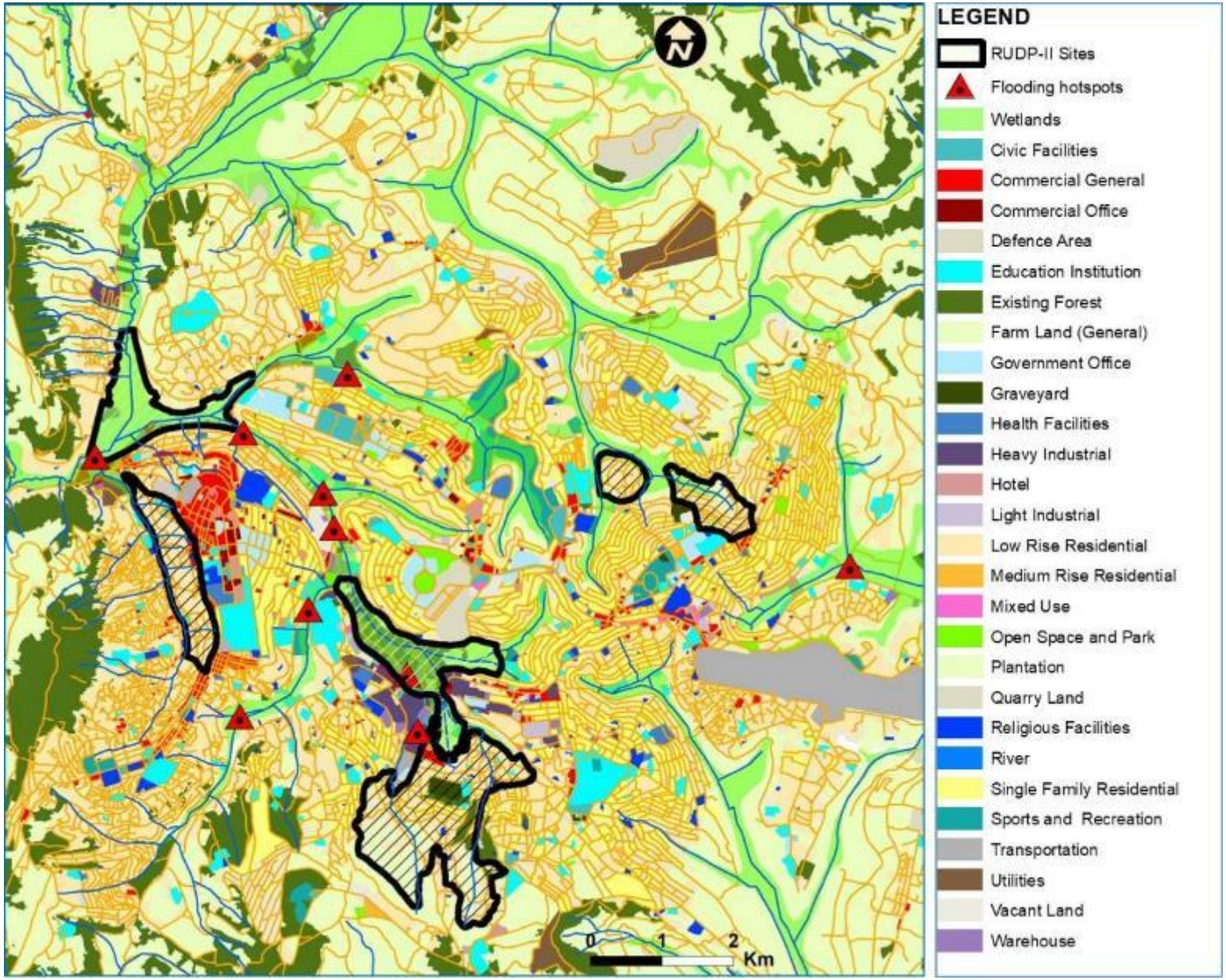


FIGURE 13. RUDP-II POTENTIAL URBAN UPGRADE AND WETLAND REHABILITATION SITES. SOURCE OF LAND USE MAP: SURBANA (2012)

Nyagatovu and Nyabisindu

Nyagatovu and Nyabisindu settlements are in close proximity of each other (Figure 14) and possess similar properties with Mpazi and Gatenga, the only difference being that they are of relatively smaller sizes with areas of 40ha and 36.5 respectively. Both settlements generate high volume and high velocity stormwater that have created ravines and large gullies. The two settlement drain their stormwater into the Rufigiza wetland. The receiving wetland has been converted for agricultural use and is crisscrossed by drainage

FIGURE 14. SNAPSHOT OF NYAGATOVU POTENTIAL UPGRADE SITE OVERLOOKING THE RUFIGIZA

channels and therefore has limited flood attenuation functioning. The Rufigiza wetland is often flooded with consequences including loss of standing crops.

Similar to other unplanned settlements, Nyagatovu and Nyabisindu have grossly inadequate sanitation

FIGURE 15. SNAPSHOT OF NYABISINDU POTENTIAL UPGRADE SITE AND ITS LINKAGE TO THE RUFIGIZA

facilities and infrastructure and therefore produce highly polluted stormwater that is conveyance straight through into Nyabugogo River.

4.2. Environmental and Social Profiles of Secondary City potential investment sites

Rwanda is characterized by a dense hydrological network of lakes, rivers, streams and wetlands (Figure 17).The western third of Rwanda lies in the Congo basin that receives about 10% of territorial water. Rwanda's part of Congo basin is mainly drained by the Sebeya River into Lake Kivu at the edge of urban centre of Rubavu Secondary City. The 300km long Lake Kivu itself is drained by the Rusizi River that exits the country at the Rusizi Secondary City border with the City of Bukavu, DRC, flowing through Burundi into Lake Tanganyika. Lake Kivu is one of the African Great Lakes as the eighth largest in the continent with a surface area of 2,700 km^2 and an average depth close to 480m. Lake Kivu lies in the world renowned biodiversity hotspot, the Albertine Rift at 1,460 m.a.s.l and is shared with the neighbouring Democratic Republic of Congo to which close to 60% belongs.

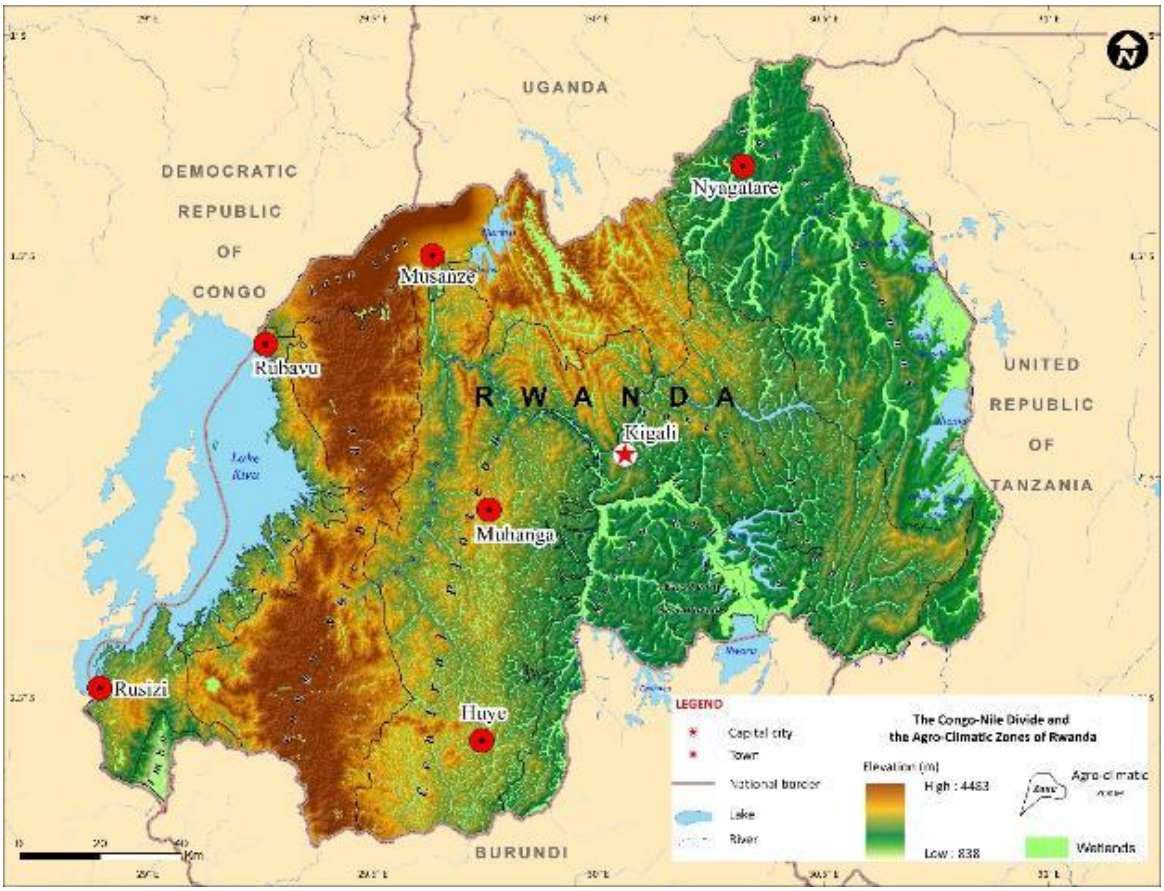


FIGURE 16. MAP OF RWANDA FEATURING PHYSICAL AND AGRO-CLIMATIC CONTEXTS OF SECONDARY CITY

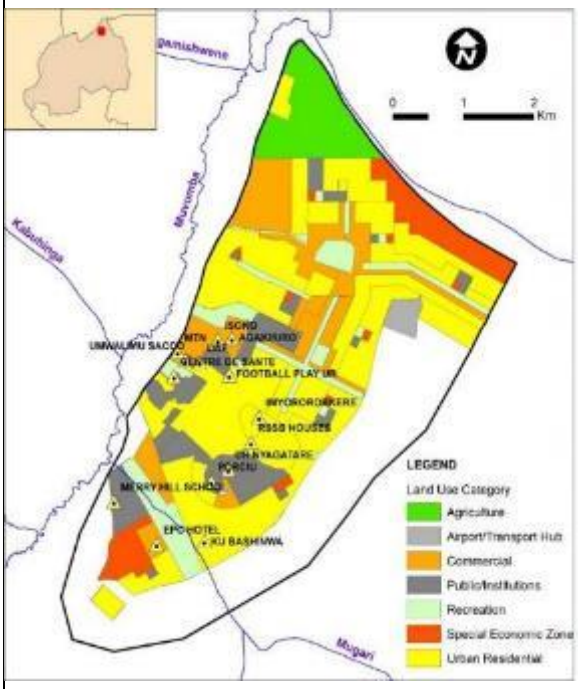
The eastern two-thirds of the Rwanda lies in the Nile basin that receives 90% of the country's total water and is mainly drained by the Nyabarongo River that is considered the Albertine Rift headwaters of the River Nile. The Nyabarongo originates in the Nyungwe Forest in the south-west and flows north parallel to the Congo-Nile Divide and turns south-west as it is joined by the Mukungwa River. At Kigali, the Nyabarongo River is joined by Akanyaru River to become the Akagera River that flows into Lake Victoria and emerges as the River Nile.

Rwanda's rugged terrain with high rainfall is characterized by high altitude v-shaped wetland valleys and lakes with the Rugezi-Burera-Ruhondo lake-wetland complex in Musanze district on the country's northern frontier with Uganda. The drainage spreads out in the eastern lowlands, meandering to form the

lakes Rweru-Mugesera and the Akagera wetland complexes. The wetland complexes are endowed with a rich mosaic as the Akagera River flow proceeds east and curves north alongside the Akagera National Park that marks the frontier with Tanzania. The Muvumba high volume perennial river that flows through the Nyagatare Secondary City centre joins the Akagera at the Kagitumba border town where it exist the country.

Specific Secondary City environmental and social profiles relevant to RUDP-II implementation activities are presented in the proceeding filled forms featuring environmental, social and geo-physical baseline information of the project and direct influence area. Based on field visits and literature review. Rwanda. Relevant socio-economic characteristics of urban development in the six Secondary Cities including population growth, poverty, housing, infrastructure and municipal services have been discussed earlier above under the project description sections.

ENVIRONMENTAL, SOCIAL AND GEO-PHYSICAL BASELINE INFORMATION OF THE PROJECT AND DIRECT INFLUENCE AREA. BASED ON FIELD VISITS AND LITERATURE REVIEW. RWANDA, RUDP – II PROJECT. WORLD BANK. FEBRUARY, 2020.		
DISTRICT	**NYAGATARE**	
Territory: 15,800 ha		
Proposed interventions	Civil works such as: roads, drainages, slopes conformation, retention walls, etc….	
Project areas:	urban in rural areas	
Component	1 and 2 1a: Infrastructure for secondary cities	
Estimated budget allocation	5.04 million	
Distance from Kigali	4 hours	
PHYSICAL CHARACTERISTICS OF THE PROJECT AREA		
ESTIMATED GEOGRAPHICAL LOCATION OF EXPECTED WORKS		
LOCATION:	Located on Mutara plateau with altitude range of 1,000 and 1,500 m.a.s.l.	
Map of Nyagatare urban land use (left) and RUDP-II area of influence		



CLIMATE	Temperatures range between 25.3°C and 27.7°C. Rainfall averages at 827 mm/year
TOPOGRAPHY.	Valleys are wide and wetlands abound. Nyagatare secondary city is characterized with low-lying topography with gentle slopes.

HYDROLOGY	Two perennial rivers: Muvumba and Warufu confluence 1.5km south of city centre.
Geology and soils	Kibaran Orogeny rock system extends in a belt from Northern Tanzania, through Rwanda to Angola. Belongs to Middle Proterozoic age and consists of granite and meta-sedimentary rock. Deposits of Cassiterite and Colombo-tantalite are found the district. Soils of Nyagatare contain large quantities of granite, industrially exploited for the production of construction materials by the East African Granite Industries which produces mainly building tiles. The solid also contain other usual construction materials including stones, gravel, sand, and numerous clay borrow pits and rock quarries provide construction in the District.
Climate & other Natural Hazards	**Floods** Works in the low-lying and slope area need to consider high flows in project design and drainage hydraulic capacity. Availability of water supply for the workers, works and wetlands must be considered in the ESIA. **Droughts** Periodic droughts have been recorded in Rwanda in 1999/2000 and 2005/2006 which had impacts on the dairy and crop industry in Nyagatare.
ENVIRONMENTAL CHARACTERISTICIS	
Forest Cover	Forest cover in the district is about 25%
Land Use	Total urban planning area of Nyagatare Secondary City is 15,800 ha; of this, the Rwanda Housing Authority has planned for the development of 500 ha. Most common land-use in the city is urban residential.
Environmental conditions	Project area includes rural areas with important habitats for endangered and rare species.
Main habitats	**Modified Habitats:** remnants of secondary vegetation in rural areas; isolated trees in the urban areas; forest patches; etc. **Natural habitats**: Riparian areas of the Muvumba river; **Critical habitat:** is there any? IBAT[9] proximity report generated on 2 Feb 2020 indicated that no Key Biodiversity Areas (KBAs) are found within 2.0 km (radius/buffer) of the area of interest (city centre).
Biodiversity	In the project area – the Muvumba River flows past the city centre and is straddled by a remnant gallery forest mainly composed of the *Acacia kirkii species* as well as *Pavetta ternifolia, Dovialis macrocalyx and Acanthus pubescens*. The gallery forest is also habitat to vervet monkeys, baboons and antelopes as well as reptile species including *Naja nigricollis*, *Naja melanoleuca*, *Thelothornis*, *Trachylepis varia* and

[9] Integrated Biodiversity Assessment Tool (IBAT)

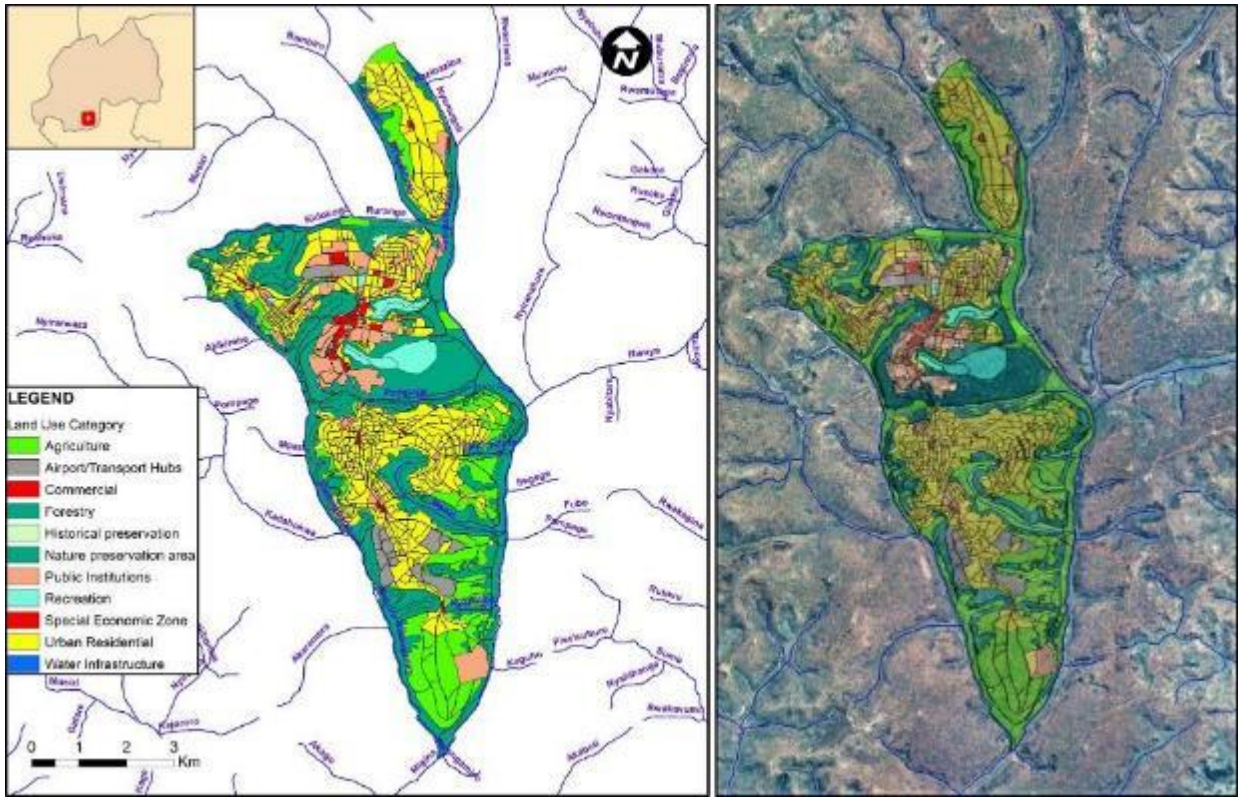
	Trachylepis striata as well as bird species that include *Anastomus lamelligerus*, *Leptoptilos crumenofurus*, *Falco concolor* and *Balearica regulorum* some of which are endangered.	
	ENDEMIC	The *Acacia kirkii* of the Muvumba remnant gallery forest is endemic to Rwanda and does not occur elsewhere in the region.
	Endangered species	No endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Critical Endangered species	No critically endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Vulnerable	Not available
	Migratory species	Not available
	Congregational species	Not available
	Rare or species of cultural value	Not available
Waste management	The district weekly collects domestic waste	
	Waste disposal sites	There are two found near the project area Location: not available
SOCIO ECONOMIC CHARACTERISTICS		
Population of district (REMA, 2018)	Total population 465,855; Urban population 47,480	
Villages names to be benefited	Not yet available	
Villages to be affected	Not yet available	
Beneficiaries expected number	Not yet available	
Potential affected people	If this information is known from the RPF please include	
COMMUNITY ASSESTS that can be affected by the subproject works	**The following will be determined during the ESIA:** Church xxx located in the School xxxx located in Market area located … Dump sites found in	Bust stops are found in many areas of the project areas
Organizations important of the project area to consider for consultations	**The following will be determined during the ESIA:** Community Association of the Village xx NGO – wetlands for ever Farmers organizations	

PUBLIC SERVICES AND ECONOMIC ACTIVITIES	
Water Resources	Nyagatare has limited water resources and is challenged in provision of water for domestic, agricultural and industrial uses.
Water Supply	72.5% of households used an improved source of drinking water in 2013/2014; 16.5% were using surface waters. 44.6% used public standpipes. Mean time to improved water source for households was 14.4min in 2013/2014. 10.1% of households took 0-4 minutes; 30.8% took 5-14min; 14.0% took 15-29min and 6.9% took from 30-59min. The people in the project area to be intervened receive water for domestic uses only 2 times per day of the district water supply services provided by XXX The main sources of water are: the wetland on banks of the river Muvumba.
Energy	19% of households used electricity in 2013/2014. 54.9% used batteries for lighting. 83.5% of households used firewood for cooking and 7.3 % used charcoal.
Roads and Transportation	16 km are national roads and 10 km are district roads. Only 0.2% of residents own a car, which is under national figure of 0.8 per cent. 37.1% own a bicycle while 3.0% own a motorcycle. 35% get to the nearest roads in 19min; 23.6% take 20-59min; 14.3% take 1-2hrs; and 12.3% take over 2 hours.
Housing	89.8% of homes in Nyagatare were single house dwellings in 2013/2014 with wide quality variation. 96% of the houses were roofed by metal sheets. 46.5% of the houses were built with mud bricks while 40.9% cement to plaster the mud brick walls. Only 0.2% used cement bricks. 73.9% of the houses in had floors made out of beaten earth while a few 21.5% were made out of cement. The poor structural safety of mud houses can fail if blasting activities occurred and thus blasting will not be allowed in the project
Solid Waste and Sanitation	106,387 kg/day solid waste expected from city this year. 31% dispose domestic waste directly into fields in 2012 while 0.2% dispose the waste in water bodies. However, 62.7% maintains a compost heap. 95.1% of residents used improved sanitation while 3.2% had no toilet and only 0.7% used flush toilets and the proportion of people using unimproved latrines was 1.7%. Only 8% of households were connected to the septic tank system.
Fire service	The closest fire station will be located during preparation of the ESIA.
Health Clinic	The closed Health center is found at xxx kilometers. These provide the following services: Health care facility is found with 1 km from the city centre. Services it provides will be determined during ESIA preparation.

PHOTOS PROJECT AREA	
 Muvumba gallery forest near Nyagatare city center	 Nyagatare Market
 Nyagatare Artisanal Capentry Centre	 Nyagatare Passenger Transport Hub

ENVIRONMENTAL, SOCIAL AND GEO-PHYSICAL BASELINE INFORMATION OF THE PROJECT AND DIRECT INFLUENCE AREA. BASED ON FIELD VISITS AND LITERATURE REVIEW. RWANDA, RUDP – II PROJECT. WORLD BANK. FEBRUARY, 2020		
DISTRICT	**Huye**	
Territory: 5,000 ha		
Proposed interventions	Civil works such as: roads, drainages, slopes conformation, retention walls, etc….	
Project areas:	urban in rural areas	
Component	1 and 2 1a: Infrastructure for secondary cities	
Estimated budget allocation	US $ 5.28 million	
Distance from Kigali	3 hours	
PHYSICAL CHARACTERISTICS OF THE PROJECT AREA		
ESTIMATED GEOGRAPHICAL LOCATION OF EXPECTED WORKS		
LOCATION:	Located on Mutara plateau with altitude range of 1,000 and 1,500 m.a.s.l.	

Map of Huye urban land use and RUDP-II area of influence



CLIMATE	Temperatures range between 11°C and 28°C. Rainfall averages at 1147 mm/year

TOPOGRAPHY.	Hilly city with altitude range 1,582m to 1,815m in central urban; Mountaineous westwards - Mt Huye pick at 2,000 m.a.s.l.	
HYDROLOGY	Drained by Kadahokwa in west, Kihene in Rwasave valley and Rwamabamba empty into Akanyaru River - tributary of Nyabarongo-Akagera River.	
Geology and soils	Schistose, sandstone and quartzite have led humus enriched kaolin present in central Huye. These soils are susceptible to erosion dues high rainfall and steep slopes; a visible problem in the city.	
Climate & other Natural Hazards	Works in need to consider erodibility of soil in project design and drainage hydraulic capacity. Availability of water supply for the workers, works and wetlands must be considered in the ESIA.	
ENVIRONMENTAL CHARACTERISTICIS		
Forest Cover	Forest cover in the area of influence: to be determined during ESIA	
Land Use	The major land use in Huye City is agriculture and open land, which covers about 38 per cent of the land, followed by residential use with 20 per cent Wetlands and forests cover 27 per cent of the total urban planning area.	
Environmental conditions	Project area includes rural areas with important habitats for indigenous species, especially in the Huye Arboretum.	
Main habitats	**Modified Habitats:** **Natural habitats**: Arboretum; **Critical habitat:** is there any? IBAT[10] proximity report generated on 2 Feb 2020 indicated that no Key Biodiversity Areas (KBAs) are found within 5.0 km (radius/buffer) of the area of interest (city center).	
Biodiversity	200 ha Ruhande plantation forest Arboretum established in 1934 in the grounds of University of Rwanda camps is a main feature of city center. Arboretum hosts indigenous and exotic tree species and faunal biodiversity including bats, birds, gazelles, monkeys and insects. The Arboretum has 206 species, including 146 hardwoods, 56 softwoods and 1 bamboo specie.	
	ENDEMIC	Bats, birds, gazelles, monkeys and insects
	Endangered species	No endangered species are found in the urban area in which RUDP-II activities will be implemented.
	Critical Endangered species	No critically endangered species are found in the urban area in which RUDP-II activities will be implemented.

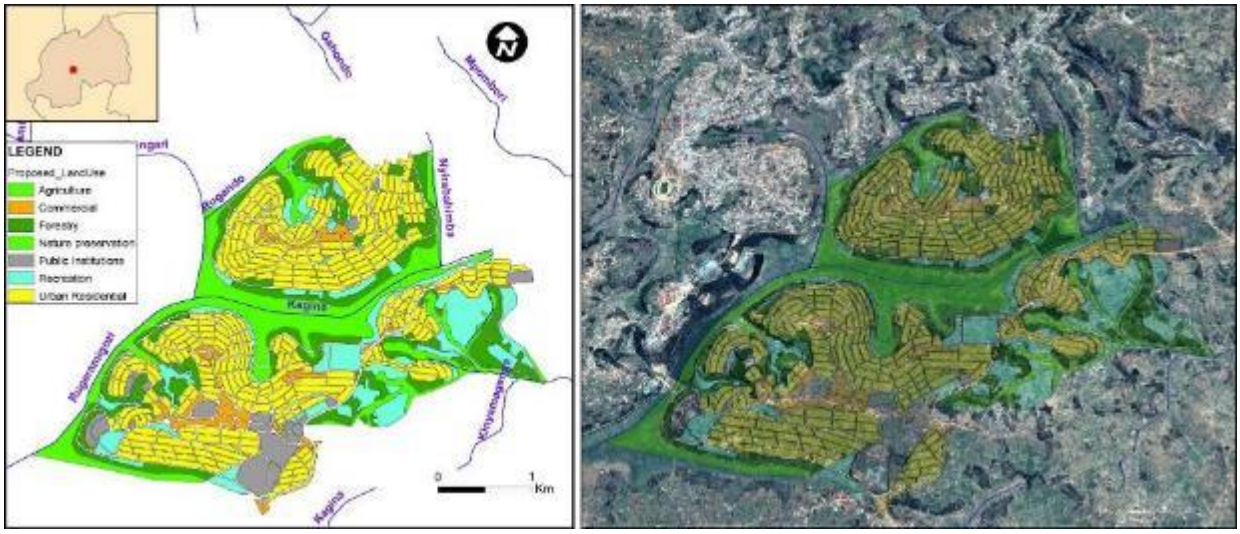
[10] Integrated Biodiversity Assessment Tool (IBAT)

	Vulnerable	Not available
	Migratory species	Not available
	Congregational species	Not available
	Rare or species of cultural value	Not available
Waste management	No primary waste collection service for more than 50% of city	
	Waste disposal sites	Municipal workers take waste to secondary collection points from where it is transported to dumpsite 8km from city centre. Location: not available
SOCIO ECONOMIC CHARACTERISTICS		
Population of district (REMA, 2018)	Total population 328,398; Urban population 52,768 people.	
Villages names to be benefited	Not yet available	
Villages to be affected	Not yet available	
Beneficiaries expected number	Not yet available	
Potential affected people	If this information is known from the RPF please include	
COMMUNITY ASSESTS that can be affected by the subproject works	**The following will be determined during the ESIA:** Church xxx located in the School xxxx located in Market area located … Dump sites found in	Bust stops are found in many areas of the project areas
Organizations important of the project area to consider for consultations	**The following will be determined during the ESIA:** Community Association of the Village xx NGO – wetlands for ever Farmers organizations	
PUBLIC SERVICES AND ECONOMIC ACTIVITIES		
Water Resources	Huye like many urban areas in Rwanda is challenged in provision of water for domestic, agricultural and industrial uses.	
Water Supply	96% households in Huye used improved drinking water source in 2013/2014. 48.7% indicated safe water as too expensive while 5.7% households found it not functional. 25% households took 0-4min to get to improved water source, 38.9% took 5-14min 15.3% took 15-29min and 2.8% took 30-59min (NISR, 2016a).	
Energy	Access to electricity for lighting at 17.2% in 2013/2014. Firewood and charcoal are the primary fuels used for cooking.	
Roads and Transportation	13.6km of district roads pass through city. 89% of population was located within 20min of an all-weather road in 2011, although some settlements were indicated far from bus stops. Roads linking Ruhango, Huye and Karongi have volumes of between 1,000 and 2,000 passengers per day.	
Housing	68.3 per cent of houses were roofed with clay tiles while 31.1% had metal sheets; 8.8 per cent of houses used oven-fired bricks with most walls were built of tree trunks covered with mud;	

	70.6% floors were made out of beaten earth while a few 24.3 % were made out of cement. The poor structural safety of mud houses can lead to collapse if blasting occurs, and therefore no blasting will be permitted under the project.
Solid Waste and Sanitation	60,724 kg/day solid waste expected from city this year. No primary waste collection service for more than 50% of city. Municipal workers take waste to secondary collection points from where it is transported to dumpsite 8km from city centre.
Fire service	The closest fire station will be located during preparation of the ESIA.
Health Clinic	Proximity of health care facilities will be determined during ESIA preparation.

PHOTOS PROJECT AREA	
 Huye city center	 Huye Stone-paved street
 Huye typical street	 Huye urban wetland

ENVIRONMENTAL, SOCIAL AND GEO-PHYSICAL BASELINE INFORMATION OF THE PROJECT AND DIRECT INFLUENCE AREA. BASED ON FIELD VISITS AND LITERATURE REVIEW. RWANDA, RUDP – II PROJECT. WORLD BANK. FEBRUARY, 2020		
DISTRICT	**Muhanga**	
Territory: 5,000 ha		xx
Proposed interventions	Civil works such as: roads, drainages, slopes conformation, retention walls, etc….	
Project areas:	urban in rural areas	
Component	1 and 2 1a: Infrastructure for secondary cities	
Estimated budget allocation	US$ 7.38 million	
Distance from Kigali	1 hour	
PHYSICAL CHARACTERISTICS OF THE PROJECT AREA		
ESTIMATED GEOGRAPHICAL LOCATION OF EXPECTED WORKS		
LOCATION:	Located on the central plateau with altitude range of 1,750 and 1,950 m.a.s.l.	
Map of Muhanga urban land use and RUDP-II area of influence		



CLIMATE	Temperatures range between 11°C and 28°C. Rainfall averages at 1028 mm/year
TOPOGRAPHY.	Undulating hilly city with gentle to steep slopes.
HYDROLOGY	Drained by Rugando, Nyirabahimba, and Kagina and Rugeramigozi streams characterized by wetland valleys under wetland rice.
Geology and soils	Humus enriched kaolin derived from granite. Lateritic and granite soils are widespread. Wetlands and valleys covered in clay soils rich in silt and covered in places by alluvium and colluvium.

Climate & other Natural Hazards	Works in need to consider erodibility of soil in project design and drainage hydraulic capacity. Availability of water supply for the workers, works and wetlands must be considered in the ESIA.	
ENVIRONMENTAL CHARACTERISTICIS		
Forest Cover	Urban forest cover in the area of influence: to be determined during ESIA.	
Land Use	The major land use in Muhanga City is mixed agriculture covering 72 per cent of the total land cover.	
Environmental conditions	Project area includes rural areas with important habitats for birds.	
Main habitats	**Modified Habitats:** **Natural habitats**: none in the the urban area **Critical habitat:** IBAT[11] proximity report generated on 2 Feb 2020 indicated that no Key Biodiversity Areas (KBAs) are found within 2.0 km (radius/buffer) of the area of interest (city centre).	
Biodiversity	Natural ecosystems around Muhanga urban area that supported biodiversity have been converted to agriculture (mainly rice) in the Rugeramigozi wetland. Small plantation forest stands remain around city.	
	ENDEMIC	Not available
	Endangered species	No endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Critical Endangered species	No critically endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Vulnerable	Not available
	Migratory species	Not available
	Congregational species	Not available
	Rare or species of cultural value	Not available
Waste management	No primary waste collection service for more than 50% of city	
	Waste disposal sites	Dumpsite located about 5 km away from city centre. Location: not available
SOCIO ECONOMIC CHARACTERISTICS		
Population of district (REMA, 2018)	Total population 319,141; Urban population 58,032 people.	
Villages names to be benefited	Not yet available	
Villages to be affected	Not yet available	
Beneficiaries expected number	Not yet available	
Potential affected people	If this information is known from the RPF please include	

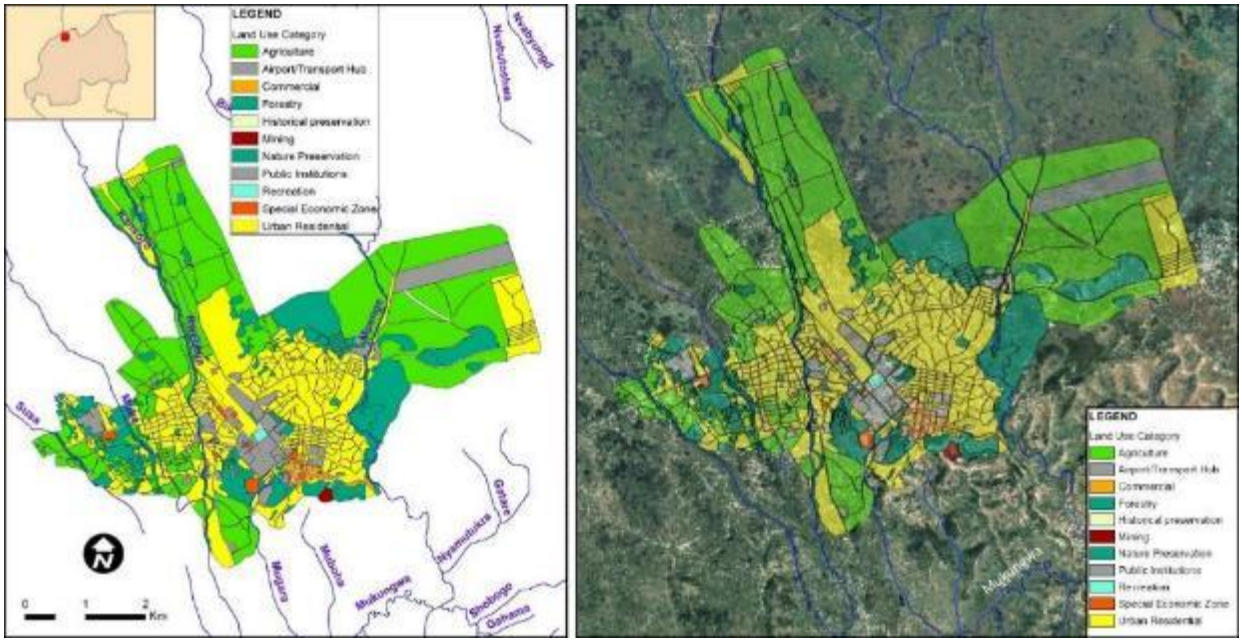
[11] Integrated Biodiversity Assessment Tool (IBAT)

COMMUNITY ASSESTS that can be affected by the subproject works	**The following will be determined during the ESIA:** Church xxx located in the School xxxx located in Market area located … Dump sites found in	Bust stops are found in many areas of the project areas
Organizations important of the project area to consider for consultations	**The following will be determined during the ESIA:** Community Association of the Village xx NGO – wetlands for ever Farmers organizations	
PUBLIC SERVICES AND ECONOMIC ACTIVITIES		
Water Resources	Muhanga like many urban areas in Rwanda is challenged in provision of water for domestic, agricultural and industrial uses.	
Water Supply	84.4% households in Muhanga used improved drinking water source in 2013/2014. 16.4% households took 0-4min to get to improved water source, 49.1% took 5-14min 15.1% took 15-29min and 3.4% took 30-59min (NISR, 2016a).	
Energy	Access to electricity for lighting at 13.3% in 2013/2014. Firewood and charcoal are the primary fuels used for cooking.	
Roads and Transportation	It takes 19mim for 87.1% of the population to reach the nearest road and 11.9% take between 20-59mim to get to the nearest road. Bicycle most common mode of transporation, with 7.4% owning one and 0.5 per cent owning a motorcycle.	
Housing	Clay tile and metal sheet roofed houses were 89.7% and 10.3% respectively in 2014. 59.5% of the houses had walls built of mud bricks while 25.7% used cement to plaster over the mud-brick walls. Only 0.4% used cement bricks. 75.4% had floors made out of beaten earth 21.4 % were made out of cement. The poor structural safety of mud houses can fail if blasting activities occurred and thus blasting will not be permitted in the project	
Solid Waste and Sanitation	65,555 kg/day solid waste expected from city this year. No primary waste collection service for more than 50% of residents. Dumpsite located about 5 km away from city centre.	
Fire service	The closest fire station will be located during preparation of the ESIA.	
Health Clinic	Proximity of health care facilities will be determined during ESIA preparation.	

PHOTOS PROJECT AREA	
 Muhanga view from the east	 Muhanga city street
 Muhanga plantation forest and dam	 Muhanga wetland

ENVIRONMENTAL, SOCIAL AND GEO-PHYSICAL BASELINE INFORMATION OF THE PROJECT AND DIRECT INFLUENCE AREA. BASED ON FIELD VISITS AND LITERATURE REVIEW. RWANDA, RUDP – II PROJECT. WORLD BANK. FEBRUARY, 2020		
DISTRICT	**Musanze**	
Territory: 10,277 ha		
Proposed interventions	Civil works such as: roads, drainages, slopes conformation, retention walls, etc….	
Project areas:	urban in rural areas	
Component	1 and 2 1a: Infrastructure for secondary cities	
Estimated budget allocation	US$ 8.10 million	
Distance from Kigali	1 hr 30 min	
PHYSICAL CHARACTERISTICS OF THE PROJECT AREA		
ESTIMATED GEOGRAPHICAL LOCATION OF EXPECTED WORKS		
LOCATION:	Located on the Lava Soil of the Virunga Massive	

Map of Musanze urban land use and RUDP-II area of influence



CLIMATE	Temperature average is 17.5°C. Rainfall averages at 1,200 mm/year
TOPOGRAPHY.	City at foothills of Ibirunga (Volcanic mountains) with altitude range 1,750 to 1,834 m.a.s.l. Volcanic area with moderate slopes and volcanic ash soils with lava-predominant stones and another part that comprises steep hills with active erosion.

HYDROLOGY	Two main watercourses in the city: Mpenge and Kigombe springs. Numerous torrents, including Cyuve, Kansoro, Mudakama, Muhe, Rwebeya, Rungu and Susa. Torrents carry highly variable flow when it rains highcin the volcanoes 20km awayccity limits. Torrents impacts include severe soil erosion, crop losses and sedimentation. Mukungwa River that drains Lake Ruhondo flows close to the city into River Nyabarongo.	
Geology and soils	Volcanic ash soils with lava-predominant stones and poros rocks. Soil erosion and soil nutrient loss are major problems. Rich volcanic soils ideal for agriculture, especially potato; Rwanda popular potato variety "Kinigi", named after the Kinigi area of Musanze.	
Climate & other Natural Hazards	Works in need to consider active erosion form torrents and flush floods originating in the Virunga mountains in project design and drainage hydraulic capacity. Availability of water supply for the workers, works and wetlands must be considered in the ESIA.	
ENVIRONMENTAL CHARACTERISTICIS		
Forest Cover	Urban forest cover and wetlands cover 5 percent (500ha) of the urban area of influence: to be determined during ESIA.	
Land Use	Urban residential land use in Musanze City covers 22 percent whereas mixed agriculture covers 67 percent of the total land cover.	
Environmental conditions	Project area includes rural areas with important habitats for birds.	
Main habitats	**Modified Habitats:** None **Natural habitats**: none in the urban area **Critical habitat:** IBAT[12] proximity report generated on 2 Feb 2020 indicated Mukungwa River Catchment is a Key Biodiversity Area found within 2.0 km (radius/buffer) of the area of interest (city Center).	
Biodiversity	Albertine Rift endemic bird species, the Ruwenzori double-collared sunbird (Cinnyris stuhlmanni), Garden Warbler (Sylvia borin) and Lesser Spotted Eagle previously not seen in Rwanda.	
	ENDEMIC	Ruwenzori double-collared sunbird (*Cinnyris stuhlmanni*), Garden Warbler (*Sylvia borin*) and *Lesser Spotted Eagle*.
	Endangered species	None within RUDP-II area of influence. However, Mukungwa catchment encompasses the habitat of the endangered mountain gorillas (*Gorilla beringei beringei*). The

[12] Integrated Biodiversity Assessment Tool (IBAT)

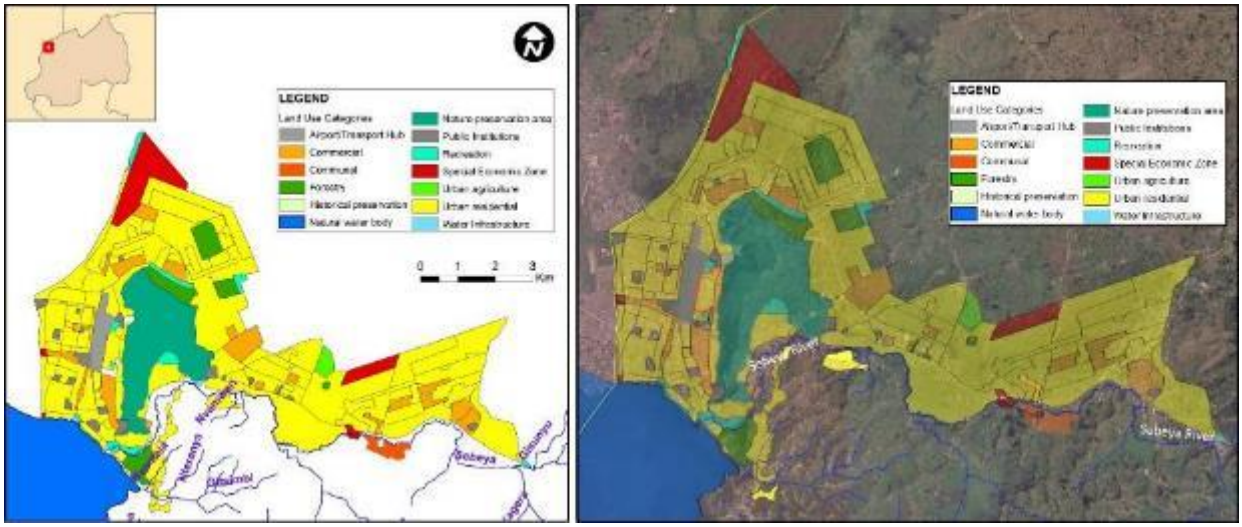
		Mountain Gorilla is protected with the Volcanoes National Park.
	Critical Endangered species	No critically endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Vulnerable	Not available
	Migratory species	Numerous birds to be confirmed in the ESIA
	Congregational species	Not available
	Rare or species of cultural value	Not available
Waste management	No primary waste collection service for more than 50% of city	
	Waste disposal sites	Dumpsite located about 5 km away from city centre. Location: not available
SOCIO ECONOMIC CHARACTERISTICS		
Population of district (REMA, 2018)	Total population 319,141; Urban population 58,032 people.	
Villages names to be benefited	Not yet available	
Villages to be affected	Not yet available	
Beneficiaries expected number	Not yet available	
Potential affected people	If this information is known from the RPF please include	
COMMUNITY ASSESTS that can be affected by the subproject works	**The following will be determined during the ESIA:** Church xxx located in the School xxxx located in Market area located … Dump sites found in	Bust stops are found in many areas of the project areas
Organizations important of the project area to consider for consultations	**The following will be determined during the ESIA:** Community Association of the Village xx NGO – wetlands for ever Farmers organizations	
PUBLIC SERVICES AND ECONOMIC ACTIVITIES		
Water Resources	Musanze like many urban areas in Rwanda is challenged in provision of water for domestic, agricultural and industrial uses.	
Water Supply	95.3 of households used improved source of drinking water in 2013/2014. Public standpipes and protected springs were used by 60.0% and 23.3% respectively while 4.6 % still used unimproved drinking water. It took 7.5min to get to an improved drinking water source in 2013/2024 while 24% of households took 0-4 min to an improved drinking water source, 43.9% took 5-14 min, 11.8% took 15-29min and 1.8% from 30-59min.	

Energy	23.6% of households used electricity as the main energy source for lighting in 2013/14 while 41.7% used batteries. All households used charcoal or firewood for cooking.
Roads and Transportation	It took 31.2% of district population up to 19min to walk to nearest bus stop in 2016.
Housing	97.7% of homes are single house dwellings and the quality varies widely. Clay tiles and metal sheets roofing were at 33.1% and 64.2% respectively in 2013/2014. 36% of houses has walls built out of tree trunks with mud and 33.6% with mud bricks. Only 0.4% used cement bricks. 81.2% of houses beaten earth floors while 17.3% were of cement floors.
Solid Waste and Sanitation	138,630 kg/day solid waste expected from city this year. No primary waste collection service for more than 52.3% of residents.
Fire service	The closest fire station will be located during preparation of the ESIA.
Health Clinic	Proximity of health care facilities will be determined during ESIA preparation.

PHOTOS PROJECT AREA	
 Musanze with Virunga Mts in background	 Musanze main street
 Muzanze multipurpose main road	 Musanze side street

ENVIRONMENTAL, SOCIAL AND GEO-PHYSICAL BASELINE INFORMATION OF THE PROJECT AND DIRECT INFLUENCE AREA. BASED ON FIELD VISITS AND LITERATURE REVIEW. RWANDA, RUDP – II PROJECT. WORLD BANK. FEBRUARY, 2020		
DISTRICT	**Rubavu**	
Territory: 5,000ha		
Proposed interventions	Civil works such as: roads, drainages, slopes conformation, retention walls, etc….	
Project areas:	urban in rural areas	
Component	1 and 2 1a: Infrastructure for secondary cities	
Estimated budget allocation	US $10.55million	
Distance from Kigali	3 hours	
PHYSICAL CHARACTERISTICS OF THE PROJECT AREA		
ESTIMATED GEOGRAPHICAL LOCATION OF EXPECTED WORKS		
LOCATION:	Located on the Lava Soil of the Virunga Massive in the footsopes of the active volcano Mount Nyiragongo	

Map of Rubavu urban land use and RUDP-II area of influence



CLIMATE	Temperature range is 15-25°C. Rainfall averages at 1,200 mm/year
TOPOGRAPHY.	Plain and mountainous topography with altitude range 1500 to 1700 m.a.s.l. on the Lake Kivu.
HYDROLOGY	Rubavu is drained into Lake Kivu mainly by the Sebeya River and its tributary River Mpfunda. Sebeya often burst its banks with heavy rains causing severe distruction including taking lives and livestock, destroying property, infrastruucture and crops as well as landslides.

