



Environmental and Social Management Framework

Green City Kigali Project, Rwanda

17 April 2024

Project No.: 0701896

--	--

Document details	<p>The details entered below are automatically shown on the cover and the main page footer.</p> <p>PLEASE NOTE: This table must NOT be removed from this document.</p>
Document title	Environmental and Social Management Framework
Document subtitle	Green City Kigali Project, Rwanda
Project No.	0701896
Date	17 April 2024
Version	Revision
Author	ERM Germany GmbH
Client Name	Green City Kigali Company

Document history						
				ERM approval to issue		
Version	Revision	Author	Reviewed by	Name	Date	Comments
01	00	Georgios Chrysikos	Dr. Norbert Raschke	Raimund Vogelsberger	16.09.2020	Draft sent to client
01	01	Melina Rauscher, Corinna Hausner	Pete Jones	Raimund Vogelsberger	28.01.2021	Revision after comments to Draft
02	02	Horia Herta, Giulio Marin, Melina Rauscher	Raimund Vogelsberger	Raimund Vogelsberger	21.05.2021	Version 02 after client comments
03	03	Melina Rauscher		Raimund Vogelsberger	02.06.2021	Minor edits after Sweco comments
04	04	Horia Herta		Raimund Vogelsberger	30.11.2021	Addressing client comments
05	05	Lamija Karabeg Filip Forster	Kelly Horton			Aligned with Masterplan updates

--	--

			Adam Teixeira- Leite			
			Horia Herta			

--	--

17 April 2024

Environmental and Social Management Framework

Green City Kigali Project, Rwanda

Daniela Viveash
Partner

ERM GmbH
Siemensstraße 9
63263 Neu-Isenburg
Germany

© Copyright 2024 by ERM Worldwide Group Ltd and/or its affiliates ("ERM").
All rights reserved. No part of this work may be reproduced or transmitted in any form,
or by any means, without the prior written permission of ERM.