Geology and soils	Rich but shallow volcanic soils formed from the decomposition of lava. This contrasts with the southeastern side where soils are mainly sandy clays, which are deep and often acidic. In the southeast, erosion is high and this leaches nutrients out of the soil. The Sebeya River catchment has steep slopes and the soils are easily leached and eroded during the high intensity rains. 47.9% of the soils are protected from soil erosion through terracing, agroforestry and other interventions.	
Climate & other Natural Hazards	Sebeya often burst its banks with heavy rains causing severe flooding and landslides. Availability of water supply for the workers, works and wetlands must be considered in the ESIA.	
ENVIRONMENTAL CHARACTERISTICIS		
Forest Cover	Forest cover of Rubavu designated urban area decreased by 42% between 1988 and 2005. However, forest biodiversity is rich in the district. Gishwati forest reserve is shared with three other districts – Nyabihu, Ngororero and Rutsiro.	
Land Use	Total urban area of Rubavu city is 5,000 ha and Rwanda Housing Authority has planned to develop 505.6 ha. Agriculture or open land, covers 83.3% of the total district land cover. 41% of the urban area of Rubavu is residential and 30% agriculture.	
Environmental conditions	Project area includes rural areas with important habitats for birds.	
Main habitats	**Modified Habitats:** None **Natural habitats**: none in the the urban area **Critical habitat:** is there any? IBAT[13] proximity report generated on 2 Feb 2020 did not indicate any Key Biodiversity Areas within 2.0 km (radius/buffer) of the area of interest (city centre).	
Biodiversity	Gishwati forest is rich in biodiversity but has been under threat from the huge growth in population pressure. Its watershed drains the River Sebeya. Lake Kivu and its islands have a rich biodiversity composed of 142 plant species, 80 species of birds, 52 invertebrates, 6 mammals, 6 reptiles, 5 species of amphibian and 26 fish species.[14] Endangered species, already registered on IUCN red list, such as Marsh Mongoose (*Atilax paludinosus*: inzibyi), some water birds and snakes like *Bitis nasicornis* and *Naja melanoleuca.* Islands hold 15 endemic fish species and three migratory species (*Cossypha natalensis*, *Milvus migrans* and *Bulbucus ibis.*	
	ENDEMIC	
	Endangered species	None within RUDP-II area of influence.

[13] Integrated Biodiversity Assessment Tool (IBAT)
[14] http://rw.chm-cbd.net/biodiversity/status-and-trends/other-protected-areas/lake-kivu-islands

	Critical Endangered species	No critically endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Vulnerable	Not available
	Migratory species	Numerous birds to be confirmed in the ESIA
	Congregational species	Not available
	Rare or species of cultural value	Not available
Waste management	No primary waste collection service for more than 50% of city	
	Waste disposal sites	Not available
SOCIO ECONOMIC CHARACTERISTICS		
Population of district (REMA, 2018)	Total population 408,000; Urban population 110,161 people.	
Villages names to be benefited	Not yet available	
Villages to be affected	Not yet available	
Beneficiaries expected number	Not yet available	
Potential affected people	If this information is known from the RPF please include	
COMMUNITY ASSESTS that can be affected by the subproject works	**The following will be determined during the ESIA:** Church xxx located in the School xxxx located in Market area located … Dump sites found in	Bust stops are found in many areas of the project areas
Organizations important of the project area to consider for consultations	**The following will be determined during the ESIA:** Community Association of the Village xx NGO – wetlands for ever Farmers organizations	
PUBLIC SERVICES AND ECONOMIC ACTIVITIES		
Water Resources	Rubavu especially as a frontier city is challenged in provision of water for domestic, agricultural and industrial uses.	
Water Supply	98.4% households used improved source of drinking water in 2013/2014. 75.2% used public standpipes; 0.4% of households were not using the nearest clean water source, claiming it was too far. Mean time it took Rubavu household members to walk to the improved water source in was 8.5min in 2013/2014; 31.2% took 0-4 minutes; 36.4% took 5-14min; 12.6% took 15-29min and 5.8% took from 30-59min.	
Energy	27.7% of households used electricity in 2013/2014. 65.3% of households used firewood for cooking and 34.5% used charcoal.	
Roads and Transportation	21.2% of took 19min to the nearest transport stage in 2016 while 33.3% took between 20-59min. Water transport on Lake Kivu is being improved with new terminals and ships and will connect the city of Rubavu with those of Rusizi and Karongi.	

	Gisenyi Airport, together with Goma Airport, serves nearby towns including Goma in the DRC.
Housing	86.4% of homes in Rubavu were single-house dwellings in 2013/2014 whose quality varied widely. 72.3% of houses were roofed with metal sheets; 27.4% were clay and 0.4% thatch. 53.2% of the houses were built with mud bricks, while 24.4% used cement to plaster the mud brick walls. 15.1% used tree trunks with mud while 3.2% used oven fired bricks. 74.2% used mud-betten flooring while 24.1% were made out of cement.
Solid Waste and Sanitation	246,707 kg/day solid waste expected from city this year.
Fire service	The closest fire station will be located during preparation of the ESIA.
Health Clinic	Proximity of health care facilities will be determined during ESIA preparation.

PHOTOS PROJECT AREA


Rubavu stone-paved street

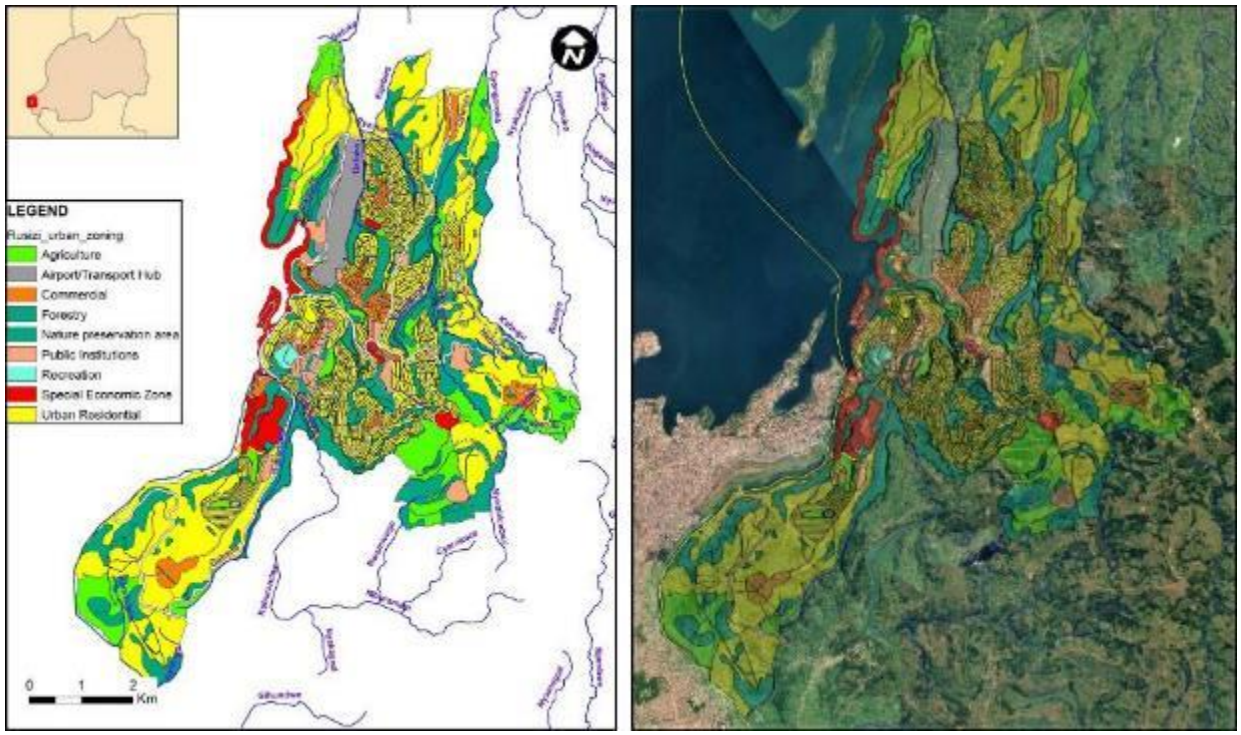

Mont Rubavu forested area


Rubavu Marina site


Rubavu road transport hub

ENVIRONMENTAL, SOCIAL AND GEO-PHYSICAL BASELINE INFORMATION OF THE PROJECT AND DIRECT INFLUENCE AREA. BASED ON FIELD VISITS AND LITERATURE REVIEW. RWANDA, RUDP – II PROJECT. WORLD BANK. FEBRUARY, 2020		
DISTRICT	**Rusizi**	
Territory: 5,000ha		
Proposed interventions	Civil works such as: roads, drainages, slopes conformation, retention walls, etc….	
Project areas:	urban in rural areas	
Component	1 and 2 1a: Infrastructure for secondary cities	
Estimated budget allocation	US $5.65 million	
Distance from Kigali	3 hours	
xxx		
PHYSICAL CHARACTERISTICS OF THE PROJECT AREA		
ESTIMATED GEOGRAPHICAL LOCATION OF EXPECTED WORKS		
LOCATION:	Located on the Lava Soil of the Virunga Massive in the footsopes of the active volcano Mount Nyiragongo	

Map of Rusizi urban land use and RUDP-II area of influence



CLIMATE	Temperature range is 20-23°C. Rainfall averages at 1,500 mm/year. East of Rusizi, microclimate is modified by Nyungwe forest with lower temperatures and higher rainfall.
TOPOGRAPHY.	Topography characterized by a chain of plateaus averaging 1,600 m.a.s.l. moving into the Congo-Nile Ridge.

HYDROLOGY	The catchments of the Rusizi and Rubyiro Rivers drain the Secondary City area. Rusizi River emerges from Lake Kivu and flows towards Lake Tanganyika.	
Geology and soils	The soils in the urban area are mainly deep clays with peat of varying depths. The geology of the area is characteristic of the Albertine arm of the Great Rift system and it is still seismically active.	
Climate & other Natural Hazards	Outlook for precipitation using data from Cyangugu weather station indicates a 3% increase between 2013-2033 and a 4% increase between 2033-2053, implying that between 2033 and 2053, rainfall will increase by 1 % (Mikova, Makupa, & Kayumba, 2015).	
ENVIRONMENTAL CHARACTERISTICIS		
Forest Cover	Forests and wetlands cover largest land use of 15.42% following agriculture.	
Land Use	Total urban area of Rusizi city is 5,000 ha and subsistence agriculture with residential homesteads cover 64 % of the total urban land cover.	
Environmental conditions	Project area includes rural areas with important habitats for birds.	
Main habitats	**Modified Habitats:** None **Natural habitats**: none in the the urban area **Critical habitat:** IBAT[15] proximity report generated on 2 Feb 2020 did not indicate any Key Biodiversity Areas within 2.0 km (radius/buffer) of the area of interest (city centre).	
Biodiversity	However, it is important to note that: Lake Kivu and its islands have a rich biodiversity composed of 142 plant species, 80 species of birds, 52 invertebrates, 6 mammals, 6 reptiles, 5 species of amphibian and 26 fish species.[16] Endangered species, already registered on IUCN red list, such as Marsh Mongoose (*Atilax paludinosus*: inzibyi), some water birds and snakes like *Bitis nasicornis* and *Naja melanoleuca.* Islands hold 15 endemic fish species and three migratory species (*Cossypha natalensis*, *Milvus migrans* and *Bulbucus ibis.*	
	ENDEMIC	
	Endangered species	None within RUDP-II area of influence.
	Critical Endangered species	No critically endangered species are found in the urban area in which RUDP-II actitities will be implemented.
	Vulnerable	Not available

[15] Integrated Biodiversity Assessment Tool (IBAT)
[16] http://rw.chm-cbd.net/biodiversity/status-and-trends/other-protected-areas/lake-kivu-islands

	Migratory species	Numerous birds to be confirmed in the ESIA
	Congregational species	Not available
	Rare or species of cultural value	Not available
Waste management	No primary waste collection service for more than 50% of city	
	Waste disposal sites	Not available
SOCIO ECONOMIC CHARACTERISTICS		
Population of district (REMA, 2018)	Total population 400,858; Urban population 55,768 people.	
Villages names to be benefited	Not yet available	
Villages to be affected	Not yet available	
Beneficiaries expected number	Not yet available	
Potential affected people	If this information is known from the RPF please include	
COMMUNITY ASSESTS that can be affected by the subproject works	**The following will be determined during the ESIA:** Church xxx located in the School xxxx located in Market area located … Dump sites found in	Bust stops are found in many areas of the project areas
Organizations important of the project area to consider for consultations	**The following will be determined during the ESIA:** Community Association of the Village xx NGO – wetlands for ever Farmers organizations	
PUBLIC SERVICES AND ECONOMIC ACTIVITIES		
Water Resources	Rubavu especially as a frontier city is challenged in provision of water for domestic, agricultural and industrial uses.	
Water Supply	9.3% of households were using an improved source of drinking water in 2013/2014. 9.3% were using unprotected springs. 45.0% used public standpipes. Mean time to reach an improved water source for households was 9.9min in 2013/2014. 17.6% took 0-4min, 31.0% took 5-14 minutes, 7.7% took 15-29min and 2.9% took from 30-59min. 1.3% took 1hr to access clean water.	
Energy	Access to electrcity in Rusizi district was 28.6% in 2013/2014. 34.8% used batteries for lighting. 84.3% used firewood for cooking and 14.9% charcoal.	
Roads and Transportation	Water transport is important in theRusizi Secondary City. Kamembe airport also provides the option of regular and charter air travel to Kigali. Roads cover 174.5 km within the urban area and include 20.7 km of national and 9.7km of district roads that pass through the city.	
Housing	96.1 of homes were single house dwellings with a wide variation in qualityin 2013/2014. 97.3% were roofed with metal sheets; 15.9% of houses were built with mud bricks, while 2.0% used cement to plaster the mudbrick walls. 62.2% used tree trunks with mud while 9.9% used oven-fired bricks. Cement bricks are only used as a building material for walls 0.3 %. 84.6% of floors	

	were made of beaten earth while 11.8% were made out of cement.
Solid Waste and Sanitation	37315 kg/day solid waste expected from city this year.
Fire service	The closest fire station will be located during preparation of the ESIA.
Health Clinic	Proximity of health care facilities will be determined during ESIA preparation.

PHOTOS PROJECT AREA	
 Rusizi-Kamember main street	 Rusizi scenic
 Rusizi wetlands	 Rusizi planted woodlot

5. IDENTIFICATION OF ENVIRONMENTAL AND SOCIAL IMPACTS

This Chapter discusses the general assessment of the potential environmental and social impacts that RUDP-II component, subcomponetns and activires could generate based on i) the overall environmental and social conditions described of the general project areas in the baseline information of Chapter 2, ii) the nature of the project activities (civil works, TA, capcity building, etc) and iii) the extent and duration of change, the potential number of people or resource affected and iv) the sensitivity to the changes.

Potential impacts can be both negative and positive (beneficial), and the methodology defined below will be applied to define both beneficial and adverse potential impacts. The criteria for determining significance are generally specific for each environmental and social aspect but generally the magnitude of each potential impact is defined along with the sensitivity of the receptor. Generic criteria for defining magnitude and sensitivity used for the RUDP-II are summarized below:

5.1. Assessment of Magnitude of Potential Impacts

The assessment of magnitude first categorizes RUDP-II activities as beneficial or as adverse. Potential impacts are thereafter categorized as **Very High, High, Moderate or Low**, based on consideration of the following parameters:

- Duration of the potential impact;
- Spatial extent of the potential impact;
- Reversibility;
- Likelihood; and
- Legal standards and established professional criteria.

The magnitude of potential negative impacts of the project were identified according to the categories outlined in Table 9 below.

Because RUDP II was classificy with Sustantial risks, no interventions or activites of the project can be supported that could generate Very High or High impacts.

TABLE 8 ASSESSMENT MATRIX FOR DETERMINATION OF MAGNITUDE CATEGORIES OF POTENTIAL PROJECT IMPACTS

Parameter	Very High	High	Moderate	Low/Nil
Duration of potential impact	Long term (more than 20yrs)	Medium Term Lifespan of the project (5-10yrs)	Less than project lifespan	Temporary with no detectable potential impact
Spatial extent of potential impact	Widespread far beyond project boundaries	Beyond immediate project site boundaries or local area	Within project boundary	Specific location in project site with no detectable impact
Reversibility of potential impacts	Potential impact is effectively permanent	Potential impact requires a year or so with some interventions to return to baseline	Baseline returns Naturally or with limited intervention within a few months	Baseline remains constant
Legal standards and established professional criteria	Breaches national standards and or international guidelines/obligations	Meets national standards but fails international lender guidelines in one or more parameters	Meets minimum national standard limits or international guidelines	Not applicable

Parameter	Very High	High	Moderate	Low/Nil
Likelihood of potential impacts occurring	Certain to occur under typical operating or construction conditions	Likely to occur under worst case (negative impact) or best case (positive impact) operating conditions	Will occasionally occur under abnormal, exceptional or emergency conditions	Unlikely to occur

Sensitivity of Receptor

The sensitivity of a receptor shall be determined based on review of the population (including proximity/ numbers/ vulnerability) and presence of features on the site or the surrounding area. Criteria for determining receptor sensitivity of the project's potential impacts are outlined in Table 9 below.

TABLE 9 CRITERIA FOR RECEPTOR SENSITIVITY TO POTENTIAL PROJECT IMPACTS

Sensitivity Determination	Definition
Very Severe	Vulnerable receptor with little or no capacity to absorb proposed changes or minimal opportunities for mitigation
Severe	Vulnerable receptor with little or no capacity to absorb proposed changes or limited opportunities for mitigation
MODERATE	Vulnerable receptor with some capacity to absorb proposed changes or moderate opportunities for mitigation
Low	Vulnerable receptor with good capacity to absorb proposed changes or/and good opportunities for mitigation. This is an estimation

5.2. Key Sub-project Potential Environmental and Social Impacts (ESS1-10)

The overall impact assessment of the RUDP-II proposed activities reveals that most of the likely adverse impacts are ranked as High to Low and these can be avoided, prevented, mitigated or compensated by implementing the measures and actions plans to be proposed in this ESMF and later assessement in more detail by implementing ESIA/ESMPs. The project interventions will also generate important beneficial impacts to the beneficiary communities.

The project was classified by the World Bank with social and environmental risk of 'Substantial' based in the ESS1. In order to estimate the main risks on the project proposed intervention, the project proposed components and subcomponent have been ranked according to the potential risks based on the ESS1 risk categories and the significance of each of impacts following the criteria defined in Section 5.1 and Tables 9 to 11.

In the subsequent sections, these potential impacts of the project (components, subcomponets and activities) are discussed in more detail and measures are describe to avoid, prevent, mitigate and compensate the impacts and risks that will be acceptable for the World Bank and applicable with Rwanda laws and regulations.

TABLE 10 ESTIMATED RISK OF THE RUDP-II COMPONENTS AND SUBCOMPONENT AND PROPOSED ACTIVITIES

Component 1: Support to the City of Kigali					
Subcomponent 1a: Integrated urban planning for resilient, inclusive infrastructure delivery in CoK					
SUBPROJECTS	**Potential impacts**	**POTENTIAL RISKS**	**ESF Instruments to be prepared by each implementing agency**	**Technical Instruments to be prepared and review by the ESM RUDP II team and the World Bank**	**Implementing Agencies**
4 Urban upgrading of unplanned resettlements including civil works for road access, pedestrian walkways, streetlights,	• Impact on land, structures and trees • Impact on air, water and biodiversity • Waste generation • Temporary economic displacement • Impact on livelihoods, Health and safety of the workers and communities • Impact on schools, religious places, health centers, local markets etc. • Impacts on women mobility • Increase of traffic • Risk of increased GBV • Risk of road accidents • Increase of vulnerability • Risk of force eviction • Eviction of squatters Climate risk	HIGH/ SUBSTANTIAL	One ESIA and its ESMP per urban settlement including: -all measures included in this ESMF -actions plans following requirements for the LMP, SEP, GBV -Environmental and Social Clauses for bidding documents for each settlement -RAP for each settlement	• Tors for ESIA/ESMP, RAP preparation • Tors for planning, and engineering design • Tors for supervision firm	CoK KUUT (MOU with RWB)
Flood infrastructure (hotspots)	-construction of culverts, drain, drainage can affect the flows of the rivers and the wetlands ecosystems; a careful assessment of overlapping efforts with wetlands	MODERATE	-One ESIA and its ESMP including sections for LMP, SEP	• Tors for ESIA/ESMP, RAP preparation • Tors for planning, and engineering design • Tors for supervision firm	

	restoration should be considered in the ESIA/ESMP.				
Stormwater management master plan	-construction of culverts, drain, drainage can affect the flow of the rivers and wetlands ecosystems, a careful assessment of overlapping efforts of flow control with wetlands restoration should be considered in the master plan	MODERATE	-A section in the Master Plan will be on the potential impact the plan and proposed interventions could cause to the natural flow, aquatic ecosystem and people.	• Tors for master plan including an environmental specialist in the team	
Water level monitoring	Minimum impact	LOW	No applicable	• TORs for purchase and installing equipment	
TA for master plan implementation (preparation of detailed area plans for 1-2 unplanned settlements + analytical study to assess feasibility of implementing a sites and services approach (defined as providing serviced land for low-income communities) in Kigali	Implementation of the plan can cause later: • Impact on land, air, water and vegetation • Waste generation • Translating impacts to another area • Temporary economic displacement • Impact on livelihoods, schools, religious places, health centers, local markets etc. • Impacts on women • Increase of traffic • Risk of increased GBV • Risk of force eviction • Eviction of squatters	MODERATE	-One ESMP with sections of the SEP to ensure to avoid impacts on people and environmental - natural habitats remnants on Kigali -The ESMU will participate in the review of the reports	• TORs for ESMP • TORs for master plan consultant – will include the inclusion of an environmental specialist	

TA for CIP, revenue enhancement, expenditure management and innovative financing for wetland sustainability (e.g. business model)	No negative impacts. The TA will explore mechanism for maintaining the wetlands investments and benefits.	LOW	-The ESMU will participate in the review of the Tors and reports that includes wetlands or any land use proposed transformation	• TORs for wetland sustainability (e.g. business model) consultant team – will include an environmental specialist	
Subcomponent 1b: Evidence-based, sustainable wetland management, flood risk management and greenhouse gas monitoring in CoK					
Wetland rehabilitation of Gikondo and Nyabugogo wetlands might include: -clean up and extraction of hazardous waste (metal, machinery debris, contaminated soil, etc); excavations earthworks to re-shape profile of wetland and adjacent buffer zones; -Construction of flow-control structures to direct flows; reduce erosion; restoration of vegetation and habitat for biodiversity	Temporary impact on air, water Temporary impact on biodiversity Temporary economic displacement Impact on livelihoods Health and safety of the workers and communities Impact on health center	MODERATE	One EIA and its ESMP for each wetland because these very different. Gikondo is a legacy site where cleanup operations are needed. Nyabugogo is an urban wetland with agriculture and remnants of wetlands and vegetation. The ESIA-ESMP will include a section on the SEP, LMP as appropriate. - Biodiversity Action Plan (BAP)	• TORs for ESIA/ESMP, RAP and BAP preparation • TORs for planning, and engineering design • TORs for supervision firm	REMA SPIU (MOU with RWB)
LiDAR survey	NO EXPECTED	LOW	NA	• TORs for procurement services	
GHG accounting and reporting framework for CoK	NO EXPECTED	LOW	NA	• TORs for procurement services • we recommend including a training for the ESMU team	

Advocacy, knowledge exchange and partnerships	NO EXPECTED	LOW	Training and exchange events have been considered in this ESMF and budget allocated	• TORs for procurement services	
Component 2: Support to Secondary Cities					
Subcomponent 2a: Infrastructure and service delivery in secondary cities					
Phase 3 investments: civil works for urban infrastructure (Asphalt roads; pedestrian walkways storm water drains; street lighting and bus stops)	traffic disruption; noise and dust; sedimentation of streets and rivers because of slope cuts and soil excavations; cutting of vegetation, damages to house entrances, cracking of houses due to vibrations from operating heavy equipment; slope works, etc; workers and pedestrian accidents and injuries; rainwater accumulation affecting neighboring properties, solid waste generation, among others. Also, impacts related to labor camps[17], borrow pits, spoil areas, etc.	HIGH/ SUBSTANTIAL	-One ESIA and its ESMP per district including sections for LMP, SEP -Environmental and Social Clauses for bidding documents for each groups of works -RAP	• TORs for ESIA/ESMP, RAP preparation • TORs for planning, and engineering design • TORs for supervision firm	District PIUs (with support from LODA SPIU)
Phase 4 investments civil works for urban infrastructure (Asphalt roads; pedestrian walkways storm water drains; street lighting and bus stops)	traffic disruption; noise and dust; sedimentation of streets and rivers because of slope cuts and soil excavations; cutting of vegetation, damages to house entrances, cracking of houses due to vibrations from operating heavy equipment; slope works, etc; workers and pedestrian accidents and injuries; rainwater accumulation affecting neighboring properties, solid waste generation, among	HIGH/ SUBTANTIAL	-One ESIA and its ESMP per district including sections for LMP, SEP -Environmental and Social Clauses for bidding documents for each groups of works -RAP	• TORs for ESIA/ESMP, RAP preparation • TORs for planning, and engineering design • TORs for supervision firm	

[17] Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation; storage of materials, etc.

	others. Also, impacts related to camps, borrow pits, spoil areas, etc.				
TA for planning, design and supervision	No expected	Low	-The ESMU team national and district level will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared.	As above	
Subcomponent 2b: Institutional capacity development of secondary cities					
TA for master plan implementation	No expected	Low	-The ESMU team national and district level will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared.	• TORs for TA preparation	District PIUs
TA to support City Management Offices (CMOs) once established and operational – through institutional capacity development activities	No expected	Low	-The ESMU team national and district level will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared.	• TORs for TA preparation	
Component 3: Institutional Capacity Development and Project Management					
Subcomponent 3a: Institutional capacity development at national level					
TA for roadmap to City Management Offices (CMOs) development	No expected	Low	-The ESMU team national and district level will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared.	• TORs for TA preparation	MININFRA PCU
TA for implementation and monitoring of national urbanization policy	No expected	Low	-The ESMU team national and district level will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared.	• TORs for TA preparation	

TA for lessons learned of upgrading pilots (such Agatare) and developing guidelines for urban upgrading[18]	Implementation of the plan can cause later: • Impact on land, air, water and vegetation • Waste generation • Translating impacts to another area • Impact on livelihoods, economic displacement • Impact on schools, religious places, health centers, local markets etc. • Impacts on women • Risk of increased GBV • Risk of force eviction • Eviction of squatters	Low	-The ESMU team national and district level will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared.	• TORs for TA preparation	
TA for strategy development of sites and services for urban development	Implementation of the plan can cause later: • Impact on land, air, water and vegetation • Waste generation • Translating impacts to another area • Impact on livelihoods, economic displacement • Impact on schools, religious places, health centers, local markets etc. • Impacts on women • Risk of increased GBV	Moderate	-The ESMU team will review Tors and ensure consultants considers measures of this ESMF and other ESF documents prepared to reduce negative impacts on natural resources and people	• TORs for the strategy consultancy will include the participation of an environmental specialist	

[18] The national housing policy was endorsed in 2015 and needs an update in view of the evolution of the sector since then. To help this update, a study will be conducted to take stock of various pilots/projects implemented in Rwanda, especially the pilot upgrading of settlements in Agatare under RUDP and scaled-up upgrading under RUDP II to learn lessons from these experiences. This can feed into preparing an implementation guideline of the National Urban Informal Settlements Upgrading Strategy (NUISUS), which can be used to guide upgrading efforts in secondary cities. Participatory planning or community-driven development can be an important part of this guideline.

	• Risk of force eviction • Eviction of squatters				
TA for national solid waste management strategy, feasibility studies for disposal facilities in 5 SCs	Potential Impact on remanents of natural areas, streams or wetlands areas. Plans need to consider reducing pollution and Include green actions in critical/natural sensitive habitats and protection or restoration (riparian areas), no introduction of exotic species.	Moderate	One SESA to be developed (Tors included in this ESMF) -SESA if supported by other donor need to comply with WB ESF and this ESMF, SEP and comply with national environmental regulations, including the Country Biodiversity Strategy -environmental and social team of the project will review reports	• TORs for SESA preparation • TORs for feasibilities studies for new disposal areas for 5 of the 6 secondary cities benefited in the project	
Subcomponent 3b: Project management					
Budget for MININFRA PCU, CoK KUUT, LODA SPIU, District PIUs	NA	NA	Technical support for monitoring and evaluation (M&E), planning, fiduciary (financial management and procurement), Environmental and Social Management and compliance and monitoring, communication and citizen engagement.	NA	MININFRA PCU, CoK KUUT, LODA SPIU, District PIU, REMA
Budget for REMA SPIU	NA	NA		NA	
Budget for Resettlement and compensation costs	NA	NA		NA	

5.3. Potential Environmental and Social Impact Related to Project Siting/planning

Loss of natural vegetation and trees (ESS6)

Siting or planning of proposed infrastructures may require cutting of trees and removal of natural vegetation, which could be cumulatively be significant in number.

Involuntary Resettlement Impacts (ESS5)

RUDP-II will endeavour to avoid involuntary resettlement and avoid any physical displacement of residents for activities under the project. Most of the works in targeted unplanned settlements will be entail upgrade of existing substandard access roads and unlined stormwaster drainage. Similarly, most of the mechanical works for wetland rehabilitation will endeavour to avoid the displacement of wetland resource users. However, acquisition of private lands/dwellings as well as wetland economic or livelihood assets may be required in some areas with the likelihood that may involve displacement of formal and informal private users.

Therefore, ESS5 on involuntary resettlement is relevant to the project and a Resettlement Policy Framework (RPF) has been prepared for RUDP-II. Site-specific RAPs will be developed if and as necessary during the project implementation. The RPF and any RAP will ensure the proper calculation and recording of the involuntary displacement impacts as well as identification of the affected people and mitigation of their losses and impacts. The purpose of the RPF and implementation of the RAPs is to ensure that there are no adverse effects on the living conditions and livelihoods of the affected people as a result of the project. The costing of RAPs will be covered with government funding which has already agreed and included in the RPF and the ESCP.

Impacts on local livelihoods from obstructions/removal of housing or business structures (ESS1, ESS2, ESS4)

Probable impacts on income and livelihoods are minor since project will try to avoid acquisition of land and involuntary displacement of people. However, excavations, open ditches and slope cutting over long periods can cause accidents to local resident. Contractors will be enforce to comply with the LMP and the ESMP to be prepared for each subproject in the selected six districts.

When temporary economic displacement with the examples of some vendors and businesses along sites to undergo infrastructural upgrade construction activities and of farmers in case of wetland rehabilitation activities; impacted persons by these impacts will be compensated following criteria stipulated in the RAPs. The aim of the upgrade and wetland rehabilitation is to improve livelihoods of the poor urban community of the RUDP-II project areas. The beneficiaries and their location will be identified by the environment management team under the oversight of the RUDP-II PMU.

Dangerous exposure to damaged utility infrastructures

Workers may be exposed to dangers from damaged utility infrastructures due to movement of heavy construction machinery and equipment to live electricity cables and other utility infrastructures if due care is not practiced.

Dismantling works

Dust pollution in the construction site is a health hazard for the workers and community during dismantling works in preparation of project activities. Noise levels and vibration tend to increase during

preparation for project work with effects on the structures on the surrounding of the project area; Surface water contamination, blockage of navigation and drainage and impacts on aquatic fauna.

Archaeological/ Historical/ Social/ Cultural/ Religious Sites

Preconstruction works may cause air and dust pollution to archaeological, historical, social, cultural, religious sites. Noise level may create discomfort for the local community whereas vibration can also cause negative effects on social, cultural, religious sites.

Setting up labor camps

Labor camps can cause land encroachment and pollution in the neighbourhood from mismanaged solid and liquid waste from the camp.

Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation, storage of belongings, etc.

Construction camps are small and will be place in areas approved by the Engiennere and the Environmental Officer at the district and the ESMU team. These are areas to store materials, machinery, etc.

5.4. Potential Environmental and Social Impacts during Project Implementation/construction

The following section presents the potential environmental and social impacts that the project might generate according to the agreed subcomponents and activities to be supported (investments). It also indicates the relevant environmental and social standards to be followed.

Impacts on local livelihoods from obstructions/removal of housing or business structures (ESS1, ESS2, ESS4)

Probable impacts on income and livelihoods are minor since project will try to avoid acquisition of land and involuntary displacement of people. However, temporary economic displacement with the examples of some vendors and businesses along sites to undergo infrastructural upgrade construction activities and of farmers in case of wetland rehabilitation activities. Should such situations arise, impacted persons will be compensated following criteria stipulated in the RAPs. The aim of the upgrade and wetland rehabilitation is to improve livelihoods of the poor urban community of the RUDP-II project areas. The beneficiaries and their location will be identified by the environment management team under the oversight of the RUDP-II PMU.

Increased risk of road accidents (ESS1, ESS4)

One of the key potential risks associated with the infrastructure upgrade sub-projects is the increased risk of road accidents due to increased traffic of construction vehicles and congestion as a result of diversions. The risk is particularly higher for children where works are taking place near existing schools. Accidents can result in severe injuries including fatalities affecting both the community and workers. However, substantial road safety measures and facilities will be put in place under to minimize the accidents.

Air Pollution (ESS1, ESS3, ESS4, ESS6)

Activities of Component 1 such as the Construction of asphalt roads and access streets, stormwater drains, and activities of Component 2b will include pedestrian walkways, streetlights and earthworks for wetland rehabilitation which may generate emissions from excavation equipment, other machinery and construction traffic. The emissions may also include greenhouse gases (GHGs) from engine fuel combustion (exhaust emissions) and evaporation and leaks from vehicles (fugitive emissions) and emissions from asphalt works. The emissions from construction activities will deteriorate the ambient air quality and affect the public health. The densely populated urban settlement areas are particularly vulnerable to these impacts. In addition, dust generated from the above activities will also have impacts on people, crops and livestock.

Noise and Vibration Pollution (ESS1, ESS3, ESS4)

Noise will be produced by vehicular movement, excavation and other construction machinery, concrete mixing, and other construction activities. The schools, religious places and local market areas are particularly vulnerable to the increased noise levels. No blasting activities will be allowed in the project in either urban areas, wetlands, borrow pits, slopes, quarries. All rock aggregates and slope conformations will be done using mechanical drilling means.

Ground and Surface Water Pollution (ESS1, ESS3, ESS4, ESS6)

During the construction phase activities can potentially cause some localized increase in water turbidity.to ponds, canals, streams and rivers However, this increase in turbidity is not likely to have any significant impact on overall water quality and the aquatic fauna primarily because of its temporary and localized nature. The construction camps[19] and other site facilities such as offices and warehouses will also generate waste effluents. Other possible causes of land or water contamination include accidental leakage or spillage of fuels, oils, and other chemicals, as well as waste effluents released from construction sites. These effluents can potentially contaminate the drinking water sources of the area and can also be harmful for the natural vegetation, cultivation fields, water bodies, and aquatic flora and fauna.

Land/Soil Contamination, Solid Waste and Hazardous Waste (ESS1, ESS3, ESS4, ESS6, ESS8)

Soils in the construction area and nearby lands that are used for agriculture will be prone to pollution in a similar manner to water pollution from the construction activities, construction sites, workers camps [19] and other construction areas. Fuel and hazardous material storage sites and their handling are also potential sources for soil and water pollution. Improper siting, storage and handling of fuels, lubricants, chemicals and hazardous materials, and potential spills from these will severely impact the soil and water quality and also cause safety and health hazards.

Solid waste generated during the construction phase will include excess construction materials such as sand and soil, faulty/damaged parts, metal scraps, cardboard boxes and containers and cotton swaths from workshops and waste from construction offices and camps. Furthermore, small quantities of hazardous waste will also be generated mainly from the vehicle maintenance activities (liquid fuels; lubricants, hydraulic oils; chemicals, such as anti-freeze; contaminated soil; spillage control materials used to absorb oil and chemical spillages; machine/engine filter cartridges; oily rags, spent filters, contaminated soil, and others). It is imperative that such waste is responsibly disposed to avoid adverse environmental, human health and aesthetic impacts. Inappropriate disposal of these wastes can lead to soil and water contamination as well as health hazards for the local communities, livestock, and aquatic as well as terrestrial fauna.

[19] Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation; storage of materials, etc.

Impacts on aquatic habitat (ESS1, ESS3, ESS6)

Sand extraction from ponds and other wetlands, re-excavation of canals, repairing of culverts-bridges and construction of roads, cement plant, camp areas may potentially disturb aquatic habitats by increasing water pollution and affecting nitrate concentration, oxygen concentration, water turbidity, among other parameters. Some sensitive and important habitats exist in the RUDP-II sites such as water bodies where the urban drain discharge the water collected, wetlands, native vegetation remanent which are important habitat for migratory birds, endemic amphbians and fish species. However, construction activities are not likely to have any direct impact on terrestrial or aquatic wildlife or their habitat since no sensitive ecological hot spots have been identified at this ESMF stage. However, any accidental leakage, spillage of contaminants, or dumping of solid waste/debris on land or in water bodies can potentially affect these habitats. These can cause injuries and even fatalities to these species.

Erosion and Siltation from construction and operation (ESS1, ESS2, ESS4, ESS6)

During construction, soil organic layer will be removed and during raining periods runoff will carry sediments to streams and houses entrances. Other aggregates such as sand, base and other materials will cause erosion and siltation issues. Also, after the completion of the construction activities, construction material, debris, spoils, scraps and other wastes from workshops, and camp sites can potentially create hazards and hindrances for the local communities in addition to blocking natural drainage and or irrigation channels.

Occupational Health and Safety (ESS1, ESS2, ESS4)

Workers will be exposed to health and safety hazards for example during welding, placing alphast and road bases, scalfoning work, excavations, manipulaiting hazardous substances, lifting and handling of heavy equipment, operating machinery and electrical equipment, working near water or at heigh, etc. The Project will need fuels, oils, and asphalt during the construction phase. Inappropriate handling or accidental spillage/leakage of these substances can potentially lead to safety and health hazards for the construction workers as well as the local community. Workers can also be exposed to inadcuate housing, food, health and first aid, insurance and improver drinking water and transportation to the project sites. The ESMU team is resposnibel to ensure the safety and health of workers and a treatment as regulated by the country and international laws.

Impact on labor, working Conditions and labor risks, including risks of child labor and forced labor, human trafficking; potential increase of GBV and SEA (ESS2)

RUDP-II sub-projects will generate also positive impacts when providing employment to a significant number of labor force during construction. The majority of labor will be locally hired, with the exception of skilled workers who may not be found in the project site areas. It is expected as Rwanda regulations required that at least 30% de of the workforce will be women so they can benefit from the project the same as men. Potential risks associated with hired skilled and nonskilled workers especially during construction period includes health hazards, poor living condition, accidental hazards risks, etc. Hiring labor from external areas may cause social risk on the local communities including gender-based violence, price hiking of commodity prices etc. Substantial risks are associated with hiring child labor or forced labor. A separate LMP has been prepared to minimize the risk associated with labor in the project.

Impact on Archaeological/ Historical/ Social/ Cultural/ Religious Sites (ESS8)

Although unlikely, there may be some places of worship or other cultural places in the sub-projects investment sites which may be affected by project works. Should the ESIA process find such places, they will have to be relocated and will be included in the RAP prepared for the project. Chance-find Procedures

will be included in the ESMP and chance-find clause will be included in works contracts requiring contractors to stop construction if cultural heritage phenomena are encountered during construction and/or wetland rehabilitation activities to coordinate with the relevant mandated country authority for the salvaging, restoration or other appropriate action of such cultural heritage.

Impacts on local livelihoods from obstructions/removal of housing or business structures (ESS1, ESS2, ESS4)

Probable impacts on income and livelihoods are minor since project will try to avoid acquisition of land and involuntary displacement of people. However, temporary economic displacement with the examples of some vendors and businesses along sites to undergo infrastructural upgrade construction activities and of farmers in case of wetland rehabilitation activities. Should such situations arise, impacted persons will be compensated following criteria stipulated in the RAPs. The aim of the upgrade and wetland rehabilitation is to improve livelihoods of the poor urban community of the RUDP-II project areas. The beneficiaries and their location will be identified by the environment management team under the oversight of the RUDP-II PMU.

Flora and Fauna (ESS1, ESS6)

Dust will be generated during earthwork and deposited on the leaves of nearby trees; this will obstruct the growth of trees. Construction activities will increase sediment loading of streams and changes in turbidity will impact adversely upon fishes and aquatic animals. Diversion at bridge site will act as barriers to the migration of fishes and aquatic animals. Noise generation from the construction vehicles and equipment can create disturbance for birds and wildlife.

Biodiversity and presence of natural /critical habits in the wetlands or other project areas (ESS1, ESS6)

Disturbance due to construction/ earthmoving works especially during wetland rehabilitation will disturb habitats and by destroy some biodiversity. Works will also create new habitats with the remediation works.

Environmental impacts caused by the different works and investments in the project areas (ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8, and ESS10)

Cumulative impacts caused by the different project interventions at the village level, streets, district and national level; also because the presence of many contractors at the same time working in different cities and areas in the same time. Prevention, mitigation and restoration measures have been included in this ESMF.

5.5. Environmental Impacts during the operational stage

Air Pollution (ESS1, ESS3, ESS4)

Emissions from local road traffic along the markets and other infrastructures may affect the ambient air quality. Road traffic will be increased due to construction of these infrastructures in the project area.

Noise Generation (ESS1, ESS3, ESS4, ESS8)

During operation, noise levels along the access roads, depots, collection centers and camp offices will be increased due to the higher traffic volume and mass gatherings. Traffic noise will be a significant nuisance to the sensitive receptors such as schools, health centers and religious places located close to the roads and also to children and aged persons.

Surface Water Pollution (ESS1, ESS3, ESS6)

Generally paved roads increase the amount of impermeable surface area, which increases the rate of surface water runoff. Increased storm water flow rates can lead to stream erosion and flooding downstream, cause soil erosion, channel modification and siltation of streams. During the operation phase, some localized increase in turbidity may take place during any maintenance works of the constructed infrastructure. Similarly, maintenance works can also generate some quantity of waste effluents.

Solid Waste Management (ESS1, ESS3, ESS4)

Remaining construction materials may be washed away by the rain into the water sources and lead to sedimentation and increase turbidity. Solid waste will be generated from recreational places, markets and other amenities and also during regular operation and maintenance activities of the constructed infrastructures. Hazardous waste will also be generated from access road maintenance. This waste if not appropriately disposed has a potential to contaminate soil and water resources, thus negatively affecting communities as well as natural habitat.

Changes in Hydrology and Flood pattern (ESS1, ESS3, ESS6)

The infrastructure upgrade and wetland rehabilitation works may need excavation of drainage ditches for stormwater conveyancing on one hand, and channel destruction, pond excavation, bumming and other mechanical interventions for wetland rehabilitation and flood attenuation on the other. These changes are mostly positive in nature, likely to take place over a long period of time and need to be regularly monitored and maintained.

Increased risk of road accidents (ESS1, ESS4)

One of the key potential risks associated with the infrastructure upgrade sub-projects is the increased risk of road accidents due to increased traffic. However, substantial road safety measures and facilities will be put in place under to minimize the accidents.

6. ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

RUDP-II project will use a structured approach to environmental and social management to allow the project development process following the 8 ESSs applicable to the project, follow the mitigation hierarchy of avoidance, minimization, mitigation and compensation/offset for negative impacts and enhancement of positive impacts where practically feasible. The proceeding sections describe what needs to be done at each stage of the overall project life cycle of sub-project implementation, monitoring and reporting on progress.

6.1 General requirements

Institutitional responsabilities for ESIA/ESMP and other ESF documents preparation

The Government of Rwanda is responsible for compliance to the national policies, regulations and the ESF of the World Bank including the 8 ESSs and the ESH Guidelines, as mentioned in this ESMF. The Ministry of Infrastructure (MININFRA) is responsible for obtaining environmental clearance from the Rwanda Development Board (RDB) as the state institution responsible for environmental and social impact assessments in Rwanda and from the World Bank as required. Enviromental and Social Impact Asesements (ESIA) and its corresponding Environmental and Social Management Plans (ESMP) will be prepared by the respective implementing institutions as indicated in Figure 18 and described in Table 11, annexes 2 and 3.

For instance:

- CoK (KUUT) will be responsible for the preparation of an ESIA/ESMP for each of the four unplanned settlement sites in Kigali (An ESIA/ESMP per each setlement, preparation of Technical Assistance)
- REMA (SPIU) will be responsible for the ESIA/ESMP for the wetland rehabilitation and flood risk reduction works subproject in selected wetland and flooding hotspot sites in City of Kigali and reparation of technical studies.
- LODA (PIU) will be responsible for the preparation and application of ESIA/ESMP for each of packaged of infrastructure basic works to be done at each of the 6 districts (secondary cities). One ESIA/ESMP per secondary citiy.

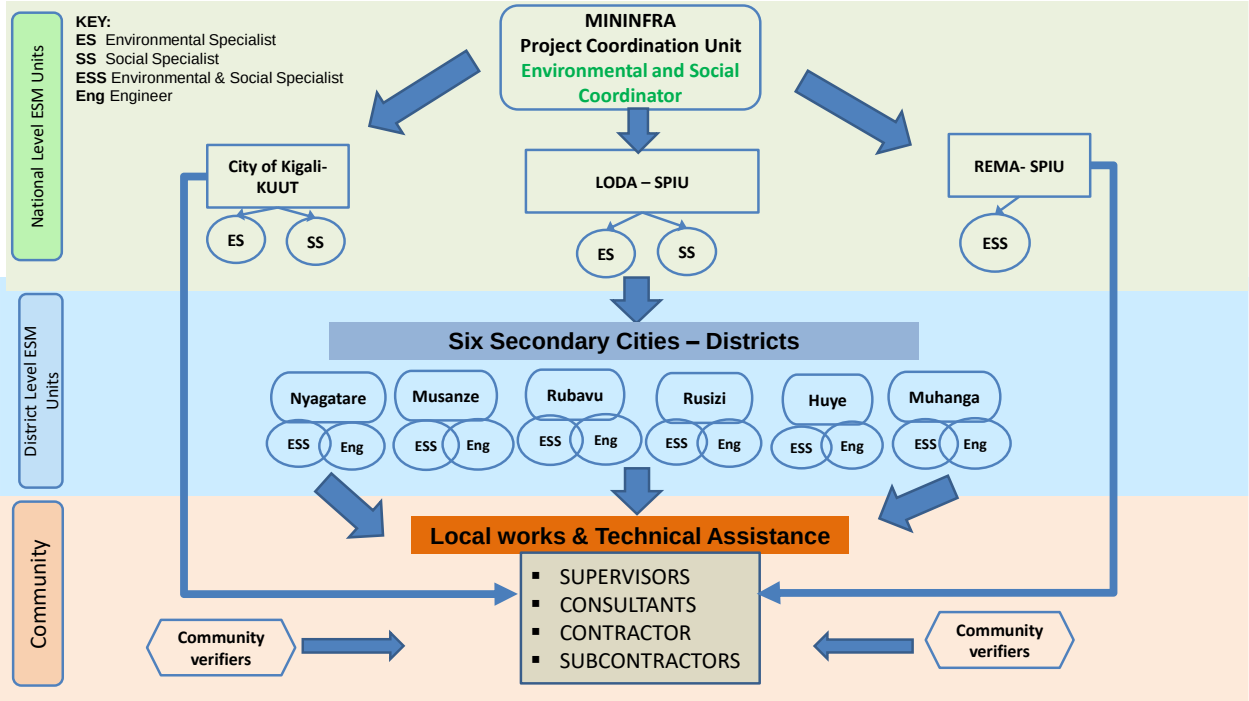


FIGURE 17 ENVIRONMENTAL AND SOCIAL MANAGEMENT FOR RUDP II – INSTITUTIONAL ARRAGEMENTS AT THE NATIONAL, DISTRICT AND COMMUNITY LEVELS

GENERAL Environmental and Social Management procedures and responsabilities of the Implementing Agencies

The general requirements and responsabilities for the four Implementing agencies (MININFRA, LODA, REMA and CoK) for the application of this ESMF and the Estandards ESS1, ESS2, ESS3, ESS4, ES6, ESS8 and ESS10 include:

- Comply with the requirements and measures describe in this ESMF which requires the preparation of ESIA-ESMP or only ESMP or Strategic measures in TA as described in Table 11.
- Comply with the LMP prepared for the project and include the agreed measures in the ESIA-ESMP, bidding documents and contracts as described in Table 11.
- Comply with the SEP to ensure proper consultations, communications and stakeholder participation in all project activities and as described in Table 11.
- Comply with the RPF to ensure proper management of Land and resettlement issues.
- Comply with the ESCP and agreed measures and actions to ensure project proper management of environmental and social issues.
- Environmentally sensitive areas, cultural sites, restricted or disputed lands should be taken care of with appropriate mitigation or compensation measures during implementation.
- Ensure proper timing for ESIA-ESMP, RAP preparation for proper planning and design of the works and supervision and monitoring
- Ensure proper planning and budget allocation among different agencies for implementation of the all ESF documents, ESCP and ensure minimal cumulative impacts.

- Participation of stakeholders (especially local community) should be ensured by MININFRA in planning, implementation and monitoring of each sub-projects and associated activities.
- MININFRA will ensure appropriate institutional set up for implementing environmental and social management plan and inter-agency coordination.
- Contractors to be engaged for urban infrastructure upgrades and flood risk reduction and wetland rehabilitation under the project will ensure Health and safety measures for workers and provision of personal protective equipment and at the workers camp sites with proper drinking water supply, sanitation facilities separated for men and women, First Aid Kits, clean aras to eat and change of cloth, insurance in case of accidents, etc.
- MININFRA will ensure that Procurement teams from all agencies coordinates closely with the Environmental and Social Manamegent Units since thy will give clearance to packages before sent to be procured (either post review or prio review by the World Bank) to ensure all ESF instruemnts are agreed with the World Bank are costed by contractors and measures implemented.
- MININFRA will ensure that all contractors include in their costing the prevention and mitigation measues included in these 5 ESF instruments and the respective ESMP – it will be not acceptable that contractors do not implement measures because of lack of funds or lack of presence in the bidding/ tender documents.
- MININFRA will ensure safety provision for the resettlement sites (if any).
- MININFRA and all other implementing agencies will be responsible to upload ESIA/ESMP, RAP, BOA, monitorinh reports, communication news, etct to inform the public on the results of the project and comply with the public disclosure of project interventions and potential impacts.

The following sections will describe the environmental and social management procedures that all 4 implementing agencies will use to comply with the ESF and the ESCP. A summary of the RUDP-II environmental and social management procedures is provided in Table 12 for subproject screening, preparation of appropriate ESF instruments, integrating Enviromental and Social clauses into bid documents, monitoring works, reporting and grievance management.

6.2 Environmental and Social Screening of Subprojects

Environmental and Social Screening Process outlined below complies with:

- The Rwanda environmental assessment requirements, as outlined in Law N°48/2018 on Environment and the EIA and Audit guidelines
- The World Bank's Environmental and Social Standards, especially ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8, ESS10.

The screening process provides a mechanism for ensuring that potential adverse environmental and social impacts of RUDP-II sub-projects are identified, assessed and mitigated as appropriate, through an environmental and social screening process – to comply with national EIA requierements and the WB ESS1.

National EIA requirement

The environmental and social screening procedure starts with the submission of a project description note to the RDB One Stop Center. RDB officials responsible for statutory environmental assessments then conduct field visits as part of a screening process and prepare ToR for the EIA study based on the results. The project proponent then conducts the required study and submits ESMP or full ESIA reports as

appropriate depending on the impact category of the project, to RDB for review and certification or rejection as may be found appropriate. However, the law provides for the proponent to be given an opportunity to appeal as featured in Figure 5.

Alternatively, the proponent may be allowed by RDB to carry out the screening procedure and submit the results together with the ToR for the required type and level of EIA study. This approach will be adopted for RUDP-II subprojects since except for Technical Assistance, all RUDP-II subprojects will involve civil and/or earth-moving works.

Environmental and social screening process for the subprojects of infrastructure upgrade, flood risk reduction and wetland rehabilitation in CoK and infrastructure provision in the six secondary cities will be carried out to achieve the following:

(i) Determine the level of environmental work and the type of follow-up management instruments required; Chance Finds Procedures, and other preventive and mitigation measures required;
(ii) Identify the main potential impacts at the project site;
(iii) Determine appropriate mitigation measures for addressing adverse impacts;
(iv) Incorporate mitigation measures for each construction or rehabilitation development plans;
(v) Determine which infrastructure upgrade and provision activities as well as wetland rehabilitation and flood risk mitigation activities for CoK and the six secondary cities respectively are likely to have potential negative environmental and social impacts;
(vi) Determine if and EIA or ESMP is needed;
(vii) Indicate the need for a Resettlement Action Plan (RAP), which would be in line with the Resettlement Policy Framework (RF);
(viii) Review and approval of the screening results regarding construction (civil/earthmoving works) and rehabilitation proposals; and
(ix) Define the monitoring environmental and social parameters during the construction, rehabilitation, operation and maintenance phases and related project activities.

Environmental and social screening for RUDP-II subprojects will be carried out as shown in Table 12 above and as described below:

- Environmental and Social Specialists in the respective RUDP-II implementing units will prepare ToR for subproject screening based on the Environmental and Social Screening Template provided in Annex 1 and submit them to RDB for review and approval. KUUT Coordinator will be responsible for the preparation of screening ToR for CoK unplanned settlements upgrade subproject; REMA SPIU Coordinator for CoK wetland rehab and flood risk reduction subproject; and LODA RUDP-II Coordinator for six Secondary City infrastructure provision subprojects.
- Implementation units in the respective RUDP-II institutions will commission consultants to carry out environmental and social screening studies including ToR for appropriate subsequent Environmental and Social instruments to be prepared. KUUT Coordinator will be responsible for commissioning the screening work for CoK unplanned settlements upgrade subproject; REMA SPIU Coordinator for CoK wetland rehab and flood risk reduction subproject; and LODA PIU Coordinator for RUDP-II for six Secondary City infrastructure provision subprojects.
- Coordinators of KUUT, REMA SPIU and LODA PIU for RUDP-II will submit screening results to MININFRA PCU through the RUDP-II Environmental and Social Coordinator and to WB for review. The MININFRA PCU will in turn submit results to RDB for review and approval of ToR for subsequent preparation of ESMP or ESIA and RAP as found appropriate.

6.3 Preparation of ESIA/ESMP instruments

Preparation of subproject environmental and social management instruments (ESIAs/ESMPs/RAP) will be carried out for the respective type of subprojects by the implementing agency as described in Table 11.

Table 12 describes the process to be followed by the implementing agencies:

ESIA- ESMP, RAP, SESA ToR preparation

- Environmental and Social Specialists within the Implementing units will prepare or supervise consultancy services for the preparation of ToR to select Environmental consultancy for preparing the necessary subproject environmental documents (ESIAs/ESMPs/RAP). This activity will only be necessary if RUDP-II institutional coordinators did not carry out a screening process for the proposed subproject but decided to commission a full ESIA directly.
- As indicated in Table 11, an ESIA-ESMP will be prepared for each unpplaned settlement in the CoK and ESIA-ESMP for each work of civil works to be supported in the six Secondary Cities.
- Coordinators of KUUT, REMA SPIU and LODA PIU for RUDP-II will submit ToR for ESIA and RAP (if required) to MININFRA PCU through the RUDP-II Environmental and Social Coordinator and to WB for review. The MININFRA PCU will in turn submit ESIA (including RAP as necessary) to RDB for input/comments and approval.

ESIA/RAP/ESMF study commissioning

- Coordinators of KUUT, REMA SPIU and LODA PIU for RUDP-II will contract out consultancy services for the preparation of draft ESIAs/RAPs/ESMFs and carry out public consultations with stakeholders, people that may be affected and local authorities and incorporate results into final ESIA-ESMP, RAPs.
- ESIA-ESMP, RAPs will be monitored and checked by the MININFRA PCU and reviewed by WB.

6.4 ESIA/RAP/ESMF Review, clearance and disclosure

- The MININFRA PCU Environment and Social Coordinator will submit draft ESIAs-ESMP, RAP to RDB for review and certification if needed. Other instruments might do not require this like BOA, SESA, etc.
- Following approval of the ESF instruments (s), the MININFRA PCU Environment and Social Coordinator will also carry out the necessary arrangements for Disclosure and Consultations taking into account ESS10 and ensure harmonization with the RUDP-II Stakeholder Engagement Plan.
- The MININFRA PCU Environment and Social Coordinator will follow up and obtaining required licenses/ permits that comply with approved ESMF for the necessary RUDP-II subproject works.
- All implementing agencies will have to create a webpage for the project in their instituriional website and publish all ESF documents and reports as define in this ESMF. See requirements for the project webpage (Box 1).
- WB will disclose the approved ESF instruments prepared and approved for the project in the project webpage already created and that will be permanently accessible for all during all project implementation and after closure. https://projects.worldbank.org/en/projects-operations/project-detail/P165017?lang=fr
- WB receives and takes note of consultation reports.

Requeriments for the project webpage to be included at each implementing agency to disclose ESF documents and maintain the page functional and update during the project implementation.	
Project Name	Logo institution
Project Description (components, subcomponets and activities	Photos
Environmental and Social Management of the project -Explain about the ESF and the 8 ESSS -Include short summary of the ESMF and other instruments	
Please place all ESF documents prepared and cleared by the WB – with complete names first as draft- after consultation as final documents. Place attached them as PDF and the option for people to download or read. -ESFM, RPF, SEP, LMP, ESCP	
Online consultation Explain that the project needs to have a consultation of the documents and invite readers to sent comments Place a date for at least 1 week to receive comments for the appraisal **Inser at Window for sending comment**s, observations to the ESF documents	**Contact person** Environmental/Social Specialists Email, phone, fax

6.5 Integrating ESIA/ESMF requirements into RUDP-II subproject bidding documents

- Environmental and Social Specialists within the institutional implementing units will integrate prevention, mitigation and compensation measures included in the approved ESIAs/ESMP into respective subproject bidding/tender documents with reference to the standardized Environmental and Social Technical Clauses (ESTC) to be included in the tender Technical specifications. The following ESTCS are described in detail in Annex 4 for inclusion in tender documents and the Contractor-ESMPs as applicable to RUDP-II subprojects.

ESTC 1: Waste Management
ESTC 2: Fuels and Hazardous Substances Management
ESTC 3: Water Resources Management
ESTC 4: Drainage Management
ESTC 5: Soil Quality Management
ESTC 6: Erosion and Sediment Control
ESTC 7: Top Soil Management
ESTC 8: Topography and Landscaping
ESTC 9: Sand Extraction
ESTC 10: Air Quality Management
ESTC 11: Noise and Vibration Management
ESTC 12: Protection of Flora
ESTC 13: Protection of Fauna
ESTC 14: Protection of Fisheries
ESTC 15: Road Transport and Road Traffic Management
ESTC 16: Wetland use activities
ESTC 17: Construction Camp Management
ESTC 18: Cultural and Religious Issues

ESTC 19: Workers Health and Safety ESTC 20: Social Impacts – Disruptions of utility services e.g. water/ electricity;	– Temporary loss of /restricted access to homes, businesses, agricultural fields or other natural livelihood assets; – Noise, dust and other nuisances

- Environmental and Social Specialists will indicate in the respective subproject bidding documents that past environmental and social performance and capacity will be one of the criteria when selecting contractors.
- Environmental and Social Specialists will include explanations in bidding documents that contractors must prepare Contractor-ESMPs.
- KUUT Environmental and Social Specialists will ensure the ESTC are integrated in bidding documents of subprojects for infrastructure upgrades in the selected unplanned settlements in CoK;
- REMA Environmental and Social Specialists for RUDP-II will ensure the ESTCs are integrated in bidding documents of subprojects for wetland rehabilitation and flood risk reduction in the selected unplanned settlements in CoK;
- LODA Environmental and Social Specialists for RUDP-II will ensure the ESTCs are integrated in bidding documents of subprojects for infrastructure provision in the selected unplanned settlements in the six secondary cities; and
- Environmental and Social Specialists will include in tender documents that Contractors will be required to hire and maintain through all works trained and experienced environmental and social management staff.
- Environmental and Social Technical Clauses (ESTC) will be formulated for subproject ESIA/ESMP which will be expanded upon based on the findings and recommendations of the sub-project ESIAs. General ESTC provisions include the following:
    - *Prepare cost estimates of what is to be incorporated in Bid Documents e.g. cost of GBV action plan implementation, cost of ESMP implementation and mitigation measures*
    - *Contractor version of the Environmental Management Plan along with the Environmental and Social Codes of Practice (ESCoP) to be incorporated in the bid document's work requirements.*
    - *Penalty clauses for not complying with ESMP and ESTC requirements to be incorporated.*
    - *Indicative penalty clauses are presented below (Addendum to Clause 17.2 Contractor's Care of the Works of FIDIC).*
    - *The contractor has to follow all traffic safety measures as defined in the technical specification. Damage shall be levied at the rate of up to RWF 100,000 per day per location for non–conformity of traffic safety measures as per the decision of the MININFRA PIU.*
    - *The contractor has to follow all environmental mitigation and management measures as defined in the technical specifications read along with the Environmental Management Plan for the specific RUDP-II activities. Damage shall be levied at the rate of up to RWF 100,000 per day per location for nonconformity of ESMP measures as per the decision of the MININFRA PIU.*
    - *The contractor has to ensure that prior to every rainy season, during the construction period; all the temporary and permanent cross drainage structures are free from debris as defined in the Technical Specifications read along with the ESMP. Damage shall be levied at the rate of RWF 30,000 per day per location for non-conformity as per the decision of the MININFRA PIU.*
    - *The contractor has to ensure that a comprehensive Health and Safety program is in place for the duration of construction. Implementation of the program will include, among other aspects, ensuring that each worker recives a personal Personnel Protective Equipment (PPE) and it is replaced as needed during the construction; the PPE should be provide to staff and labor all time as defined in the labor*

codes of Rwanda and the requirements of this ESMF and ESMP. Damage shall be levied at the rate of up to RWF 50,000 per day for non-conformity as per the decision of the MININFRA PIU.

- *In addition, for any non-compliance causing damages or material harm to the natural environment, public or private property or resources, the contractor will be required to either remediate / rectify any such damages in a timeframe specified by and agreed with the engineer, or pay MININFRA PIU for the cost (as assessed by MININFRA PIU) of contracting a third party to carry out the remediation work.*

- Since many contractors may not have clear understanding of the need for environmental management, some quote very low price for implementation of ESMP and eventually cannot implement ESMP as per specific requirement of ESMP and project design. To avoid this problem, a fixed budget line of 3% of the total cost of the work will be assigned for ESMP implementation (see Table Budget 2 for more details of the items that will need to be costes per contractor). The contractors may need orientation on the requirement of the ESMP in the pre-bidding meeting. Addiitonal cost can be included as services order to the contractors as needed but often the engineers do not want to do this do not increase the cost of the work. Therefore, we recommend maintaining a fixed percentage to ensure that environmental and social measures of this ESMF, SEP, LMP, ESCP are appropriately implemented in the project activities.
- The integration of the ESMP measures and ESS requirements into subproject bidding documents will be supervised by the MININFRA PCU PCU at the Project Coordinator and the Environmental and Social Coordinator and the Loda Environmental and Social Supervisor.
- The MININFRA PCU Environment and Social Coordinator will coordinate the review and clear Contractor-ESMPs in bid submissions.
- WB will review and approve bidding documents and provide no-objections for contract awards as appropriate.
- Overall oversight is provided by RUDP-II Steering Committee

6.6 Integrating ESIA/ESMF requirements into bidding and RUDP-II subproject contract documents

The project implementing agencies will prepare an ESIA which will include a section on environmental and social technical clauses (ESTCs) to be incorporated in the Tender Document. As one of the critical components of ESIA document, an ESMP will indicate the management of expected impacts as a result of the implementation of the project activities, recommendations and alternatives to be adopted and implemented. ESMP and ESMF will be an integral part of the bid document for each subproject. During construction, environmental and social impacts may be site specific and therefore, the mitigation measures will be site specific as well. Hence, the contractors are required to elaborate and implement a site specific environmental and social management plan (CESMP). The content of CESMP will incorporate but not limited to the following information: project background and description, policy, administrative and legal framework, baseline or existing conditions, assessment of impacts and identification of alternatives, impact management or environmental mitigation measures, environmental and social management plans, environmental and social monitoring plan, cost benefit analysis and decommissioning. In line with this, implementing agencies will ensure the following:

O Requests for proposals for all construction activities will include a reference to the Standardized Environmental and Social Technical Clauses (ESTCs, see Annex 4) and to the Code of Conduct (Annex 9).

O Bidders will submit a Preliminary Environmental and Social Plan as part of their tenders, outlining the principles and the methodology they will use to address environmental, social, health and safety issues under the contract, and all the costs associated with the management of environmental and social issues in their tenders.

O The quality of the Preliminary Environmental and Social Plan, past environmental and social performance, and capacity will be assessed when selecting contractors.

O Selected contractor will prepare and submit a Contractor-ESMP (C-ESMP), detailing how the ESTCs and the Code of Conduct will be operationalized, including procedures and staffing.

O The relevant authority will approve the C-ESMP before the start of work

O Contractor performance will be monitored against their respective C-ESMPs

The environmental and social technical clauses contained in ESIA will aim at ensuring that the Contractor carries out his responsibility of implementing the environmental and social management plan (ESMP), monitoring plan as well as other environmental and safety measures. Such clauses may specify, for example, penalties for non-compliance as well as incentives to promote strong compliance. Various contractors must be made accountable to implement the plans and mitigation measures which pertain to them through contract documents and/or other agreements of the obligations and importance of the environmental and social components of the program.

- Environmental and Social Technical Clauses (ESTC) will be mandatory for all investments of RUDP-II including in the following cases:
    - Prior and post review procurement process and contracts
    - Including when using national bidding documents different from those of the World Bank.
- The ESTC will be redifined in each ESMP and will include penalties for non-compliance as well as incentives to promote strong compliance of these clauses and the RDB Environmental License. The various contractors must be made accountable to implement the Environmental and social plans and mitigation measures which pertain to them through contract documents and/or other agreements of the obligations and importance of the environmental and social components of the program. In addition, for each subproject an ESIA and the respective EMP will be prepared to assess the impacts of the proposed project intervention, the construction plans, measures and management systems required to develop and implement, based on this ESMF and the ESIA findings, their work methodology, work force involvement, equipment's standard, and work scheduling.
- Payments to contractors would be linked to environmental performance, measured by completion of the prescribed environmental and social mitigation measures included in this ESMF, ESMP and Tender documents. Contractors would be required to join forces with the executing agency, project management unit, supervising consultants and local population for the mitigation of adverse impacts of the project. Project Engineer at the distric will coordinate closely with the supervision firm to ensure compliance of the ESMP and tender Environmental and Social Technical clauses are implemented.

6.7 Supervision and Monitoring

Contractor supervision and monitoring

- The Contractor will implement all mitigation measures detailed in the Contractor-ESMPs.
- Monitored by KUUT Coordinator and REMA SPIU Coordinator for CoK subprojects.
- Monitored by LODA PIU Coordinator, Environmental Specialist and Social Specialist for 6 Secondary Cities.
- DSM consultant conducts internal monitoring of Contractor-ESMPs.
- WB conducts random checking

Daily internal monitoring

- Environmental and Social Specialists in KUUT and REMA SPIU will carry out internal monitoring and supervision on daily basis of compliance to Contractor-ESMPs relevant to CoK subprojects for infrastructure upgrade and wetland rehabilitation and flood risk management.
- The Environmental and Social Specialist and the District Engineer in each of the 6 secondary cities will carry out supervision on daily basis of compliance to Contractor-ESMPs relevant to infrastructure provision subprojects.
- The KUUT Coordinator and REMA SPIU Coordinator will provide daily monitoring oversight for CoK subprojects whereas LODA PIU Coordinator, Environmental Specialist and Social Specialist will provide oversight for daily monitoring of infrastructure provision subprojects for the six Secondary Cities.
- Daily monitoring will take into consideration ESTCs featured in Annex 4 of this ESMF and to the Contractors Code of Conduct for Individuals as featured in the RUDP-II Labor Management Plan (LMP) (Annex 9). Contractor performance indicators will include the following:

    (i) *Safety*: hours worked, recordable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revise d job safety analysis, new or different equipment, skills training, and so forth).
    (ii) *Environmental incidents and near misses*: environmental incidents and high potential near misses as recorded in the Incident Report in the format provided in the Annex 8 template and how they have been addressed, what is outstanding, and lessons learned.
    (iii) *Major works*: those undertaken and completed, progress against project schedule, and key work fronts (work areas).
    (iv) *E&S requirements*: noncompliance incidents with permits and national law (legal noncompliance), project commitments, or other E&S requirements.
    (v) *E&S inspections and audits*: by contractor, engineer, or others, including authorities—to include date, inspector or auditor name, sites visited and records reviewed, major findings, and actions taken.
    (vi) *Workers*: number of workers, indication of origin (expatriate, local, nonlocal nationals), gender, age with evidence that no child labor is involved, and skill level (unskilled, skilled, supervisory, professional, management).
    (vii) *Training on E&S issues*: including dates, number of trainees, and topics.
    (viii) *Footprint management*: details of any work outside boundaries or major off-site impacts caused by ongoing construction—to include date, location, impacts, and actions taken.
    (ix) *External stakeholder engagement*: highlights, including formal and informal

meetings, and information disclosure and dissemination—to include a breakdown of women and men consulted and themes coming from various stakeholder groups, including vulnerable groups (e.g., disabled, elderly, children, etc.).

(x) *Details of any security risks*: details of risks the contractor may be exposed to while performing its work—the threats may come from third parties external to the project.

(xi) *Worker grievances*: details including occurrence date, grievance, and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken—grievances listed should include those received since the preceding report and those that were unresolved at the time of that report.

(xii) *External stakeholder grievances*: grievance and date submitted, action(s) taken and date(s), resolution (if any) and date, and follow-up yet to be taken—grievances listed should include those received since the preceding report and those that were unresolved at the time of that report. Grievance data should be gender-disaggregated.

(xiii) *Major changes to contractor's environmental and social practices*.

(xiv) *Deficiency and performance management*: actions taken in response to previous notices of deficiency or observations regarding E&S performance and/or plans for actions to be taken—these should continue to be reported until UNOPS determines the issue is resolved satisfactorily.

6.8 Reporting

All key stakeholders involved in the project implementation are required to regularly report on environmental and social compliance, project progress and environmental performance. In addition to the monitoring parameters described below, all the aforementioned reports should reflect the state of the CESMP implementation and contain details on the status of implementation of the environmental mitigation and protection measures, challenges encountered, how they have been handled and /or the proposed way forward. Furthermore, the reports may include additional mitigation measures that may need to be implemented, incidents of non-compliance with applicable environmental permits, complaints received from local residents, NGOs, etc. and how these were addressed. Contractors and Consultant/ supervising firm will have to report to their respective clients' i.e the Secondary Cities districts/CoK and implementing agencies at the national level respectively. The reports to be submitted include monthly, quarterly and annual and an overall project report after completion of the civil works. The clients will review the submitted reports, check their relevance and subsequently approve them. Similarly, the CoK, REMA and LODA will be reporting to MININFRA with the same report content as described above and the same frequency. The MININFRA, in turn, will report to the World Bank for review and comments on quarterly and annual basis. MININFRA will also have to comply with the reporting modalities on the material measures and actions set out in the ESCP document. The World Bank will review the reports and verify their contents through periodic site visits. Monitoring and compliance in accordance with ESMF and site specific ESMPs, including monitoring of implementation of site-specific measures on each sub-project during project implementation will be undertaken by implementing agencies and its implementation unit, and reported in writing to the Bank through MININFRA on semi-annual basis. If any kind of accident or endangerment of environment happens, reporting will be immediate to all implementing agencies and the World Bank. Implementing agencies and the Contractor have joint responsibility for reporting and investigating incidents. The Contractor is obliged to inform the project manager and local authorities on accident immediately after it happened (within 24 hours). In case that the project manager is not responding immediately for one reason or another, the Contractor is obliged

to inform implementing agencies about accident. Each implementing and coordinating agency/institution will establish and maintain a database that will hold the environmental and social data for all subprojects, including monitoring data.

A comprehensive monitoring parameters and details on reporting arrangements will be described in ESIA/ ESMP and will be site-specific. The following parameters will be monitored:

- Drinking water quality given to workers
- Water quality of wetlands and streams where drains are discharge
- soil contamination in wetlands
- Noise quality and air pollution
- Debris and waste disposal
- Occupational Health and Safety
- Number of trees cut and planted
- Number of affected houses/public areas with the works (damages caused to entrances, gardens, schools, etc)
- Number of claims by affected people
- Compliance with ESMP and relevant national environmental laws/ regulations and or WB requirements
- Number of accident/ miss incident
- Environmental performance and compliance with the 5 ESF documents prepared for the project

6.9 Grievance Redress Mechanisms

- The GRM for Environmental, Health and Safety and Social aspects will follow mechanisms detail in the SEP and here in the ESMF (annex 5).
- Environmental and Social specialists are responsible to enforce, disseminate and monitor the GRMs. Each Ennviromental and Social Management Units at each implementing agency can divide their responsabilities on addressing GRM at the national, district and community level.
- Environmental specialists will focus in claims related to ESS1, ESS2, ESS3, ESS4, ESS6 mostly Environmental, Health and Safety: this include accidents of workers, pollution and waste caused to public areas, communities, explosions, spills, claims in water and sanitation conditions, housing conditions for workers,
- Social specialist will focus in claims related to ESS2, ESS5 and EE4 for example: resettlement issues, land compensation claims, accidents caused to community members, labor contracting, interruption of public services on local people, etc.
- Social Specialists in KUUT and REMA SPIU will implement the Grievance Redress Mechanism for complaints associated with CoK subprojects for infrastructure upgrade and wetland rehabilitation and flood risk management in reference to the implementation framework for the mechanism as featured in the LMP and SEP.
- Social Specialist in the LODA PIU will collaborate with Secondary City Environment and Social Specialists and the District Gender Monitoring Officer to implement the Grievance Redress Mechanism for complaints associated with infrastructure provision subprojects in reference to the implementation framework for the mechanism as featured in the LMP and SEP.
- Environmental and Social Specialists and the District Gender Monitoring Officer will supervise the implementation of the Grievance Redress Mechanism for workers and stakeholders as provided for in the Contractor -ESMPs that respond to the ESMP, the ESTC in the contract, SEP and the LMP.

6.10 Work –related Grievance Redress Mechanism

- The GRM has proposed and discussed in a separate documents of RPF and SEP to guide the project GRM during implementation and address identified environmental and social problems at the community level. However, some complaints may emerge from the field level i.e construction workplace and have significant implications for effective implementation of the project interventions. Hence, the contractor, in coordination with implementing agencies, shall set-up a grievance redress committee that will address any complaints during project implementation. Grievances should be resolved within 15 working days. Each contractor must prepare a GRM as part of their ESMP which include the following requirements:
- **Provision of information.** All workers should be informed about the grievance mechanism at the time they are hired, and details about how it operates should be easily available, for example, included in worker documentation or on notice boards.
- **Transparency of the process**. Workers must know to whom they can turn in the event of a grievance and the support and sources of advice that are available to them. All line and senior managers must be familiar with their organization's grievance procedure.
- **Keeping it up to date.** The process should be regularly reviewed and kept up to date, for example, by referencing any new statutory guidelines, changes in contracts or representation.
- **Confidentiality.** The process should ensure that a complaint is dealt with confidentially. While procedures may specify that complaints should first be made to the workers' line manager, there should also be the option of raising a grievance first with an alternative manager, for example, a human resource (personnel) manager.
- **Non-retribution.** Procedures should guarantee that any worker raising a complaint will not be subject to any reprisal.
- **Reasonable timescales.** Procedures should allow for time to investigate grievances fully, but should aim for swift resolutions. The longer a grievance is allowed to continue, the harder it can be for both sides to get back to normal afterwards. Time limits should be set for each stage of the process, for example, a maximum time between a grievance being raised and the setting up of a meeting to investigate it.

- **Right of appeal**. A worker should have the right to appeal to the representative authority or national courts if he or she is not happy with the initial finding.
- **Right to be accompanied.** In any meetings or hearings, the worker should have the right to be accompanied by a colleague, friend or union representative.
- **Keeping records**. Written records should be kept at all stages. The initial complaint should be in writing if possible, along with the response, notes of any meetings and the findings and the reasons for the findings.
- **Relationship with collective agreements.** Grievance procedures should be consistent with any collective agreements.
- **Relationship with regulation.** Grievance processes should be compliant with the national employment code.

TABLE 11 SUMMARY TABLE FOR THE RUDP-II ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

Steps	Environmental Action Required	Implemented by	Monitored/ Checked by
Sub-project Identification: ***Screening and Scoping of subprojects thorught the National EIA system***	Prepare ToR for subproject screening based on the Screening Template provided in Annex 1 and submit them to RDB for review and approval; Commission, oversee subproject screening and submit results to RDB and WB for review and approval	• KUUT Coordinator for CoK unplanned settlements upgrade subproject • REMA SPIU Coordinator for CoK wetland rehabilitation and flood risk reduction subproject • LODA PIU Coordinator for Secondary City infrastructure provision subprojects	MININFRA PCU monitors and verifies; RDB reviews, approves and provide EIA Certification to proceed WB will review the screening results
Sub-project Preparation: ***ESIAs/ESMP ToR***	Prepare or supervise ToR to select Environmental consultancy for preparing necessary subproject environmental ver documents (ESIAs/ESMPs)	• Environmental consultant under supervision of KUUT Coordinator for CoK unplanned settlements upgrade subproject • Environmental consultant under supervision of REMA SPIU Coordinator for CoK wetland rehab and flood risk reduction subproject • Environmental consultant under supervision of LODA PIU Coordinator for Secondary City infrastructure provision subprojects	MININFRA PCU monitors and checks; WB reviews and clears
Sub-project Preparation: ***ESIAs/ESMP***	Commission consultancy services for the preparation of draft ESIAs/RAPs/ESMPs	• Environmental consultant under supervision of KUUT Coordinator for CoK	MININFRA PCU monitors and checks;

Steps	Environmental Action Required	Implemented by	Monitored/ Checked by
commissioning	and carry out public consultations with potential affected people and local authorities and incorporate results into final ESIAs-ESMP; RAP, BAP; Submit draft ESIA-ESMP; RAP; BAP to PCU through SPIUs/PIUs	unplanned settlements upgrade subproject • Environmental consultant under supervision of REMA SPIU Coordinator for CoK wetland rehab and flood risk reduction subproject • Environmental consultant under supervision of LODA PIU Coordinator for infrastructure provision subprojects in 6 Secondary Cities	WB reviews all draft ESIAs-ESMP/RAP/BOA
Sub-project Preparation: ***ESIAs/ESMP Review and Clearance; Disclosure and Consultations***	Submit draft ESIA-ESMP/RAPs to RDB for review and certification; Carry out Disclosure and Consultations according to the RUDP-II Stakeholder Engagement Plan Obtaining required licenses/ permits that comply with approved ESMF	MININFRA PCU Environment and Social Coordinator All Implementing agencies in the project approved website prepare in preparation disclosed the ESIA/ESMP/RAPs and BAP approved.	MININFRA PCU provides oversight for consulations; WB discloses approved ESF instruments (ESIA-ESMP) in its disclosure media; WB receives and takes note of consultation reports
Sub-project bidding: Integrating ESIA/ESMP requirements into bidding documents	Environmental and social prevention and mitigation measures and/or requirements as featured in approved ESIAs/ESMP into bidding document with reference to ESTC (Annex 4 in this ESMF); Include mitigation measures/ requirements into rehabilitation document and contract (if any) Include mitigation measures/ requirements into equipment supplier contract (if any) Include mitigation measures/ requirements into construction supervision bidding document and contract (if any) Include close to the requires	• Environmental Specialist and Social Specialist in KUUT for CoK unplanned settlements upgrade subproject • Environmental Specialist and Social Specialist in REMA PIU for CoK wetland rehab and flood risk reduction subproject • Environmental Specialist and Social Specialist in LODA PIU for Secondary City infrastructure provision subprojects	Monitored by KUUT Coordinator and REMA SPIU Coordinator for CoK subprojects; Monitored by LODA PIU Environmental and Social Supervisor; WB will review and approve bidding documents WB reviews and approves bidding documents; WB provides no-objections on contract awards as appropriate. Overall oversight by RUDP-II Steering Committee

Steps	Environmental Action Required	Implemented by	Monitored/ Checked by
Implementation Phase: Monitoring	Implement mitigation measures as in Contractor-ESMPs	Contractors Subcontractors Consultants	Monitored by KUUT Coordinator and REMA SPIU Coordinator for CoK subprojects; Monitored by LODA PIU Coordinator, Environmental Specialist and Social Specialist for 6 Secondary Cities; Internal monitoring by DSM consultant; Superviison missions of the World Bank
Implementation Phase: Monitoring	Carry out internal monitoring and supervision on daily basis of compliance to Contractor-ESMPs with reference to ESMF and ESMP, ESTCs (Annex 4) and with reference to RUDP-II Labor Management Plan (LMP) Contractors Code of Conduct for Individuals (Annex 9) including: *Safety; Environmental incidents and near-misses; Major works; E&S requirements; E&S inspections and audits; Workers profile and Training on E&S issues; Footprint management; External stakeholder engagement; Details of any security risks; Worker grievances; External stakeholder grievances; Major changes to contractor's ESTCs; and Deficiency and performance management*	• Environmental and Social Specialists in KUUT for CoK unplanned settlements upgrade subproject • Environmental and Social Specialists in REMA SPIU for CoK wetland rehab and flood risk reduction subproject • Secondary City Environmental & Social Specialist and District Engineer for infrastructure provision subprojects in 6 Secondary City	Monitored by KUUT Coordinator and REMA SPIU Coordinator for CoK subprojects; Monitored by LODA PIU Coordinator, Environmental Specialist and Social Specialist for 6 Secondary Cities
Implementation Phase: Monitoring	Carry out external periodic environmental monitoring	Project Steering Committee (PSC) and independent consultant on behalf of MININFRA PCU; LODA PIU, REMA SPIU and COK KUUT	Periodically checked by WB
Implementation Phase: Reporting	Report on subproject environmental compliance to MININFRA, LODA, REMA and CoK for review	Coordinators of MININFRA PCU; LODA PIU for RUDP-II, REMA SPIU and COK KUUT	Reviewed by MININFRA, LODA, REMA and CoK; Random check by WB
Implementation Phase:	Report on whole project environmental	MININFRA, LODA, REMA and CoK	Reviewed by PSC and WB

Steps	Environmental Action Required	Implemented by	Monitored/ Checked by
Reporting	compliance to the Project Steering Committee (PSC) and to WB for review		
Implementation Phase: Grievance redress	Implement the Grievance Redress Mechanism for workers and stakeholders as provided for in the C-ESMPs, this ESMF, LMP and SEP	• Social Specialists in KUUT for CoK unplanned settlements upgrade subproject • Social Specialists in REMA SPIU for CoK wetland rehab and flood risk reduction subproject • Secondary City Environmental & Social Specialist and District Gender Monitoring Officer for infrastructure provision subprojects in 6 Secondary City	The PSC is overall responsible to address persistent grievances; MININFRA PCU will ensure support of the Environment and Social Coordinator for the project Social Specialists and District Gender Monitoring Officer at CoK and REMA and at the six secondary cities; WB provides assistance in redressing persistent grievances.

6.11 Pre-construction Mitigation Measures

Potential environmental and social impacts can occur during pre-construction phase for urban infrastructure upgrade construction activities, flood risk reduction interventions, wetland rehabilitation and associated maintenance activities should be identified beforehand. Detailed activities need to be identified first and thereafter set of actions or interventions are to be specified and any possible effect due to an action is to be determined. Best practice mitigation or enhancement measures should be explored accordingly and deployed in the field. Measures for prevention and mitiagation Table 13 as a set of mitigation measures against possible environmental and social impacts envisaged in RUDP-II at its pre-construction phase.

Mitigation and enhancement measures cost estimates will be determined during ESIA processes of subprojects based on its location, types of construction, implementation schedule, and cost for project implementation and requirement of mitigation and enhancement activities.

TABLE 12 RUDP-II PRE-CONSTRUCTION ENVIRONMENTAL AND SOCIAL PREVENTION AND MITIGATION MEASURES TO BE CONSIDERED FOR THE PLANNING STAGE

Environmental and Social Standard Relevant	Potential Environmental and Social Impacts	Proposed PREVENTION/ Mitigation /COMPENSATION Measures	Responsibility	
			Implementation	Supervision
ESS1, ESS6	**-Loss of vegetation/ trees** in the project sites; -Impact on birds and other species (nesting sites, feeding grounds, perching areas) can be affected by the cutting of vegetation (trees/ shrub vegetation habitats). -Impacts on the local micro-climatic condition.	-Prior to start construction, the vegetation tha is needed to be removed from the proposed construction sites with consultation of the local relevant authorities; -Avoid disturbance and be careful during construction vehicle and equipment movement; Proper H&S measures (use of appropriate PPE such as hand gloves, safety shoes and helmet) for the workers should be taken during removal of trees, bushes & crops; -To mitigate the ecological impact, tree-planting plan will be considered in the design & accordingly tree-planting will be done in an appropriate location to be determined by the Environmental Specialist for the subproject -District engineer shall approve such felling; only when the proponent secures "clearance" for such felling from the designated Environmental Specialist; -During the tree removal from the bridges and other construction sites, the number of trees will be recorded by the ESS of the supervision firm -Trees cuts with a DBH (Diameter at breast height) of 15cm or greater will be replaced by planting three saplings for every tree cut.	Contractor	Environmental and Social Specialist for the subproject by national Implementing Agency and Project Supervision firm
Land Acquisition/ Requisition	Loss of agricultural land, cultural sites, fish habitat etc.; Loss of agricultural production, fish resources; Loss of income and livelihoods assets; Social conflict.	Establish and operationalize a GRM for the PAPs and the Workers Avoid where possible agricultural land, social/ religious institutes, fish habitat during finalization of siting/ alignment infrastructure;	Social Specialists	MININFRA PCU facilitated by Environment and Social Coordinator

Environmental and Social Standard Relevant	Potential Environmental and Social Impacts	Proposed PREVENTION/ Mitigation /COMPENSATION Measures	Responsibility	
			Implementation	Supervision
		Prior to start construction/works adequate compensation should be given to the PAPs in-time according to RAP. Adequate compensation should be given for standing crops; Avoid agricultural land, if possible; Create job opportunities for the PAPs		
Obstruction or removal of Housing and Commercial/business Structures	Impacts on local livelihoods due temporary loss of access to housing or commercial/business structures; Impacts on local livelihoods due to loss of housing or commercial/ business structures leading to loss of income and livelihoods; Dust pollution	Avoid the housing and commercial structure during the finalization of the alignment and location of the bridge; Proper compensation should be given before starting the removal or dismantling works; Create job opportunities for the PAPs. Water spraying on the road surface or dust pollution source;	Social Specialists in case compensation is appropriate; Contractor	MININFRA PCU facilitated by Environment and Social Coordinator
Dangerous exposure to damaged utility infrastructures	Exposure of workers health and safety to live electricity cables and other dangers associated to utility infrastructures; During movement of heavy Construction machinery and equipment can damage the utility services if not previously removed	Prior to start construction, the utility services (electrical cables, telephone line, water supply pipeline, gas supply pipeline and internet line) should be shifted with the consultation of the relevant organizations; Inform the local community before starting removal or demolishing work; Carefully remove the utilities that are connected to any structures;	Contractor	Environmental Specialist and Social Specialist for the subproject
Dismantling	-Dust pollution in the construction site; -Health hazard for the workers and community during dismantling works; -Noise level increase;	Notify the adjacent community before starting the demolishing work; During the removal or demolition of existing structures if required will be fully removed by the contractor; Spraying of water in the dry land or from where there is a possibility to generate dust; Banned fishing, swimming, boat movement activities in the construction sites, if applicable;	Contractor	Environmental Specialist and Social Specialist for the subproject

Environmental and Social Standard Relevant	Potential Environmental and Social Impacts	Proposed PREVENTION/ Mitigation /COMPENSATION Measures	Responsibility	
			Implementation	Supervision
	-Vibration effects on the structures on the surrounding of the project area; -Surface water contamination, blockage of navigation and drainage, -impacts on aquatic fauna	Proper H&S measures for the workers such as using of appropriate PPE (helmet, Earplug, musk, safety shoes, hand gloves etc.) should be taken to avoid any accidents; Construct noise barrier around the dismantling site; Stop the engine when it is not required; Monitor Noise level as per DoE guidelines; Impact wise mitigation measures are given.		
Archaeological/ Historical/ Social/ Cultural/ Religious Sites	Encroachment of Archaeological/ Historical/Social/ Cultural/ Religious sites Air and dust pollution; Noise level may create discomfort for the local community; Vibration can cause negative effects on social/ cultural/ religious sites.	Avoid Archaeological/Historical/ Social/Cultural/ Religious sites during the site selection and improvement works. Inform the relevant authority in change of cultural sites when such sites are discovered during construction phase; Spraying water on the dry surface to reduce dust pollution; Vehicles transporting construction material to be covered; Create noise barrier around the construction sites; Limit the speed of vehicles; Stop the demolish work for short time like prayer time. Realignment of bridge approach road (in case of bridge) if required.	Contractor	Environmental Specialist and Social Specialist for the subproject
Setting up labor camps	Land encroachment; Solid and liquid waste from the labor camp	Labor camps[20] should be constructed at a distance from the water bodies; Avoid productive land and away from the settlement during the selection of land for the setup of labor camp; No solid and liquid waste discharge into the water bodies; Instruct workers to maintain clean environment in the camps.	Contactor	Environmental Specialist and Social Specialist for the subproject PIU

[20] Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation; storage of materials, etc.

6.12 Construction/Implementation Phase – Prevention and Mitigation Measures to Address Environmental and Social Impacts/risk

RUDP II will support activities related to construction and technical assistance. The majority of significant impact on the environment, communites and workers will be related to the different civil works (basic services: roads, streeght lights, drains, parks) that are planned to be supported in the City of Kigali (at the urban setlements and wetlands) and the six secondary cities for urban infrastructure upgrade, flood risk reduction interventions, wetland rehabilitation and associated maintenance activities

Potential environmental impacts during the construction phase for construction activities will vary from one location to another. In this ESMF we have identified the general potential impacts that can be caused due to the differen interventions in relation to waste generation, pollution, health and safety issues, accidents, degradation of natural resources (cutting of trees, removal of natural soil, reduce infitrlation), impacts on community safety, etc.

Please see Table 14 for details in the potential impacts that we have identified for this stage. Table-14 also describe prevention and mitigation measures against possible environmental and social impacts envisaged in RUDP-II at its construction phase. We also include general ESTC that will guide the team during the ESMP preparation.

During the ESIA processes specific Prevention, Mitigation and compensation measures and cost estimates will be determined for each sub-project/activity based on its location, construction intervention, risks of the area. The ESMP will describe specific prevention and mitigatiom measures, the implementation schedule, estimated cost, monitoring plan and compliance with the basict table of contents described in Annex 3.

The ESMP will prepare and describe prevention and mitigation measures as Environmental and Social Technical Clauses to ensure its inclusion in the tender dcounmens in the Technical specifications section and to ensure these are costed by the contractors and later legally bounded to the contract. These technical specifications will be expanded and detailed at the subproject ESIA level. All the ESTC will be included in the bidding documents and make contractors responsible for their compliance and budgeted by the contractor.

Supervision. The Project Environmental and Social Management Units formed by the Environmental and Social Coordinator, Supervisor, Specialists at the National Level, Environmental and Social Specialists at the District level and consultant (Supervision firms) will be responsible of the environmental and social supervision of the works or activites to be financed by the project. Community Verifiers will also support by checking and keeping track of any issues caused by the contractors, impacts caused to the communities and reporting GRM or GBV issues. The institutional arrangement are represented in Figure 4. The roles and responsabilities of all ESMU core members are described in the TORs (Annex 6).

Environmental and Social Supervision and monitoring system. Also, in order to facilitate data collection and project environmental and social performance and compliance with the ESMF, ESMP, supervision and montoring plans, the project will hire the support from an IT consultant to prepare a supervision and monitoring system that can facilitate supervision using information technology, photos and simple attributes. Road and urban works supported by the Bank and Environmental and Social Management uses technological tools to facilite environmental and social management and reduce costs[21]. A simple

[21] https://olc.worldbank.org/content/tanzania-using-drone-technology-secure-land-rights

https://blogs.worldbank.org/water/bird-s-eye-view-supervising-water-infrastructure-works-drones

APP could be installed in the tablets to be purchased for the ESMU teams and this will help environmental specialist in the field and district and supervisors collect data on the progress of the works, use of PPE, number of accidents, report in the implementation of the project monitoring plan in the ESMF, the implementation of the SEP, LMP, ESCP, etc.