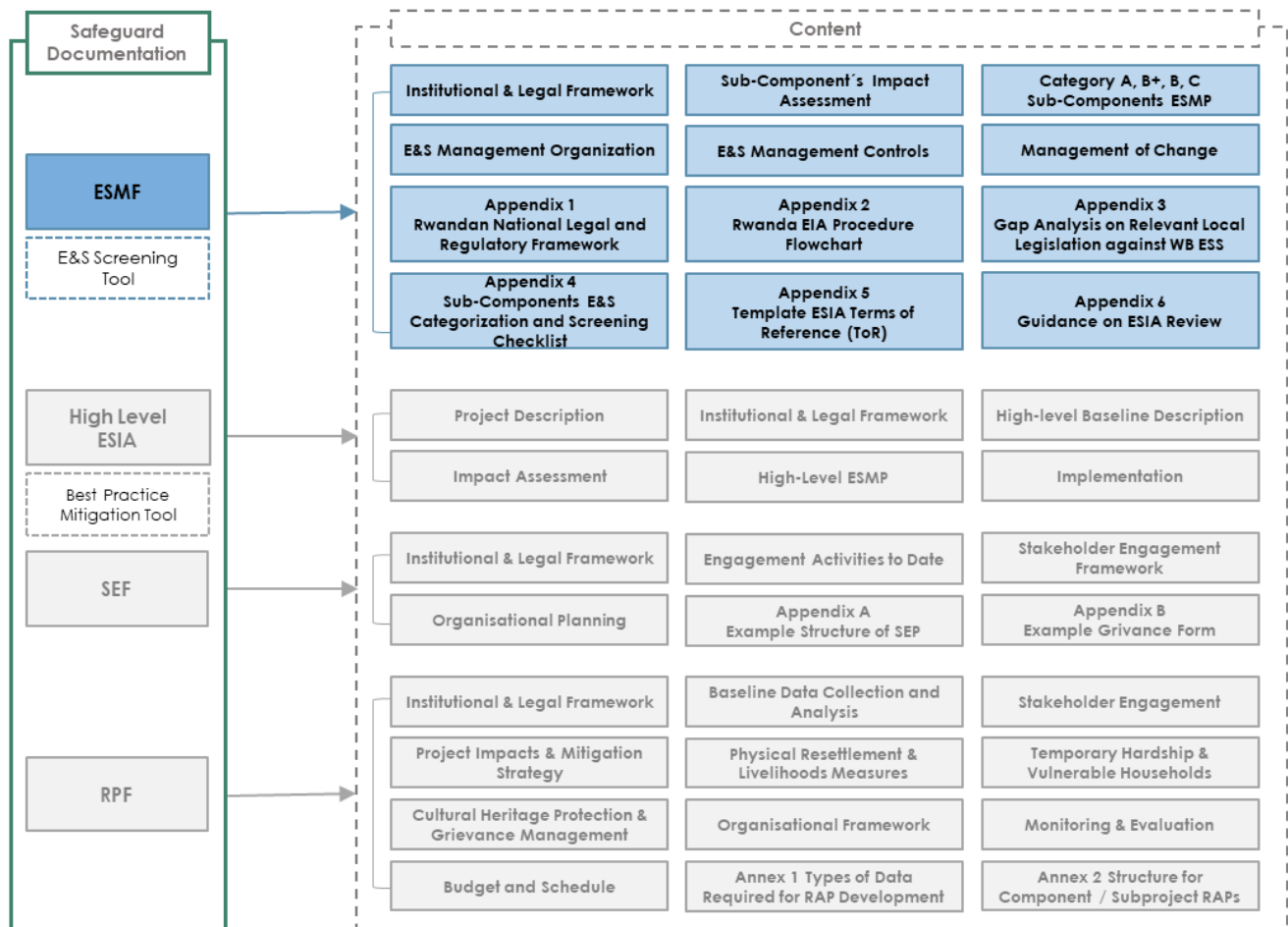


Document Guide:

The Green City Kigali (GCK) Project will include comprehensive measures to ensure that adequate environmental and social (E&S) conditions will be established. To support Project implementation, a series of technical documents have been prepared (“Safeguard Documentation”), these being:

- Strategic Environmental and Social Impact Assessment (**SESA**);
- High-Level ESIA (the **High-Level ESIA**);
- Environmental and Social Management Framework (**ESMF**) - **This Document**
- Stakeholder Engagement Framework (**SEF**); and,
- Resettlement Policy Framework (**RPF**)

The ESMF serves as an instrument guiding the GCK Project implementing entity, as well as prospective developers, in the process of the E&S assessment and management at Project and sub-component level respectively.



CONTENTS

1.	1		
	1.1	1	
		1.1.1	1
		1.1.2	4
	1.2	7	
	1.3	9	
	1.4	11	
	1.5	11	
	1.6	12	
2.	14		
	2.1	14	
	2.2	17	
	2.3	17	
	2.4	19	
		2.4.1	19
		2.4.2	20
		2.4.3	20
		2.4.4	22
3.	23		
	3.1	23	
	3.2	26	
		3.2.1	26
		3.2.2	27
		3.2.3	27
	3.3	37	
4.	38		
	4.1	38	
		4.1.1	41
		4.1.2	41
		4.1.3	46
5.	47		
6.	49		
	6.1	49	
	6.2	51	
7.	54		
	7.1	54	
	7.2	54	
		7.2.1	55
		7.2.2	55
		7.2.3	55
	7.3	56	
		7.3.1	56
		7.3.2	56
		7.3.3	57
		7.3.4	57
	7.4	57	
	7.5	58	
8.	59		

APPENDIX 1	RWANDAN NATIONAL LEGAL AND REGULATORY FRAMEWORK
APPENDIX 2	RWANDAN EIA PROCEDURE FLOWCHART
APPENDIX 3	GAP ANALYSIS OF RELEVANT LOCAL LEGISLATION AGAINST WB ESS
APPENDIX 4	SUB-COMPONENTS E&S CATEGORIZATION AND SCREENING CHECKLIST
APPENDIX 5	TEMPLATE ESIA TERMS OF REFERENCE
APPENDIX 6	GUIDANCE ON ESIA REVIEW

List of Tables

Table 2-1	15
Table 2-2	20
Table 3-1	34
Table 3-2	34
Table 4-1	42
Table 4-2	43
Table 6-1	49

List of Figures

Figure 1-1	1	
Figure 1-2	3	
Figure 1-3	6	
Figure 1-4	8	
Figure 1-5	10	
Figure 2-1	19	
Figure 3-1	25	
Figure 3-2	32	
Figure 3-3	ESIA Structure Exemplification	35
Figure 4-1	38	
Figure 4-2	40	