Table 13 RUDP-II Potential environmental and social impacts and prevention and mitigation measures proposed to be mandatory during construction phase

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
Removal of Housing and Commercial, Business Structures **ESS5**	-Impacts on local livelihoods due temporary loss of access to housing or commercial/business structures; -Impacts on local livelihoods due to loss of housing or commercial/ business structures leading to loss of income and livelihoods; -increase dust pollution	-Avoid affecting the number of housing and commercial structure during the alignment and location of works, drains, bridge; -Proper compensation should be given before starting the works or dismantling works; -Consider providing job opportunities for the PAPs. -Water spraying on the surface to reduce dust pollution	Social Specialists in case compensation is needed; Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Road Traffic and Accidents **ESS4**	-reduce traffic areas and increase narrow access road by construction vehicle will affect the movement of normal road traffics and the safety of the road users such as students, women, children, etc	-The ESMP will reques the preparation of a Traffic Management Plan (TMP) for each subproject – contractor will be prepared this plan before the starting of construction and follow it strictly; -The TMP should prescribe road safety measures such as speed breakers, warning signs/lights, road safety signs, flag-persons etc. to ensure uninterrupted traffic; -The TMP will proposed the location of the final road signs according to the tender document and ESMP and final agreement with the Engineer and Environmental Specialist at Disttrict level -Movement specially in the vicinity of educational facilities (schools, colleges etc.), community infrastructure (places of worship, cemeteries, playgrounds etc.) and healthcare complexes. -Flagmen/women will divert traffic to follow alternative routes to avoid traffic jams; -Workers will no use their mobile phones during driving and when operating equipment.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
Air Pollution **ESS3**	**Construction vehicular traffic:** Air quality can be affected by vehicle exhaust emissions and combustion of fuels **Construction equipment:** Air quality can be adversely affected by emissions from construction machineries and combustion of fuels; **Construction activities:** Dust generation from earth excavation, earth & sand stockpiles during dry period.	Fit vehicles with appropriate exhaust systems and emission control devices; Maintain vehicles and construction equipment in good working condition including regular servicing; Operate the vehicles in a fuel-efficient manner; Impose speed limits at 30 km/hour on vehicle movement at the worksite to reduce dust emissions; Control the movement of construction traffic in the access road; Focus special attention on containing the emissions from generators; Construction equipment causing excess pollution (e.g. visible smoke) will be banned from construction sites immediately prior to usage; Water spray to the dry earth/ material stockpiles, access roads and bare soils as and when required to minimize the potential for environmental nuisance due to dust; Increase the watering frequency during periods of high risk (e.g. high winds); Stored materials such as: excavated earth, dredged soil, gravel and sand shall be covered and confined to avoid their wind drifted; Restore disturbed areas as soon as possible by vegetation; Establish adequate locations for storage, mixing and loading of construction materials, in a way that dust dispersion is prevented because of such operations; The Air quality monitoring should be carried out by the contractor following the National Air Quality Standard (RS EAS 751 2010 - Air quality specification for East Africa).	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
Noise Pollution **ESS3**	**Construction vehicular traffic:** Vibration and Noise quality will be deteriorated due to vehicular traffic. **Construction equipment:** Noise and vibration will have an impact on adjacent surrounding residents. **Construction activity:** Noise will have an impact on adjacent residents.	Strict measures for noise pollution control need to be undertaken during construction activities; Create noise barrier and consider the minimum noise levels at sensitive receptor sites (e.g. dense residential area, schools, places of worship, healthcare centers etc.); Stone breaking machine should be confined within a temporary shed so that noise pollution could be kept minimum; Protection devices (ear plugs or earmuffs) shall be provided to the workers operating in the vicinity of high noise generating machines during construction; Construction equipment and vehicles shall be fitted with silencers and maintained properly; Instruction to the drivers to avoid unnecessary horning; The Noise level monitoring should be carried out by the contractor following the national noise quality standard as published by the Rwanda Standards Board Vibration monitoring should be carried out by the contractor. No blasting will be allowed.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Ground and Surface Water Pollution **ESS3**	Contamination of groundwater pollution due to lack of septic tanks or mobile toilets; Accidental spillage of hazardous liquid from the construction camps.	The contractor will make arrangement for water required for construction in such a way that the water availability and supply to resident communities remain unaffected Handling and storage of the potential contaminants has to be organized under strict condition to avoid water pollution during construction; Handling of hazardous liquid should be done carefully by the designated experienced person;	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
		Handling and storage of the potential contaminants should be done by the experienced workers. Proper monitoring should be done by the experienced person; The Ground water quality monitoring should be carried out by the contractor following the national water quality standards (Standard RS 109: 2017 stipulating tolerance limits for discharged industrial wastewater and RS 110: 2017 stipulating tolerances limits for discharged domestic wastewater.).		
Land/ Soil Pollution **Waste:** Solid, Liquid and Hazardous **Pollution:** Organic waste: remaining foods, leafs, papers, straw, fruit cover etc. **Inorganic /Stable Organic waste:** Polythene, Glasses, Synthetic paper, plastic etc. **Hazardous waste:** Paint**,** fuel, chemicals, oil, petroleum	Decreased production capacity of agricultural land; Land or soil erosion from water or wind; Sediment pollution and increase the turbidity; Reduction the microorganism; Improper storage and handling of construction and general liquid waste such as fuels, lubricants, chemicals and hazardous liquid onsite, and potential spills from these liquid materials may harm the environment and health of construction workers. Improper storage and handling of construction and general solid wastes.	Avoid the productive land, agricultural land, archaeological sites, protected area, forest area, natural habitat etc.; Land/soil quality should be ensured by the contractor to fill the abutment area and approach road Re-vegetation the exposed area as early as possible to reduce the soil erosion; Create barrier for reducing the sedimentation into the water bodies; The Land or soil quality tests should be carried out by the contractor Avoid the productive land, agricultural land, archaeological sites, protected area, forest area, natural habitat etc.; Land/soil quality should be ensured by the contractor to fill the abutment area and approach road; Soil from fallow land should be used in earthwork in approach road;	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

products, bitumen etc. ESS3		Re-vegetation the exposed area as early as possible to reduce the soil erosion; Create barrier for reducing the sedimentation into the water bodies; The Land or soil quality test should be carried out by the contractor. The contractor will minimize the generation of sediment, oil and grease, excess nutrients, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes); Any wastes should not be thrown into the river/stream/drainage channels other than dump in to the designated waste dumping area; Handling of hazardous liquid should be done carefully by a designated experienced person; Organic waste should be managed by composting method. A concrete chamber with 3 rooms is needed to be provided. In one room organic waste should be dumped and another room inorganic waste will be dumped. When the room will be filled then covered by earth. Then dump to the third room. After 6 month organic waste will be converted into fertilizer and will be used by the farmers; Inorganic waste should be given to the authorized vendor for free of cost for recycling; Accidental spillage of hazardous waste should be managed by spreading sawdust on the oil surface and sawdust mixed with oil must be stored in a designated concrete room; Provide appropriate PPE to the construction personnel for handle construction materials; Make sure all containers, drums and tanks that are used for storage are in good condition; Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution;		

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
		Wastewater monitoring should be carried out by the contractor, following the national standard on waste management.		
Drainage Congestion/ Hydrological Regime Changes **ESS3**	Drainage congestion and flood at the site; Erosion and siltation at the site.	A detailed hydrological and morphological study of the site (in drainage and other related structures) should be conducted; Proper design and construction accordingly to accommodate design flows; Provision of sufficient sizes of drains to take design flows; Wastes should not be disposed near any water body. All waste depending on its characteristics, should be disposed of in a controlled manner.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Impacts on aquatic habitat **ESS3** **ESS6**	Construction of road diversions on a river/stream/drainage channel create drainage congestion; Stockpiling of construction materials in a river/stream/drainage channel can also create drainage congestion	Construction waste should be removed from the construction site during dismantling of existing structure; Construct diversion road on the river/stream/drainage channel should consider open space so that water flow cannot hamper construction activities; Immediately remove all the construction debris from the construction site as well as from the water bodies in a planned way; Duration of stockpiling should be minimized as much as possible; Avoid the encroachment of the water bodies; Protect water bodies from sediment loads by silt screen or bubble curtains or another barrier; Construction activity should be recommended during the dry season; Construction workers shall be instructed to protect water resources;	Contactor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
		Monitoring of aquatic habitats will be done in the wetlands		
Erosion and Siltation from Site Clearance and Restoration **ESS3** **ESS6**	River/stream bank erosion at the project site will loss of lands; Vulnerable for the structures; Increase turbidity and impact on aquatic life; Loss of productive land, structures, resources.	Introduce bank protection activities; Use of geo-bag, stone and concrete to construct the protection wall; Plantation more vegetation to reduce surface soil erosion and enhancement of the soil compactness and stability; Diversion road should be removed properly as soon as possible;	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Occupational Health and Safety **ESS2** **ESS3** **ESS4**	-Campsites for construction workers and Safety are the important locations that have significant impacts such as health and safety hazards on local resources and infrastructure of nearby communities. -Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards. -Management of wastes is crucial to minimize impacts on the environment. - potential for diseases to be transmitted including malaria, exacerbated by inadequate health and safety practices. -increased risk of work crews spreading sexually transmitted infections and HIV/ AIDS.	-Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation, storage of belongings, etc. -Construction camps are small and will be place in areas approved by the Engienner and the Environmental Officer at the district and the ESMU team. These are areas to store materials, machinery, etc. -Labor camps and Construction camps will be installed as far as possible from the communities in order to avoid social conflicts; -Contractors will be trained by the ESMU team on the health and safety requirements to be maintained and code of conduct of the workers. -Contractors will provide training to its workers in sanitation, health and safety requirements to be maintained and code of conduct of the workers.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
	-Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the community.	-No housing will be provided to avoid social issues -Contractors will provide Safe and reliable water supply; Hygienic sanitary facilities and proper collection and disposal of solid wastes within the construction and labor camps; -Enforce waste separation by source; construction debris, organic soil; domestic and hazardous wastes in different containers. -The organic wastes should be always covered with a thin layer of sand so that flies, mosquitoes, dogs, cats, and other animlas are not attracted; -Locate the garbage pit/waste disposal site minimum 500m away from the resident area so that people are not disturbed with the odor likely to be produced from anaerobic decomposition of wastes at the waste dumping places. -Provide to workers acess to health care and coordinate with local Health authorithies. -Provide HIV awareness training, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis; -Provide regular mosquito repellant spraying during raining periods -Provide the workers a safe and healthy work environment; -Provide appropriate PPE for workers, such as safety boots, helmets, masks, gloves, protective		

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
		clothing, goggles, full-face eye shields and ear protection- this cost of the PPE will be included in the tender documents. -Disposed PPE properly according to waste management plan for contagious material and Covid19 plans -Prepare a Covid19 or related health and safety plan. -Appoint an environment, health and safety manager to look after the health and safety of the workers; -Inform the local authorities responsible for health, religious and security before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters. -Provide health care facilities and first aid facilities are readily available; -Document and report occupational accidents, diseases, and incidents and actions taken; -Identify potential hazards to workers, particularly those that may be life threatening and provide necessary preventive and protective measures; -Provide awareness to the construction drivers to strictly follow the driving rules; -Provide adequate lighting in the construction area and along the roads in the construction site to avoid accidents -Have a worker responsible of an alarm system to inform community of hazard movements –		

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
		transportantion of materials in narrow areas- closing of roads, etc.		
Quarries and Borrow Pits **ESS3** **ESS4**	Increased noise level and vibrations from blasting for excavation and compacting in road construction can damage houses and other property; Increased noise level from heavy construction vehicles will impact on the local community; Air pollution due to diesel fumes and dust generation resulting from the presence of construction machinery and site cleaning activities.	No blasting is permitted for any purpose. A protocol will be prepared and included in ESIAs/ESMPs to prescribe acceptable methods for mechanical excavations. Create noise barrier around the construction site; Stop unnecessary engine operation in the construction site; Maintain vehicles and construction equipment in good working condition including regular servicing; Control the movement of construction traffic in the access road; Construction equipment causing excess pollution (e.g. visible smoke) will be banned from construction sites immediately prior to usage; Water spray to the dry earth/ material stockpiles, access roads and bare soils as and when required to minimize the potential for environmental nuisance due to dust; Stored materials such as: excavated earth, dredged soil, gravel and sand shall be covered and confined to avoid their wind drifted; Restore disturbed areas as soon as possible by vegetation.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Landscape and Aesthetics **ESS3** **ESS4**	Excavation of borrow pits, stock piling of construction materials, placing of construction equipment and parking of construction vehicles; Presence of construction camps, equipment and their activities;	Parking of construction vehicles and stockpiling of construction materials/excavated earth should be done in systematic way to avoid the damaging of aesthetics of the site; Duration of stockpiling should be minimized as much as possible;	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
	Movement of construction vehicles on the existing road network and temporary haul roads; Closure of existing bridges by construction of diversion road.	Vegetation plantation after complete of the construction work; Completely remove the construction camp facilities, equipment's and their activities; Limit the speed of the vehicles and cover the vehicles during the movement or transportation of materials on the existing road network and temporary haul road; Plantation of trees at the construction site after completion of the construction activities immediately		
Community Health and Safety **ESS4** **ESS2**	Accidents on the approach road and construction site; Noise and dust pollution; Communicable diseases can spread among the local community.	Prior to start the construction activities contractor will be informed the local community; Instruct the drivers and limit the speed of the vehicles; Regular health checkup of the workers and awareness training about the communicable diseases; Ban all swimming and fishing activities in the construction site, in case of a bridge site; Proper lighting at the project site during night time; Avoid unnecessary noise pollution; Spraying water in the dry surface to reduce the dust pollution	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Influx of construction workers **ESS2**	Availability on the resources like food, housing, water resources; Communicable diseases may also spread; Social Conflict.	Contractor should be ensured the availability of water for the construction activities; Provision of clean drinking water in the construction camp in accordance with national water quality standards.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
		Train workers on health and safety, on communicable diseases; Educating project personnel, and area residents on risks, prevention, and available treatment for vector-borne diseases; No child and/or forced labor will be employed by RUDP-II contractors; Working conditions and terms of employment will be fully compliant to the Rwandan labor laws.		SUPERVISION FIRM District Gender Monitoring Officer
Impact on labor, working Conditions and labor risks **ESS2**	Risks of child labor and forced labor, human trafficking; potential increase of GBV, SEA and SH	ESMP that include a GBV action plan	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM District Gender Monitoring Officer
Impacts on Archaeological/ Historical/ Social/ Cultural/ Religious Sites **ESS8**	Air and dust pollution; Noise level may create uncomforted; Vibration can affect social/ cultural/ religious sites.	Create temporary barrier around the project site; Regular spraying of water in the construction site and approach road to reduce the dust emission; Control the speed limit about 30 km/hour in the construction site and approach road; Construction activities should be continued during day time only; Carefully handle construction machinery and equipment near the sensitive receptors	Contractor	Environmental and Social Specialists for the subproject
Impacts on local livelihoods from obstructions/remo	Air and dust pollution; Noise level may create uncomforted;	Spraying water on the dry surface to reduce dust pollution;	Contractor	ESMU MININFRA, LODA/COK/REMA

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
val of housing or business structures **ESS5** **ESS4**	Loss of income and employment; Mental stress; Resettlement or removal due to realignment of approach road; Vibration can affect on structures.	Create noise barrier around the construction sites; Limit the speed of vehicles in the construction site; Prior notice to the local inhabitants for resettlement issues if required; Compensation should be given to the PAPs in-time according to RAP; Realignment of approach road if required; Job opportunities for the PAPS and priority should be given; Tree-planting in appropriate locations will be determined by the MININFRA PIU after consultation with the concern authority (RWFA).	Social Specialist in case compensation is appropriate	ESMU/DISTRICT SUPERVISION FIRM
Flora and Fauna **ESS6**	-Dust will be generated during earthwork and deposited on the leaves of nearby trees; this will obstruct the growth of trees. -Construction activities will increase sediment loading of streams and changes in turbidity will impact adversely upon fishes and aquatic animals. -Diversion at bridge site will act as barriers to the migration of fishes and aquatic animals.	-Proper construction management plan should be introduced in the Contractor RUDP-II construction sites; -Regular water spraying in the dry area from where there is a possibility to dust pollution; -Proper management plan for the waste management in the construction sites; -Construction work should be preferred during dry season; -Diversion road should be removed properly as soon as possible; Construction activities should be continued during day time only;	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
	Noise generation from the construction vehicles and equipment can create disturbance for birds and wildlife	Create noise barrier and avoid unnecessary machinery and equipment operation; Indigenous species for re-vegetation after completion of the construction work. Care will be taken not to plant exotic species. Construction workers shall be instructed to protect natural resources, flora and fauna, including wild animals and aquatic life Hunting and unauthorized fishing are prohibited; Natural rivers/streams/channels will be reinstated after completion of construction works; Fingerling (fish) only indigenous species can be released to rivers/streams/channels near a bridge site to boost up fish resources.		
Biodiversity and presence of natural /critical habits in the wetlands or other project areas **ESS6**	Disturbance due to construction works and creation of new habitats with the remediation works	A biodiversity management plan will put in place to: i) identify the biodiversity of the areas to intervene to measure as minimum the richness and abundance of fish, birds, amphibians and macroinvertebrates. ii) develop measures to improve the habitat of endangered, critically engendered, vulnerable, migratory, endemic and congregational species, iii) contribute data for wetland strategy lead by REMA	Biodiversity consulting firm	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT SUPERVISION FIRM
Environmental impacts caused by the different works	Cumulative impacts caused by the different project interventions	Two measures will be implemented: i) For every tree cut, three native trees (no exotic species) will be plant in the wetlands and urban areas.	Contractor	ESMU MININFRA, LODA/COK/REMA ESMU/DISTRICT

RISKS/ Environmental and Social Standards	Potential Environmental/Social Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision National/district
and investments in the project areas ESS1 ESS6		ii) Development of an environmental education program in the CoK, Secondary cities to promote the conservation of wetlands and riparian areas and its endangered biodiversity (citizen biodiversity engaged to support the dissemination of biodiversity data collection		SUPERVISION FIRM

6.13 Operation Phase Mitigation Measures to Address Environmental and Social Impacts

Mitigation measures during the RUDP-II are discussed in this section. Mitigation measures cost estimates during this phase will be determined during ESIA processes of sub-projects based on its location, types of construction, implementation schedule, cost for project implementation and requirement of mitigation and enhancement activities. Examples of such mitigation measures are illustrated in Table 15 below.

TABLE 14 RUDP-II OPERATIONAL PHASE MITIGATION MEASURES

Potential Environmental Impacts of RUDP II activities and subproject		Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
Air Pollution	Dust emission from the increasing number of vehicles in the site area; Vehicular emission from burning fuels.	Increase tree-planting by adding new native species of trees in the appropriate locations after consultation with the concerned authority.	Contractor	MININFRA PIU DISTRICTS ENVIRONMENTAL AND HEALTH OFICCERS
Noise Pollution	Faulty engines may increase noise levels.	Necessary instruction for drivers; Establishment of signboards near sensitive receptors like schools, places of worship etc.	Contractor	MININFRA PIU DISTRICTS

Potential Environmental Impacts of RUDP II activities and subproject		Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
				ENVIRONMENTAL AND HEALTH OFICCERS
Surface and Ground Water Pollution	Hazardous materials migh be spilled by accident in the soil or river banks; Soil erosion during rainy season can contaminate nearby surface water; Accidental spillage of hazardous chemicals and materials.	Speed control measures close to the site to reduce the occurrence of accidents; Cover the bare surface by tree-planting/revegetation to reduce the surface soil erosion; River and stream bank protection work can be done at the site; Avoid rainy season for continuing any development activities. Speed control measures close to the site to reduce the occurrence of accidents; Inform to the concern authority to take necessary action to reduce the contamination of groundwater.	Contractor	MININFRA PIU DISTRICTS ENVIRONMENTAL AND HEALTH OFICCERS
Solid Waste Management at Construction Sites	Remaining construction materials may be washed away by the rain into the water sources and lead to sedimentation and increase turbidity	-After completing of the construction activities; -Remaining construction materials will be completely removed from the streets, garden, impacted area of project site and placed in the certified final disposal site agreed with the district environmental officer and the supervisor; -Clean-up operation of construction sites will require restoration actions for the vegetation and soils	Contractor	MININFRA PIU DISTRICTS ENVIRONMENTAL AND HEALTH OFICCERS
Changes in Hydrology	Increase flood/ water logging/ drainage condition; Encourage for erosion and siltation.	During the planning stage and site selection local hydrology and flooding level will be considered; A separate and details hydro-morphological study	PIU Coordinators assisted by Environmental Specialists	MININFRA PIU facilitated by the Environmental and

Potential Environmental Impacts of RUDP II activities and subproject		Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
and Flood pattern		should be conducted before starting construction activities; Site should be cleaned properly after completion of construction activities so that the natural drainage system may not hampered.		Social Management Unit Coordinator
Road Traffic and Accidents	Number of vehicles movement will be increased in the area; Road infrastructure improvement may encourage drivers to higher the vehicle speeds and road accidents may increase.	Establish speed breakers and road safety signs Keep provision of pedestrian walkways both sides on roads and bridges A proper traffic management plan can be introduced and strictly follow national road traffic rules; Keep provision of adequate lighting facilities in project area; Avoid using mobile phone during driving and while crossing the road	Contractor	Social Specialist for subproject

6.14 Monitoring Program

As one of the key elements of the ESMF and future ESMP, it to implement an effective monitoring program to ensure compliance monitoring, effects monitoring, and external monitoring. The main purpose of this monitoring program is to ensure that the various tasks detailed in the ESMP particularly the mitigation measures are implemented in an effective manner and also to evaluate program impacts on the key environment parameters. Various types of monitoring plans are discussed below.

Compliance Monitoring

The purpose of the compliance monitoring is to ensure that the contractor implements the mitigation measures given in the ESMP are effectively and timely implemented. This monitoring will generally be commissioned by the PIU with the help of checklists to be prepared on the basis of the Mitigation Plan discussed above.

Effects Monitoring During Project Implementation

Effects monitoring is a very important aspect of environmental management to protect the environment. The effects monitoring plan proposed for the RUDP-II, Table 16; after the specific ESIA, this project will be revisited and revised. The monitoring will comprise surveillance to check whether the contractor is meeting the provisions of the contract during construction and operation of the program including the responsible agencies for implementation and supervision.

TABLE 15 MONITORING PLAN FOR RUDP-II RISKS AND IMPACT

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
During Project Implementation					
Sand extraction/soil collection	At all sand extraction points	Ecological inspection of the site prior to development; and extraction carried out not in long stretches	Weekly	Contractor	Environmental Specialist for relevant subproject
Sediment Quality for heavy metals	River/streambed sediments at 5 locations	Laboratory analysis for analysis of metals and oil/grease (lead, cadmium, chromium, copper, manganese, mercury and zinc)	Before sand extraction	Contractor through a nationally recognized laboratory	Environmental Specialist for relevant subproject
Soil Pollution	Drainage Channel, construction site, camp	Visual inspection that filling is through several compartments	Beginning of earth filling works	Contractor	Environmental Specialist for relevant subproject

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
	Drainage channel, construction, material storage sites	Ensure no contaminated effluent is leaving from the filling area to the nearby agricultural lands	Weekly	Contractor	Environmental Specialist for relevant subproject
Stability of slopes	Resettlement Sites	Compaction as per contract specifications, Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	Contractor	District Engineer and DSM
Hydrocarbon and chemical storage	Construction camps and yards	Visual Inspection of storage facilities	Monthly	Contractor	Environmental Specialist for relevant subproject
Traffic Safety	Construction Access Roads, pedestrian walkways, streetlights	Visual inspection to see whether proper traffic signs are placed and flag-persons for traffic management are engaged	Monthly	Contractor	Social Specialist for relevant subproject
Air Quality (dust, smoke)	Construction sites	Visual inspection to ensure good standard equipment is in use and dust suppression measures (e.g., spraying of waters) are in place.	Daily	Contractor	Environmental Specialist for relevant subproject
	Material storage sites	Visual inspection to ensure dust suppression work plan is being implemented	Monthly	Contractor	Environmental Specialist for relevant subproject

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
Air quality	Sensitive receptors along construction corridor	24 hours continuous monitoring with the help of appropriate instruments and analyzers (particulate matter, carbon dioxide, sulphur and nitrogen oxides)	Quarterly	Contractor	Environmental Specialist for relevant subproject
Noise	Construction sites	Noise measurement using noise meter; Ensure work restriction between 21:00-06:00 close to the sensitive locations	Weekly	Contractor	Environmental Specialist for relevant subproject
Surface Water Quality	At the baseline monitoring sites to be determined in ESIA	Sampling and analysis of surface water quality (TDS, Turbidity, pH, dissolved oxygen, biological and chemical oxygen demand)	Quarterly	Contractor through a nationally recognized laboratory	Environmental Specialist for relevant subproject
Groundwater quality	Locations of tube-well installation (for workers camps and RS), markets, etc. Water wells to be used by contractors for drinking	Depth of tube well should be more than 30m. Test water for arsenic iron and manganese before installing of casing. If the quality is found not suitable further deepening will be done. Laboratory analysis of all drinking water parameters specified in national standards	During drilling of wells After development of wells	Contractor trough a nationally recognized laboratory	Environmental Specialist for relevant subproject

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
Tree-planting/ revegetation	Drainage slopes, building construction sites, affected vegetation sites	Visual inspection to ensure plantations are taken care of.	Monthly	Contractor	Environmental Specialist for relevant subproject
Waste Management	Construction camps and construction sites, other infrastructure sites, laboratory, etc.	Visual inspection that solid waste is disposed at designated site	Monthly	Contractor	Environmental Specialist for relevant subproject
Drinking water and sanitation	Construction camps[22] and construction sites, other infrastructure sites, laboratory, etc.	Ensure the construction workers are provided with safe water and sanitation facilities in the site	Weekly	Contractor	Environmental Specialist for relevant subproject
Biodiversity	Selected areas of the wetlands to be intervened	Monitoring sites selected for monitoring water quality and biodiversity taxa (as minimum fish, macroinvertebrates and birds)	As soon as the project is approved	Biodiversity consulting firms	Environmental Specialist for relevant subproject

[22] -Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation, storage of belongings, etc.

-Construction camps are small and will be place in areas approved by the Engienner and the Environmental Officer at the district and the ESMU team. These are areas to store materials, machinery, etc.

-Labor camps and Construction camps will be installed as far as possible from the communities in order to avoid social conflicts;

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
Fish migration	Regulators, canal, rivers, beels, etc.	Sample fish catch Following the agreed Biodiversity Monitoring Plan	Monthly after installation of regulators	Consultants	Environmental Specialist for relevant subproject
Restoration of Work Sites	All Work Sites	Visual Inspection	After completion of all works	Contractor	District Engineer and Environmental Specialist for relevant subproject
Safety of workers Monitoring and reporting accidents	At work sites	Usage of Personal Protective equipment and implementation of contractor OHS plan	Monthly	Contractor	Social Specialist for relevant subproject
Grievances (environmental issues)	In the project area	Number of grievances registered and addressed	Monthly	PIU	Social Specialist for relevant subproject
Stability of protection works	Canal slopes, regulators sites, and Resettlement Sites	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	RUDP-II	PIU

Third Party Monitoring

RUDP-II will engage after year 2 an independent consulting firm to conduct external and independent Audit and monitoring of the implementation of the below activities. The Environmental and Social Audit wil be performed after the second year, once a year and report submitted to the Bank before the end of each year.

- Requirements set up in this ESMF, RF, SEP, ESCP, ESIA/ESMP, National EIA certificate and agreed Monitoring indicators and agreed performance indicators.
- Review grievances and level of attention and resolution
- Accidents, GBV, etc.
- Documentation and development of a culture of safety and accountability at the district, participating environmental and social management units, etc.
- Application of national regulations in OHS, ESIA, Labour, others
- Access of information
- Others instruments agreed with the World Bank and the national agencies (permits, licences, certificates)

Also, the main purpose of the external audit will be to ensure that all the key implementing entities and contractors are effectively and adequately fulfilling their designated role for ESMP implementation, and that all the ESMP requirements are being implemented in a timely and effective manner. The ToR for contracting this consultantancy will be prepared and submitted to the World Bank for approval and be included also included in the Manual Operational Manual (POM).

Performance Indicators

For evaluating the performance of the environmental management and monitoring plan, performance indicators are identified for efficient and timely implementation of measures/actions proposed in ESMP. The indicators are defined both for implementation phase and for post project period. All ESMU at each implementing agency will be responsible to collect and maintain an Enviromental and Social Supervision and Monitoring system. The Enviromental and Social Coordinator at MININFRA PIU will be responsible for compiling the information from all ESMU and prepare monthly reports.

Supervision and monitoring system. In order to facilitate data collection and project environmental and social performance and compliance with the ESMF and the montoring plan, the project will hire the support from an IT consultant to prepare a supervision and monitoring system that can facilite supervision using information technology, photos and simple attributes. Road and urban works supported by the Bank and Environmental and Social Management uses technological tools to facilite environmental and social management and reduce costs. A simple APP could be installed in the tablets to be purchased for the ESMU teams and this will help environmental specialist in the field and district and supervisors collect data on the progress of the works, use of PPE, number of accidents, report in the implementation of the project monitoring plan in the ESMF, the implementation of the SEP, LMP, ESCP, etc.

The EIAs and ESMP for each subproject will include performance and monitoring indicators such those indicated in Table 16.

Also, to measure the overall environmental performance of the program, an additional list of performance indicators is given below.

- Number of inspections carried out by/on behalf of MININFRA PIU per month.
- Number of non-compliances observed by EMUs.

- Availability of environmental and social specialists in RUDP-II Environmental Management Units at LODA, COK and REMA.
- Availability of environmental and social specialists in Secondary City EMUs.
- Availability of environmental and social specialists with contractors.
- Timely reporting of documents (as defined in ESMP and monitoring plan).
- Number of trainings imparted to stakeholders/other capacity building initiatives.
- Timely disbursement of compensation/ timely resettlement of PAPs.
- Timely implementation of resettlement schedule.
- Number of grievances received.
- Number of grievances resolved.
- Number of constructions related accidents/injuries

INCIDENT REPORT: Each implementing agency will be responsible to report incidents related to accidents, injuries or any related action where workers, community members or any visitor to the project areas. The government will use the format in Annex 8 for reporting incidents.

TABLE 16 RUDP-II MONITORING REQUIREMENT

Impacts/Issues	Mitigation Measures	Time Frame	Cost (USD x 10^6)	Responsibility		Key Monitoring Indicators	Monitoring Frequency
				Implementation	Supervision		
ENVIRONMENTAL AND SOCIAL IMPACTS DUE TO PROJECT SITING							
Land cover and land use changes	Relevant ESTCs of site selection	2021 onwards	In budget of ESMP	PIU Environment & Social Specialists	PIU	to be developed under ESTCs	Six-monthly
Loss of natural vegetation and trees	Compensatory tree plantation along reconstructed areas	2021-2025	In budget of ESMP	PIU	PIU	- trees cut and trees planted	Monthly
Loss of aquatic habitat	Organic fish firming/aquaculture expansion Fish sanctuaries	2021-2025	In budget of ESMP	PIU	PIU	- abundance of fishes and species diversity in sanctuaries	Quarterly
Drainage congestion and water logging	Installation of regulators and culverts	2021-2024	Project design	Contractor	PIU	- Community verifiers are formed and trained, area water logged	Quarterly (Monthly during flood season)
ENVIRONMENT AND SOCIAL IMPACTS DURING IMPLEMENTATON PERIOD							
Impacts of burrowing of material from river beds, agriculture land and wetlands (if required)	Compliance with relevant ESTCs of sand extraction, agricultural top soil management and wetland digging	2021-2025	In budget of Contractor	Contractor	PIU	Sites approved, ongoing visual inspection of sand extraction	At the beginning of works and through sand extraction
Air pollution	Pollution prevention and implementation of ESTCs	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented; community complaints	Quarterly
Noise	Noise control measures and relevant ESTCs	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented; community complaints	Quarterly
Water pollution	Pollution prevention and control plan	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented	Quarterly

Impacts/Issues	Mitigation Measures	Time Frame	Cost (USD x 10^6)	Responsibility		Key Monitoring Indicators	Monitoring Frequency
				Implementation	Supervision		
Soil contamination	Pollution prevention and control plan	2021-2025	In Contractors budget	Contractor	PIU	Plan approved and implemented	Quarterly
Solid wastes and hazardous wastes	Waste management and pollution control plan	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented	Quarterly
Impacts on aquatic habitat	Treatment of waste effluents	2021-2025	In budget of Contractor	Contractor	PIU	Sites approved and ongoing monitoring of plan implementation	Before and during construction
Impacts on wildlife habitats	No construction related activities on sensitive wildlife habitat, use of low wattage lights at construction sites	2021-2025	In budget of ESMP	Contractor	PIU	Biodiversity monitoring studies	Six monthly
Site clearance and restoration	Site restoration and landscaping	2021-2025	In budget of Contractor	Contractor	PIU	Sites established and cleared	After construction
Occupational health and safety	Implement health and safety, and emergency response plan	2021-2025	In budget of Contractor	Contractor	PIU	Plan prepared and implemented	Quarterly
ENVIRONMENTAL AND SOCIAL IMPACTS DURING POST PROJECT PERIOD							
Changes in water courses	Long term monitoring and biodiversity conservation measures	2025 on wards	In budget of the project	RUDP-II	RUDP-II	Biodiversity conservation measures	Quarterly
Generation of solid waste	Implementation of Health Safety Environment Plan	2025 on wards	RUDP-II annual budget	RUDP-II	RUDP-II	Plan prepared and implemented	Six monthly
Air and noise pollution	Air and noise quality and appropriate measures	2025	RUDP-II annual budget	RUDP-II	RUDP-II	to be developed	
Water pollution	Organic aquaculture, water treatment, etc.	2025 on wards	RUDP-II annual budget	RUDP-II	RUDP-II	Working condition of connected wetlands	Annually
Ecological connectivity	Implementation of relevant ESTCs of wetland connectivity	2025 on wards	RUDP-II annual budget	RUDP-II	RUDP-II	Plan prepared and implemented	Annually
Loss of vegetation	Implementation of related ESTCs of plantation	2025 on wards	RUDP-II annual budget	RUDP-II	RUDP-II	Plan prepared and implemented	Annually

Impact of avifauna	Implementation of related ESTCs of wildlife management	2025 on wards	RUDP-II annual budget	RUDP-II	RUDP-II	Plan prepared and implemented	Annually
Functioning of the the GRMs (grievances received and resolved)							
Implementation of the GBV Action Plan							
SEP implementation							
Timely compensation of the PAHs							
Compliance to the CoC							
Compliance to ESHS							

6.15 Budget for Environmental and Social Management

According the World Bank ESF[23], all projects needs to include a budget for the environmental and social management of the project financed by the World Bank. The budget for the Environmental and Social Management of RUDPII is divided in two areas: i) budget to support planning, evaluation, supervision, monitoring and reporting; and ii) budget for the implementation of the environmental and social measures and clauses included in the contracts of builders to prevent, mitigate or compensate environmental and social risks and impacts of the project and subprojects (activities).

Due to the scope of the programme, RUDPII will need professionals with experience and capacities to be able to support the implementation of 5 ESF instruments (ESFMF, RPF, SEP, LMP, ESCP) and the proper application of the national and international environmental, health, safety, social, labor, etc regulations governing Rwanda and the eight Environmental and Social Standards of the World Bank applicable to the project.

The following budgets estimates the minimum acceptable for the proper application of this ESMF and the other instruments prepared by the project to comply with the World Bank ESF.

6.15.1 Budgeted Items for Environmental and Social Planning, Supervision and Monitoring

The estimated total cost for the 'operational' (budget to support planning, evaluation, supervision, monitoring and reporting) application of the ESMF, and other instruments prepared to comply with, National legislation and the ESF for the RUDP II implementation is presented in Table Budget 17. The funding for this cost will be allocated from Component 3. Table indicates the estimated cost to be covered by the project for hired consultants and no salaries for government officials designated to work in the project in its environmental and social management. The Table Budget 17 does not include either the cost of the prevention and mitigation measures to be required for each subproject.

Following the requirements of the ESF, Table Budget-17 includes the main budget needed for the planning, preparation, supervision and monitoring and implementation of the Environmental and Social management of the project, but not limited, to:

- Recruitment of environmental and social specialists
- Purchase of equipment for supervision and monitoring
- PPE for the ESMU team members
- Setting up an environmental and social monitoring system
- Support for EIA/ESMP prepration, permits, etc.
- capacity building and training activities at all levels
- Support for district Environmental and Social Specialist

Table 17 Table Budget below does not consider cost of insurance, maternity leave, sick leaves, accidental or death insurance. These will need to be defined further in the project operational manual (POM).

[23] https://www.worldbank.org/en/projects-operations/environmental-and-social-framework

	Table 17 OPERATIONAL SUPPORT BUDGET FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT OF RUDP II-Estimated cost						
ESMF1	**Env/Soc core team**	**FY1**	**FY2**	**FY3**	**FY4**	**FY5**	**Total Buget**
	Hiring of 1 National Environmental and Social Coordinator (MININFRA)	24,000	24,000	24,000	24,000	24,000	$120,000
	Hiring of 5 National Environmental and Social Specialists (2 LODA and 1 REMA-Social, Cok -2 Env/S Specialists)	120,000	120,000	120,000	120,000	120,000	$600,000
	Hiring of 6 Env/Specialist at district level	129,600	129,600	129,600	129,600	129,600	$648,000
	Hiring 6 enginneers at distric level	129,600	129,600	129,600	129,600	129,600	$648,000
ESMF2	Equipment support (goods)						
	Laptops and others	30,000	10,000	10,000	10,000	10,000	$70,000
	national - transportation car renting	20,000	20,000	20,000	20,000	20,000	$100,000
	District transportation: 6 motorbikes and maintenance	12,000	3,600	3,600	3,600	3,600	$26,400
ESMF3	Consulting services						
	ESIA-ESMP, RAP	600,000	600,000				$1,200,000
	Annual Env/S audit		25000	25000	25000	25000	$100,000
	Supervision IT tool development	150,000					$150,000
	Monitoring program (water, air, soil sampling)	20,000	20,000	20,000	20,000	10,000	$90,000
	Capacity Building Program (ESF, EIA-ESMP, supervision, distirct and community, technical courses (e.g Health and safety), webinars, workshops, conferences,	57,000	53,000	50,000	30,000	20,000	$210,000
ESMF4	Others to be given by the Government and implementing agencies						
	Office space, chairs desks,printer and paper, desktoop computers with telephone, internet services						

	ESF subtotal						**$3,962,400**
Other Environmental and Social Instruments prepared for RUDP II							
LMP	PPE for Env/S Management Unit (National and district teams) total : 18						
	Project identification vest, Masks, gloves, boots	20,000	20,000	20,000	20,000	20,000	$100,000
SEP	Stakeholder Engagement						
	Consultations, Dissemination, materials,radio, meetings, etc	20,000	20,000	20,000	20,000	20,000	$100,000
	GRM						
	Dissemination of instruments, boxes, printing material, operationalization of GRM Committees	25,000	25,000	25,000	25,000	25,000	$125,000
	GBV						
GBV-1	Preparation of action plan	20,000					$20,000
GBV-2	Support for victims and follow up	10,000	10,000	10,000	10,000	10,000	$50,000
					GRAN TOTAL		**$4,357,400**

Capacity Building

Effective implementation of this ESMF and the other ESF instruments (SEP, LMP, ESCP, RPF) will require capacity building for those responsible for implementing sub-projects at the implementing institutions and at the community levels. Table 18 below provides recommendations on the capacity building and training program on environmental and social management and safety. Training programs will be developed and implemented by the Environmental and Social Management Units (ESMU) at each Implementing Agency and coordination among all. The ESMU will also have support from consultants thorught Technical Assistance for the implementation of environmental and social safety procedures for PIUs. ESMU and other PIU members with the help of consultants will provide training for contractors, Design Supervision Management and other groups (community verifiers, district officers, etc).

Target Categories: PIUs; DSM, Contractors and affected/beneficiary community representatives and workers. Environmental and social specialist at the national level will train the Environmental and social specialist at the district level. The later will train the contractor's environmental and social specialists who in turn, will be responsible to train the workers and drivers.

Training Schedule: Training will be given at least one month before performing the first construction contract. Subsequent training sessions can be modified to suit the construction schedule for project components.

Frequency of training: An example of training programs given in Table 18 of 5 days to be provided every 6 months for each year of RUDP-II implementation and the contents will be updated and tailored to items

to be implemented. Training programs for PIU staff are expected to continue in years 1, 2 and 3 of the Project. Three-day training for DSM and contractors is also planned to take place twice a year for at least 2 years. Also, short training of 1-2 hours or half day will be implemented.

Responsibilities

The Environmental and Social Management Units at each Implementing Agency (MININFRA, LODA, REMA, CoK) will prepare an annual capacity building plan following the guidance of this ESMF to strengthen the environmental and social capacity of the teams at national, district and community level. The plan will include the topics, modality, frequency and indicators to be achieved per year. This target will be monitored in the progress reports to be sent to the World Bank and monitored in the Annual Environmental and Social Audit.

Topics	Target	Frecuency	Modality	Indicators	Budget
-Principles of the ESF -Review of the ESMF -Review of the LMP and SEP -Environmental and Labor regulations in Rwanda applicable to the project	○ PIU teams ○ LOCAL AUTHORITIES ○ Procurement teams ○ Contractors ○ Communities ○ Others	○ Long: 4-5 days ○ Medium: 2-3 days ○ Short: 0.5-1 day ○ micro: 1-4 hours	-Induction -Workshops -Seminar -Webinar -Field courses -Conference national or international	-# of PIU staff trained -# of district officer trained -#of contractors and workers trained -# of trained ESMU team trained in techicnal topics ## of trained ESMU participated in national , regional or international conferences	-Estimated in the global ESMU budget

TABLE 2 EXAMPLE OF A TRAINING PROGRAM FOR THE ENVIRONMENTAL AND SOCIAL MANAGEMENT TEAM AND CAPACITY BUILDING AT ALL IMPLEMENTING AGENCIES

TRAINING DETAILS	TARGET CATEGORY
TARGET audience	**PROJECT IMPLEMENTATION UNITS (PIUs)**
Training course	Environmental and social monitoring and reporting
Participants	PIU Staff in charge of environmental issues including MININFRA PCU Environmental and Social Mangement Unit Coordinator, Environmental and Social Specialists, District Gender Monitoring Officer and District Engineer
Training frequency	Immediately after the project becomes effective, but at least one month prior to the first bid package.
Duration	Five days
Content	Project-related environmental and social management including the following as specified in the ESCP: 1. Environmental and social risks and impacts of the Project and ESMF application 2. Strengthen awareness on the environmental, social, health and safety issues associated with the construction works including HIV/AIDS, sexual exploitation and abuse, GBV and child labour. 3. Environmental and Social issues associated with the ongoing construction works and workers health and safety. 4. Capacity building on the ESF and the Project different ESF instruments and aspects triggered by the project including but not limited to the following: • Occupational Health and Safety Training, • Labor Management Procedures • Community Development • Community Health and Safety planning, management and promotion; • Grievance and Conflict Resolution • Environmental Impact Assessment and Audit • Gender Based Violence prevention and response • Other issues to be determined
Responsibility	MININFRA PCU Environmental and Social Management Unit Coordinator with help of the Technical Assistance Team and the Design Supervision Management (DSM)
Target Audience	**DSM; LOCAL AUTHORITIES; CONTRACTORS; AFFECTED/BENEFICIARY COMMUNITY Representatives**
Training course	Implementation of mitigation measures
Participants	DSM; construction engineers, site construction field manager, Contractor Environmental and Social Specialist, the contractor; Representatives of Local Authorities (Heads of Villages – Imidugudu; Heads of Cells), Community representatives (Verifiers and or Opinion Leaders)
Training frequency	Shortly after awarding contracts to Contractors with updates on demand
Duration	Three-day training for DSM and Contractors, and two-day training for reps of Local Authorities (Heads of Villages – Imidugudu; Heads of Cells), Community representatives (Verifiers and or Opinion Leaders)
Content	• Overview of the overall environmental and social monitoring; • Requirements of environmental monitoring; • Roles and responsibility of the Contractors and DSM regarding Occupational Health and Safety Training, Labor Management Procedures Community Health and Safety planning, management and promotion; Grievance and Conflict Resolution

TRAINING DETAILS	TARGET CATEGORY
	• Special session on Gender Based Violence (GBV) Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH); Action Plan and its implementation; • Content and method of environmental monitoring; • Reaction and risk control; • Introducing monitoring forms and instructing on filling out forms and reporting incidents including Incident Reporting form (Annex 8); • Other issues to be determined • Preparing and submitting reports
Responsibility	MININFRA PCU Environmental and Social Safeguards Coordinator with help of the Technical Assistance Team, DSM, subproject Environmental and Social Specialists and District Gender Monitoring Officer
TARGET Audience	**WORKERS AND AFFECTED COMMUNITIES**
Training course	Safety and environmental sanitation
Participants	Representatives of workers (team leaders) working directly for the subprojects and community opinion leaders
Training frequency	As appropriate
Duration	One day of presentation and one day of on-site presentation
Content	• Key issues requiring the attention of the community and construction workers to mitigating safety risks (road safety, equipment, machinery, electricity etc.) as well as reducing pollution (dust, exhaust gases, oil spills, waste management, etc.); • Special session on Gender Based Violence (GBV) Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH); Action Plan and its implementation; • Management of safety and environmental sanitation on site and at workers' camps; • Mitigation measures applied on site and camps; • Methods of dealing with emergency situations; • The rights and responsibilities in environmental monitoring • Environmental monitoring, environmental monitoring form including Incident Reporting form (Annex 8) • Other issues to be determined
Responsibility	Contractors and MININFRA PCU with the assistance of the DSM, Environmental and Social Safeguards Coordinator, subproject Environmental and Social Specialists and District Gender Monitoring Officer

Estimated cost for training program in Table 18 for the first year is about USD: 37,600 as presented in Table 19 below.

TABLE 3 ESTIMATED BUDGET FOR FIRST YEAR OF TRAINING ON RUDP-II ESMF IMPLEMENTATION

Training Content	Target Category	Unit	Quantity	Unit Price (USD)	Estimated Total Price (USD)
I. Environmental monitoring and reporting					
PIUs	MININFRA PCU Environmental & Social Safeguards Coordinator, Environmental and Social Specialists, District Gender Monitoring Officer and District Engineer	Course	5	500	2500
I. Environmental monitoring and reporting					
PIUs	MININFRA PCU Environmental & Social Safeguards Coordinator, Environmental and Social Specialists, District Gender Monitoring Officer and District Engineer	Course	5	650	3,250
II. Implementation of mitigation measures					
CoK infrastructure upgrades	DSM; construction engineers, site construction field manager, Contractor Environmental and Social Specialist, the contractor; Heads of Villages – Imidugudu; Heads of Cells, Community representatives (Verifiers and or Opinion Leaders)	Course	5	650	3,250
CoK Wetland rehab & Flood risk reduction	DSM; rehabilitation engineers, site field manager, Contractor Environmental and Social Specialist, the contractor; Heads of Villages – Imidugudu; Heads of Cells, Community representatives (Verifiers and or Opinion Leaders)	Course	5	650	3,250
Secondary City Infrastructure	DSM; rehabilitation engineers, site field manager, Contractor Environmental and Social Specialist, the contractor; Heads of Villages – Imidugudu; Heads of Cells, Community representatives (Verifiers and or Opinion Leaders)	Course	15	650	9,750
III. Safety and environmental sanitation					
CoK infrastructure upgrades	Worker team leaders and community opinion leaders/verifiers	Course	8	650	5,200
CoK Wetland rehab & Flood risk reduction	Worker team leaders and community opinion leaders/verifiers	Course	4	650	2,600
Secondary City Infrastructure provision	Worker team leaders and community opinion leaders/verifiers	Course	12	650	7,800
				Total (USD)	**37,600**

6.15.2. Budget for prevention, mitigation and compensations measures to be consider in ESMP and requested costing in the Tender documents and finnalcial offers to be enforce in contracts

RUDP II interventions can cause potential environmental, health and safety and social impacts and risks. These need to be prevented, mitigated or compensated following the initial measures described in this ESMF and the RPF, SEP, LMP, ESCP. Also, because this are requirements of Rwanda EIA, occupational health and safety, labor and other regulations and the World Bank ESF (already described in Chapter 3).

Since it is difficult to define a budget at this stage of preparation for the prevention, mitigation and compensation measures, the actual Environmental and Social Management budget (ESMB) will be reflected in the ESMP of the respective subproject.

Many of the preventive and mitigation measures included in Chapter 5 to prevent and reduce risks and impacts have no direct cost, but others do have a cost which need to be costed by contractos so these get implemented and build otherwise contractors might do not implement those actions, simply because these were not costed in their financial offer.

Many contractors may not have clear understanding of the need for environmental management, some quote very low price for implementation of ESMP and eventually cannot implement ESMP as per specific requirement of ESMP and project design. Also, during construction, engineers are reluctant to request environmental and social actions to contractors fearing delays, demands and increase cost to the project. To avoid this problem, a fixed budget line of 3% of the total cost of the work will be assigned for ESMP implementation (see Table Budget 20 below for more details of the items that will need to be costed per contractor). The contractors may need orientation on the requirement of the ESMP in the pre-bidding meeting. Addiitonal cost can be included as service order to the contractors.

Therefore, we recommend maintaining a fixed percentage to ensure that environmental and social measures of this ESMF, SEP, LMP, ESCP are appropriately implemented in the project activities. The Environmental and Social Management Team of RUDP II needs to work very closely with the technical and procurement team to ensure:

- EIA and ESMP and other studies are done before procurements process begins.
- Preliminary measures included in this ESMF and other ESF documents are included in the ESIA-ESMP.
- All measures are transformed in Environemntal and Social Clauses (ESTC) to be included in the Tender documents in the Technical Specifications sections and a line in the tender document request contractors to cost these measures.
- Remind contractors to cost proper cost otherwise they will be responsible to comply with the ESMF, ESMP and other isntruments and pay from these measures.
- Include fines and other measures as retention payment in a way to enforce application of these measures by the contractors.
- Costing of prevention and mitigation measures will be added to the total cost of the subproject under Componnet 1 and 2 and paid to the contractors for its compliance.

Table 20-Table Budget to be included in Tender Documents to be costed by Contractors and included in contracts and payments to contractors. The costs include some of the main items that need to be included in the budget of the contractors and therefore included in the tender documents to be costed, but not limited to:

- Purchase of signs for demarcating construction site to ensure occupational health and safety
- Health and safety in the projet areas (according to environmental and social clauses and environmental and social measures defined in the ESMP.
- Waste management: installation of trash containers to collect waste.
- Revegetation of impacted areas: planting of native species or fruit species.
- Safety Kit for emergency situations
- PPE are given to workers
- First Aid Kit to treat minor cuts and injuries.
- Drinking water supply
- Insurance. If a contractor – a firm is hired- then it will be needed to request these
- contractors to have an insurance in case of workers injuries or death during the
- Construction of the subprojects.
- Others as described in the ESMF, ESTC and the EMP of the subproject and required during supervision by the RUDP II Environmental and Management Unit or supervision visits of the World Bank.

All contractors will be responsible to pay benefit to its workers (skilled and unskilled) according to Rwanda Laws which include: Laws from 2007 and 2015 (community-based health insurance), 2009 (labor law), and 2016 (maternity benefits), including: Social insurance (cash maternity and medical benefits) and employer-liability (cash sickness benefits) system.

TABLE 20 Estimated costs for Prevention, Mitigation and Compensation Measures to be included in Tender Documents to be costed by Contractors and included in contracts and payments to contractors. RUDP II.

Item	Activity	
Contractor E/S team	Depending on the works 1-2 full time professionals with experience in occupational health, safety and environment will be costed as part of the contractor core team	
Contractor E/S team	Depending of the works 1-2 full time professionals with experience in land issues, resettlement and communication will be costed as part of the contractor core team	
ESMP -1	Restoration – revegetation plan using only native species or common fruit tress.	
ESMP-2	Soil organic matter, sand, clays must be protected from runoff and comtaminating downstream areas (these must be cover with heavy covers) Conformation and stabilization of slopes, borrow pits, others	

ESMP -3	PPE including helmet, gloves, masks (PFP -N95), welding protection sheilds, boots, working pants and shirt or overalls even casual or unskilled workers. Causal workers will need to have a contract and protected as the Rwanda Occupational health and safety and the WB ESS. Lack of compliance with the PPE can bring non-compliance with the Loan and can have impact on the project disbursement and ratings.	
ESMP-4	Safety Kit for extraction of woorkers in a pit or collapsed slope (extraction board, rope, neck collar, etc). Training in emergency situation by an expert	
ESMP -5	First aid kit headaches, minor cuts, bruces, etc.	
ESMP-6	**Fire extinguishers** for heavy trucks (one for each) and for each camp areas storing flammable subtances such as paints, diesel, keronese, etc. (Fire extinguishers it will be given to the Distric office after work completion to be use in ther works)	
ESMP -7	**Potable Water supply for workers**. In cases where not national water provision is possible, the contractor will provide bottled water to to workers. Water quality reports will provide evidence of the water quality meets national and WB standards.	
ESMP-8	Area for eating (at least with a roof and seats- these can be portable panels), an area for changing cloth, leaving belongings, in the contractor's office area or another agreed area.	
ESMP -9	**Sanitation, installment of mobile sanitation units or latrines** (at least 1 for every 20 men or 20 women) at least every 300 meters. Sanitations mobile must be placed in areas already agreed with the workers ad the district officias. Sanitation units wil be hired by a subcontractor or the same contractor will be responsible to clean these.	
ESMP-10	Workers and community safety- **Sign must apply national and international good practice** for signing for hazards areas (excavations areas, when placing road materials, transportation of materials), driving velocity, information, pathways, etc). Materials should follow the Rwanda Transport Development Agency.	
ESMP -11	**Waste management - containers** (hazardous (diesel, oils, paints, diluyents), metal, electrical, wood, domestic, etc) and transportation to final agreed disposal sites.	
RPF-1	Affected People (PAPs) due to the project their property will follow the agreed procedures in the RPF, damaged in their houses: fences, toilets, gardens, etc.	
General	Other measures included in the environmental and social clauses of contracts – contingency of 1% of the contract.	

7. STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE

MININFRA on behalf of GoR as the borrower will meet the requirement of the World Bank ESS10: Stakeholder Engagement and Information Disclosure. The project will ensure early, continuous and inclusive stakeholder engagement (including vulnerable/disadvantaged groups) which will be documented in a Stakeholder Engagement Plan and disclosed. In this regard a separate Stakeholders Engagement Plan (SEP) has been prepared for RUDP II which will be the main guiding document for the RUDP II sub-projects. This plan will address specific risks identified by stakeholders, including the risks to vulnerable persons etc. and will be updated when necessary. The objective is to establish a systematic approach for stakeholder engagement, maintain a constructive relationship with them, considering stakeholders' views, promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life-cycle, and ensure that appropriate project information is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner. The project will set up a project-specific Grievance Redress and Feedback Mechanism for people to report concerns or complaints if they feel unfairly treated or are affected by any of the sub-projects.

7.1. Stakeholder Consultations for Project Preparation

A series of key stakeholder's consultations meetings were held at various levels according to sub-component implementing agencies at central level to decentralized entities of all six secondary cities and CoK. The ESF team carried out field visits, interviews and consultations with different stakeholders including district officials of the secondary cities, engineers, environmental, land, and social specialists at district level, project affected persons in the communities, Academia (Universities); RUDP-II Implementing Agencies (CoK, LODA and REMA) and the Private Sector. The information collected informed the preparation of this ESMF, the SEP, the LMP, RPF and the ESCP. Records of these stakeholder engagements with details and signatures of participants are provided in Annexes 10, 11, 13, and 14. Table 21 provides a summary of stakeholder engagement meetings held during the preparation stage for RUDP-II in the CoK and six secondary Cities. A summary of stakeholder engagement outcomes are narrated below and summarized in Table 21.

TABLE 21 SUMMARY OF DETAILS OF RUDP-II PREPARATION STAGE STAKEHOLDER ENGAGEMENT MEETINGS

Date	Venue	Participant Categories	No. of Participants	
			Female	Male
4 Feb 2020 & 20 Aug 2019	Muzanze (Muhoza)	District officials, District officers, LODA/RUDP team, Project area affected communities, contractors and supervising company	21	10
5 Feb 2020 & 21 Aug 2019	Rubavu (Buhuru Centre)	District officials, District officers, LODA/RUDP team, Project area affected communities, contractors and supervising company	15	19
6 Feb 2020 & 23 Aug 2019	Rusizi (Kamembe)	District officials, District officers, LODA/RUDP team, Project area affected communities, contractors and supervising company	23	18
7 Feb 2020 & 02 Aug 2020	Kigali (Serena Hotel)	Academia (Universities); RUDP-II Implementing Agencies (LODA, CoK and REMA); Private Sector; ESF-Team	6	9
10 Feb 2020 & 26 Aug 2029	Huye (Matyazo)	District officials, District officers, LODA/RUDP team, Project area affected communities, contractors and supervising company	12	9

Date	Venue	Participant Categories	No. of Participants	
			Female	Male
12 Feb 2020 & 27 Aug 2019	Muhanga (Nyamabuye)	District officials, District officers, LODA/RUDP team, Project area affected communities, contractors and supervising company	16	16
13 Feb 2020 & 29 Aug 2019	Nyagatare (City Center)	District officials, District officers, LODA/RUDP team, Project area affected communities, contractors and supervising company	12	11

Further consultations and workshops will be held during the preparation of ESIA studies and RAP in all selected project areas of six secondary cities and CoK to ensure as initial implementation of this ESMF.

7.2. Consultations on Subcomponent 1: Support for CoK

Bilateral consultations with CoK and REMA heads of SPIUs and staff responsible for environmental management of projects to establish the availability of environmental and social specialists with competency in OHS who will be responsible for the application of the 5 ESF instruments and to supervise implementation in the field subproject ESIAs/ESMPs and other instruments (CoK for urban infrastructure upgrades and REMA for wetland rehabilitation). Consultations also discussed the availability of office and field equipment needed for the proper application of the 5 ESF instruments and to carry out field supervision and effective application of Environmental and Social measures to be agreed for the project. The ESF team also inquired about the availability of assigned staff for communication and support engagement with communities, NGOs etc.

CoK on Subcomponent 1a: Infrastructure Upgrading and Flood Risk Management

CoK has a Social Safeguards Officer and needs to appoint an Environment Specialist dedicated to the project for the three districts (Nyarugenge, Gasabo and Kicukiro), taking into consideration that RUDP-II. They Social Safeguards Officer and Environmental Specialist will be responsible for: (1) ensuring smooth RAP implementation; (2) conducting continuous follow-up with the districts to ensure timely and appropriate compensation; and (3) maintaining regular contact with the local Supervising Engineers to ensure that Contractors are following the ESMP as well as the implementation of the OHS Plan, LMP and Grievance Redress Committees (GRCs) and to help ensuring that grievances are channeled in a timely manner to the appropriate institutional actors (Supervising Engineer E&S staff, district authorities, and CoK).

REMA on Subcomponent 1b: Wetland rehabilitation and flood risk reduction

REMA has one Environmental Specialist under the SPIU who is responsible for the supervision of environmental and social safeguards in all projects. REMA projects have Field Environmentalist Officers based at project sites and are responsible for among others, monitoring project activities on the ground, supervising the contractor and to report to the respective Project Coordinator at REMA. Consultations indicated that REMA should appoint a Social Safeguards Specialist and an Environment Specialist dedicated to the RUDP-II wetland rehabilitation and flood risk reduction subproject to ensure proper and adequate monitoring of both environmental and social risk management and other related issues that may arise during implementation.

Non-state Stakeholders on Component 1b: Wetland rehabilitation and flood risk reduction

Several bilateral consultations between the World Bank and GoR senior managers in key stakeholder institutions including CoK, REMA, RWFA and MOE as well as technical-level multi-sector stakeholder meetings resulted in the selection the Nyabugogo and Gikondo wetlands as potential investment sites for wetland function rehabilitation and flooding hotspots for risk reduction interventions. Consultative meetings were held with key non-state stakeholders and with the Private Sector Federation on 7 Feb and 2 Mar 2020 respectively.

The consultative meeting with non-state stakeholders held in Kigali on 7 Feb 2020 was convened by REMA as the institution with the statutory responsibility to participate in the preparation of activities strategies designed to prevent risks and other phenomena which may cause environmental degradation and propose remedial measures. Stakeholders included academia, conservationists and members of the private sector who provided professional opinions and advice on mitigating potential negative environmental and social impacts of proposed wetland rehabilitation and flood risk reduction while enhancing positive impacts. Table 22 provides a summary of issues and advice provided with regard to the wetland rehabilitation and flood risk reduction component the project.

TABLE 22-SUMMARY OF CONSULTATION OUTCOMES ON SUBCOMPONENT 1B: WETLAND REHABILITATION

Comments and Issues raised	Category of Issue Raiser	Reply from ESF Team &/or Implementing Agency
Wetland rehab scenarios:		
• **Who was consulted?**	Academia	National Taskforce on flooding; State institutions responsible for urban land use, natural resources management convened by REMA (MoE; MINEMA; RWFA; CoK); Various stakeholders during preparation of the Kigali Wetlands Master Plan
• **Is there harmonization with CoK Master Plan and Wetland Master Plan?**	Academia	ESF team consulted with the Kigali Wetlands Master Plan preparation team. RUDP-II wetland rehab conceptual scenarios were presented during the Plan validation where various stakeholders participated.
• **Scenario with existing wetland agriculture preferred that includes existing wetland agriculture land use.** • **What is known about conservation agriculture?**	Academia; Conservation Agencies	Promoting conservation agriculture compatible with wetland ecosystem functioning among existing wetland users will be included in detailed design and feasibility study for wetland rehabilitation.
• **Principles and definitions for wetland rehab should be clear (e.g. zoning for wetland functionality)**	Academia; Conservation Agencies	Detailed design and feasibility study will lay out principles for wetland function rehabilitation.
• **Foundations must be excavated and removed prior to rehabilitation works in the former Gikondo Industrial Park**	Conservation Agencies	Detailed design and feasibility study will lay out principles for wetland function rehabilitation. Plans for levels of contamination and soil remediation include foundations.
Budget:		
• **What is the allocation ratio for infrastructure and wetland rehab?**	Academia; Conservation Agencies; Private Sector	Only broad costing have been estimated for grant application purposes. Detailed costing will be prepared and included in the Project Appraisal Document (PAD) ans publically disclosed.
• **Were cost-benefit analyses conducted?**	Academia; Conservation Agencies	Cost Benefit Analyses will be part of the feasibility study for this sub-project.
Impact of relocations:		

Comments and Issues raised	Category of Issue Raiser	Reply from ESF Team &/or Implementing Agency
• **What happens to resettled people?** • **Livelihoods and social justice should be considered** • **Local communities should participate through such opportunities as ecotourism and recreation (morning Biodiversity tours; water tourism; aquaculture and sport-fishing)**	Academia; Conservation Agencies	A RPF has been prepared to ensure assessment of impacts on persons and assets likely to be affected is conducted with appropriate mitigation measures identified. RPD will be publically disclosed. Issues duly noted for this ESMF and will inform ESIA preparation for the wetland rehabilitation sub-project.
Application of Nature Based Solution		
• **NBS has multiple benefits;** • **NBS make sense as long term interventions** • **What is going to be monitored in terms of biodiversity?** • **Tools to consider: City Biodiversity Index; 4-Returns Methodology**	Conservation Agencies	A pre-feasibility study to implement NBS in the RUDP-II has been commissioned. The ESF team will ensure that these issues are addressed in the study. The ESF team will also present the participants of this meeting as key informants for possible consultation.
Wetland rehab scope:		
• **Are Secondary City wetlands considered in the rehab intervention?**	Academia; Conservation Agencies; Private Sector	The wetland rehabilitation sub-project of RUDP-II will serve as proof of concept for upscaling best approached to deploy nationally.
• **Green Building designs in urban upgrades with the collaboration of the Rwanda Green Building Organization**		The offer will be forwarded for detailed designs and feasibility study of urban settlement upgrades sub-project.
• **Universities should participate in the project to involve students in wetland rehabilitation**		This suggestion will be forwarded for inclusion in the feasibility study of the wetland rehabilitation sub-project.
Project Timeline:		
• **Cost Benefit Analysis should be considered for 5-20yr for scenarios**	Academia; Conservation Agencies	The detailed designs and feasibility study will include Cost Benefit Analysis in scenario refinement for wetland rehabilitation.
• **ARCOS wetland integrity assessment will be available as a resource in June 2020**	Academia; Conservation Agencies	The RUDP-II is the second 5 year phase of the urban development project with possibilities of subsequent phases. Wetland rehabilitation is intended as a catalyst for future upscaling as most urban wetlands are degraded.

Consultations with PSF on Subcomponent 1b: GIP Wetland rehabilitation

One of the potential sites for wetland rehabilitation investment is a former Gikondo Industrial Park (GIP) that was established in the early 1970s. The GoR took the decision to relocate the industries and rehabilitate the area to some level of functions guided by a legal instrument Instructions of the "Minister of Trade and Industry N°20/Minicom/2013 of 20/05/2013 Modifying Instructions N° 15/2012 of 23/04/2012 Related of the Relocation of Factories and other Facilities Located in the Gikondo Industrial Park[24]".

Under the implementation of this Ministerial Instruction, the Private Sector Federation (PSF) represents the Gikondo Industrial Park former property owners that included factories, vehicle repair garages, warehouses and other activities in the on-going expropriation and relocation program under an MoU with MINICOM. Communication from MINICOM on the status of relocation of 21st Nov 2019 attached in Annex 12 indicated that the relocation program was implemented in phases. The communication provided information to the effect that the GIP had been occupied by 89 operators in industrial and other activities. The communication indicated that 14 factories were relocated in first phase to the Kigali Special Economic Zone (KSEZ). Out of the remaining 75 properties, 39 have were expropriated in the second phase and remaining 36 will be expropriated the third phase by 2021.

Challenges:

Following recent heavy rains and unprecedented flooding that occurred from December 2019 up to date (April 2020), GIP was one of the heavily affected areas which forced the closure of operations in that area. Although there was general willingness to move from the flood prone GIP, the consultation revealed that property owners/operators suffered various inconveniences and challenges.

PSF as the representative of industrial property owners explained the following challenges:

- All property owners/operators had vacated the GIP following recent recurrent heavy rains and subsequent flooding
- Property owners/operators could not obtain the same size of land as they had in GIP
- Available locations are in designated industrial zones e.g. Dubai World in Masaka Sector, far from the city center in comparison with the GIP
- Compensation was paid in instalments instead of the preferred lumpsum; third phase compensation recipients will receive full payment due by 2021
- Former GIP property owners/operators experienced delays in obtaining construction permits. PSF was assisting by negotiating with CoK authorities to provide temporary construction permits for new factories/industries.
- Some factories/industries previously operation in the GIP had bank mortgages that could not be covered by the compensation

Opinions on sustainable use of a rehabilitated Gikondo wetland:

Regarding opinions on the planned concepts of sustainable and income-generating use of the rehabilitated wetland, PSF made the following recommendations.

- Previous occupants/property owners/operators of GIP should be consulted in designing rehabilitation and sustainable utilization of the rehabilitated wetland
- Rehabilitation works should give priority to former GIP entrepreneurs
- Priority for operating revenue generating utilization of the rehabilitated Gikondo wetland should be given to former GIP occupants/property owners/operators in possible PPP arrangements instead of putting the on tender markets

[24] Official Gazette nº 23 of 10/06/2013

- Wetland rehabilitation designs should consider fruit tree/orchards of economic values; aquaculture
- Wetland rehabilitation should consider economically viable recovery of eroded soil from the uplands

Initial Community Engagement on Subcomponent 1b: Wetland rehabilitation

During project preparation visits, wetland resource users identified included subsistence vegetable and rice farmers (Figure 19), sand miners in wetland drainage and stream channels, domestic use water collectors, crafts artisans.

FIGURE 18 RICE & VEGETABLE FARMERS IN NYABUGOGO DOWNSTREAM WETLAND

It was noted that most of the wetland resource users were female. Consulted women and girls indicated that they had no alternative water sources for domestic use and farmers indicated that their wetland crops earned them income and livelihoods.

The sand miners and water collectors indicated that they would appreciate jobs from the planned rehabilitation works. They also indicated that they would appreciate the inclusion of trees for shade and wind-breaking in the wetland rehabilitation interventions.

As mentioned earlier in this document, a Stakeholder Engagement Plan (SEP) has been prepared for the entire RUDP-II and adequately covers the wetland rehabilitation component along with other Environmental and Social Safeguards documents (LMP, RPF and ESCP) required by the World Bank and will be publicly disclosed prior to the launch of the project.

7.3. Consultations on Subcomponent 2. Support for Secondary Cities

Local Administrative Entities Development Agency (LODA)

Currently LODA has one Environment Specialist and one Social Specialist dedicated to the project. Occupational health and safety (OHS), supervision of ESIA/ESMP implementation and implementation of the World Bank policies and standard requirements are part of their overall duties and responsibilities. It was observed that these staff need trainings to help them acquiring relevant skills for compliance with Bank requirements and national standards. This capacity building need is common to other institutions including CoK and REMA.

Consultations at district level of the secondary cities

Secondary City consultations were conducted in Musanze on 23 Aug 2019, Nyagatare on 20 Aug 2019, Rubavu on 24 Aug 2019, Muhanga on 24 Aug 2019, Rusizi on 20 Aug 2019 and Huye City on 23 Aug 2019 and again in Musanze on 4 Feb 2020, Rubavu on 5 Feb 2020, Rusizi on 6 Feb 2020, Huye on 10 Feb 2020, Muhanga on 12 Feb 2020 and Nyagatare on 13 Feb 2020. Other consultations with District authorities were also held on 11th October 2019 (Annexes 14 and 15).

The RUDP PIU met various staff at district including the Vice Mayor in charge of economic affairs, Executive Secretaries, the project focal person, etc. (see attendance lists of the staff with whom the consultations were held) and local communities. Key thematic issues discussed are summarized in

Table 22. In all six districts of the secondary cities, it was found a problem of insufficiency and or lack of staff dedicated to the daily follow up and implementation of RUDP. In some districts, a civil engineer is the one to partly coordinate the project activities while in others it is the land officers who are partially responsible. This has several implications and affect the smooth project implementation in the sense that these staff are not competent enough to handle issues of environmental and social risks and impacts, safeguard and World Bank requirements, due to their educational and experience background. In other districts there are environmental officers who should be the right staff to coordinate, supervise, monitor and evaluate the project activities and handle arising issues. However, they do not have specific and determined duties and responsibilities and they are assigned other duties of other district projects. As a common project challenge, there is no staff attached to the RUDP activities at the district level.

This capacity assessment has found that the subprojects of RUDP II will likely require more work at the district level which cannot be appropriately handled by the two project specialists (Environmental and Social Specialists) at the central-level (LODA). For each of the six secondary cities, an Environmental and Social Specialist and a Project engineer are to be recruited by the LODA SPIU for a daily management and coordination of environmental and social risks and impacts of the project, a smooth execution of the civil works and facilitate the M&E and follow-up on project activities. Other roles and responsibilities of these two staff include but not limited to:

(i) Timely and proper compensation and smooth RAP implementation;
(ii) Serving as the project focal points for the local Grievance Redress Committees (GRCs) to ensure that grievances are channeled to the entities responsible for taking appropriate action;
(iii) Ensure that ESIAs and ESMPs are being properly implemented by the Contractors, (iv) maintaining regular contact with supervising Engineer;
(iv) Ensure that the Contractors maintain compliance with the ESMP as well as the OHS Plan and Labor Management Plan (LMP);
(v) Handling project-related GBV risks and impacts;
(vi) Ensure that the civil works are executed in a highest standards and professionalism, and
(vii) Timely reporting to the central-level.

RUDP II builds on the work done in RUDP I. As new staff will be recruited to the SPIUs for RUDPII, it is important that the lessons learned are transferred to these new staff. Urban upgrading projects and wetland restoration in neighboring countries could also share their experiences with the RUDPII implementing agencies (LODA, REMA and CoK) to provide them with first-hand accounts of what worked and what did not in different contexts. Furthermore, it is important that newly recruited staff to the SPIUs receive ESF Training so that they are familiar with Bank policies and requirements. The Bank can facilitate and allocate appropriate resources, prior to the entry into force of this Policy, to support an effective implementation of this Policy through capacity building of the E&S staff of RUDPII implementing agencies.

TABLE 4 SUMMARY OF THE MAIN ISSUES AND RESPONSE DURING CONSULTATION IN SECONDARY CITIES FOR PREPARATION OF THE ESMF

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
Has the district have a dedicated staff to the RUDP II project?	ESF team	The district is understaffed given the huge mandate of this local administrative entity and projects to be implemented. Even though the duties and responsibilities of each staff are clearly determined, staff are assigned tasks depending on the urgency of the projects and other circumstances.
Will the land and properties be fairly compensated?	Project area community	It was clarified that where land and above ground properties will be taken as a result of project activities the Government and Districts will provide fair compensation in accordance with national laws and WB policies.
How the compensation process be conducted for the project affected persons (PAPs)?	Project area community	It was explained to the PAPs that after valuation exercise of the assets and land, and subsequent signing of valuation logs by affected property owners, the cumulative budget would be forwarded to the implementing Agency (the District) and it was expected that the compensation process would follow the proposed process in the RP report. This includes addressing any grievances during the RP implementation phase. The executive summary of the RP report would be disclosed in Kinyarwanda and English at both district and sector level for public verification. Valuation exercise will be done in accordance with Rwanda expropriation law or World Bank ESS5 guidelines - full replacement cost whichever is higher and benefits PAPs the most would be considered during the valuation and subsequent compensation.
Will the PAPs be given a priority in employment opportunities by the project? (during project construction phase)	Project area community	This item was picked as a recommendation that would be forwarded to the project proponent. The assigned Contractor will be also advised to prioritize local communities and PAPs especially for non-skilled labor and women. This will be also a strategy to avoid negative impacts related to labor influx.

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
How will the project deal with negative impacts during the construction phase? (House stability due to cracks occasioned by vibration from heavy machinery, dust emissions that may pose health risks, etc.)	Project area community	All negative impacts will be identified and reported in the ESMF, and ESIA reports. Consequently, the project proponent and contractor would be bound to implement appropriate mitigation measures fronted in the ESIA report during the project implementation phase. GRM mechanism will be enforce by the supervisors and the Environmental (health and safety) specialist to the hired to support each district.
Will the crops and trees of the PAPs compensated?	Project area community	Trees and crops will be valued in accordance with laws on expropriation. Compensation packages awarded would meet the full replacement costs of above land-based asserts lost.
How will the project handle the issue of graves of the relatives of the PAPs and other cultural properties that would be impacted?	Project area community	Cultural heritages, cemeteries, graves and other cultural assets shall be identified and protected whenever possible as per the national laws and the World Bank. Environmental and Social Standard 8. The ESIA will search and consult the people to identify as muc as possible the location of graves and cultural local Heritage to avoid impacts. The project Environmental and Social team of all implementing agencies will be ensure the local heritage is preserved.
How will the children safety of the PAPs be taken care if they are too close to the road's boundaries?	Project area community	Structures that were too close to the road raising serious safety issues would be fully expropriated and safety measures during project construction activities will be put in place and enforced to avoid and minimize accidents.
What was the role of district officers in the implementation of the RUDP I project activities?	ESF team	Arrangements and preparation of consultation meetings with project beneficiaries including the PAPs and GRM committees, identification of project priorities, participation in engineering design and tendering process, day to day monitoring of civil works progress, supervision of ESIA and ESMP implementation, preparation and compliance with environmental and social safeguards requirements. In the new project, an Environmental and Social Consultant specific for the project will be responsible of these activities and the

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
		Environmental Officer is expected to coordinate with him/her and support each other.
Are the district officers ready to provide support in the supervision of the new project RUDP II?	ESF team	They would continue to participate in RUDP II. The level of involvement will depend on the implementation arrangement. However, the recruitment of the project staff (Environmental and Social Specialists and Civil Engineers) at the district level would efficiently achieve the project expected outcomes
Do you think the cumulative impact of the works have been mitigated? How describe actions implemented or that can be implemented in the Phase II and the new project	ESF team	Globally, the cumulative project's impacts have been mitigated, though some of them were addressed at the later stages of the project implementation. In RUDP II and new projects, the contractors' ESMPs should be clear and concise, with clear actions, roles and responsibilities as well as measurable performance and monitoring indicators
Which have been the main problems with contractors, supervisors and affected communities?	ESF team	Low mobilization of staff and materials in the beginning of the implementation. There have been delays in executing the works, submitting reports and invoices on the side of contractors and supervisors. In addition, contractors did not consider environment protection as a priority while executing the works. Furthermore, contractors and their staff showed a low level of understanding of environmental and social safeguards policies and documents. The communities showed a kind of reluctance in complying with safety guidelines. Examples to illustrate this include temporary closure or diversion of the route for safety reasons. Another issue was that of some people in the project area who wanted to be added on the list of people to be expropriated even if they are not impacted. It was also noted some cases of the PAPs that did not comply with cut-off dates.
How the coordination with LODA can be improved?	ESF team	The coordination with LODA would be improved by appointing a project staff (Engineer and Environmental and Social officer) to be based at the District. These staff would act on behalf of LODA as liaison officer and ensure a day to day monitoring of the project activities and prepare necessary reports and

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
		coordination/consultation meeting on the field. In addition, they would ensure compliance with ESMP and others national regulations and World Bank as appropriate and prepare necessary and timely reports. Furthermore, regular meetings with stakeholders and site visits to evaluate the project implementation progress are critical.
What are the main issues reported in RUDP I civil works? (from supervision reports)	ESF team	Heavy rains and relocation of utilities hindered the progress of the works. Long distance to the appropriate dumping site to dispose off the excavated soils, rehabilitation plan of borrow pit, and the dumping site rehabilitation was also challenging. Overlooked design of some important civil works and lack of geotechnical report based on real investigation which implied the contract amount increase and variation orders. Long district administrative procedures also affected the project activities. Another problem was the shortage of finance on the side of the contractors in implementing the projects. It was also highlighted the absence of contingencies and the maximum limit of 20% set by the state laws.
What field equipment do you have to do your work – or will be needed for proper implementation of ESF instruments of the project?	ESF team	Field work and office equipment are available. These include but not limited to: Office space-desk-chair, Computer/printer/photocopy, Paper/printing tint/cabinet to hold project documents dry and safe, Communication: Telephone/fax/internet, Camera/ GPS, PPE: Safety boots/Helmet/Vest and Vehicle.
Which works executed by contractors?/ village/community/district	ESF team	Construction/ rehabilitation of roads, drains and Footpaths,
Were there any delays faced by contractors in works execution and why?	ESF team	Delays were encountered due to weathers conditions: construction activities were interrupted during April and May 2017 causing much delay. There were also poor engineering designs which caused variation orders and delays in delivery, and delay in expropriation process.

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
How the impact on the water pipes, electricity and other basic services can be done better so people are not so much affected?	ESF team	Engaging utility providers in the planning and engineering designs process and by giving them ample time to remove the utilities before any civil works. In addition, service orders from the District must be provided early on to give contractors enough time for negotiations with utility providers
Where are the construction debris deposited by the contractors?	ESF team	At the selected dumping sites submitted to and approved by the District/Supervisor upon a comprehensive assessment.
Do you think the supervisors can do a better job?	ESF team	Supervisor can speed up the approval of invoices to make sure that money for the execution of works is available on time.
Which work/road/drainage did you supervise and when? Indicate community/district/village	ESF team	All six districts of the secondary cities and CoK
What are the main problems that you confront with contractors?	ESF team	Delays in works execution due to the shortage of finance and insufficient staff/workers
How these problems can be prevented from happening again in the Phase II of the current project and in the new project in preparation	ESF team	The liquidity of the company has to be evaluated based on the contractors' financial statements
How many fatal and non-fatal accidents occurred in the works that you supervised? Were workers compensated? Do they have proper insurance?	ESF team	No fatal accident happened.
What actions do you take against contractors that did not follow the	ESF team	Environmental law enforcement and report the case to the competent authority

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
agreed environmental measures? Do you apply fines, payment retentions, and other action?		
Which have been the main impacts that the RUDPI project have caused to your community or family?	ESF team	Livelihoods enhancement, improvement of commercial activities, transportation of goods and people due to the provision of basic and access infrastructure: Roads, street lighting and drains. Significant reduction of respiratory diseases caused by dust from the non-asphalt roads. On the other hand, during the construction phase some houses were damaged by compaction generated vibrations even though they were later compensated for or repaired.
What needs to be improved in the PHASE 2 of RUDP 1 and in the new Project in preparation? Please give us recommendations	ESF team	Timely compensation, access ways to home should be rehabilitated as early as possible. Reparation of utilities such as water and electricity should be done on time. Damaged houses and other properties occurring during the construction should be repaired or compensated by the contractor on time
Do you know of any negative impacts/issues, problems result of the works of RUDP I that have not been resolved by the contractors or the district officer or LODA?	ESF team	There is no pending issues from phase one in the project implementation area
Does LODA have a proper transportation to do supervision and support to the districts, City of Kigali and future wetlands activities?	ESF team	There is a proper transportation for LODA staff working in environmental and social management to do supervision and support to the districts, City of Kigali and future wetlands activities
Do you follow the ESMF of the RUDP I project	ESF team	Yes, RUDP team follows the ESMF. However, there is a need of trainings on ESF documents and World Bank procedures

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
How cumulative impacts have been mitigated?	ESF team	Conduct environmental baseline to identify impacts of the past and implement ESMP as per ESIA report. Avoiding individual impacts of the past, present and future to be additive and/ or synergistic.
Can you prepare reports comparing different district environmental performance in the application of all triggered safeguards policies?	WB team	These reports can be prepared based on various monthly and final supervision reports
Do you have copies of all bidding documents and contracts?	WB team	All bidding documents and contracts are available
Do you have a database with all the EIA certificates, supervision reports?	WB team	EIA certificates and supervision reports are available
Do you have standard checklists or reports that you fill when you visit the civil works in the district?	WB team	Checklists of the reports have been prepared and are filled when a field visit for the civil works is planned
Have you been trained in OHSA?	WB team	No training in OHSA has been provided to the RUDP staff
Have you been trained in water quality assessments?	WB team	No training in water quality assessment has been provided to the RUDP staff
What activities have you done to inform the communities after completion of works or any positive results of the project?	WB team	Meetings were organized to the intention of the community beneficiaries to sensitize them on proper management and maintenance of the basic services and infrastructures provided by the project. Regular field visits were conducted to evaluate the state of the built infrastructure

Question/Concerns	Category of issue raiser	Response from ESF team and / or Government official
Do you have a database of all accidents that have occurred per contract, district, and village?	WB team	No accidents occurred
Do you have a database of all grievances and received per contract/ village/ districts and Their resolutions?	WB team	A database of all grievances and received per contract/ village/ districts and their resolutions is available
Do you need additional support at LODA?	WB team	The needed support at LODA is the provision of regular trainings on World Bank procedures and requirements, best practices of environmental and social risks and impacts management and study tour in the region or other parts of the World.
Do you get a quick response from requested information from the districts?	WB team	Yes, quick response is obtained whenever required as a result of a wide range of communication means

Results of the Consultation Process for the disclosure of the ESF documents

(This section will be completed once the ESF documents are reviewed and approve for disclosure and consultation. Consultation due to COVID19 has been suspended and an online process is under preparation)

Consultation Team

A team responsible for coordination and consultations has been identified. The government agencies assigned a groups of government staff representing MININFRA, City of Kigali, REMA and LODA in the consultations and the team to be responsible of its organization.

Representatives (name/institution)	Institution	Date	Role
Dismas Nkubana/LODA	LODA		moderator
George Munyaneza	MININFRA		Project overview (components, subcomponents and activities)
Apophia Boramungu/LODA	LODA		-Presentation on ESF instruments (RPF, LMP and SEP) and Social risks and impacts and their management in Secondary Cities -Respond questions from community and other stakeholder
Alphonse Habineza	LODA		- Presentation on ESF instruments (ESMF and ESCP) and Environmental risks and impacts and their management in Secondary Cities -Respond questions from the community and stakeholders
Olivier Musugi/LODA	LODA		Respond questions from the community and stakeholders
Louis Mwiza/LODA	LODA		Logistics and other required arrangements
Janet Umugwaneza	REMA		Answering questions related to wetlands rehabilitation, flood risks management and other environmental issues
Abias Muhire Philippe	CoK		Responding questions from community and other stakeholders regarding RUDP project, environmental, social and resettlement aspects in the CoK.

Disclosure at local level.

Once the ESF documents are reviewed and cleared by the World Bank to be acceptable for consultations, a summary of each document will be prepared and translated in the local language and in a simple manner and making sure technical aspects were address properly.

These summaries will be sent to district officers, local leaders, NGOS and other relevant stakeholders before the consultations takes place.

Disclosure at the Project Implementing agencies websites and the World Bank.

All ESF draft documents including this ESMF, RF, LMP, SEP, ESCP were disclosed at the Implementing agencies: MININFRA, LODA, REMA and City of Kigali on the following dates:

Disclosure of ESF documents	Date of disclosure	Internet Link
MININFRA		
City of Kigali		
LODA		
REMA		

The documents wil also be disclosed in the project website of the World Bank:

Consultation of the draft ESF instruments under COVID19

In order to avoid risk to the community and project team, the consultation process will follow some of the following tools:

- Radio announcement
- Publication of announcement in a national newspaper
- Open period of comments at the Project website
- Online one-one consultation with district engineers, environmental/social officers, decision makers from the district executive committees,
- Phone calls to leaders of beneficiary communities,

The project consultation team will register all participants, also of their questions and responses, recommendations or claims.

Consulation after appraisal

Since a detailed consultation process took place during preparation (see SEP), the impact of Covid 19 on the consultation process of the ESF instruments is not considered too critical. The project had plenty of feedback during the consultation made during the capacity assessment and field visits to all project areas where stakeholders were interviwed with a standardized formulary and participation and feedback recorded (Annex 10, 13, 14, 15 and SEP)

During implementation, the project will include further consultation meetings during the EIA/ESMP preparation of subprojects.

RESULTS OF THE CONSULTATION OF THE ESF DOCUMENTS PREPARED FOR RWANDA RUDP II project

Participants

Type	Number	Community	men	women
Affected people				
NGOs				
Private sector				
Other				
Total				

Feedback

Registry

8. References

1. Ministry of Finance and Economic Planning, Rwanda (2016) the Rwanda we want: Towards "Vision 2050". Available at http://www.minecofin.gov.rw/fileadmin/user_upload/ Hon_Gatete_Umushyiki rano_Presentation_2016.pdf [Accessed 05 September 2019]
2. National Institute of Statistics of Rwanda (NISR) (2012) Fourth Population and Housing Census, Rwanda (2012). Population size, structure and distribution. Available at http://www.statistics.gov.rw [Accessed 10 September 2019]
3. National Institute of Statistics of Rwanda (NISR) (2012) Integrated Household Living Conditions Survey 5. Available at http://www.statistics.gov.rw [Accessed 10 September 2019]
4. National Institute of Statistics of Rwanda (NISR) (2012) Fourth Population and Housing Census, Rwanda (2012). Population size, structure and distribution. Available at http://www.statistics.gov.rw [Accessed 10 September 2019]
5. National Institute of Statistics of Rwanda (NISR) (2014) Establishment Census 2014 available at http://www.statistics.gov.rw/ [Accessed 10 September 2019]
6. Official Gazette of the Republic of Rwanda, Law establishing and organizing the real property valuation profession in Rwanda, 2010. Available at http://www.minicom.gov.rw/fileadmin/minicom_publications/law_and_regurations/ [Accessed 10 September 2019]
7. Official Gazette of the Republic of Rwanda, Law N°55/2011 of 14/12/2011 Governing Roads in Rwanda. Available at http://www.rtda.gov.rw/fileadmin/templates/publications/Rwanda_Road_Act. pdf [Accessed 05 September 2019]
8. Official Gazette of the Republic of Rwanda, Law relating to expropriation in the public interest, No. 32/2015 of 11/06/2015. Available at http://www.minijust.gov.rw/fileadmin/Law_and_Regulations/expropriation. pdf [Accessed 31st August on , 2019]
9. Official Gazette of the Republic of Rwanda, Organic Law N° 43/2013 of 16/06/2013 governing land in Rwanda. Available at http://ilo.org/dyn/natlex/docs [Accessed 05 September 2019]
10. Republic of Rwanda (2012) Vision 2020. Available at http://www.minecofin.gov.rw/fileadmin/templates/documents/NDPR/Vision_2020_.pdf [Accessed 15 September 2019]
11. Rwanda Urban Development Project (RUDP) II (P165017) :Pre-Appraisal Mission: January 20-24, 2020 Aide Memoire
12. Rwanda Urban Development Project (RUDP) II (P165017): Pre-Appraisal Mission: October 21-30, 2019 Aide Memoire.
13. The Constitution of the Republic of Rwanda of 2003, revised in 2015. Available at http://www.rwandabar.org.rw/wp-content/uploads/2017/03/The-NewConstitution-of-the-Repblic-of-Rwanda-3.pdf [Accessed 20September 2019]
14. The World Bank ESF, ESS5: Land Acquisition, Restrictions on Land Use and Involuntary available at https://www.worldbank.org/en/projects-operations/environmental-and-social-framework.pdf [Accessed 15th August 2019]

ANNEXES

Annex 1: Sample of an Environmental and Social Screening Form

Annex 2: Generic Terms of Reference (ToR) for Environmental and Social Impact Assessment (ESIA) of Rwanda Urban Development Project II Subprojects

Annex 3: Guidelines for preparing the Environmental and Social Management Plan (ESMP)

Annex 4: Standardized Environmental and Social Technical Clauses (ESTCs) to be considered in the ESMP and for later inclusion in Tender Documents

Annex 5: Example of GRM language

Annex 6: Terms of reference for Environmental and Social Core Team of ESMU

Annex 7: Preliminary ToR for Strategic Environmental and Social Assessment (SESA) for the National Waste Management Strategy

Annex 8: Standardized Incident reporting format

Annex 9: Code of Conduct for Contractors and workers hired under RUDP II project

Annexes 10: Attendance list for consultation over wetland rehabilitation

Annex 11: Attendance list for the consultation on RUDP-II Component 1a (CoK)

Annex 12: Communication from MINICOM on the status of relocation

Annex 13: Photos and attendance lists of consultations in secondary cities

Annex 14: Attendance list of consultation with Secondary City District Officials Oct 2019

Annex 15: ESF Capacity Assessment Consultation meeting with District authorities

Annex 1: Sample of an Environmental and Social Screening Form

A. ENVIRONMENTAL SCREENING FORM

1. **Sub-project Name: …….**
2. **Location (Village, Cell, Sector, Secondary City): ……**
3. **Component/sub-project: ……....**
4. **Number of people benefiting the sub-project: ……..……**
5. **Contact person's name……**
6. **Mobile Telephone Number……**
7. **General Description of the sub project:-**

   i. Sub-project objectives: ……..
   ……
   ……

   ii. Subproject activities
   ……
   ……
   ……

8. **Baseline Description of affected Environment**

   i. Description of physical chemical environment (soil, air, water, etc.)
   ……
   ……
   ……
   ……
   ……
   ……

   ii. Description of Biological Environment (habitats and Communities, Flora etc):
   ……
   ……
   ……
   ……
   ……
   ……

   iii. Description of Socio-economic Environment e.g. historical sites, aesthetic aspects, public health facilities, infrastructure
   ……
   ……
   ……
   ……
   ……
   ……
   ……
   ……
   ……

9. **Identification of Negative Environmental Impacts**

Aspects	Yes	No	Scale of Impact			Remarks
			High	Medium	Low	
• Loss of top soil?						
• Negative effects on flora and fauna and their habitats?						
• Negative effects on wetlands?						
• Negative effects on vegetation?						
• Destruction of trees and vegetation						
• Impact on fish migration?						
• Drainage congestion in project area?						
• Water logging in project areas?						
• Negative effects on surface water quality, quantities or flow?						
• Negative effects on soil stability and compactness?						
• Negative effects in irrigation and canals?						
• Increased noise due to day-to-day construction activities?						
• Increased wind-blown dust from materials areas e.g. fine aggregate storage?						
• Degradation or disturbance of historical or culturally important sites (places of worship, burial sites, monuments etc.)?						

10. **Possible environmental impacts of the sub-project**

Environmental Impacts	Mitigation Measures (Identify relevant ESTC)

11. The Environment and Social Management Plan (ESMP) to be taken during implementation of the subproject. (If impacts beyond the **ESTC)**

Recommendations:

……
……
…….

B. SOCIAL SCREENING FORM

12. **Socio-economic information**

What assets would be affected due to sub-project intervention? Fill in **Yes** of **No** as appropriate

- Land …….
- Physical structure (dwell in or commercial) ……..
- Trees/crops …….
- Natural resources (water bodies/forests/ponds) ……
- Others (specify)…….
- ……
- ……

13. **Land**

- Land ownership: Is the land public or private? …….
- Type of land : Agricultural/homestead/pond/natural vegetation

Other (specify): …….

- Does the sub-project require additional land permanently or on a temporary basis?
- In case of land acquisition, will there be physical or economic displacement of people?
- What would be the total number of affected families ……..

14. Will the project implementation result into loss of access to the following? (Fill in **Yes** of **No** as appropriate)

- Land
- House
- Public services (water, electricity, public latrines, etc.)
- Others (specify)

15. **Structure (residential or business)**

- Total number of residential structures that would be affected ……..
- Total number of commercial/business structures that would be affected …….
- Ownership types of the structures to be affected: Please specify among: Private with land title/Private without land title/Tenant ……..