Acronyms and Abbreviations

Name	Description
E&S	Environmental and Social
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EPC	Engineering, procurement, and construction
ERM	Environmental Resources Management
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
ESS	Environmental and Social Safeguard
FI	Financial Intermediary
FONERWA	Rwanda Green Fund
GCK	Green City Kigali (The Project)
GCKC	Green City Kigali Company
GIIP	Good International Industry Practice
H&S	Health and Safety
IFI	International Finance Institution
ILO	International Labor Organization
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
MEIS	Monitoring and Evaluation Information System
MINALOC	Ministry of Local Government
MININFRA	Ministry of Infrastructure
MoE	Ministry of Environment
PIE	Project Implementing Entity
RAP	Resettlement Action Plan
RDB	Rwanda Development Board
REG	Rwanda Energy Group
REMA	Rwanda Environment Management Authority
RPF	Resettlement Policy Framework
SEF	Stakeholder Engagement Framework
SEP	Stakeholder Engagement Plan

SPV	Special Purpose Vehicle
SWECO	International Consulting GCK Project (Swedish Consultants)
ToR	Terms of Reference
UADC	Urban and Architectural Design Consultant
WASAC	Water and Sanitation Corporation
WB	World Bank

1. INTRODUCTION

This document presents the Environmental and Social Management Framework (ESMF) for the Green City Kigali Project, Rwanda (hereinafter referred to as “GCK Project” or “the Project”). It is a Project-wide framework guiding the assessment and management of the Environmental and Social (E&S¹) impacts throughout Project execution.

1.1 Project Overview

The GCK Project² is a major urban development Project in Rwanda. The purpose of the Project is to create a model community in Kigali, which demonstrates and sets standards for sustainable urban development that can be replicated in other parts of the country and the wider region, by combining climate change resilience with affordable housing solutions. The Project area is located at Kinyinya Hill 6.5km in the northeast of the central business district of Kigali, in the district of Gasabo and comprises an area of around 600 hectares (the “Project Area”).

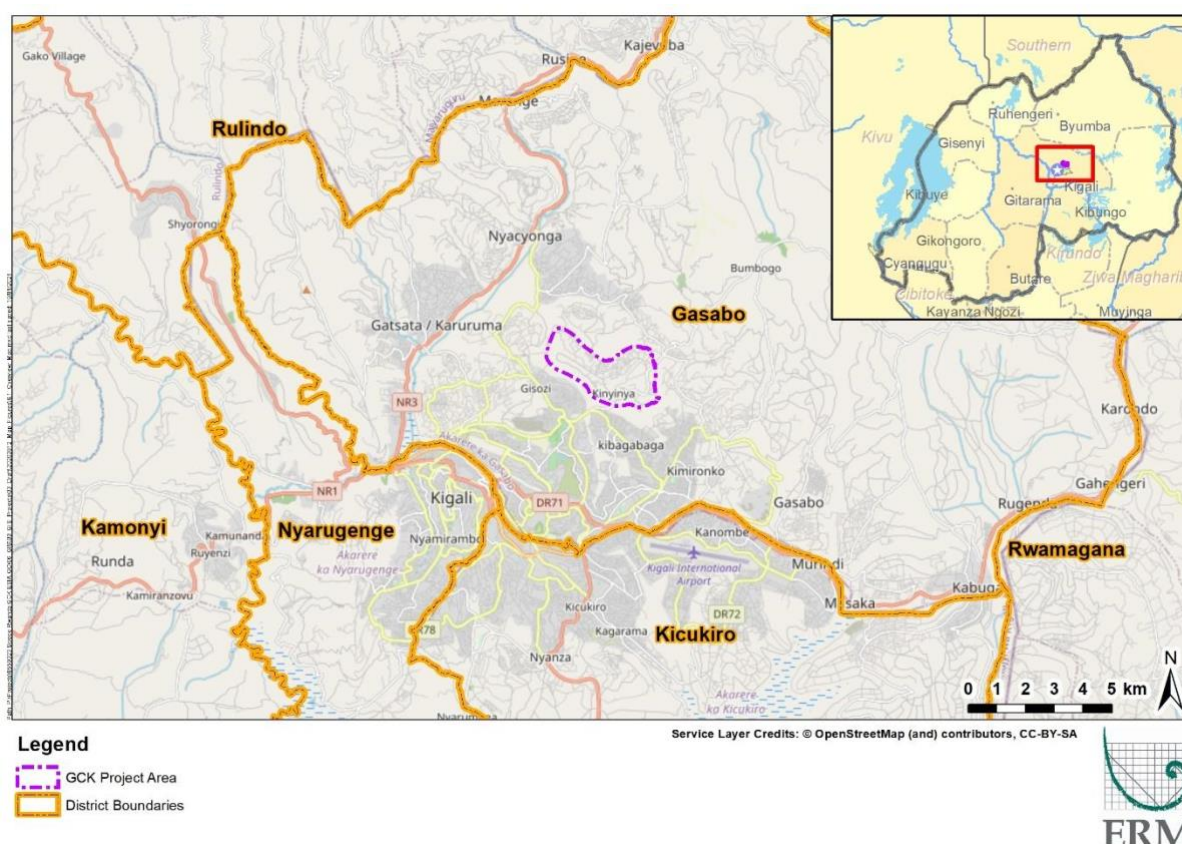


Figure 1-1 Project Location Kinyinya Hill, Kigali, Rwanda

1.1.1 Overall Project Context

The Rwandan landscape is characterised by distinctive natural features that are also present in Kinyinya. The hilly terrain, often cultivated, the relatively flat hilltop and the ever-present wetlands. These are almost entirely cultivated and characterise this part of the city. Despite the large potential for development, the relatively peripheral position and difficult access, has reduced the pace of development³.

Rwanda has the highest population density in mainland Africa, and the population is growing at 2.8% per year. The average annual population growth of the capital city Kigali is however estimated at an

¹ Throughout this document, the E&S abbreviation covers environmental, health and safety, social and cultural heritage aspects.

² Project website: [Green City Kigali: Rwanda's pilot towards green urbanisation](https://www.gckigali.com)

³ Green City Kigali A Concept Masterplan for Kinyinya Hill Rev C

even higher rate of 4.0% per year. Kigali population was estimated to grow from 1.6 million in 2020 to 2.5 million by 2032. This rapid urbanization process and the climate change imply increased pressure on and demand for natural resources such as land, water, food, and energy.

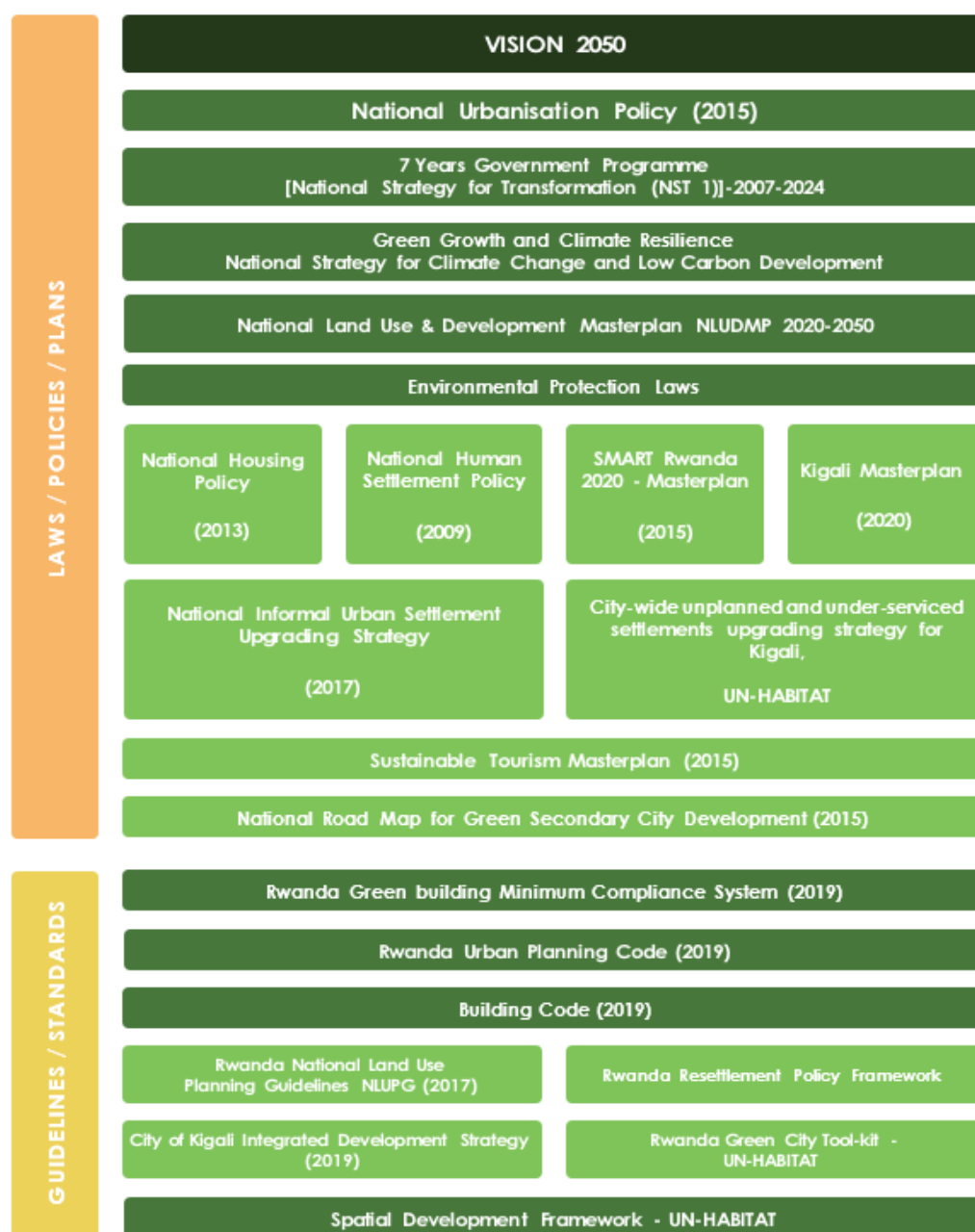
Rwanda experiences high levels of climatic variability and natural hazards and is one of the most vulnerable countries in the world to climate change. Kigali faces a changing climate with increasing average temperatures of 1.4-2.3 degrees Celsius coupled with an increasing frequency of heatwaves.