16. **Trees and Crops**

- Is there any tree or plant that may be affected? Fill in **Yes** of **No** as appropriate: …….
    - Total estimated number by size ……
- Is there any social forestry/plantation project that would be affected? Fill in **Yes** of **No** as appropriate: …….
- Are there any fruit-bearing trees that would be affected? Fill in **Yes** of **No** as appropriate: …..
- Are there any agricultural lands/crops to be included in the subproject footprint: Fill in **Yes** of **No** as appropriate: …….
    - If yes, please provide relevant information regarding type of production on the land to be affected, estimated quantity of crop(s) and estimated market value
- Is there any community resource property that might be affected? E.g. open space, wetland etc. Fill in **Yes** of **No** as appropriate: …….
    - If yes please describe the community dependency of the resources that would be affected…….
      ……
      ……
      ……
      ……

17. **Beneficiaries**

- Who are the beneficiaries? ……
- How would they benefit from the subproject? Fill in **Yes** of **No** as appropriate:
    - Access to infrastructure and services? ……..
    - Access to services? ……..
    - Source of income generation? ……
    - Are the people/residents ready to cooperate with the project? ……..
    - Please provide explanatory notes below

    ……
    ……
    ……..

18. **Possible social impacts of the sub-project**

Social Impacts	Mitigation Measures (Identify relevant ESTC)

19. The Environment and Social Management Plan (ESMP) to be taken during implementation of the subproject. (If impacts beyond the **ESTC)**

Recommendations:

……
……
……

Prepared by: ……, Signature: ……..Date and time: ……..

Approved by: ……., Signature: ……, Date and time: ……

Annex 2: Generic Terms of Reference (ToR) for Environmental and Social Impact Assessment (ESIA) of Rwanda Urban Development Project II Subprojects

Introduction

The Government of Rwanda (GoR) has prioritized modernizing the country's infrastructure, delivering critical social services to its population and building up its human capital. Urbanization has been one of the country's key development strategies and has contributed significantly to economic growth and structural change in Rwanda through the reallocation of labor to off farm employment: The Government has identified urbanization and off-farm job creation as critical for achieving its vision of becoming a middle income country by 2020. Rwanda's urban population has been growing since 2002 with 18.4 percent of the population now living in urban areas in 2018. With population growth of 6.4 percent per year from 2002 to 2012, Kigali is one of the fastest-growing cities in Africa and the most favored destination for rural migrants. A half of the urban population outside Kigali is found along two urban corridors: the Musanze-Nyabihu-Rubavu corridor (one-third) and the Muhanga-Huye corridor including Nyanza and Ruhango districts (18 percent). Much of Rwanda's remaining urban population is spread between the roads connecting Kigali to Bugesera, Kayonza, the Burundian border, and the more isolated settlements of Nyagatare and Rusizi.

The Government of Rwanda (GoR) through the Ministry of Finance and Economic Planning (MINECOFIN) has formally requested the World Bank (WB) to support the preparation and implementation of the Rwanda Urban Development Project II (RUDP II). RUDP II will provide infrastructure upgrading of unplanned informal settlements and improve access to basic services, strengthen urban management and enhance resilience in the City of Kigali and the six secondary cities of Rwanda. The overall coordination and implementation of this project will be the responsibility of the Ministry of Infrastructure (MININFRA) and the Local Administrative Entities Development Agency (LODA) respectively.

Brief description of the Project

The Rwanda Urban Development Project (RUDP II) will support the following activities:

-construction in six Secondary Cities (Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi) and the City of Kigali (CoK) of urban roads, drainage, street lighting, upgrade unplanned settlements, site servicing/or servicing of housing plots, upstream waste management, and storm water management.

-construction in four potential unplanned settlements in the City of Kigali of access streets, pedestrian walkways, streetlights and storm water management solutions, water supply and sanitation infrastructure as well as community facilities such as community centers, public parks and green spaces and local market improvements.

-development of flood risk management in City of Kigali with a combination of civil works and natural solutions (restoration of vegetation, slope improvements, monitoring of stream flow), including: (a) rehabilitation of urban wetlands; (b) green and gray infrastructure along the wetland buffer zone and major hot spots in the City to reduce flood risk and enhance livability.

-design and implementation of wetland restoration activities that integrate biodiversity and ecosystem values in urban development and enhance ecosystem services in a priority wetland.

Based on this ESFM, several project interventions will require an Environmental and Social Impact Assessment (ESIA) to comply with both national environmental laws and the Bank's Environmental and Social Standards (ESSs) and procedures. The ESIA will be designed to identify, assess and evaluate both positive and negative environmental and social risks and impacts of the sub-project's activities and avoid, minimize, reduce or mitigate them.

Objectives of the ESIA:

The main objective of the assignment of conducting an ESIA study will be to carry out the tasks related to environmental aspects. These will include mainly the preparation of the Environmental Impact Assessment including Environmental and Social Management Plan (ESMP) of the RUDP II.

Scope of Services: The consultant/ firm will carry out a full Environmental and Social Impact Assessment (ESIA) and prepare ESMP for the project activities 'sites covered under the RUDP II. The ESIA and ESMP will be prepared in accordance with the Rwandan Environmental laws and policies, this ESMF, and World Bank ESS1 requirements and procedures. The Consultant will familiarize with the project details, components and sub-components. The Consultant liaise, collaborate and interact with the project implementation unit (PIU) staff to determine best way of conducting environmental activities and properly plan the timing of the deliverables. The main consultant activities to be further detailed will include, but not limited, to the following:

- Review the Project ESMF document, which is available online in the webpage of LODA, MININFRA, REMA and CoK, the national policy legal and institutional framework and other relevant project documents
- Describe the Project activities and Specify the boundaries of the study area for the assessment
- Conduct a project site reconnaissance and describe environmental baseline and socio-economic conditions of the project areas using the Screning Checklist Annex 1.
- Undertake the stakeholder consultations particularly with the communities to be positively and negatively affected by the project.
- Determine and evaluate potential adverse environmental and social risks and impacts of the proposed project activities and propose corresponding mitigation measures
- Develop an Environmental and Social Management Plan (ESMP)
- Prepare an ESIA report whose structure will include the main following sections:
    - ✓ Executive summary
    - ✓ Introduction
    - ✓ Policy, legal and administrative framework
    - ✓ Description of the investments/activities to be assessed
    - ✓ Diagnosis of the Environmental and social baseline – mapping
    - ✓ Evaluation of the environmental and social risks and impacts
    - ✓ Environmental and Social Management Plan (ESMP) – Clear section on the Environmentan and social clauses for the bidding document and contract
    - ✓ Supervision arragements: responsible parties from LODA, REMA, CoK, District, consultants
    - ✓ Mandatory obligations of contractors based in the ESMF- insurance, permits, community communication, emergency plan, preparation of the Contractor- ESMP
    - ✓ Stakeholder consultation
    - ✓ GRM mechanisms for workers and communities
    - ✓ References
    - ✓ Annexes

Minimum requirements of the ESIA team composition and qualifications

The present assignment will require interdisciplinary expertise with specialized sector knowledge such as ecology, civil engineering, environmental sciences and engineering, GIS, Biologists, and Sociologists, Urban planning, Land use planning, Geology and Hydrology, etc. The consulting team will be led by a Team Leader with at least 10 years of experience leading ESIA studies, including prior experience on similar types of RUDP projects, and prior experience as either team leader or deputy team leader on at least one previous major ESIA for World Bank funded projects.

Schedule/Duration of the study:

The study period is estimated for 3 months from the date of commencement of the ESIA/ESMP study since this ESMF contain already important baseline and identification of measures and protocols that will expedite the ESIA.

Reports:

The consultant will submit the minimum following ESIA/ESMP reports both in hard and soft copy (number to be determined) as follows: Inception Report, Draft detailed ESIA and Final Report to be approved by RDB and WB respectively. These reports will be submitted to LODA, REMA or CoK (procurement entity at the national level or City of Kigali).

Annex 3: Guidelines for preparing the Environmental and Social Management Plan (ESMP)

The main purpose of establishing an ESMP is to manage adverse environmental and social risks and impacts of the project interventions in a manner that minimizes the potential adverse impact on the environment and people of the program influence area. Specific objectives of the ESMP are to: (i) identify the mitigation measures during ESMF and ESIA; and facilitate implementation of those during implementation of RUDP II sub-project activities, (ii) maximization of the potential project benefits while minimizing to the acceptable level the adverse impacts, (iii) draw responsibilities for program proponent, contractors, consultants, and other members of the program team for the environmental and social management of the program; and (iv) define a monitoring mechanism and identify monitoring parameters.

The consulting firm will be required to develop an Environmental and Social Management Plan (ESMP) consisting of a set of feasible and cost-effective mitigation measures and monitoring and institutional plan to avoid or reduce significant negative impacts to acceptable levels. This will include measures for emergency response to accidental events such as fire, explosion, etc., as appropriate. The consulting firm will also provide an estimation of the impacts and costs of the mitigation measures, and of the institutional and training requirements to implement them. The relevant components of ESMP include:

- **Environmental and Social Mitigation & Enhancement Measures**

The consulting firm will recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. In addition to the mitigation of the potential adverse impacts on the environmental components, the ESMP will identify existing opportunities for the enhancement of the environmental quality along the surrounding area. Furthermore, the indirect, direct and residual impacts will also be clearly identified and measures included in the ESMP. Moreover, it will be included in the ESMP the detailed specification, bill of quantities (BoQ), execution drawings and contracting procedures for execution of the environmental mitigation and enhancement measures suggested, separate for pre-construction, construction and operation periods. Good practice guides related to construction and upkeep of plant and machinery will also be included in the ESMP. Responsibilities for execution and supervision of each of the mitigation and enhancement measures will be specified in the ESMP. An annex of a plan for a continued consultation to be conducted during implementation stage of the project will also be appended to the ESMP.

- **Institutional arrangements, capacity building and trainings**

The ESMPs will describe the implementation arrangements required for the project, implementation of ESMP, particularly the capacity building proposals including the staffing of the environment unit suitable to implement the environmental mitigation and enhancement measures. A detailed job duties and responsibilities will be specified for each staff position recommended to be created. In addition, equipment and resources required for the environment unit will be specified, as well as the bill of quantities prepared. Furthermore, a training plan including schedule will be prepared specifying the target groups for individual training programs, the content and mode of training. This training plans will normally be made for the client agency including the environmental unit, the supervision consultants and the contractors.

- **Supervision and Monitoring**

As an integral part of the ESMP, an environmental monitoring plan will outline specific data and information to be collected to ensure environmental quality at different stages of the project implementation. In addition, the parameters and their frequency of monitoring will be provided along with cost of the monitoring plan and institutional arrangements for conducting monitoring. Another important aspect is the reporting formats which will be provided along with a clear arrangement for reporting and talk corrective action. In addition, the ESMP will list all mandatory government clearance modalities and conditions, and the status of procuring clearances.

- **Reporting**

This ESMP will specify the documentation and reporting requirements. The complete record will be maintained for compliance monitoring, effects monitoring, trainings, grievances, accidents, incidents, resource usage, and waste disposal quantities.

- **Grievance Redress Mechanism (GRM)**

The grievance redress mechanism (GRM) described in the ESMP will help to address the project-related grievances and complaints particularly from the local communities and other affected persons (PAPs). The procedures for receiving and handling complaints are presented in annex 5).

- **ESMP implementation cost**

The costs for implementing the ESMP are part of the project cost and will include personnel costs, costs on trainings, effects monitoring, additional studies, and other important aspects.

Annex 4: Standardized Environmental and Social Technical Clauses (ESTCs) to be considered in the ESMP and for later inclusion in Tender Documents.

ESTC 1: Waste Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
General Waste	Soil and water pollution from the improper management of wastes and excess materials from the construction sites.	The Contractor shall: • Develop waste management plan for various specific waste streams (e.g., reusable waste, flammable waste, construction debris, food waste etc.) prior to commencing of construction and submit to DSM for approval. • Organize disposal of all wastes generated during construction in an environmentally acceptable manner. This will include consideration of the nature and location of disposal site, so as to cause less environmental impact. • Wherever practical. • Segregate and reuse or recycle all the wastes, wherever practical. • Prohibit burning of solid waste • Collect and transport non-hazardous wastes to all the approved disposal sites. Vehicles transporting solid waste shall be covered with tarps or nets to prevent spilling waste along the route • Train and instruct all personnel in waste management practices and procedures as a component of the environmental induction process. • Provide refuse containers at each worksite. • Request suppliers to minimize packaging where practicable. • Place a high emphasis on good housekeeping practices. • Maintain all construction sites in a cleaner, tidy and safe condition and provide and maintain appropriate facilities as temporary storage of all wastes before transportation and final disposal.
Hazardous Waste	Health hazards and environmental impacts due to improper waste management practices	The Contractor shall • Collect chemical wastes in 200 liter drums (or similar sealed container), appropriately labeled for safe transport to an approved chemical waste depot. • Store, transport and handle all chemicals avoiding potential environmental pollution. • Store all hazardous wastes appropriately in bunded areas away from water courses. • Make available Material Safety Data Sheets (MSDS) for hazardous materials on-site during construction. • Collect hydrocarbon wastes, including lube oils, for safe transport off-site for reuse, recycling, treatment or disposal at approved locations.

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Construct concrete or other impermeable flooring to prevent seepage in case of spills.

ESTC 2: Fuels and Hazardous Substances Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Fuels and hazardous goods	Materials used in construction have a potential to be a source of contamination. Improper storage and handling of fuels, lubricants, chemicals and hazardous goods/materials on-site, and potential spills from these goods may harm the environment or health of construction workers.	The Contractor shall; • Prepare spill control procedures and submit the plan for DSM approval. • Train the relevant construction personnel in handling of fuels and spill control procedures. • Store dangerous goods in bunded areas on a top of a sealed plastic sheet away from watercourses. • Refueling shall occur only within bunded areas. • Make available MSDS for chemicals and dangerous goods on-site. • Transport waste of dangerous goods, which cannot be recycled, to a designated disposal site approved by REMA. • Provide absorbent and containment material (e.g., absorbent matting) where hazardous material are used and stored and personnel trained in the correct use. • Provide protective clothing, safety boots, helmets, masks, gloves, goggles, to the construction personnel, appropriate to materials in use. • Make sure all containers, drums, and tanks that are used for storage are in good condition and are labeled with expiry date. Any container, drum, or tank that is dented, cracked, or rusted might eventually leak. Check for leakage regularly to identify potential problems before they occur. • Store hazardous materials above flood plain level. • Put containers and drums in temporary storages in clearly marked areas, where they will not be run over by vehicles or heavy machinery. The area shall preferably slope or drain to a safe collection area in the event of a spill. • Put containers and drums in permanent storage areas on an impermeable floor that slopes to a safe collection area in the event of a spill or leak. • Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution. • Avoid the use of material with greater potential for contamination by substituting them with more environmentally friendly materials. • Return the gas cylinders to the supplier. However, if they are not empty prior to their return, they must be labeled with the name of the material they contained or contain, information on the supplier, cylinder serial number, pressure, their last hydrostatic test date, and any additional identification marking that may be considered necessary.

ESTC 3: Water Resources Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Hazardous Material and Waste	Water pollution from the storage, handling and disposal of hazardous materials and general construction waste, and accidental spillage.	The Contractor shall: • Follow the management guidelines proposed in ESTCs 1 and 2. • Minimize the generation of sediment, oil and grease, excess nutrients, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes). These substances must not enter waterways, storm water systems or underground water tables.
Discharge from Construction sites	During construction both surface and groundwater quality may be deteriorated due to construction activities in the river, sewerages from construction sites and work camps. The construction works will modify groundcover and topography changing the surface water drainage patterns of the area including infiltration and storage of storm water. These changes in hydrological regime lead to increased rate of runoff, increase in sediment and contaminant loading, increased flooding, groundwater contamination, and effect habitat of fish and other aquatic biology.	The Contractor shall: • Install temporary drainage works (channels and bunds) in areas required for sediment and erosion control and around storage areas for construction materials • Install temporary sediment basins, where appropriate, to capture sediment-laden run-off from site • Divert runoff from undisturbed areas around the construction site • Stockpile materials away from drainage lines • Prevent all solid and liquid wastes entering waterways by collecting solid waste, oils, chemicals, bitumen spray waste and wastewaters from brick, concrete and asphalt cutting where possible and transport to an approved waste disposal site or recycling depot • Wash out ready-mix concrete agitators and concrete handling equipment at washing facilities off site or into approved bunded areas on site. Ensure that tires of construction vehicles are cleaned in the washing bay (constructed at the entrance of the construction site) to remove the mud from the wheels. This shall be done in every exit of each construction vehicle to ensure the local roads are kept clean.
Soil Erosion and siltation	Soil erosion and dust from the material stockpiles will increase the sediment and contaminant loading of surface water bodies.	The Contractor shall: • Stabilize the cleared areas not used for construction activities with vegetation or appropriate surface water treatments as soon as practicable following earthwork to minimize erosion • Ensure that roads used by construction vehicles are swept regularly to remove sediment • Water the material stockpiles, access roads and bare soils on an as required basis to minimize dust. Increase the watering frequency during periods of high risk (e.g. high winds)
Construction activities in water bodies	Construction works in the water bodies will increase sediment and contaminant loading, and	The Contractor shall: • Dewater sites by pumping water to a sediment basin prior to release off site – do not pump directly off site

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
	effect habitat of fish and other aquatic biology.	• Monitor the water quality in the runoff from the site or areas affected by dredge plumes, and improve work practices as necessary • Protect water bodies from sediment loads by silt screen or bubble curtains or other barriers • Minimize the generation of sediment, oil and grease, excess nutrients, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes). These substances must not enter waterways, storm water systems or underground water tables. • Use environment friendly and nontoxic slurry during construction of piles to discharge into the river. • Reduce infiltration of contaminated drainage through storm water management design • Do not discharge cement and water curing used for cement concrete directly into water courses and drainage inlets.
Drinking water	Groundwater at shallow depths is contaminated with arsenic and hence not suitable for drinking purposes.	The Contractor shall: • Pumping of groundwater shall be from deep aquifers of more than 300 m to supply arsenic free water. Safe and sustainable discharges are to be ascertained prior to selection of pumps. • Tube wells will be installed with due regard for the surface environment, protection of groundwater from surface contaminants, and protection of aquifer cross contamination • All tube wells, test holes, monitoring wells that are no longer in use or needed shall be properly decommissioned.
	Depletion and pollution of groundwater resources	• Install monitoring wells both upstream and downstream areas near construction yards and construction camps to regularly monitor the water quality and water levels. • Protect groundwater supplies of adjacent lands

ESTC 4: Drainage Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Excavation and earth works, and construction yards	Lack of proper drainage for rainwater/liquid waste or wastewater owing to the construction activities harms environment in terms of water and soil contamination, and mosquito growth.	The Contractor shall: • Prepare a program for prevent/avoid standing waters, which DSM will verify in advance and confirm during implementation • Provide alternative drainage for rainwater if the construction works/earth-fillings cut the established drainage line • Establish local drainage line with appropriate silt collector and silt screen for rainwater or wastewater connecting to the existing established drainage lines already there

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Rehabilitate road drainage structures immediately if damaged by contractors' road transports. • Build new drainage lines as appropriate and required for wastewater from construction yards connecting to the available nearby recipient water bodies. Ensure wastewater quality conforms to the relevant standards provided by Rwanda Standards Board (RSB), before it being discharged into the recipient water bodies. • Ensure the internal roads/hard surfaces in the construction yards/construction camps that generate has storm water drainage to accommodate high runoff during downpour and that there is no stagnant water in the area at the end of the downpour. • Construct wide drains instead of deep drains to avoid sand deposition in the drains that require frequent cleaning. • Provide appropriate silt collector and silt screen at the inlet and manholes and periodically clean the drainage system to avoid drainage congestion. • Protect natural slopes of drainage channels to ensure adequate storm water drains. • Regularly inspect and maintain all drainage channels to assess and alleviate any drainage congestion problem. • Reduce infiltration of contaminated drainage through storm water management design.
Ponding of water	Health hazards due to mosquito breeding	The Contractor shall: • Do not allow ponding/storage of water especially near the waste storage areas and construction camps • Discard all the storage containers that are capable of storing of water, after use or store them in inverted position.

ESTC 5: Soil Quality Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Filling of Sites with dredge spoils	Soil contamination will occur from drainage of dredged spoils	The Contractor shall: • Ensure that dredged sand used for land filling shall be free of pollutants. Prior to filling, sand quality shall be tested to confirm whether soil is pollution free. Sediments shall be properly compacted. Top layer shall be the 0.5 m thick clay on the surface and boundary slopes along with grass. Side Slope of Filled Land of 1:2 shall be constructed by suitable soils with proper compaction as per design. Slope surface shall be

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		covered by top soils/ cladding materials (0.5m thick) and grass turfing with suitable grass. • Leaching from the sediments shall be contained to seep into the subsoil or shall be discharged into settling lagoons before final disposal. • No sediment laden water in the adjacent lands near the construction sites, and/or wastewater of suspended materials in excess of 200mg/l from dredge spoil storage/use area in the adjacent agricultural lands.
Storage of hazardous and toxic chemicals	Spillage of hazardous and toxic chemicals will contaminate the soils	The Contractor shall: • Strictly manage the wastes management plans proposed in ESTC1 and storage of materials in ESTC2 • Construct appropriate spill contaminant facilities for all fuel storage areas • Establish and maintain a hazardous materials register detailing the location and quantities of hazardous substances including the storage, use of disposals • Train personnel and implement safe work practices for minimizing the risk of spillage • Identify the cause of contamination, if it is reported, and contain the area of contamination. The impact may be contained by isolating the source or implementing controls around the affected site • Remediate the contaminated land using the most appropriate available method to achieve required commercial/industrial guideline validation results.
Construction material stock piles	Erosion from construction material stockpiles may contaminate the soils	The Contractor shall: • Protect the toe of all stockpiles, where erosion is likely to occur, with silt fences, straw bales or bunds.

ESTC 6: Erosion and Sediment Control

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Clearing of construction sites	Cleared areas and slopes are susceptible for erosion of top soils that affects the growth of vegetation which causes ecological imbalance	The Contractor shall: • Reinstate and protect cleared areas as soon as possible. • Mulch to protect batter slopes before planting • Cover unused area of disturbed or exposed surfaces immediately with mulch/grass turfings/tree plantations.
Construction activities and material stockpiles	The impact of soil erosion are (i) Increased run off and sedimentation causing a greater flood hazard to the downstream, (ii) destruction of aquatic environment in nearby	The Contractor shall: • Locate stockpiles away from drainage lines • Protect the toe of all stockpiles, where erosion is likely to occur, with silt fences, straw bales or bunds • Remove debris from drainage paths and sediment control structures

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
	lakes, streams, and reservoirs caused by erosion and/or deposition of sediment damaging the spawning grounds of fish, and (iii) destruction of vegetation by burying or gullying.	• Cover the loose sediments and water them if required • Divert natural runoff around construction areas prior to any site disturbance • Install protective measures on site prior to construction, for example, sediment traps • Control drainage through a site in protected channels or slope drains • Install 'cut off drains' on large cut/fill batter slopes to control water runoff speed and hence erosion • Observe the performance of drainage structures and erosion controls during rain and modify as required.

ESTC 7: Top Soil Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Land clearing and earth works	Earthworks will impact the fertile top soils that are enriched with nutrients required for plant growth or agricultural development	The Contractor shall: • Strip the top soil to a depth of 15 cm and store in stock piles of height not exceeding 2m. • Remove unwanted materials from top soil like grass, roots of trees and similar others. • The stockpiles will be done in slopes of 2:1 to reduce surface runoff and enhance percolation through the mass of stored soil. • Locate topsoil stockpiles in areas outside drainage lines and protect from erosion. • Construct diversion channels and silt fences around the topsoil stockpiles to prevent erosion and loss of topsoil. • Spread the topsoil to maintain the physico-chemical and biological activity of the soil. The stored top soil will be utilized for covering all disturbed area and along the proposed plantation sites • Prior to the re-spreading of topsoil, the ground surface will be ripped to assist the bunding of the soil layers, water penetration and revegetation.
Transport	Vehicular movement outside ROW or temporary access roads will affect the soil fertility of the agricultural lands	The Contractor shall: • Limit equipment and vehicular movements to within the approved construction zone • Construct temporary access tracks to cross concentrated water flow lines at right angles • Plan construction access to make use, if possible, of the final road alignment • Use vehicle-cleaning devices, for example, ramps or wash down areas.

ESTC 8: Topography and Landscaping

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Land clearing and earth works	Flood plains of the existing Project area will be affected by the construction of various project activities. Construction activities especially earthworks will change topography and disturb the natural rainwater/flood water drainage as well as will change the local landscape.	The Contractor shall: • Ensure the topography of the final surface of all raised lands (construction yards, approach roads, access roads, bridge end facilities, etc.) are conducive to enhance natural draining of rainwater/flood water; • Keep the final or finished surface of all the raised lands free from any kind of depression that insists water logging • Undertake mitigation measures for erosion control/prevention by grass-turfing and tree plantation, where there is a possibility of rain-cut that will change the shape of topography. • Cover immediately the uncovered open surface that has no use of construction activities with grass-cover and tree plantation to prevent soil erosion and bring improved landscaping.

ESTC 9: Sand Extraction

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Sand extraction	Sand extraction can potentially impact the aquatic habitat, water quality, and key aquatic species and their food availability.	The Contractor shall: • not extract sand from the river bed in long continuous stretches; alternate patches of river bed will be left undisturbed to minimize the potentially negative impacts on the aquatic habitat. • not collect large quantities of sand from any single location • not excavate deeper than 3 m at any single location. • not carry out sand extraction near chars that have sensitive Habitats • not carry out sand extraction during the night particularly near the chars • obtain approval from DSM before starting sand extraction from any location. • carry out sand extraction from sand bars to the extent possible. • maintain record of all sand extraction (quantities, location shown on map, timing, any sighting of key species) • provide silt fences, sediment barriers or other devices around the extraction areas to prevent migration of sediment rich water in to the river channels. • refuel of trucks with a proper care to avoid any spills. • make available spill kits and other absorbent material at refueling points on the trucks.

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		DSM will: • carry out survey of the area prior to sand extraction • identify any sensitive receptors/habitats (e.g. bird colony) at or near the proposed sand extraction locations. • determine 'no-go' areas for sand extraction, based upon the above survey, • monitor the activity to ensure that the contractor complies with the conditions described earlier. • survey the area after sand extraction to identify any leftover impacts.

ESTC 10: Air Quality Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction vehicular traffic	Air quality can be adversely affected by vehicle exhaust emissions and combustion of fuels.	The Contractor shall: • Fit vehicles with appropriate exhaust systems and emission control devices. Maintain these devices in good working condition. • Operate the vehicles in a fuel-efficient manner • Cover haul vehicles carrying dusty materials moving outside the construction site Impose speed limits on all vehicle movement at the worksite to reduce dust emissions • Control the movement of construction traffic • Water construction materials prior to loading and transport • Service all vehicles regularly to minimize emissions • Limit the idling time of vehicles not more than 2 minutes.
Construction machinery	Air quality can be adversely affected by emissions from machinery and combustion of fuels.	The Contractor shall: • Fit machinery with appropriate exhaust systems and emission control devices. Maintain these devices in good working condition in accordance with the specifications defined by their manufacturers to maximize combustion efficiency and minimize the contaminant emissions. Proof or maintenance register shall be required by the equipment suppliers and contractors/ subcontractors • Focus special attention on containing the emissions from generators • Machinery causing excess pollution (e.g. visible smoke) will be banned from construction sites • Service all equipment regularly to minimize emissions • Provide filtering systems, duct collectors or humidification or other techniques (as applicable) to the concrete batching and mixing plant to control the particle emissions in all its

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		stages, including unloading, collection, aggregate handling, cement dumping, circulation of trucks and machinery inside the installations
Construction activities	Dust generation from construction sites, material stockpiles and access roads is a nuisance in the environment and can be a health hazard.	The Contractor shall: • Water the material stockpiles, access roads and bare soils on an as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (e.g. high winds). Stored materials such as gravel and sand shall be covered and confined to avoid their being wind-drifted • Minimize the extent and period of exposure of the bare surfaces • Reschedule earthwork activities or vegetation clearing activities, where practical, if necessary to avoid during periods of high wind and if visible dust is blowing off-site • Restore disturbed areas as soon as practicable by vegetation/grass-turfing • Store the cement in silos and minimize the emissions from silos by equipping them with filters. • Establish adequate locations for storage, mixing and loading of construction materials, in a way that dust dispersion is prevented because of such operations • Crushing of rocky and aggregate materials shall be wet-crushed, or performed with particle emission control systems.

ESTC 11: Noise and Vibration Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction vehicular traffic	Noise quality will be deteriorated due to vehicular traffic	The Contractor shall: • Maintain all vehicles in order to keep it in good working order in accordance with manufactures maintenance procedures • Make sure all drivers will comply with the traffic codes concerning maximum speed limit, driving hours, etc. • Organize the loading and unloading of trucks, and handling operations for the purpose of minimizing construction noise on the work site
Construction machinery	Noise and vibration may have an impact on people, property especially damage caused to houses and other property due compacting vibrations and excavations during road construction.	The Contractor shall: • Not carry out any blasting during excavation or any other activity • Provide PPE protection to workers (masks, ear protection) • Control noise and vibration accoding to level acceptable in the country regulations or the WB

		• Appropriately site all noise generating activities to avoid noise pollution to local residents • Use the quietest available plant and equipment • Modify equipment to reduce noise (for example, noise control kits, lining of truck trays or pipelines) • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. Equipment suppliers and contractors shall present proof of maintenance register of their equipment. • Install acoustic enclosures around generators to reduce noise levels. • Fit high efficiency mufflers to appropriate construction equipment • Avoid the unnecessary use of alarms, horns and sirens • Compensate damage to houses and other property
Construction activities	Noise and vibration may have an impact on people, property, fauna, livestock and the natural environment.	The Contractor shall: • Notify adjacent landholders prior any typical noise events outside of daylight hours • Educate the operators of construction equipment on potential noise problems and the techniques to minimize noise emissions • Employ best available work practices on-site to minimize occupational noise levels • Install temporary noise control barriers where appropriate • Notify affected people if major noisy activities will be undertaken, e.g. pile driving • Plan activities on site and deliveries to and from site to minimize impact • Monitor and analyze noise and vibration results and adjust construction practices as required. • Avoid undertaking the noisiest activities, where possible, when working at night near the residential areas.

ESTC 12: Protection of Flora

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Vegetation clearance	Local flora is important to provide shelters for the birds, offer fruits and/or timber/fire wood, protect soil erosion and overall keep the environment very friendly to human living. As such damage to flora has wide range of adverse environmental impacts.	The Contractor shall: • Reduce disturbance to surrounding vegetation • Use appropriate type and minimum size of machine to avoid disturbance to adjacent vegetation. • Get approval from supervision consultant for clearance of vegetation. • Make selective and careful pruning of trees where possible to reduce need of tree removal. • Control noxious weeds by disposing of at designated dump site or burn on site.

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Clear only the vegetation that needs to be cleared in accordance with the plans. These measures are applicable to both the construction areas as well as to any associated activities such as sites for stockpiles, disposal of fill and construction of diversion roads, etc. • Do not burn off cleared vegetation – where feasible, chip or mulch and reuse it for the rehabilitation of affected areas, temporary access tracks or landscaping. Mulch provides a seed source, can limit embankment erosion, retains soil moisture and nutrients, and encourages regrowth and protection from weeds. • Return topsoil and mulched vegetation (in areas of native vegetation) to approximately the same area of the roadside it came from. • Avoid work within the drip-line of trees to prevent damage to the tree roots and compacting the soil. • Minimize the length of time the ground is exposed or excavation left open by clearing and re-vegetate the area at the earliest practically possible. • Ensure excavation works occur progressively and revegetation done at the earliest • Provide adequate knowledge to the workers regarding nature protection and the need of avoid felling trees during construction • Supply appropriate fuel in the work caps to prevent fuel wood collection

ESTC 13: Protection of Fauna

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities	The location of construction activities can result in the loss of wild life habitat and habitat quality.	The Contractor shall: • Limit the construction works within the designated sites allocated to the contractors • Check the site for animals trapped in, or in danger from site works and use a qualified person to relocate the animal.
	Impact on migratory birds, its habitat and its active nests	The Contractor shall: • Not be permitted to destruct active nests or eggs of migratory birds • Minimize the tree removal during the bird breeding season. If works must be continued during the bird breeding season, a nest survey will be conducted by a qualified biologist prior to commence of works to identify and located active nests • Minimize the release of oil, oil wastes or any other substances harmful to migratory birds to

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		any waters or any areas frequented by migratory birds.
Vegetation clearance	Clearance of vegetation may impact shelter, feeding and/or breeding and/or physical destruction and severing of habitat areas	The Contractor shall: • Restrict the tree removal to the minimum required. • Retain tree hollows on site, or relocate hollows, where appropriate • Leave dead trees where possible as habitat for fauna • Fell the hollow bearing trees in a manner which reduces the potential for fauna mortality. Felled trees will be inspected after felling for fauna and if identified and readily accessible will be removed and relocated or rendered assistance if injured. After felling, hollow bearing trees will remain unmoved overnight to allow animals to move of their own volition.
Construction camps	Illegal poaching	The Contractor shall: • Provide adequate knowledge to the workers regarding protection of flora and fauna, and relevant government regulations and punishments for illegal poaching.

ESTC 14: Protection of Fisheries

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities in River and Floodplain Water	The main potential impacts to fisheries are hydrocarbon spills and leaks from earthworks equipment and disposal of wastes into the river and floodplain water	The Contractor shall: • Contain oil immediately on river in case of accidental spillage from earthworks equipment and in this regard, make an emergency oil spill containment plan to be supported with enough equipment, materials and human resources • Do not dump wastes, be it hazardous or non-hazardous into the nearby water bodies or in the river.
	The main potential impacts to aquatic flora and fauna River are increased suspended solids from earthworks erosion, sanitary discharge from work camps, and hydrocarbon spills	The Contractor shall: • Follow mitigation measures proposed in ESTC 3: Water Resources Management and ESTC4: Drainage Management
Construction activities on the land	Filling of ponds for site preparation will impact the fishes	The Contractor shall: • Inspect any area of a water body containing fish that is temporarily isolated for the presence of fish, and all fish shall be captured and released unharmed in adjacent fish habitat • Install and maintain fish screens etc. on any water intake with drawing water from any water body that contain fish.

ESTC 15: Road Transport and Road Traffic Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction vehicular traffic	Increased traffic use of road by construction vehicles will affect the movement of normal road traffics and the safety of the road-users.	The Contractor shall: • Prepare and submit a traffic management plan to the DSM for his approval at least 30 days before commencing work on any project component involved in traffic diversion and management. • Include in the traffic management plan to ensure uninterrupted traffic movement during construction: detailed drawings of traffic arrangements showing all detours, temporary road, temporary bridges temporary diversions, necessary barricades, warning signs / lights, and road signs. • Provide signs at strategic locations of the roads complying with the schedules of signs contained in the Rwanda Traffic Regulations. • Install and maintain a display board at each important road intersection on the roads to be used during construction, which shall clearly show the following information in Kinyarwanda: o Location: Village name o Duration of construction period o Period of proposed detour / alternative route o Suggested detour route map o Name and contact address/telephone number of the concerned personnel o Name and contact address / telephone number of the Contractor o Inconvenience is sincerely regretted.
	Accidents and spillage of fuels and chemicals	The Contractor shall: • Restrict truck deliveries, where practicable, to day time working hours. • Restrict the transport of oversize loads. • Operate road traffics/transport vehicles, if possible, to nonpeak periods to minimize traffic disruptions. • Enforce on-site speed limit

ESTC 16: Wetland use activities

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Earthworks and green infrastructure construction activities in wetlands	The presence of construction pipe lines and other construction activities in the wetland can cause hindrance and risks to the farmers.	The Contractor shall: • Avoid as much as possible disruption of wetland farming and other livelihood activities • Identify the channel to be followed clearly using navigation aids such as buoys on open water, beacons, and lighting • Where possible, provide proper buoyage, navigation lights and markings for bridge and

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		earthworks to guide the other normal wetland use activities
	Accidents	The Contractor shall: • Prepare an emergency plan for dealing with accidents while making earthworks and civil works in wetland rehabilitation activities. • Ensure sufficient equipment and staff available to execute the emergency plans • Provide appropriate lighting to earthworks and construction vessels.

ESTC 17: Construction Camp Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Siting and Location of construction camps	Campsites for construction workers are the important locations that have significant impacts such as health and safety hazards on local resources and infrastructure of nearby communities.	-**Labor camps will be small in the project- these camps will not include dormitories, only areas for eating, hygene and sanitation, storage of belongings, etc.** -Construction camps are/will be small and will be place in areas approved by the Project Engienner and the Environmental Officer at the district and the ESMU team. These are areas to store materials, machinery, etc. -Labor camps and Construction camps will be installed as far as possible from the communities in order to avoid social conflicts; The Contractor shall propose in its Construction-ESMP: • Locations for the proposed construction and labor camps which are acceptable from environmental, cultural or social point of view. • Consider location for construction and labor camps away from communities in order to avoid social conflict in using the natural resources such as water or to avoid the possible adverse impacts of the construction camps on the surrounding communities. • Submit to the DSM for approval a detailed layout plan for the installment of construction and labor camp showing the relative locations of all temporary buildings and facilities that are to be constructed in relation to roads, fuel storage areas (for use in power supply generators), solid waste management and dumping locations proposal, and drainage facilities, prior to the initiation of the • Local authorities responsible in the district for Enviroment health, social affairs and security shall be duly informed on the set up of camp facilities so as to maintain effective surveillance over public health, social and security matters. •

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction Camp Facilities	Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.	The Contractor shall provide the following facilities in the camp sites: • Adequate housing for all workers • Safe and reliable water supply. Water supply from deep tube wells of 300 m depth that meets the national standards • Hygienic sanitary facilities and sewerage system. The toilets and domestic wastewater will be collected through a common sewerage. Provide separate latrines and bathing places for males and females with total isolation by wall or by location. The minimum number of toilet facilities required is one toilet for every ten persons. • Treatment facilities for sewerage of toilet and domestic wastes • Storm water drainage facilities. Both sides of roads are to be provided with shallow v drains to drain off storm water to a silt retention pond which shall be sized to provide a minimum of 20 minutes retention of storm water flow from the whole site. Channel all discharge from the silt retention pond to natural drainage via a grassed swale at least 20 meters in length with suitable longitudinal gradient. • Paved internal roads. Ensure with grass/ vegetation coverage to be made of the use of top soil that there is no dust generation from the loose/exposed sandy surface. Pave the internal roads of at least haring-bond bricks to suppress dusts and to work against possible muddy surface during monsoon. • Provide child crèches for women working construction site. The crèche shall have facilities for dormitory, kitchen, indoor and outdoor play area. Schools shall be attached to these crèches so that children are not deprived of education whose mothers are construction workers • Provide in-house community/common entertainment facilities. Dependence on local entertainment outlets by the construction camps to be discouraged/prohibited to the extent possible.
Disposal of waste	Management of wastes is crucial to minimize impacts on the environment	The Contractor shall: • Ensure proper collection and disposal of solid wastes within the construction camps • Insist waste separation by source; organic wastes in one pot and inorganic wastes in another pot at household level. • Store inorganic wastes in a safe place within the household and clear organic wastes on daily basis to waste collector. Establish waste collection, transportation and disposal systems with the manpower and equipment/vehicles needed.

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Dispose organic wastes in a designated safe place on daily basis. At the end of the day cover the organic wastes with a thin layer of sand so that flies, mosquitoes, dogs, cats, rats, are not attracted. One may dig a large hole to put organic wastes in it; take care to protect groundwater from contamination by leachate formed due to decomposition of wastes. Cover the bed of the pit with impervious layer of materials (clayey or thin concrete) to protect groundwater from contamination. • Locate the garbage pit/waste disposal site min 500 m away from the residence so that peoples are not disturbed with the odor likely to be produced from anaerobic decomposition of wastes at the waste dumping places. Encompass the waste dumping place by fencing and tree plantation to prevent children to enter and play with. • Do not establish site specific landfill sites. All solid waste will be collected and removed from the work camps and disposed in approval waste disposal sites.
Fuel supplies for cooking purposes	Illegal sourcing of fuel wood by construction workers will impact the natural flora and fauna	The Contractor shall: • Provide fuel to the construction camps for their domestic purpose, in order to discourage them to use fuel wood or other biomass. • Made available alternative fuels like natural gas or kerosene on ration to the workforce to prevent them using biomass for cooking. • Conduct awareness campaigns to educate workers on preserving the protecting the biodiversity and wildlife of the project area, and relevant government regulations and punishments on wildlife protection.
Health and Hygiene	There will be a potential for diseases to be transmitted including malaria, exacerbated by inadequate health and safety practices. There will be an increased risk of work crews spreading sexually transmitted infections and HIV/AIDS.	The Contractor shall: • Provide adequate health care facilities within construction sites. • Provide first aid facility round the clock. Maintain stock of medicines in the facility and appoint fulltime designated first aider or nurse. • Provide ambulance facility for the laborers during emergency to be transported to nearest hospitals. • Initial health screening of the laborers coming from outside areas • Train all construction workers in basic sanitation and health care issues and safety matters, and on the specific hazards of their work • Provide HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Complement educational interventions with easy access to condoms at campsites as well as voluntary counseling and testing • Install drainage facilities throughout the construction and labor camps and other project areas to ensure that disease vectors such as stagnant water bodies and puddles do not form. • Regular mosquito repellant sprays during the wet seasons. • Carryout short training sessions on best hygiene practices to be mandatorily participated by all workers. Place display boards at strategic locations within the project area containing messages on best hygienic practices
Safety	In adequate safety facilities to the construction camps may create security problems and fire hazards	The Contractor shall • Provide appropriate security personnel (police / home guard or private security guards) and enclosures to prevent unauthorized entry in to the camp area. • Maintain register to keep a track on a head count of persons present in the camp at any given time. • Encourage use of flameproof material for the construction of labor housing / site office. Also, ensure that these houses/rooms are of sound construction and capable of withstanding storms with strong winds and installed with lightening protection. • Provide appropriate type of firefighting equipment suitable for the construction camps • Display emergency contact numbers clearly and prominently at strategic places in camps. • Communicate the roles and responsibilities of laborers in case of emergency in the monthly meetings with contractors
Site Restoration	Restoration of the construction camps to original condition requires demolition of Construction camps.	The Contractor shall: • Dismantle and remove from the site all facilities established within the construction camp including the perimeter fence and lockable gates if build. • Maintain the noise levels within the national standards during demolition activities or international standards (noise residential level can not be more than 80 dB) • Constractor should connect with NGOs or the community to see potential use of good material that can be use by others. • Dispose remaining debris at the designated waste disposal site. • Handover the areas to lan owner or district if agreement between both parties (contactor and land-owner) has been made and it will be signed an verifiy in a writen report by the ESS that the area is clean of construction waste, hazardous waste (painting, diesel, oils, others).

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Restore the site to its condition prior to commencement of the works or to an agreed condition with the landowner.

ESTC 18: Cultural and Religious Issues

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities near religious and cultural sites	Disturbance from construction works to the cultural and religious sites, and contractors lack of knowledge on cultural issues cause social disturbances.	The Contractor shall: • Communicate to the public through community consultation and newspaper announcements regarding the scope and schedule of construction, as well as certain construction activities causing disruptions or access restriction. • Will not block access to cultural and religious sites, wherever possible • Restrict all construction activities within the foot prints of the construction sites. • Stop construction works that produce noise (particularly during prayer time) shall there be any place of worship/religious/educational institutions close to the construction sites and users make objections. • Take special care and use appropriate equipment when working next to a cultural/religious institution. • Stop work immediately and notify the site manager if, during construction, an archaeological, grave or burial site is discovered. It is an offence to recommence work in the vicinity of the site until approval to continue is given by the DSM/PIU. Provide separate prayer facilities to the construction workers. • Show appropriate behavior with all construction workers especially women and elderly people • Allow the workers to participate in praying during construction time • Resolve cultural issues in consultation with local leaders and supervision consultants • Establish a mechanism that allows local people to raise grievances arising from the construction process. • Ensure the local authorities responsible for health, religious and security are duly informed before commencement of civil works so as to maintain effective surveillance over public health, social and security matters

ESTC 19: Worker Health and Safety

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Best practices	Construction works may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths. The population in the proximity of the construction site and the construction workers will be exposed to a number of (i) biophysical health risk factors, (e.g. noise, dust, chemicals, construction material, solid waste, waste water, vector transmitted diseases etc), (ii) risk factors resulting from human behavior (e.g. STD, HIV etc) and (iii) road accidents from construction traffic.	The Contractor shall: • Implement suitable safety standards for all workers and site visitors which shall not be less than those laid down on the international standards (e.g. International Labor Office guideline on 'Safety and Health in Construction; World Bank Group's 'Environmental Health and Safety Guidelines') and contractor's own national standards or statutory regulations, in addition to complying with the national standards of the Government of Rwanda (e.g. `Law no 66/2018 regulating labor in Rwanda') • Provide the workers with a safe and healthy work environment, taking into account inherent risks in its particular construction activity and specific classes of hazards in the work areas, • Provide personal protection equipment (PPE) for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones. • Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job • Appoint an environment, health and safety manager to look after the health and safety of the workers • Inform the local authorities responsible for health, religious and security duly informed before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters.
	Child and pregnant labor	The Contractor shall: • Not hire children of less than 18 in accordance with the Law no 66/2018 regulating labor in Rwanda.
Accidents	Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victims	• Provide health care facilities and first aid facilities are readily available. Appropriately equipped first-aid stations shall be easily accessible throughout the place of work • Document and report occupational accidents, diseases, and incidents. • Prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, so far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice. • Identify potential hazards to workers, particularly those that may be life-threatening and provide necessary preventive and protective measures. • Provide awareness to the construction drivers to strictly follow the driving rules

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Provide adequate lighting in the construction area and along the roads
Construction Camps	Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.	• The Contractor shall provide the following facilities in the campsites to improve health and hygienic conditions as mentioned in ESTC 17 Construction Camp Management • Adequate ventilation facilities • Safe and reliable water supply. Water supply from deep tube wells that meets the national standards • Hygienic sanitary facilities and sewerage system. The toilets and domestic wastewater will be collected through a common sewerage system. • Treatment facilities for sewerage of toilet and domestic wastes • Set up storm water drainage facilities. • Set up recreational and social facilities • Set up safe storage facilities for petroleum and other chemicals in accordance with ESTC2 • Arrange solid waste collection and disposal system in accordance with ESTC1. • Arrangement for trainings • Pave internal roads. • Erect a security fence at least 2 m height. • Establish a sick bay and first aid facilities
Water and sanitation facilities at the construction sites	Lack of Water sanitation facilities at construction sites cause inconvenience to the construction workers and affect their personal hygiene.	• The contractor shall provide portable toilets at the construction sites, if about 25 people are working the whole day for a month. Location of portable facilities shall be at least 6 m away from storm drain system and surface waters. These portable toilets shall be cleaned four times a day and all the sewerage shall be pumped from the collection tank once a day and shall be brought to the common septic tank for further treatment. • Contractor shall provide bottled drinking water facilities to the construction workers at all the construction sites.
Other ESTCs	Potential risks on health and hygiene of construction workers and general public	The Contractor shall follow the following ESTCs to reduce health risks to the construction workers and nearby community • ESTC 2: Fuels and Hazardous Goods Management • ESTC 4: Drainage Management • ESTC 10: Air Quality Management • ESTC 11: Noise and Vibration Management • ESTC 15: Road Transport and Road Traffic Management • ESTC 16: Wetland use activities
Trainings	Lack of awareness and basic knowledge in health care among the construction workforce, make them susceptible to potential diseases.	The Contractor shall: • Train all construction workers in basic sanitation and health care issues (e.g., how to avoid malaria and transmission of sexually transmitted infections (STI) HIV/AIDS. • Train all construction workers in general health and safety matters, and on the specific hazards of their

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		work Training shall consist of basic hazard awareness, site specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. • Commence the malaria, HIV/AIDS and STI education campaign before the start of the construction phase and complement it with by a strong condom marketing, increased access to condoms in the area as well as to voluntary counseling and testing. • Implement malaria, HIV/AIDS and STI education campaign targeting all workers hired, international and national, female and male, skilled, semi- and unskilled occupations, at the time of recruitment and thereafter pursued throughout the construction phase on ongoing and regular basis. This shall be complemented by easy access to condoms at the workplace as well as to voluntary counseling and testing.

ESTC 20: Social impacts

Project Activity/ Impact Source	Social Impacts	Mitigation Measures/ Management Guidelines
Civil works for infrastructure provision/ upgrade; Civil works for wetland rehab and flood risk reduction	Disruptions of utility services e.g. water/ electricity; Temporary loss of /restricted access to homes, businesses, agricultural fields or other natural livelihood assets; Noise, dust and other nuisances	The Contactor Shall: • Inform the community at least 2 weeks before commencement of the construction. In case electricity and water supplies are to be disrupted, the PMU must inform affected households and businesses of the same at least 2 days in advance. • Limit construction activities at night. In case night construction is inevitable or in case construction causes a disruption of services (power supply, water supply, etc.), inform the community at least 2 days in advance and remind one day in advance. • Place wooden planks over constructed ditches which have not been reinstated to ensure access to the households along the construction route. • Inform the street household businesses of the construction activities and their potential impacts such, waste, dust, and noise, traffic, and construction schedule at least 2 weeks before start of the construction. • Set up construction and traffic warning signs at the construction site. • Provide safe and easy access to the household businesses putting clean and strong thick wood panels or steel plates over the open ditches. • Will not gather materials and wastes within 20m from household businesses and shops. • Will not use machines generating loud noise and high vibration levels near the businesses. • Spray sufficient water to suppress dust during dry and windy days at least three times a day at site. • Deploy staff to guide the traffic during construction during transportation, loading and unloading of

Project Activity/ Impact Source	Social Impacts	Mitigation Measures/ Management Guidelines
		construction materials and wastes, and to guard high risk operations. • Ensure successive supply of materials according to construction schedule, and tidy construction materials and stockpiles every working session. • Clean up construction areas at the end of the day, especially construction areas in front of business shops. • Provide night lighting system with luminously painted fence and night lamp.
	Community health and safety risks due to lack Inadequate/ineffective communication to local community	• Employ local laborers for simple tasks. Instruct workers on environmental issues, safety and health before construction tasks are assigned. It is advisable to communicate to migrant workers on local customs, practices and habits in order to avoid conflicts with local people. • Maintain open communications channels with the local government and concerned communities; the contractor shall coordinate with local authorities (leaders of Cells or Villages, leaders of Sectors) for agreed schedules of construction operations in areas nearby sensitive places or during sensitive times (e.g. religious; sports events). • Copies of Rwandan versions of these ESTCs and of other relevant environmental protection documents shall be made available to local communities and to workers at the site. • Project information will be disseminated to affected parties (e.g. local authorities, businesses and affected households, etc.) through community meetings before construction commencement. • A contact address will be provided to the community. • The community will be provided with all information, especially technical findings, in a language that is understandable to the general public and in a form convenient to interested citizens and elected officials through the preparation of fact sheets and news releases, when major findings become available during project phase. • Community concerns and requested information are to be monitored as the project progresses. • Inquiries must be responded by telephone and written correspondence in a timely and accurate manner. • Local residents must be informed about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, demolition operations, as appropriate. • Technical documents and drawings will be provided to local authorities, especially the sketch of construction areas and the ESMP of the construction site.

Project Activity/ Impact Source	Social Impacts	Mitigation Measures/ Management Guidelines
		• Notification boards shall be erected at all construction sites providing information about the project, as well as contact information about the site managers, environmental staff, health and safety staff, telephone numbers and other contact information so that affected people could have a channel to voice their concerns and suggestions.

Annex 5: Example of GRM language

Procedures for Complaints

Registering Complaints

The RESPONSIBLE AUTHORITY will provide multiple access points to the Project's GM focal point for beneficiaries to voice their concerns. These access points will be advertised. They will include a complaint box at the RESPONSIBLE AUTHORITY's office, mail, telephone, email and website:

Address

Telephone

Email

Website

The RESPONSIBLE AUTHORITY will keep a log of issues brought to their attention verbally or in writing by Project affected communities or individuals. The RESPONSIBLE AUTHORITY will determine if these concerns rise to the level of a complaint.

The RESPONSIBLE AUTHORITY will register the complaint in a dedicated log, including a copy of the complaint and supporting documents. A draft template for registering grievances is found in Annex.

Tracking, Investigating and Resolving Complaints

The GM log maintained by the RESPONSIBLE AUTHORITY will track the date the complaint was received, date responded to, the type of response, and if the complaint was resolved to the satisfaction of the plaintiff.

The GM Focal Point will ensure prompt follow up action in response to each complaint. More specifically, the GM focal point will for named complaints:

1. *inform the plaintiff if the complaint is accepted or rejected within one week of receiving the complaint; any technical input from Project engineers; if necessary, the response will require input from Project engineers*
2. *if the complaint is accepted, send the plaintiff an officially stamped review card indicating:*
   - *plaintiff name or legal representative*
   - *plaintiff address*
   - *complaint title*

- *review date*
- *list of annexes submitted with the complaint*

3. *work with engineers, implementing partners, and contractors to resolve the complaint within 28 days of its submission*

The RESPONSIBLE AUTHORITY will include the log of complaints as part of The RESPONSIBLE AUTHORITY quarterly reporting to the World Bank.

Gender sensitivity

The RESPONSIBLE AUTHORITY will make the GRM gender sensitive by appointing female staff to:

- *inform women of the Project's GM and its procedures*
- *receive any project-related complaints from women*

Grievance Redress Service

http://pubdocs.worldbank.org/en/440501429013195875/GRS-2015-BrochureDec.pdf

The World Bank's Grievance Redress Service (GRS) provides an additional, accessible way for individuals and communities to complain directly to the World Bank if they believe that a World Bank-financed project had or is likely to have adverse effects on them or their community. The GRS enhances the World Bank's responsiveness and accountability by ensuring that grievances are promptly reviewed and responded to, and problems and solutions are identified by working together.

The GRS accepts complaints in English or the official language of the country of the person submitting the complaint. Submissions to the GRS may be sent by:

- *Email: grievances@worldbank.org*
- *Fax: +1-202-614-7313*
- *Letter: The World Bank*

  Grievance Redress Service (GRS)

  MSN MC 10-1018

  1818 H St NW

  Washington, DC 20433, USA

World Bank Inspection Panel

http://ewebapps.worldbank.org/apps/ip/Documents/Guidelines_How%20to%20File_for_web.pdf

The Inspection Panel is an independent complaints mechanism for people and communities who believe that they have been, or are likely to be, adversely affected by a World Bank-funded project. The Board of Executive Directors created the Inspection Panel in 1993 to ensure that people have access to an independent body to express their concerns and seek recourse. The Panel assesses allegations of harm to people or the environment and reviews whether the Bank followed its operational policies and procedures.

The Panel has authority to receive Requests for Inspection, which raise issues of harm as a result of a violation of the Bank's policies and procedures from:

- *Any group of two or more people in the country where the Bank financed project is located who believe that, as a result of the Bank's violation of its policies and procedures, their rights or interests have been, or are likely to be adversely affected in a direct and material way. They may be an organization, association, society or other group of individuals;*
- *A duly appointed local representative acting on explicit instructions as the agent of adversely affected people;*
- *In exceptional cases, a foreign representative acting as the agent of adversely affected people;*
- *An Executive Director of the Bank in special cases of serious alleged violations of the Bank's policies and procedures.*

The Panel may be contacted by:

email at ipanel@worldbank.org

phone at +1-202-458-5200

fax at +1 202-522-0916 (Washington, D.C.)

mail at: Inspection Panel, Mail Stop MC 10-1007, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A.

Annex 6: Terms of reference for Environmental and Social Core Team of ESMU

5.1 Term of Reference for the Environmental and Social Coordinator

Background

Rwanda's urban population has been growing since 2002 with 18.4 percent of the population now living in urban areas in 2018. The urban population almost doubled from 1.49 million to 3.46 million between 2002 and 2015. Kigali is the largest urban agglomeration (1,132,686 people in 2012 as per the national census) and is home to a major share of Rwanda's urban population. There is evidence of evolution of urban settlements and emerging urban corridors. A half of the urban population outside Kigali is found along emerging corridors around secondary cities: the Musanze-Nyabihu-Rubavu corridor (one-third) and the Muhanga-Huye corridor including Nyanza and Ruhango districts (18 percent). Much of Rwanda's remaining urban population is spread between Kigali and Bugesera, Kayonza and the more isolated settlements of Nyagatare and Rusizi. Selected under the second phase of the Economic Development and Poverty Reduction Strategy (EDPRS-II), the six Secondary Cities were envisioned as poles of growth and centers of non-agricultural economic activities. The largest concentration of economic activities outside Kigali is in the Rubavu-Nyabihu-Musanze area, accounting for 7 percent of formal private sector jobs as per the 2014 Establishment Census, although far behind Kigali's share of 54 percent.

The World Bank has provided the Government of Rwanda with a credit of US$ 158.07 million for Rwanda Urban Development Project II (RUDP II) to improve access to basic services, enhance resilience and strengthen urban management in the City of Kigali and the six secondary cities of Rwanda. RUDP II will benefit inhabitant of poor urban areas of the City of Kigali as Rwanda's (Capital city) and of villages in six Secondary Cities of Rwanda (Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi).

Project description

The RUDP II is designed along 3 Components that are described in detail below.

Component 1: Support to the City of Kigali

Subcomponent 1a: Integrated urban planning for resilient, inclusive infrastructure delivery in CoK

The sub-projects include 4 urban upgrading of unplanned resettlements (civil works for road access, pedestrian walkways, and streetlights); flood infrastructure (hotspots); Storm water management master plan; Water level monitoring; TA for master plan implementation in Kigali and TA for CIP, revenue enhancement, expenditure management and innovative financing for wetland sustainability.

Subcomponent 1b: Evidence-based, sustainable wetland management, flood risk management and greenhouse gas monitoring in CoK

Under this subcomponent, the sub-projects include wetland rehabilitation of Gikondo and Nyabugogo; LiDAR survey; GHG accounting and reporting framework for CoK; advocacy, knowledge exchange and partnerships.

Component 2: Support to Secondary Cities

Subcomponent 2a: Infrastructure and service delivery in secondary cities

The phase 3 and 4 investments include the civil works for urban infrastructure (Asphalt roads; pedestrian walkways storm water drains; street lighting and bus stops). The subcomponent will also include TA for planning, design and supervision.

Subcomponent 2b: Institutional capacity development of secondary cities

The main sub-projects are TA for master plan implementation and TA to support City Management Offices (CMOs) through institutional capacity development activities.

Component 3: Institutional Capacity Development and Project Management

Subcomponent 3a: Institutional capacity development at national level

The focus will be put on TA in roadmap establishment for the City Management Offices (CMOs) development; TA for implementation and monitoring of national urbanization policy and TA for lessons learned of upgrading pilots (such Agatare) and developing guidelines for urban upgrading. Moreover, the subcomponent will provide TA for strategy development of sites and services for urban development; TA for national solid waste management strategy, feasibility studies for disposal facilities in 5 SCs.

Subcomponent 3b: Project management

The subcomponent will include the budget allocated to the implementing agencies/ institutions at MININFRA PCU, CoK KUUT, LODA SPIU, and District PIUs for the project management and budget for Resettlement and compensation costs.

1. Key Tasks and responsibilities- National Environmental and Social Coordinator

Duties and responsibilities:

- Responsible for the overall coordination and management of environmental and social aspects of the project and the implementation of the project specific instruments at LODA and District.
- Provide overall technical direction for environmental and social management under the Project, as defined by the project environmental and social framework (ESF) instruments
- Coordinate all activities of conducting ESIAs/ESMPs, environmental and social audits

- Coordinate closely with the Environmental and Social Specialists at LODA and Districts the planning and managing project implementation as per the ESF instruments
- Provide necessary technical assistance to facilitate the implementation, management and monitoring of environmental and social impacts
- Provide training to project PIUs, project partners, etc. on ESF instruments and management of environmental and social impacts of the project as needed
- Ensure environmental and social due diligence is carried out for each sub-project as soon as conceptual technical design and scope have been defined, as outlined in the ESF instruments
- Ensure consistency of EIA/ESMP documents with national and international environmental, labor, health and safety, regulations
- Coordinate the necessary clearances from local environmental regulatory authorities for the sub-projects as needed.
- Prepare terms of references to undertake Environmental and Social Assessments or Environmental Social Management plans as defined in Table 11
- Coordinate with the Coordinators and Directors of the Project the necessary clearances from the World Bank and/or designated project approving agencies
- Review draft and final environmental and social assessments for quality and coordinate necessary clearances as per the ESF instruments
- Ensure that measures of this ESMF are included in the ESMPs and these are taken into account in design, and planning;
- Coordinate with the Procurement teams across agencies to ensure that ESMP measures and ESTC and costing are included in the bidding/tender document to ensure costing by contractors and compliance with the World Bank ESS.
- Prepare technical guidelines and manuals to support the environmental and social management of the project to strengthen the implementation of environmental and social Standards
- Hold regular review meetings with the Environmental and Social teams of the PIUs and visit project sites to support supervision and monitoring and implementation of the project ESF instruments
- Prepare and coordinate the preparation of the terms of references for social/environmental audits based in the ESMF for all project components and obtain clearances
- Review and comment on environmental and social audit reports, coordinate actions to address audit issues raised and obtain comments from the World Bank team
- Prepare and submit the monthly, quarterly and annual environmental and social reports to LODA SPIU Coordinator

Qualifications required

Education

- At least a MSc. degree in a relevant technical field such as environmental management, environmental engineering, social sciences, civil engineering or any other relevant field, from a reputed university.
- A minimum of 10 years' work experience in environmental and social management, environmental and social standards

Professional experience

- Experience in the coordination of multi-institutional teams and environmental and social teams in the public or private sector
- Experience in speaking in public and building a team of about 15 professionals to be part of the Environmental and Social management Unit of the RUPII project
- Experience in the preparation of EIA, hiring consultants and supervision of infrastructure development as well analytical studies.
- Ability to interact with staff in the relevant implementing agencies.
- Effectiveness in analysing and resolving project implementation issues.
- Familiarity with the relevant Government procedures and regulations
- High level of computer literacy, including Word, Excel, Powerpoint, email and the internet.
- Strong communication skills and good interpersonal relations.
- Having worked with World Bank funded projects would be an added advantage
- Ability to read and write excellent Kinyarwanda, English and French, and produce progress reports in English for regular and continuous presentations to World Bank project team.

2. Key responsibilities for the Implementing Agencies - Environmental and Social Specialist

The National Environmental and Social Management Specialists (ESMS) will report to its respective PIU Coordinator or Director, for example in LODA to the LODA SPIU Coordinator.

- Environmental and Social Management Specialists of LODA formed the LODA Environmental and Social Management Unit (ESMU) which is responsible of the application of the ESF instruments in all LODA subprojects.
- ESMU will support other ESMU from the other 3 implementing agencies since LODA is the agency with more experience in WB Safeguard Policies which are very similar to the ES Standards.
- Ensure compliance with ESMPs during and after the construction period
- Plan and undertake necessary project area-based social and environmental assessments, including but not necessarily limited to those identified in the current ESMP, as well as reviews and consultations to formulate site specific ESMPs for the project, based on the existing ESMP documents of the project
- Review the current ESMP and make amendments as necessary including, but not limited to the inclusion of a grievance redress mechanism
- Monitor progress in development/implementation of the project ESIA-ESMP ensuring that National environmental laws and policy as well as the World Bank's environmental and social standards are fully complied during planning, construction, monitoring and reporting requirements.
- Facilitate necessary contributions and feedback by all national and project sites level stakeholders, especially women and other community groups in the process of formulation of updated ESMP for the project
- Implement and coordinate the capacity building and training program with support of consultant of the project to all PIU members, district official, consultants, community institutions, etc.

Education and experience

- Hold a master's degree in Environmental Science management, Biolodgy, Enviromental Engineering or Sociology or any other relevant field
- At least 5 years of experience in conducting/ reviewing ESIA and RAP and ESMPs implementation
- Experience in the World Bank Environmental and Social Standards would be an added advantage

Professional Competencies

- Ability to read and write excellent Kinyarwanda, English and French, and produce project reports in English for regular and continuous presentations to World Bank staff.
- Register as professional in RDB to prepare EIAs
- Capacipity for training in topics relevant to the works of RUDP II for government staff, district officer and community leaders
- Ability to guide and deliver the range of management activities required by the project.
- Ability to write reports and present reports in public
- Abolity to interact with staff in the four implementing agencies.
- Effectiveness in analyzing and resolving project implementation issues.
- Familiarity with the relevant Government procedures and regulations
- High level of computer literacy, including Word, Excel, email and the internet.
- Strong communication skills and good interpersonal relations.
- Professional should have experience in international standards for social management ideally the World Bank Safeguards Policies (now ESF instruments)

4 Key responsibilities for the District- Environmental and Social Specialists

The E/S management Specialists will be based at the district placed under the complete supervision of both LODA and district. Full details about the job responsibilities and qualifications required for each position are described below.

- Oversee the implementation of all ESF instruments including ESMF, SEP, LMP and RPF for relevant subprojects
- Monitor progress in development and implementation of relevant ESMPs ensuring that National environmental laws and policy as well as the World Bank's ESSs are fully complied with and the reporting requirements are fulfilled
- Carry out a regular supervision of the civil works progress and environmental compliance by the contractors
- Enforce the implementation of the approved ESMPs by the contractors
- Immediate report to the District and LODA SPIU Coordinator of any incidence happening at the site of the civil works (Staff/workers accidents, any environmental catastrophes, etc.)
- Contribute and participate in assessment and valuation of the community's properties affected by the project activities
- Ensure compliance with and/or implementation of the effective application of Resettlement Action Plan as applicable
- Participate in establishment of Grievance Redress Committees(GRC) at the Cell, Sector and District level and ensure that they operational

- Ensure that social and environmental grievances are managed effectively and transparently through the grievance redress mechanism
- Facilitate and ensure training of subproject staff and community institutions in environmental management
- Work with the district environmental officer to ensure reporting, monitoring and evaluation fully address the environmental and social compliance issues of the subproject; provide a well-documented, evidence-based compliance reports to be incorporated into the project monthly, quarterly and annual reports
- Prepare and submit the monthly, quarterly and annual environmental and social compliance reports to the District/Secondary City Executive Secretary and LODA SPIU Coordinator

Education and experience

- Hold a academic degree in environmental and/or social studies (environmental science/management, environmental engineering, Sociology, Anthropology or related fields)

Professional Experience

- At least 5 years of experience in the supervision of civil woks and working with contractors
- Experience in the EIA environmental or social assessments
- Experience in implementing Environmental Managemen Plans, or Resettlement Action Plans, monitoring plans,
- Capacity to lead stakeholder engagement, communication, information and education campaigns with affected communities.
- Knowledge and experience in Rwandan regulations and permitting processes related to social risk management
- Ability to interact with communities and contractors
- Effectiveness in analyzing and resolving project implementation issues.
- Familiarity with the relevant Government procedures and regulations
- Demonstrated ability to work in teams and have leadership skills
- Be an organized person to keep track of many different project activities and
- Ability to prepare reports in English and to read and communicate in Kinyarwanda and English. Fluency in French would be an added advantage
- High level of computer literacy, including Word, Excel, Powerpoint, use of GP, email and the internet.

Annex 7: Preliminary ToR for Strategic Environmental and Social Assessment (SESA) for the National Waste Management Strategy

I PROJECT BACKGROUND

The Government of Rwanda (GoR) has prioritized modernizing the country's infrastructure, delivering critical social services to its population and building up its human capital. Urbanization has been one of the country's key development strategies and has contributed significantly to economic growth and structural change in Rwanda through the reallocation of labor to off farm employment: The Government has identified urbanization and off-farm job creation as critical for achieving its vision of becoming a middle income country by 2020. Rwanda's urban population has been growing since 2002 with 18.4 percent of the population now living in urban areas in 2018. With population growth of 6.4 percent per year from 2002 to 2012, Kigali is one of the fastest-growing cities in Africa and the most favored destination for rural migrants. A half of the urban population outside Kigali is found along two urban corridors: the Musanze-Nyabihu-Rubavu corridor (one-third) and the Muhanga-Huye corridor including Nyanza and Ruhango districts (18 percent). Much of Rwanda's remaining urban population is spread between the roads connecting Kigali to Bugesera, Kayonza, the Burundian border, and the more isolated settlements of Nyagatare and Rusizi.

The Government of Rwanda (GoR) through the Ministry of Finance and Economic Planning (MINECOFIN) has formally requested the World Bank (WB) to support the preparation and implementation of the Rwanda Urban Development Project II (RUDP II). RUDP II will provide infrastructure upgrading of unplanned informal settlements and improve access to basic services, strengthen urban management and enhance resilience in the City of Kigali and the six secondary cities of Rwanda. The overall coordination and implementation of this project will be the responsibility of the Ministry of Infrastructure (MININFRA) and the Local Administrative Entities Development Agency (LODA) respectively.

Brief description of the Project

The Rwanda Urban Development Project (RUDP II) will support the development of an national waste management stratey. Per ESS1, this activity requires the development of an national assessment of the potential risks and impacts so measures and actions are considered to protect the environment, reduce impact to potential people and ensure the participation of people in its design.

The Project is classified according to the World Bank Environmental and Social framework (ESF) risk categories of Substantial risk based on the activities' type, location, sensitivity, scale, nature, magnitude of potential risks. All proposed project activities will be assessed to meet the requirements of relevant Environmental and Social Standards (ESSs).

Objectives of the SESA

The main objective of the SESA study are:

Comply with national waste management strategy is to comply with national environmental regulations, the World Bank's Environmental and Social Standard – ESS1 for Management of Environmental and Social Risks and Impact, ESS2 Labor Conditions, ESS6 Biodiversity, ESS4 Community Health and Safety, ESS3 Pollution Management, ESS5 Land Adquision, the Stakeholder Engagement Plan (SEP) and d the ESH Guidelines of the World Bank.

II METHODOLOGY AND OBJECTIVES

This TOR establishes the scope of the consultancy for the development of a SESA for the waste management strategy to be supported by RUDP II. The SESA will be a consultative and participatory activity that seeks to strengthen institutional capacity, introduce good global practices, identify and inform specific reform efforts, and raise public awareness to integrate environmental and social concerns into the waste management sector and developments for its long-term sustainable development.

Because this SESA regards the waste management sector and entails a strategic look on environment and social aspects, the following state institutions and stakeholders will be very important to provide governmental guidance, advice and input to the expert team which will carry out the SESA: sector reforms.

- **Ministry of Infrastructure (MININFRA)** is the lead Ministry and is in charge of developing institutional and legal frameworks, policies, strategies and master plans relating to the urbanisation Sector. One of its core functions is to initiate, develop and maintain sustainable cities in Rwanda.
- **Rwanda Environment Management Authority (REMA)** is the authority in charge of supervising, monitoring and ensuring that issues relating to environment are integrated in all national development programs. The legal responsibility for conducting SEA of Policies, Plans and Programmes (PPPs) lies with the lead agency, while REMA provides the necessary oversight.
- **Ministry of Environment (MoE)** has the mandate to elaborate and disseminate the national policies, strategies and programs that aim at conserving the environment and ensuring optimal and rational utilization of natural resources.
- **Ministry of Finance and Economic Planning (MINECOFIN)** ensure the provision of funding for the different Ministries that are party to infrastructure and urbanisation agencies. MINECOFIN requires sectors to demonstrate environmental sustainability in their mandated activities before operational budgets can be allocated. A funding mechanism for SEA (just as already established for EIA in Rwanda) may be considered in the near future.
- **The Private Sector Federation** – Rwanda (PSF) is a professional organization dedicated to the promotion and representation of the interests of the Rwandan business community. It is an umbrella organization that groups 9 professional chambers and replaced the former Chamber of Commerce and Industry in 1999.
- Other stakeholders include GGGI, WB, MINEMA, WASAC, REG, RTDA, RHA, RWB, RLMUA among others. The involvement of various environmental organization, Higher Learning and Research Institutions in Rwanda will be important along the scoping and SESA study process.

III SCOPE OF WORK

The preparation of the SESA should be conducted in five stages:

1. Scoping;
2. Description of the regulatory and institutional framework and assessment of the GOR capacity for sustainable low carbon and climate resilient waste management;
3. Identification of the operational, environmental and social consequences resulting from the national waste management strategy;
4. Proposed mitigation and monitoring measures, drawing on good global practices;

5. Formulation of recommendations and a SESA Action Plan;
6. Final consultations, review and approval.

Specific activities and general implementation of the SESA will be advised by the World Bank team.

Environmental and Social Standards, especially ESS1 for Management of Environmental and Social Risks and Impact and ESS10 for Stakeholder Engagement and Information Disclosure as well as the safeguards instruments prepared for RUDP-II including the Environmental and Social Management Framework (ESMF), the Resettlement Policy Framework (RPF), the Labor Management Framework (LMP) and the Stakeholder Engagement Plan (SEP). These will be used as guidance in the SESA for informing the enhancement of Rwanda's national strategy for waste management. Existing information should be used as much as possible and duplication should be avoided with other activities already financed or ongoing.

Stage 1: Scoping

The objective of the Scoping exercise is to frame the content and methodology of the SESA, with substantial stakeholder inputs. As part of the scoping phase and to fulfill the INCEPTION REPORT the Consultant will:

- Conduct a stakeholder analysis to identify the key stakeholders to participate in the scoping phase and throughout the SESA. The Consultant will identify and map the key stakeholders in the waste management sector that should be consulted, and analyze their interests, concerns and incentives. The Consultant should also develop a work plan for consultations that will ensure that their interests, concerns and advice are considered in the SESA.
- With stakeholders, define the strategic options to be examined, the key restrictions, major interests, and how consistency of the various sectors objectives and alternatives can be ensured.
- With stakeholders, define the process for stakeholder participation throughout the SESA.
- Develop a common vision on the environmental, social, occupational safety and health risks, impacts, objectives, and alternatives that will be addressed in the SESA (scope of the SESA).
- Discuss and define mechanism(s) to monitor the implementation of the SESA recommendations and Action Plan and agree on a course of action in case of unforeseen effects.

To inform the scoping process, the Consultants will:

- Assemble preliminary information relevant to the scope of the SESA, including but not limited to: current projects, plans and trends in the applicable sectors – waste management in the City of Kigali and the six Secondary Cities.
- Identify the environmental and social risks and vulnerabilities to be considered and assessed (e.g., water quality, air quality, geology and soils, biodiversity, wetlands, socio-economic etc.)
- Identify the environmental and social characteristics of the Rwanda's most likely to be affected by future waste management activities, identifying sensitive ecosystems, protected areas, areas of high biodiversity value etc.
- Given that the SESA must be a participatory process, the proposed Scope must be consulted/validated with stakeholders according to the stakeholder consultation plan.

Although it is a process, the SESA has defined outputs throughout. Therefore, reports will be produced at each stage of the SESA process. In addition, the implementation and follow-up of SESA recommendations should also be reported to the WB, the Ministry of Infrastructure (MININFRA) and REMA on a regular basis to ensure the effectiveness of its implementation.

The Consultants must report on the scoping process. This Scoping and Inception Report will include:

- The proposed scope of the SESA and Inception Report;
- The table of contents for the SESA report;

- The schedule and methodology for conducting the work, the institutional arrangements and timing agreed with the GOR, other key counterparts, and the World Bank to carry out the SESA;
- The SESA work plan describing the main activities for data collection and analysis, including consultation/validation with stakeholders; and
- The expected products / deliverables, and reports schedule to be submitted to the GOR and the WB.

The SESA Scoping and Inception Report must be presented in a stakeholder meeting before a finalized version is submitted for approval.

Stage 2: Description of the regulatory and institutional framework and assessment of the GOR capacity for environmental, social, and occupational health and safety assessment and management.

During this stage the Consultant should:

- Identify the institutions responsible for policy, planning, regulating and enforcing legislation in the waste management sector.
- Compile and describe the environmental, social, safety and occupational health legal, regulatory and institutional framework, and assess existing capacity of the relevant regulatory institutions.
- Prepare a compilation of relevant policies, laws, regulations, guidelines, and contracts, including environmental licensing requirements. This should include all relevant WBG standards, guidelines and policies including all the Environmental and Social Standards (ESSs) as referenced above.
- Assess the adequacy of the framework, based on international experience, and the capacity of public agencies at national and local levels, governmental organizations at national and community levels to address the potential impacts of developments in waste management, especially for licensing and enforcement of legal national standards.
- Assess mandates, capacity, incentives and transparency in licensing/permitting, monitoring and enforcing environmental, social and occupational health and safety regulations in the above-mentioned sectors.
- Assess the adequacy of the existing grievance mechanisms to protect landowners and affected people; and if applicable, provide recommendations to improve.
- Assess the adequacy of existing mechanisms for the social distribution of benefits to affected people; if applicable, provide recommendations to improve it.
- Assess the adequacy of the EIA system in Rwanda, and identify potential deficiencies in the environmental permitting processes, EIA review, and EIA follow-up and enforcement in the above-mentioned sectors. If applicable, provide recommendations to improve the EIA system, EIAs and EIA follow-up and enforcement.
- Identify potential gaps regarding the international good practice, not only limited to the WB Environmental and Social Framework but also practices from ILO, like ILO 169 and others.

In addition, the SESA may also identify the existing environmental, social, occupational health and safety requirements that are included in waste management sector contracts with the GOR, and assess if additional environmental, social, and occupational health and safety safeguards need to be incorporated in such Contracts. Should it be required, the SESA may provide the information necessary and specific recommendations of the environmental, social, occupational health and safety minimum requirements that the GOR should include in the Contracts with private sector companies.

At the end of this stage, the Consultants will prepare and deliver the First Interim Report.

Stage 3: Identification of the general, strategic environmental and social consequences resulting from the national strategy for waste management.

During this stage the Consultants shall:

- Develop forecasts of future expansions in waste management sector especially in the six secondary cities, including different potential development scenarios. These should forecast developments over a defined period of time. This should include mapping of potential and actual sites that are being explored for waste management or that could be explored.
- Identify and evaluate the environmental and social consequences and risks, including climate change risks associate with existing developments and plans for investment in waste management, and safety and occupational health risks and issues relevant to waste management, considering the forecasts and scenarios developed. This should also include mapping to identify overlapping areas of natural resources, forests, wastelands and other areas of high biodiversity value, with potential and actual disposal sites.
- Cumulative / synergistic / secondary impacts as well as impacts of individual developments in waste should also be included. Coupled with this the consultants should estimate or model the potential impacts to the ecosystems from expansion in the waste management sector over a defined period of time.
- The following, but not exclusively, strategic environmental, social and occupational health and safety issues related to increased private sector operations in waste management must be investigated:
    - *Landfills* (increased demand for land conversion, potential GHG emissions from land use conversion, increased demand for water and potable water, loss of biodiversity; transformation of natural ecosystems and consequent loss of environmental services associated with these ecosystems; increase in greenhouse gas emissions in the face of possible deforestation of forest ecosystems; increase in the consumption and contamination of water; social conflicts over access to local resources; community safety); *Associated access roads and infrastructures* (site clearing, loss of biodiversity, fragmentation of habitats, resettlement and loss of livelihoods, community safety); *Processing facilities* (discharge of contaminants; air and water pollution; impacts of accidental spills; community safety)
    - Labor influx and associated issues related to gender-based violence, security forces, community-level violent conflict, forced and child labor, and human trafficking. This should include identification of appropriate mitigation measures, including for example review or creation of labor and civil rights protection authorities or regulatory frameworks.
- Informal sectors: Information should be collected and processed on casual waste sorters to understand how this informal sector may be impacted by a more formalized set of procedures and approaches.
- Develop criteria to prioritize environmental, social, and occupational health and safety issues in the context of Rwanda for waste management. To the extent possible, such criteria must allow for quantification to objectively compare and categorize competing issues.
- Resettlement practices: Resettlement practices should also be considered, whether they could be positive or unintentionally negative as a result from waste management activities.

At the end of this stage, the Consultants will prepare and deliver the Second Interim Report.

Stage 4: Proposed mitigation and monitoring measures

During this stage The Consultant should:

- Identify potential mitigation measures and monitoring requirements for each potential strategic impact on waste management. Mitigation measures for strategic impacts may include, among

others: implementation of appropriate legislation, including legal environmental discharge standards for emissions into air, water and soil; revised institutional organization, streamlining environmental responsibility, creation of new GOR agency/ies; strengthening of specific GOR Agencies; review or creation of environmental and social licensing agencies or mechanisms; enforcement of international best practices and operational standards guidelines for th sector; creation of protected areas or exclusion zones (No Go zones, buffer zones); etc.

- Specific indicators may be selected to allow for the follow-up of the effectiveness of proposed mitigation measures. Indicator may be individual/stand-alone or combination (complex index) such as established indices, e.g. representing poverty reduction, migratory bird species, water quality, etc.
- It is also important to consider good practice international standards, like the World Bank ESF and ILO policies when developing the mitigation and monitoring measures, by proposing how these practices can enhance the existing Environmental and Social Framework for waste management taking into account the Rwandan context. This should draw on lessons learned and good practices within the Rwandan context, such as effective citizens' engagements in home-grown solutions.
- Resettlement Practices: as part of the mitigation hierarchy resettlement good practices should also be considered since this could help to enhance the Environmental and Social Framework

At the end of this stage, the Consultants will prepare and deliver the Third Interim Report

Stage 5: Formulation of recommendations and a SESA Action Plan

Based on the analysis conducted, and the recommendations developed, an Action Plan will be developed by the Consultant to facilitate their implementation. Priorities will be structured into immediate, short term (1-2 years) and medium term (3-5 years), including the Action Plan Cost Estimate.

The objectives of the SESA Action Plan are:

- To present a series of recommendations arising from key findings of the SESA;
- To suggest a priority timeline for implementation of the recommendations;
- To identify the GOR Agency responsible for implementation;
- To provide some preliminary costs that will require confirmation and adjustment by applicable GOR Authorities.

This action plan should include a suggested prioritization of activities or reforms that could be directly financed or supported by the RUDP-II project during its implementation. This would include potential support to MININFRA/WASAC or other GOR agencies, as well as to representatives of social or environmental groups to strengthen their capacity to engage in future discussions and planning about waste management sector development.

At the end of this stage, the Consultants will prepare the Draft Report, for consultation with stakeholders.

Stage 6: Final consultations, review and approval

The Consultant will prepare interim outputs at the end of each phase, to be compiled into a draft report for final consultations, a final draft for review, and a final report. In addition, the Consultant will be available on request to advice on the environmental, social, occupational health and safety implications of any policy and/or regulatory measure proposed as part of the SESA.

IV. ADVISORY SERVICES AND KNOWLEDGE TRANSFER

The international consultants should include as a separate item in its proposal provision of advisory services to GOR in assessing the potential environmental and social impacts, occupational health and safety risks and helping implement potential of policy, legislative, or regulatory changes that may be

under consideration as part of the Project. This includes recommendations of technical assistance support that environmental and social advocacy and representative groups in particular of indigenous and tribal communities can use to contribute to managing environmental and social impacts of future waste management developments, which the RUDP-II project could potentially finance.

The international consultants must include as a separate item in its proposal arrangements for transfer of knowledge on SESA to the Project Implementation Units, implementing ministries, associated agencies, and other GOR officials as appropriate. These can include on the on-job training, presentations of international experience, and participatory workshops.

V. CONSULTANTS QUALIFICATIONS FOR CONDUCTING THE SESA

The Consultant team to conduct the SESA should preferably be comprised by local and international consultants. The local consultants should have at least 10 years of experience in participating in EIAs in the fields of environmental, social development, communication and stakeholder engagement, and occupational health and safety, respectively.

The international consultants should have at least 10 years of experience in Strategic Environmental and Social Assessment (SESA) and in assessing and addressing environmental, social, occupational health and safety policy and regulatory issues. The international team will provide overall coordination and advisory services to the local consultants.

The local and international consultants should also be familiar with best industry practices for waste management, including the World Bank EHS Guidelines; the IFC 2012 Performance Standards; the World Bank Sustainability Framework, and OHSAS 18001 or ISO 45001 – Occupational Health and Safety and ISO 26000 – Social Responsibility.

Notwithstanding the international and local setup of the team, a Full-fledged SESA requires the participation of a multidisciplinary team. In general, the core team will include members covering the following competencies:

a. SESA specialist, with at least ten years of relevant experience in the environmental, social (including labor), health, safety and security aspects of the waste management sector, who will manage the process and coordinate with key stakeholders, including the formal government and non-formal stakeholders;

b. Waste management specialist with at least ten years of relevant experience in waste management;

c. Environmental and Social Impact Assessment Specialist with at least ten years' experience in social, environmental, health, safety and policy issues related to waste management, as well as experience in the ISO 140001 standard;
d. Social Specialist with at least ten years of experience in public consultations;
e. Public Participation Expert (national) with at least five years of local experience in stakeholder analysis and consensus building and has experience with gender issues. The expert should be fluent in English and Kinyarwanda
f. Institutional Assessment Specialist, with at least ten years' experience, covering institutional and governance analysis, and institutional and governance strengthening of public, private and civil society sector organizations (formal and non-formal institutions) (both in terms of human development as well as regulatory framework), analyzing gaps and inter sectoral institutional linkages, and streamlining their functions commensurate with their mandatory obligations;
g. Natural resources economist with at least ten years of experience in quantitative and qualitative analysis, preferably including case studies, and at least five years of experience in the waste management sector;
h. Land use specialist with at least ten years of experience with understanding of competing land uses and capable of analyzing land use options in the poverty analyses.

VI. DELIVERABLES AND TIME SCHEDULE

1. SESA Inception Report

An Inception Report will be prepared 1 month (one month) after the start of the assignment. The Inception Report should describe (i) the institutional arrangements and timing agreed with key government counterparts to carry out the SESA; (ii) the SESA work plan describing the main activities for data collection and analysis, including public consultations/validation with stakeholders, preparation of case studies and differentiating responsibilities of the firms/entities undertaken the SESA according to their respective ToRs; and, (iii) the expected products and reports schedule to be submitted to MININFRA.

2. Monthly Progress Reports

Monthly Progress Report should be submitted to the MININFRA.

3. Interim outputs at the end of each stage

Interim outputs at the end of each stage will be prepared (scoping; identification of impacts and issues; description of the regulatory and institutional framework and assessment of capacity; formulation of recommendations; and final consultations; review and approval), to be compiled into a draft report for final consultations, a final draft for review, and eventually a final report.

4. Draft SESA Reports

The draft SESA report will be prepared after 7 months into the assignment in English, with Executive Summaries in English, with a structure and content conform to other SESAs for the waste management sector, e.g. the ones financed by the World Bank Group or other donors or institutions. Prior to the national workshop the recommendations will be incorporated and the comments to the draft report received from the Government of Rwanda, key stakeholders and the World Bank Group should be considered. This revised version of the SESA draft reports will be validated in a national workshop to be held in the capital. A policy matrix will be formulated comprising of concrete policy will, institutional and governance recommendations (short-term, mid-term and long-term), verifiable indicators as part of a monitoring program, action plans, capacity building plans and budgets for its implementation and monitoring. The policy matrix, implementation and monitoring plans will also be validated in this national workshop.

The Draft SESA Report will be disclosed at the MININFRA website and on the World Bank Group's Infoshop website and be available for comments for outside stakeholders. MININFRA should announce the availability of the Draft SESA Report for comments in at least two major national newspapers, on the radio and on the TV. The announcement should indicate places where the report can be consulted and the timeframe for comments (normally one month). Relevant comments need to be addressed in the Final SESA Report.

5. Final SESA Report and Dissemination

The final version of the SESA reports, policy matrix, recommendations and implementation and monitoring plans with indicators, institutional arrangements and budget will be prepared 15 months into the assignment. The Final Report will be in English, with Executive Summaries in both English and Kinyarwanda.

Stage	Deliverable	Time Schedule
1 Scoping	Scoping and Inception Report	[TBD]

2 Description of the regulatory and institutional framework	First Interim Report	[TBD]
3 Identification of the general, strategic environmental and social consequences	Second Interim Report	[TBD]
4 Proposed Mitigation and monitoring measures	Third Interim Report	[TBD]
5 Formulation of recommendations and SESA action plan	Draft SESA Report and SESA Action Plan	[TBD]
6 Final consultations, review and approval	Final SESA Report and SESA Action Plan, Including Stakeholder Consultation Report	[TBD]

VII. PROPOSAL REQUIREMENTS

The proposal for the SESA must be prepared in accordance with procurement legislation. It should also contain the following information:

- SCOPE OF WORK. The scope of work should include a description of the specific activities that will be performed to accomplish the required phases and tasks identified in the TOR. This should include any proposed site visits/reconnaissance, documents to be reviewed, interviews, stakeholder meetings, etc. If the Consultant believes that additional tasks or components within a required task are necessary or warranted, these should be stated and delineated as “Optional Tasks”.

- PROJECT TEAM AND QUALIFICATIONS. The SESA consultant team must include the firms and specialists indicated in the TOR. This should include the names of the consultant team members (local and international), their qualifications including relevant technical capabilities, and specific previous experience must be detailed as requested in the TOR. The consultant Project Manager (main point of contact and must be one of the specialists) must be identified as well.

- SCHEDULE. A proposed detailed schedule for execution of the SESA must be presented (refer to Section 5 of TOR for a tentatively proposed schedule). The schedule must indicate the proposed start and completion dates for each required phase, task, and activities listed in the TOR, and any important or specific project milestones (e.g. deliverables, reports).

ESTIMATED COSTS. A breakdown of the estimated costs by phase or task must be presented (i.e., tabular format) and should include Direct Labor Costs (number of hours or days per staff and their associated unit costs) and Indirect Labor Costs (i.e., travel, per diem, etc.).

Annex 8: Standardized Incident reporting format

INCIDENT REPORT FORMAT

To be completed by implementing agency/contractor staff within 24 hours of incident/accident

Incident date: ……Incident Time: ……

Incident's place (District, Sector, Cell, Village: ……

Injured/dead person name: ……

Address: ……

Phone number: ……

Male/Female:……..Date of Birth

Incident category:

Category 1: "Minor or negligible, no one was injured"

Category 2: Moderate, injuries with short term impairement

Category 3: Critical/ major, susceptible to lead to serious illness or death

Details of incident:

……
……
……

Who was injured person?: ……

Injury type: ……

Does injury require hospital/Physician?. Yes: ……No: ……

Hospital name: ……

Address: ……

Hospital phone number: ……

Injured person/party signature/ date: ……/……

Important notes / instructions

……
……

Prepared by: ……, Signature: ……..Date and time: ……..

Approved by: ……., Signature: ……, Date and time: ……

Annex 9: Code of Conduct for Contractors and workers hired under RUDP II project.

General Code of Conduct to be inserted in the ESMP, ESTC in the Tender documents

RUDPP II will comply with ESS2 and ESS4 and the Environmental, Social Health and Safety Guidelines of the WB (ESHS) and the Occupational Health and Safety (OHS) and Labor regulations of Rwanda. The following is a general Code of conduct to be inserted in the contract of contractors for civil works.

1. **Company Code of Conduct**

Company Code of Conduct
Implementing ESHS and OHS Standards
Preventing Gender Based Violence and Violence against Children

HNRB is committed to ensuring that the project is implemented in such a way which minimizes any negative impacts on the local environment, communities, and its workers. This shall be done by respecting the environmental, social, health and safety (ESHS) standards, and ensuring appropriate occupational health and safety (OHS) standards are met. The company is also committed to creating and maintaining an environment in which gender-based violence (GBV) and violence against children (VAC) have no place, and where they shall not be tolerated by any employee, associate, or representative of the company.
Therefore, in order to ensure that all those engaged in the project are aware of this commitment, the company (HNRB)commits to the following core principles and minimum standards of behavior that shall apply to all company employees, associates, and representatives including sub-contractors, without exception:

General

1. The company—and therefore all employees, associates, and representatives—commits to complying with all relevant national laws, rules and regulations and the World Bank Enviromental and Social Standards which can read in the internet in this website:
    a. https://www.worldbank.org/en/projects-operations/environmental-and-social-framework
2. The contractor is responsible to comply with the requirements defined in ESMP Environmental and Social Technical Clauses (ESTC) which are both integral part of the contract.
3. The company commits to full implementing its 'Contractors Environmental and Social Management Plan' (C-ESMP) which will be prepared based on the ESIA/ESMP prepared by the government for the works.
4. The company commits to treating women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV and VAC are in violation of this commitment.
5. The company shall ensure that interactions with local community members are done with respect and non-discrimination.
6. Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behaviour are prohibited among all company employees, associates, and its representatives.
7. Respect to reasonable work instructions (including regarding environmental and social norms)
8. Protect and ensure proper use of property (for example, to prohibit theft, carelessness or waste)

9. Prohibite illegal activities by their wokers such as: polluting the soil, rivers, wetlands, hunting, poaching wildlfe, settigup up fires, spilling diesel, oils in the soil, cutting trees without permit.

Health and Safety

10. The company shall ensure to hire professional in occupational health and safety to implement the ESMP and ESCT described in the bidding documents.
11. The company shall ensure that the project's occupational health and safety (OHS) management plan is effectively implemented, including wearing prescribed personal protective equipment, preventing avoidable accidents and reporting accidents of all type within less of 24 hours or conditions or practices in the project sites that pose a safety hazard or threaten the environment and the people.
12. The company will:
    a. Prohibit the use of alcohol during work activities.
    b. The company shall prohibit the use of illegal substances, at all times.
13. The company shall ensure that adequate eating, changing and sanitation facilities are available on site and at any worker accommodations provided by the contractor.
14. The company will obey labor, contracting and health and safety regulation in case of accidents, death and incapacity of workers (skilled or no skilled) and pay the compenstation required by law.

Gender Based Violence and Violence against Children

15. Acts of GBV or VAC constitute gross misconduct and are therefore grounds for sanctions, which may include penalties and/or termination of employment. All forms of GBV and VAC, including grooming are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker's camps or at worker's homes.
16. In addition to company sanctions, legal prosecution of those who commit acts of GBV or VAC shall be pursued if appropriate.
17. Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defence. Consent from the child is also not a defence or excuse.
18. Sexual Harassment—for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior, is prohibited. For example: Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody's sex life; etc. is prohibited.
19. Sexual favours —for instance, making promises or favourable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior are prohibited.
20. Unless there is full consent[25] by all parties involved in the sexual act, sexual interactions between the company's employees (at any level) and members of the communities surrounding the work-place are prohibited. This includes relationships involving the withholding/promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered "non-consensual" within the scope of this Code.

[25] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

21. All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV and/or VAC by a fellow worker, whether in the same company or not. Reports must be made in accordance with GBV and VAC Allegation Procedures.
22. Managers are required to report suspected or actual acts of GBV and/or VAC as they have a responsibility to uphold company commitments and hold their direct reports responsible.

Implementation

To ensure that the above principles are implemented effectively the company commits to ensuring that:

23. All managers sign the 'Manager's Code of Conduct' detailing their responsibilities for implementing the company's commitments and enforcing the responsibilities in the 'Individual Code of Conduct'.
24. All employees sign the project's 'Individual Code of Conduct' confirming their agreement to comply with ESHS and OHS standards, and not to engage in activities resulting in GBV or VAC.
25. Displaying the Company and Individual Codes of Conduct prominently and in clear view at workers' camps, offices, and in in public areas of the work-place. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
26. Ensure that posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
27. An appropriate person is nominated as the company's 'Focal Point' for addressing GBV and VAC issues, including representing the company on the GBV and VAC Compliance Team (GCCT) which is comprised of representatives from the client, contractor(s), the supervision consultant, and local service provider(s).
28. Ensuring that an effective GBV and VAC Action Plan is developed in consultation with the GCCT which includes as a minimum:
    a. **GBV and VAC Allegation Procedure** to report GBV and VAC issues through the project Grievance Redress Mechanism (GRM);
    b. **Accountability Measures** to protect confidentiality of all involved; and,
    c. **Response Protocol** applicable to GBV and VAC survivors and perpetrators.
29. That the company effectively implements the GBV and VAC Action Plan, providing feedback to the GCCT for improvements and updates as appropriate.
30. All employees attend an induction training course prior to commencing work on site to ensure they are familiar with the company's commitments to ESHS and OHS standards, and the project's GBV and VAC Codes of Conduct.
31. All employees attend a mandatory training course once a month for the duration of the contract starting from the first induction training prior to commencement of work to reinforce the understanding of the project's ESHS and OHS standards and the GBV and VAC Code of Conduct.

I do hereby acknowledge that I have read the foregoing Company Code of Conduct, and on behalf of the company agree to comply with the standards contained therein. I understand my role and responsibilities to support the project's OHS and ESHS standards, and to prevent and respond to GBV and VAC. I understand that any action inconsistent with this Company Code of Conduct or failure to take action mandated by this Company Code of Conduct may result in disciplinary action.

Company name: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

2. Manager's Code of Conduct

Manager's Code of Conduct
Implementing ESHS and OHS Standards
Preventing Gender Based Violence and Violence Against Children

Managers at all levels have a responsibility to uphold the company's commitment to implementing the ESHS and OHS standards, and preventing and addressing GBV and VAC. This means that managers have an acute responsibility to create and maintain an environment that respects these standards and prevents GBV and VAC. Managers need to support and promote the implementation of the Company Code of Conduct. To this end, managers must adhere this Manager's Code of Conduct and also sign the Individual Code of Conduct. This commits them to supporting the implementation of the C-ESMP and the OHS Management Plan and developing systems that facilitate the implementation of the GBV and VAC Action Plan. They need to maintain a safe workplace, as well as a GBV-free and VAC-free environment at the workplace and in the local community. These responsibilities include but are not limited to:

Implementation

1. To ensure maximum effectiveness of the Company and Individual Codes of Conduct:
    a. Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in in public areas of the work-place. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
    b. Ensuring all posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
2. Verbally and in writing explain the Company and Individual Codes of Conduct to all staff.
3. Ensure that:
    a. All direct reportees sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.
    b. Staff lists and signed copies of the Individual Code of Conduct are provided to the OHS Manager, the GCCT, and the client.
    c. Participate in training and ensure that staff also participate as outlined below.
    d. Put in place a mechanism for staff to:
        i. report concerns on ESHS or OHS compliance; and,
        ii. confidentially report GBV or VAC incidents to the Grievance Redress Mechanism (GRM)
    e. Staff are encouraged to report suspected or actual ESHS, OHS, GBV or VAC issues, emphasizing the staff's responsibility to the Company and the country hosting their employment, and emphasizing the respect for confidentiality.
4. In compliance with applicable laws and to the best of your abilities, prevent perpetrators of sexual exploitation and abuse from being hired, re-hired or deployed. Use background and criminal reference checks for all employees.
5. Ensure that when engaging in partnership, sub-contractor or similar agreements, these agreements:
    a. Incorporate the ESHS, OHS, GBV and VAC Codes of Conduct as an attachment.
    b. Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.
    c. expressly state that the failure of those entities or individuals, as appropriate, to ensure compliance with the ESHS and OHS standards, take preventive measures against GBV and VAC, to investigate allegations thereof, or to take corrective actions when GBV or VAC has occurred, shall constitute grounds for sanctions and penalties in accordance with the Individual Codes of Conduct.

6. Provide support and resources to the GCCT to create and disseminate internal sensitization initiatives through the awareness-raising strategy under the GBV and VAC Action Plan.
7. Ensure that any GBV or VAC issue warranting police action is reported to the client and the World Bank immediately.
8. Ensure that any major ESHS or OHS incidents are reported to the client and the supervision engineer immediately.

Training

9. The managers are responsible to:
    a. Ensure that the OHS Management Plan is implemented, with suitable training required for all staff, including sub-contractors and suppliers; and,
    b. Ensure that staff have a suitable understanding of the C-ESMP and are trained as appropriate to implement the C-ESMP requirements.
10. All managers are required to attend an induction manager training course prior to commencing work on site to ensure that they are familiar with their roles and responsibilities in upholding the GBV and VAC elements of these Codes of Conduct. This training shall be separate from the induction training course required of all employees and shall provide managers with the necessary understanding and technical support needed to begin to develop the GBV and VAC Action Plan for addressing GBV and VAC issues.
11. Managers are required to attend and assist with the project facilitated monthly training courses for all employees. Managers shall be required to introduce the trainings and announce the self-evaluations, including collecting satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.
12. Ensure that time is provided during work hours and that staff prior to commencing work on site attend the mandatory project facilitated induction training on:
    a. OHS and ESHS; and,
    b. GBV and VAC required of all employees.
13. During civil works, ensure that staff attend ongoing OHS and ESHS training, as well as the monthly mandatory refresher training course required of all employees to combat increased risk of GBV and VAC.

Response

14. Managers shall be required to take appropriate actions to address any ESHS or OHS incidents.
15. With regard to GBV and VAC:
    a. provide input to the GBV and VAC Allegation Procedures and Response Protocol developed by the GCCT as part of the final cleared GBV and VAC Action Plan.
    b. Once adopted by the Company, managers shall uphold the Accountability Measures set forth in the GBV and VAC Action Plan to maintain the confidentiality of all employees who report or (allegedly) perpetrate incidences of GBV and VAC (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law).
    c. If a manager develops concerns or suspicions regarding any form of GBV or VAC by one of his/her direct reportees, or by an employee working for another contractor on the same work site, s/he is required to report the case using the GRM.
    d. Once a sanction has been determined, the relevant manager(s) is/are expected to be personally responsible for ensuring that the measure is effectively enforced, within a maximum timeframe of 14 days from the date on which the decision to sanction was made

e. If a Manager has a conflict of interest due to personal or familial relationships with the survivor and/or perpetrator, he/she must notify the respective company and the GCCT. The Company shall be required to appoint another manager without a conflict of interest to respond to complaints.

16. Managers failing to address ESHS or OHS incidents or failing to report or comply with the GBV and VAC provisions may be subject to disciplinary measures, to be determined and enacted by the company's CEO, Managing Director or equivalent highest-ranking manager. Those measures may include:
    f. Informal warning.
    g. Formal warning.
    h. Additional Training.
    i. Loss of up to one week's salary.
    j. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
    k. Termination of employment.
17. Ultimately, failure to effectively respond to ESHS, OHS GBV and VAC cases on the work site by the company's managers or CEO may provide grounds for legal actions by authorities.

I do hereby acknowledge that I have read the foregoing Manager's Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS GBV and VAC requirements. I understand that any action inconsistent with this Manager's Code of Conduct or failure to take action mandated by this Manager's Code of Conduct may result in disciplinary action.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

3- Code of Conduct to be signed by indivudal workers (skilled and unskilled, casual or no casual)

RUDPP II will comply with ESS2 and ESS4 and the Environmental, Social Health and Safety Guidelines of the WB (ESHS) and the Occupational Health and Safety (OHS) and Labor regulations of Rwanda. The following is Code of conduct to be inserted in the contract of workers for civil works.

3. Code of Conduct to be signed by indivudal workers (skilled and unskilled, casual or no casual)

Preventing Gender Based Violence (GBV) and Violence against Children (VAC)

I, _____, acknowledge that adhering to environmental, social health and safety (ESHS) standards, following the project's occupational health and safety (OHS) requirements, and preventing gender-based violence (GBV) and violence against children (VAC) is important. All forms of GBV or VAC are unacceptable, be it on the work site, the work site surroundings, at worker's camps, or the surrounding communities.

The company considers that failure to follow ESHS and OHS standards, or to partake in GBV or VAC activities, constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. Prosecution of those who commit GBV or VAC may be pursued if appropriate.

I agree that while working on the project I will:

- Attend and actively partake in training courses related to ESHS, OHS, HIV/AIDS, GBV and VAC as requested by my employer.
- Shall wear my personal protective equipment (PPE), in the correct prescribed manner, at all times when at the work site or engaged in project related activities.
- Take all practical steps to implement the contractor's environmental and social management plan (CESMP).
- Implement the OHS Management Plan.
- Adhere to a zero-alcohol policy during work activities, and refrain from the use of illegal substances at all times.
- Consent to a police background check.
- Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
- Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Not participate in sexual contact or activity with children—including grooming or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
- Not engage in sexual harassment—for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior. Ex. Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody's sex life; etc.
- Not engage in sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
- Unless there is the full consent[26] by all parties involved, I shall not have sexual interactions with members of the surrounding communities. This includes relationships involving the

[26] **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that

withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered "non-consensual" within the scope of this Code.

- Consider reporting through the GRM (Grievance Redress Mechanism) or to my manager any suspected or actual GBV or VAC by a fellow worker, whether employed by my employer or not, or any breaches of this Code of Conduct.

With regard to children under the age of 18:

- Wherever possible, ensure that another adult is present when working in the proximity of children.
- Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
- Not sleep close to unsupervised children unless absolutely necessary, in which case I must obtain my supervisor's permission, and ensure that another adult is present if possible.
- Use any computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass children or to access child pornography through any medium (see also "Use of children's images for work related purposes" below).
- Refrain from physical punishment or discipline of children.
- Refrain from hiring children for domestic or other labor which is inappropriate given their age or developmental stage, which interferes with their time available for education and recreational activities, or which places them at significant risk of injury.
- Comply with all relevant local legislation, including labor laws in relation to child labor.

Use of children's images for work related purposes

When photographing or filming a child for work related purposes, I must:

- Before photographing or filming a child, assess and endeavor to comply with local traditions or restrictions for reproducing personal images.
- Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film shall be used.
- Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
- Ensure images are honest representations of the context and the facts.
- Ensure file labels do not reveal identifying information about a child when sending images electronically.

Sanctions

I understand that if I breach this Individual Code of Conduct, my employer shall take disciplinary action which could include:

- Informal warning.
- Formal warning.
- Additional Training.
- Loss of up to one week's salary.
- Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.

national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

- Termination of employment.
- Report to the police if wanted.

I understand that it is my responsibility to ensure that the environmental, social, health and safety standards are met. That I shall adhere to the occupational health and safety management plan. That I shall avoid actions or behaviours that could be construed as GBV or VAC. Any such actions shall be a breach this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to ESHS, OHS, GBV and VAC issues. I understand that any action inconsistent with this Individual Code of Conduct or failure to take action mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Contractor_____
Supervisor_____
Date_____

Annex 10: Attendance list for consultation over wetland rehabilitation

ATTENDANCE LIST FOR CONSULTATIVE BREAKFAST MEETING ON GEF PROJECT-WETLAND RESTORATION

7TH FEBRUARY 2020, AT SERENA HOTEL

NO	NAMES	POST	INSTITUTION	PHONE	EMAIL	SIGNATURE
1	Janet UMUGWANEZA	Ag. SPIU Coordinator	REMA	0788313537	jumugwaneza@rema.gov.rw	
2	Sam Kanyamibwa	Executive Director	ARCOS	0785750900	skanyamibwa@arcosnetworking	
3	Beth Kaplin	Director	CEEB/UR	0788664551	b.kaplin@ur.ac.rw	
4	Alex Mulisa	Consultant	WB	0788302107	amulisa25@gmail.com	
5.	Charles Karangwa	Country Director	IUCN	0788309024	charles.karangwa@iucn.org	
6.	AHISHAKIYE Ruganda Jean	Media & PR consultant	Seven cities	0788355199	ahishakiyejean@gmail.com	
7	Alphonse Habineza	Environmental Specialist	LODA	0788816695	habia.alpha@gmail.com	
8	BUSOKEYE M. Laetitia	DEEPD	REMA	0788530999	lbusokeye@rema.gov.rw	
9.	Emmanuella Murekatete	Environment Specialist	SPIU-REMA	0788483166	emurekatete@rema.gov.rw	
10	Colethe Ruhamya	DG	REMA	0788305717	cruhamya@rema.gov.rw	
11	Denis RUGEGE	Consultant	World Bank	0785475131	denis.rugege@gmail.com	
12.	Yves SANGWA	CEO	RWGBO	0782078785	ysangwa@gmail.com	

Annex 11: Attendance list for the consultation on RUDP-II Component 1a (CoK)

AT THE YOUTH CENTRE KIMISAGARA

Attendance list

CITY OF KIGALI & PRISMA

Informal settlement upgrading project of Mpazi sub-catchment area

FEASIBILITY STUDY FINAL REPORT PRESENTATION TO STAKEHOLDERS AND LOCAL COMMUNITY OF THE STUDY AREA

10/12/2019

No.	Name Amazina	Institution/Position Aho akora/umwanya	Contact Telefone	Signature Umukono
1	TURIMUMAHORO Jean Claude	Eng. / GITEGA	0788842409	[signature]
2	NDAYISABA Emmanuel	prez/Njyanama	0739211504	[signature]
3	HABIMANA BIHEZA	umwubatsi	0788815322	[signature]
4	Twagirayezu Amakura	Sanitation myg/39	0783257567	[signature]
5	Hirwa John		0788233827	[signature]
6	Nkundabanyanga	umuturage	0788803768	[signature]
7	Ndahimana C	umuyobozi umudugudu	0788782029	[signature]
8	Karemera Viateur		0788857731	[signature]
9	MUNYEMANA John	UMUTURAGE	0788478199	[signature]
10	Niyigena Annonciatta	Umuturage	078608275	[signature]
11	Mukagayire Ornella	Umuturage	0788660829	[signature]
12	KALISA Jules	Umuturage	0783797715	[signature]
13	Singirankabo Eric	Sida	0788471009	[signature]

Attendance list

CITY OF KIGALI & PRISMA

Informal settlement upgrading project of Mpazi sub-catchment area

FEASIBILITY STUDY FINAL REPORT PRESENTATION TO STAKEHOLDERS AND LOCAL COMMUNITY OF THE STUDY AREA

10/12/2019

No.	Name Amazina	Institution/Position Icyo akagurariye	Contact Telefone	Signature Umukono
1	Niyotwagirimana Faustin	Umudugudu wa Sangwe	0788[illegible]	
2	Uwamungu[illegible] Nyabikenke		0785784[illegible]	
3	Mukabagire Marina		078323364[illegible]	
4	Nyirinkamije M. Rose		078639602[illegible]	
	Murebwayire Laurence		0786897578	
	Niyomuremyi Benjamin		0788738454	
	Ruitije Joseph		0784689080	
	Mukamurigo Vestine		0 —	
	Hatangimana Louis		0788357789	
	Muhawenimana Ismael	Mutwarasibo	0786971074	

Attendance list

CITY OF KIGALI & PRISMA

Informal settlement upgrading project of Mpazi sub-catchment area

FEASIBILITY STUDY FINAL REPORT PRESENTATION TO STAKEHOLDERS AND LOCAL COMMUNITY OF THE STUDY AREA

10/12/2019

No.	Name Amazina	Institution/Position Ikyo a'tegurariye	Contact Telefone	Signature Umukono
1-	David MUSONERA	CoK	0788652172	
2.	J.M.V KURADUSENGE	RHA	0788692379	
3.	NGIRABAKUNZI Jean	CoK	0788502493	
4.	TWAHIRWA Hébert	PRISMA	0788480080	
5	TUZINDE J.Paul	PRISMA	0788423684	
6	HABIMANA Augustin	PRISMA	0783749300	
7.	SEBAGABO Seb	PRISMA	0783843073	
8	Emmanuel NIYOBUHUNGIRO	Nyarugenge	0788903586	
9.	Hakizimana Cecile	Umuturage	—	
10	Uwamahoro Florence	Umuturage	0782524294	
11.	Musabimana Fr Xavier	Umuturage	0788863013	
12	Niyonambaza E.	Umuturage	0788457521	
13	Munyaneza Rumbuzi Aug	Umuturage	0783134 194	
14	Uwamariya Mukasekabo	Umuturage	—	
15	Sebuomba Jean	Umuturage	—	

Attendance list

CITY OF KIGALI & PRISMA

Informal settlement upgrading of Mpazi sub-catchment area

Meeting after umuganda of November 2019 with local community of the study area on sensitization of the project

30/11/2019

No.	Name Amazina	Institution/Position Icyo ahagarariye	Contact Telefone	Signature Umukono
1	M.negarambe Lib.	CNF	0788777280	
2	Uwinagiye Alphonse		0788603188	
3				
4				
5,	Iraguha Zamda	Youth Volunteer	0731722335	
6		/		
7				
8		//		
9,				
10.	Ishimwe Fabrice	Gacyamo	0725883363	
11.			0784927368	
12			0786276353	
13.				

Annex 12: Communication from MINICOM on the status of relocation

REPUBLIC OF RWANDA

MINISTRY OF TRADE AND INDUSTRY
P.O. Box: 73 KIGALI

Kigali, 21/11/2019
Ref...../15.04.01/IND.IND/ 2019
2606

DATE 21/11/2019

Director General,
Rwanda Environment Management Authority/REMA
KIGALI

Dear Director General,

Subject: Progress on relocation of properties from Gikondo Industrial Park

Reference is made to your letter N° 1815/DER&PC/2019 requesting for progress and commitment letter for relocation of properties from Gikondo Industrial Park;

I would like to inform you that Gikondo relocation project is being implemented in **two (2) phases**; phase one was focused on construction of premises in Kigali Special Economic Zone (KSEZ) for 14 selected key factories. The relocation of these selected factories to KSEZ was completed and the factories are operating in the new premises.

The second phase consists of expropriating the remaining properties including small factories, garages, warehouses and other activities. The expropriation of the above mentioned properties is still ongoing, so far 39 properties out of 75 to be expropriated have been expropriated and the remaining 36 properties will be expropriated by 2021.

I thank you for you collaboration.

MINISTRY OF TRADE AND INDUSTRY

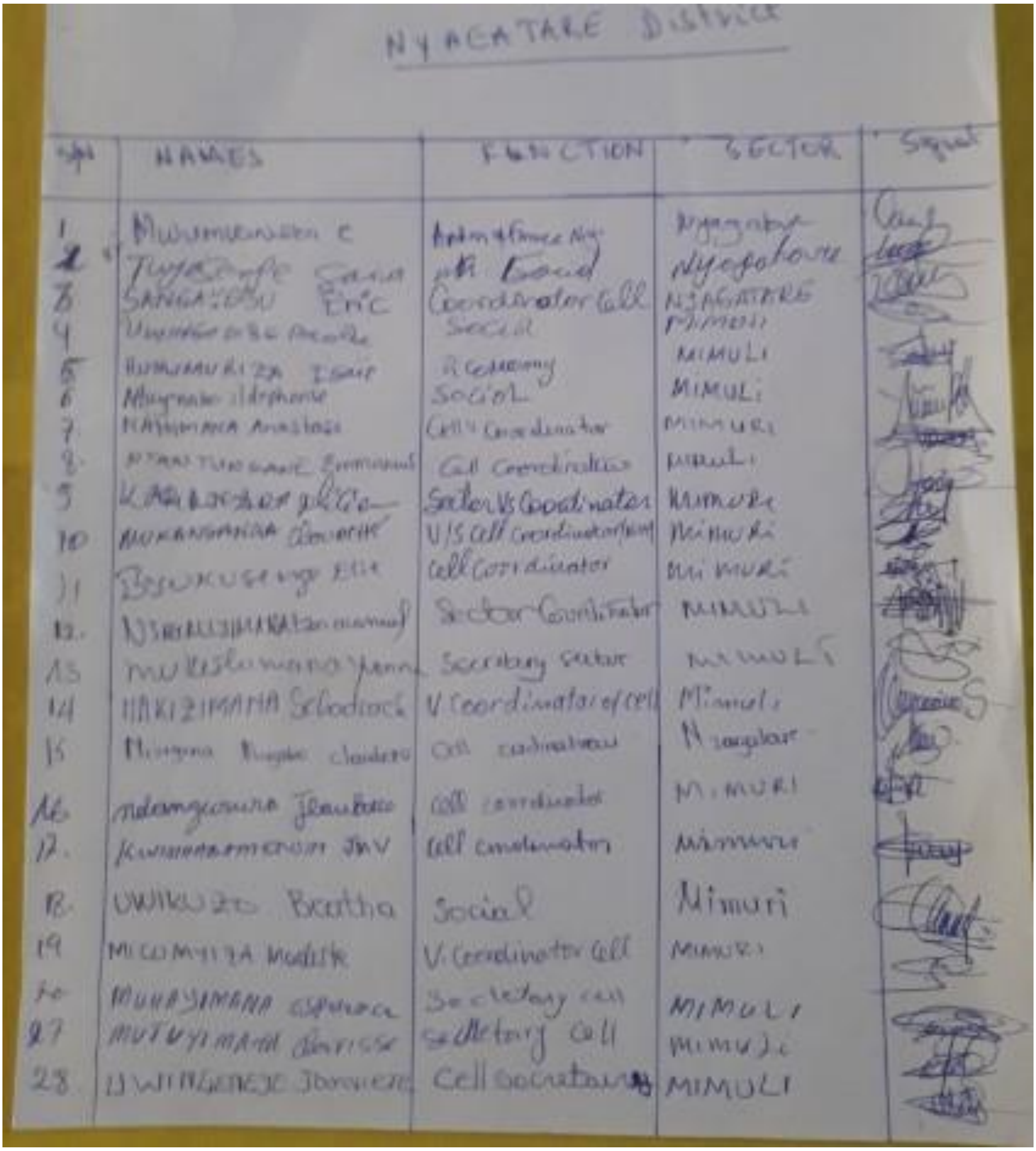
SEBERA M. Michel
Permanent Secretary

Cc: - Honorable Minister of Trade and Industry /MINICOM
KIGALI

Annex13: Photos and attendance lists of consultations in secondary cities

		
Consultataions in Muhanga	***Consultataions in Musanze***	***Consultataions in Nyagatare***
		
Consultation in Rubavu	***Consultations in Rusizi***	***Consultations in Huye***

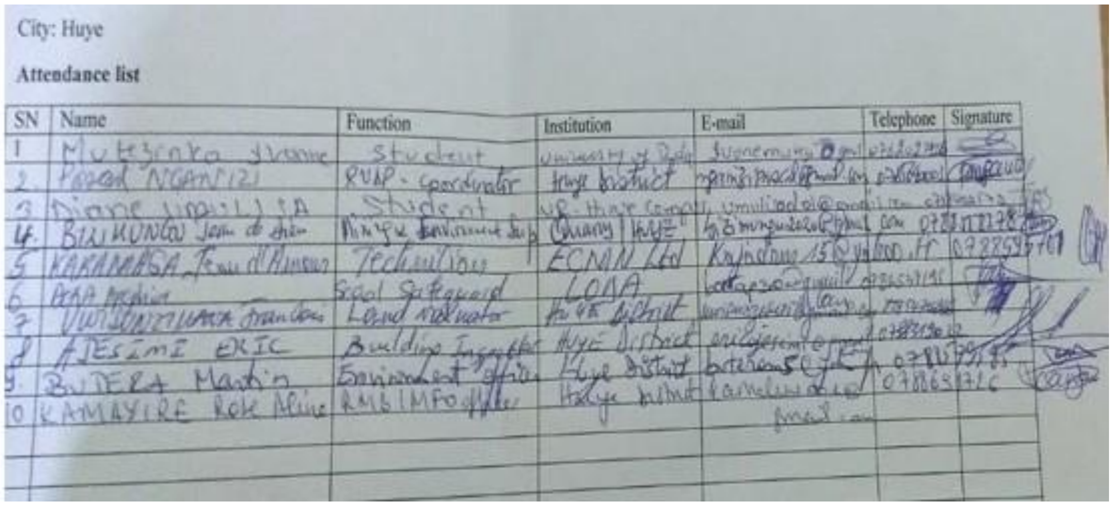
Nyagatare



NYAGATARE DISTRICT

Nº	NAMES	FUNCTION	SECTOR	Signat
1	[illegible] C	Adm & Finance Nyg	Nyagatare	
2	Tuyisenge [illegible]	[illegible]	Nyagatare	
3	SANGANO [illegible] Eric	Coordinator Cell	NYAGATARE	
4	[illegible]	Social	MIMURI	
5	[illegible] Isaie	Economy	MIMULI	
6	[illegible] Ildephonse	Social	MIMULI	
7	NAHIMANA Anastase	Cell Coordinator	MIMURI	
8	NTAKIRUTIMANA Emmanuel	Cell Coordinator	MIMULI	
9	[illegible]	Sector VS Coordinator	Mimuri	
10	MUKANGAHIGA [illegible]	V/S Cell Coordinator/[illegible]	MIMURI	
11	[illegible] Elie	Cell Coordinator	MIMURI	
12	NSABIMANA Emmanuel	Sector Coordinator	MIMULI	
13	MUKESHIMANA Jeanne	Secretary Sector	MIMULI	
14	HAKIZIMANA Schadrack	V Coordinator of cell	Mimuli	
15	[illegible] claudine	Cell coordinator	Nyagatare	
16	[illegible] Jean Bosco	Cell coordinator	MIMURI	
17	[illegible] JMV	Cell coordinator	Mimuri	
18	UWIKUZE Beatha	Social	Mimuri	
19	MICOMYIZA Modeste	V. Coordinator Cell	MIMURI	
20	MUKAYIMANA Esperance	Secretary Cell	MIMULI	
27	MUTUYIMANA Clarisse	Secretary Cell	MIMULI	
23	UWINGENEJE [illegible]	Cell Secretary	MIMULI	

Huye

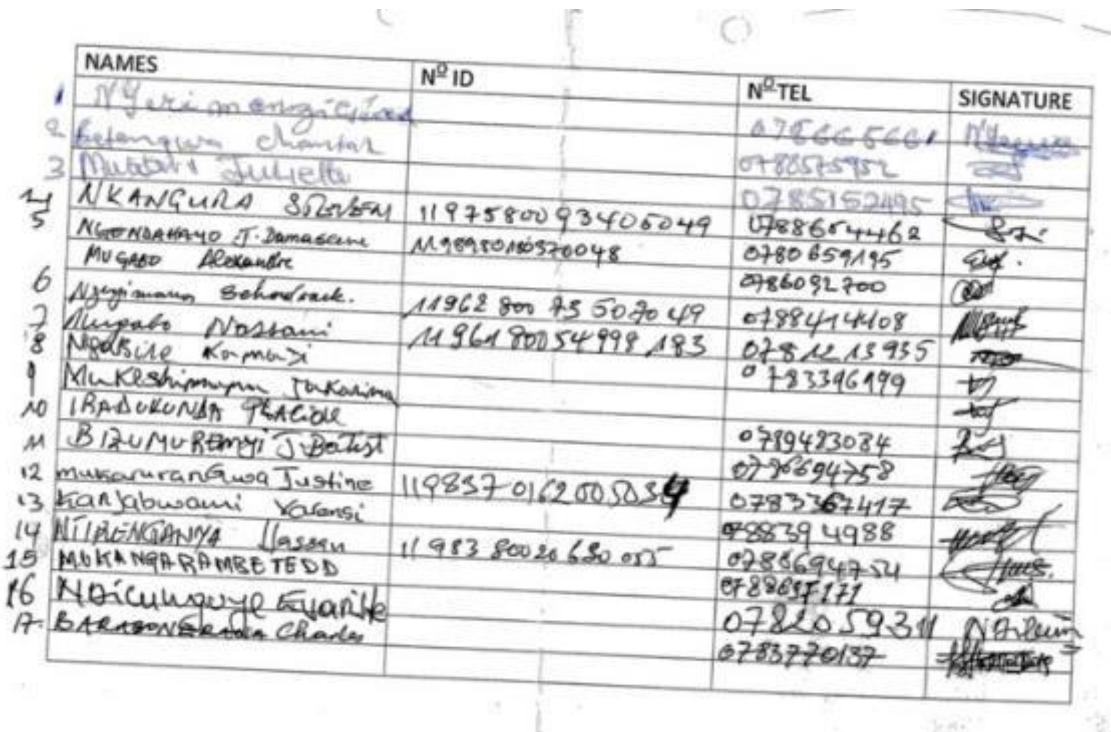


City: Huye

Attendance list

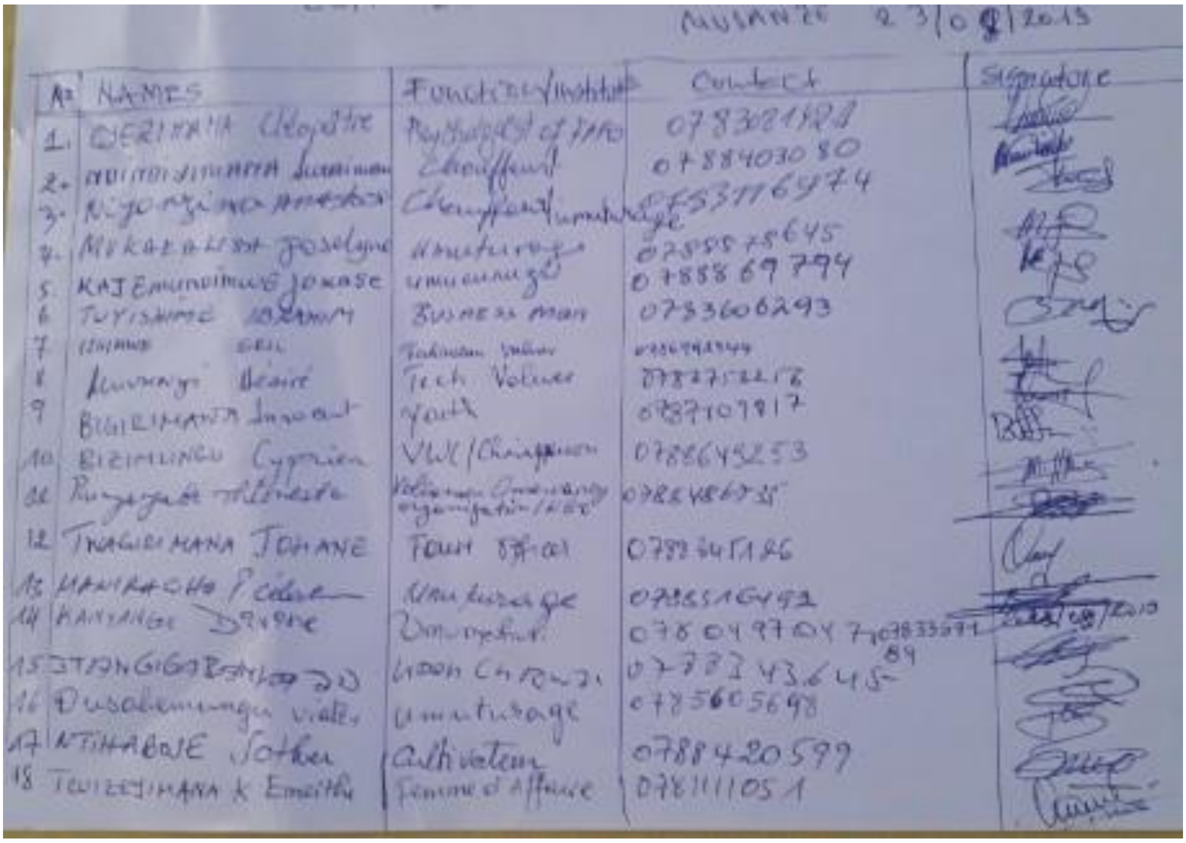
SN	Name	Function	Institution	E-mail	Telephone	Signature
1	Mutezinka Yvonne	Student	University of Rwanda	[illegible]	[illegible]	[signature]
2	[illegible] NGANIZI	RUDP - Coordinator	Huye District	[illegible]	[illegible]	[signature]
3	Diane Umulisa	Student	[illegible]	umulisadiane@[illegible]	[illegible]	[signature]
4	BIZIMUNGU Jean de [illegible]	[illegible]	[illegible] / HUYE	[illegible]@gmail.com	078[illegible]	[signature]
5	KARAMAGA Jean d'Amour	Technician	ECMN Ltd	[illegible]15@yahoo.fr	0788[illegible]	[signature]
6	[illegible]	Social Safeguard	LODA	[illegible]	[illegible]	[signature]
7	[illegible] François	Land [illegible]	Huye District	[illegible]	[illegible]	[signature]
8	AJESIMI ERIC	Building Inspector	Huye District	[illegible]	078[illegible]	[signature]
9	BUDERA Martin	Environment officer	Huye District	[illegible]	078865[illegible]	[signature]
10	KAMAYIRE Rose Aline	RMB IMFO officer	Huye District	[illegible] mail.com		

Rubavu



	NAMES	Nº ID	NºTEL	SIGNATURE
1	Nyirimanzi [illegible]			[signature]
2	[illegible] Chantal		078666[illegible]	[signature]
3	Mutoni Juliette		078857595[illegible]	[signature]
4	NKANGURA [illegible]	11975800 93405049	0785152495	[signature]
5	NGENDAHAYO J. Damascene	1198980180570048	0788654462	[signature]
	MUGABO Alexandre		0780659195	[signature]
6	[illegible]		0786092700	[signature]
7	Mugabo [illegible]	11962 800 75 5070 49	0788414408	[signature]
8	[illegible]	11961 80054999 183	078[illegible]13935	[signature]
9	Mukeshimana [illegible]		0783346199	[signature]
10	IRADUKUNDA PLACIDE			[signature]
11	BIZUMUREMYI J. Batist		0789483084	[signature]
12	Mukarurangwa Justine	119837 0162 005034	0786694758	[signature]
13	Kanjabwami Valensi		0783367417	[signature]
14	NTIRENGANYA Hassan	11983 80020 680 055	0788394988	[signature]
15	MUKANGARAMBE TEDD		0788694754	[signature]
16	Ndicunguye Evariste		0788697171	[signature]
17	BARAGONDEKA [illegible] Charles		0782059311	[signature]
			0783770137	[signature]

Musanze



MUSANZE 23/08/2013

No	NAMES	Function/Institution	Contact	Signature
1.	[illegible]	[illegible]	078302[illegible]	
2.	[illegible]	Chauffeur	0788403080	
3.	[illegible]	Chauffeur/umuturage	0753776974	
4.	MUKA[illegible] Joselyne	Umuturage	0788578645	
5.	KAJ[illegible]	umucuruzi	0788869794	
6	TUYISHIME IBRAHIM	Business man	0733606293	
7	[illegible]	[illegible]	[illegible]	
8	[illegible] Désiré	Tech Volunteer	[illegible]	
9	BIGIRIMANA Innocent	Youth	0787107817	
10	BIZIMUNGU Cyprien	VUP/Chairperson	0788643253	
11	[illegible]	[illegible]	[illegible]	
12	TWAGIRIMANA JOHANE	Town Officer	[illegible]	
13	[illegible]	Umuturage	[illegible]	
14	KANYANGE Daphne	Umurezi	07804970?? / 0783337?	
15	[illegible]	Umucuruzi	07273143645	
16	[illegible] Viator	umuturage	0785605698	
17	NTIHABOSE Jothan	Cultivateur	0788420597	
18	TWIZEYIMANA K Emerith	Femme d'Affaire	0781111051	

Annex 14: Attendance list of consultation with Secondary City District Officials Oct 2019

ATTENDANCE OF THE MEETING BETWEEN LODA AND VM/FED AND ESs FROM SECONDARY CITIES
11TH OCTOBER 2019; GORILLAR HOTEL, NYARUTARAMA.
PREPARATION OF RUDP II

NO	NAME	INSTITUTION	RESPONSIBILITY	EMAIL	SIGNATURE
1	NZABONIMPA Deogratias	RUBAVU DISTRICT	VM/EA	deonzabo@gmail.com	
2	Rweyahura Andrew Mpuhe	MUSANZE DISTRICT	VM/EA	andrewmpuhwe@gmail.com	
3	NTAWUHARUWE Napoleon	RUSIZI District	Dir of OSC	ntawnapoleon@gmail.com	
4	NTAWUMENYUMUNSI Alphonse	[illegible] District	[illegible]	dmc.[illegible].gov.rw	
5	KANYANGIRA Ignace	MUHANGA District	DES	ignace.kanyangira@muhanga.gov.rw	
6	KAYIRA Adolphe	LODA	Dir of planning	adolphe.kayira@loda.gov.rw	
7	MWIZA Louise	LODA	AMS	louise.mwiza@loda.gov.rw	
8	Nshimiyimana Wellars	LODA	DES	executive@[illegible].rw	
9	RUHAMYAMBUGA Olivier	Rubavu DISTRICT	District E/S	executive@rubavu.gov.rw	

ATTENDANCE OF THE MEETING BETWEEN LODA AND VM/FED AND ESs FROM SECONDARY CITIES
11TH OCTOBER 2019; GORILLAR HOTEL, NYARUTARAMA.
PREPARATION OF RUDP II

NO	NAME	INSTITUTION	RESPONSIBILITY	EMAIL	SIGNATURE
1	Kayiranga Innocent	Muhanga District	Vice Mayor Economic	innocent.kayiranga@muhanga.gov.rw	
2	KAMANA Andre	Huye District	Vice Mayor Economic	vmfed@huye.gov.rw	
3	NKUBANA Dismas	LODA	RUDP Coordinator	nkubanad@gmail.com	
4	MUSONI Buga	LODA	RUDP Env. Specialist	sonibuag@gmail.com	
5	BARAMUNGU Apophia	LODA	Social Safeguard Specialist	apophia.baramungu@loda.gov.rw	
6	George Munyaneza	MININFRA	RUDP Coordinator	george.munyaneza@mininfra.gov.rw	
7	Claudine Nyinawagaga	LODA	DG	claudine.nyinawagaga@loda.gov.rw	
8	NSENGAHIMANA Pascal	LODA	DM LED	pascal.nsengahimana@loda.gov.rw	
9	RURANGWA Stephen	Nyagatare district	V/Mayor ED	vmfed@nyagatare.gov.rw	

Annex 15: ESF Capacity Assessment Consultation meeting with District authorities

Rubavu

List of participants in the Capacity Assessment exercise on the 6 Secondary cities and the City of Kigali's compliance on Environmental and Social Safeguards under the Rwanda Urban Development Project (RUDP)

District name: RUBAVU **Date** 05/02/2020

No	Name	Institution	Responsibility	Email	Signature
1	Ir. Oscar GAFIRI	RUBAVU District	Dir. DSU	[illegible]	[illegible]
2	JOHANE PHIRI	NGANDU [illegible] / GAUFF Supervisor	Ag. Resident Engineer.	[illegible]@gmail.com	[illegible]
3	Eng. GASANA Alphonse	JV GAUFF & NG'ANDU RWANDA Supervisor	ARE	alphagasana@gmail.com	[illegible]
4	UWIMANA Medaste	Rubavu District	ES & Safeguard Officer	[illegible]@gmail.com	[illegible]
5	Telesphore BIZUMUREMYI	JV Fair CSCEC contractor	Environmental Specialist	[illegible]@yahoo.com	[illegible]
6	NIYIGENA Jean Felix	JV-Fair & CSCEC	Social safeguards	niyigena23@yahoo.fr	[illegible]
7	Feng Xing	Contractor JV Fair CSCEC	Quantity Surveyor	132709207@qq.com	[illegible]
8	Cui Yan	contractor JV Fair CSCEC	GM	cuiyan@cscecbu.com	[illegible]
9	MUMBUWA LIYUNGU	GAUFF/NG'ANDU CONSULTING JV	Director	mliyungu@gmail.com	[illegible]
10	Eng. NIJIGENA Theodore	Rubavu District	DLVO	nijigenatheodore@gmail.com	[illegible]
11	Hagenimana Emmanuel	Rubavu District	Dir. SU	[illegible]	[illegible]
12	Harelimana Innocent	Rubavu District	DEO	[illegible]41@gmail.com	[illegible]

RUSIZI

List of participants in the Capacity Assessment exercise on the 6 Secondary cities and the City of Kigali's compliance on Environmental and Social Safeguards under the Rwanda Urban Development Project (RUDP)

District name: RUSIZI **Date** 06-02-2020

No	Name	Institution	Responsibility	Email	Signature
1	DUSHIMIYIMANA Germain	NPD Ltd	Chief Surveyor	gdushimiyimana@npd.co.rw	[illegible]
2	KABARINDA Joseph	NPD Ltd	P.M	[illegible]@npd.co.rw	[illegible]
3	Olivier MUSUGI	LODA	Engineer	olivier.musugi@loda.gov.rw	[illegible]
4	IZERIMANA Claudette	Rusizi District	Road Engineer	[illegible]@gmail.com	[illegible]
5	Napoleon NTAWUHARUWE	Rusizi District	Director of DSC	ntanapoleon@gmail.com	[illegible]
6	RWIGAMBA Vincent	RHA	[illegible]	[illegible]@gmail.com	[illegible]
7	NSABIMANA Bernard	NG'ANDU	A.R.E	bernardnsabi@gmail.com	[illegible]
8	KARANGANWA Evariste	ELOHIM.Co.LTD	P.M	kaeva2ed@gmail.com	[illegible]
9	DUSABEYEZU Jean Bosco	ELOHIM Co.Ltd	Site Engineer	djbosbra@gmail.com	[illegible]
10	NYIRAZIZNOA Zainabu	Rusizi District	Dir. PMAE	[illegible]@gmail.com	[illegible]
11	MURAMA Dan	NPD LTD	Environmental Social	dmurama@npd.co.rw	[illegible]
12					
13					
14					

Rusizi (page 2)

List of participants in the Capacity Assessment exercise on the 6 Secondary cities and the City of Kigali's compliance on Environmental and Social Safeguards under the Rwanda Urban Development Project (RUDP)

District name: Rusizi **Date** [illegible]

No	Name	Institution	Responsibility	Email	Signature
1	N [illegible] Emile	Rusizi	Executive Secretary	[illegible]@gmail.com	[signature]
2	IZERIMANA [illegible]	Rusizi	Road Engineer	[illegible]@gmail.com	[signature]
3	NYIRAYEZIORA [illegible]	Rusizi	Dir. PMAE	[illegible]	[signature]
4	Napoleon NTAWUHARUWE	Rusizi	Dir. of OSC	ntnnapoleon@gmail.com	[signature]
5	HABIYAREMYE [illegible]	Rusizi	Dir. SDU	[illegible]@yahoo.fr	[signature]
6					
7					
8					
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Huye

List of participants in the Capacity Assessment exercise on the 6 Secondary cities and the City of Kigali's compliance on Environmental and Social Safeguards under the Rwanda Urban Development Project (RUDP)

District name: HUYE **Date** 10/02/2020

No	Name	Institution	Responsibility	Email	Signature
1	Adolphe MUHIRWA	HORIZON Construction	PM	muhirwaadolphe@gmail.com	[signature]
2	Jules César NGOBOKA	Horizon Construction	RCM	[illegible]@horizonconstruction.rw	[signature]
3	KANAMUGIRE Etienne	GEMT Co Ltd	Site Eng.	[illegible]@gmail.com	[signature]
4	Pascal NGAMIZI	Huye District	Project Engineer (Roads Engineer)	ngamizipascal@gmail.com	[signature]
5	MUSAFIRI Jean Pierre	Huye District	Director of [illegible] One Stop Center	[illegible]@gmail.com	[signature]
6	[illegible]	WASAC Ltd	DNSSE	[illegible]@gmail.com	[signature]
7	UWIZEYIMANA François	Huye District Land valuer	Land Valuer	[illegible]@gmail.com	[signature]
8	KAMANA Andre	Huye District	V.Mayor ED	kamanda[illegible]@gmail.com	[signature]
9	SP M-TWEBAZE	RNP	DPC. Huye	Muda twebaze@gmail	[signature] 0788311127
10	CAPT S. HABIMANA	Army	OC	-	[signature]

Muhanga

List of participants in the Capacity Assessment exercise on the 6 Secondary cities and the City of Kigali's compliance on Environmental and Social Safeguards under the Rwanda Urban Development Project (RUDP)

District name: MUHANGA **Date** 12/02/2020

No	Name	Institution	Responsibility	Email	Signature
1	NTABONIMANA Onesphore	Muhanga District	Dir OSC	ntabonimanaon@gmail.com	[illegible]
2	Celestin NIYONZIMA	Contractor CRBC	Social & Environment	niyocelestin[illegible]@yahoo.fr	[illegible]
3	UWAMPETA Charlotte	Muhanga District	Acting Dir SDU	uwampeta@gmail.com	[illegible]
4	HABIMANA Jean Claude	Muhanga district	Land Use [illegible] officer	[illegible]@gmail.com	[illegible]
5	SEMANA François	Muhanga	Acting Environmental Officer	[illegible]@gmail.com	[illegible]
6	MUNDELI Salathiel	GM Supply Ltd	Project Manager	salathielus1@gmail.com	[illegible]
7	Egide Nkuranga	Nyanza	E&S Safeguard Specialist	enkuranga66@gmail.com	Nkuranga [illegible]
8	Ignace KANYANGIRA	MUHANGA District	District Executive Secr	ignace.kanyangira@muhanga.gov.rw	[illegible]
9	Kayiranga Innocent	Muhanga District	Vice Mayor Economic	innocent.kayiranga@muhanga.gov.rw	[illegible]
10					

Nyagatare

List of participants in the Capacity Assessment exercise on the 6 Secondary cities and the City of Kigali's compliance on Environmental and Social Safeguards under the Rwanda Urban Development Project (RUDP)

District name: NYAGATARE **Date** 13/02/2020

No	Name	Institution	Responsibility	Email	Signature
1	Augustin MANIRAKIZA	NYAGATARE/District	RDMO	[illegible]@gmail.com	[illegible]
2	Zhang Baochuan	STECOL	Engineer	baochuan26@163.com	[illegible]
3	Liu Dantao	STECOL	Officer	liudantao@163.com	[illegible]
4	SANGANO Richard	NGANGO	Safeguards	sangandorichard@gmail.com	[illegible]
5	RURANGWA Stephen	Nyagatare	V/Mayor ED	vmfed@nyagatare.gov.rw	Rurangwa
6	MURENZI Samuel	Nyagatare	Environment	murenzisamuel@gmail.com	[illegible]
7					
8					
9					
10					