In this context, Kigali faces three main housing challenges due to rapid urbanization including housing affordability, housing supply and urban sprawl.

The National Urbanisation Policy (2015), calls for integrated urban planning and management to achieve resource efficient and compact growth. It further underlines the efficient use of land and strategic investment based on green economic development principles. Further, the National Strategy for Transformation includes as one of the priority areas the increase sustainable urbanization from 18.4% (2016/17) to 35% by 2024. This sustainable urbanization is delivered through six key strategic interventions, one of which is the development of transformative projects in key urban areas.

The Government of Rwanda has committed itself to shift towards green urbanisation⁴ focusing on nation-wide environmentally sustainable, climate resilient and green, economic growth. A number of national strategies, policies and guidelines were developed by the government to set priorities and directions on urban development to tackle above-indicated challenges (see **Figure 1-2** below).

⁴ National Strategy for Transformation (NST1) 2017 – 2024, available at:
http://www.minecofin.gov.rw/fileadmin/user_upload/MINECOFIN_Documents/NST_A5_booklet_final_2.04.19_WEB.pdf



Source: GCK Masterplan, Rev. C.

Figure 1-2 Key National Policies and Guidelines on Urban Development

These strategic documents outline the national growth directions in urbanization, green growth and climate resiliency, housing and planning regulations that guide the land use planning of the cities and guided the updated City of Kigali Masterplan (2020)⁵.

The City of Kigali Masterplan provides an updated Urban Sustainability Framework and providing guiding principles for the planning processes to ensure the long-term sustainability of Kigali City.

The Green City Kigali (GCK) Project transposes the City of Kigali Masterplan goals and comes in response to the above-indicated issues and challenges. It aims at providing an urban development model for increased resilience against the consequences of climate change and the ensured sustainable urban development of Rwanda through the development of a model community at Kinyinya Hill. This objective will be achieved by integrating various solutions such as pilot

⁵ Analysis and Vision. Kigali Master Plan 2050, 2020 Edition: [1_Kigali Master Plan Analysis & VisionLowRes.pdf](https://bpmis.gov.rw/1_Kigali_Master_Plan_Analysis_&_VisionLowRes.pdf) (bpmis.gov.rw)

developments that allow users to enjoy the social and economic benefits of urbanization while minimizing ecological footprint, as indicated in the following section.

1.1.2 Overview of Project Components

The updated GCK Masterplan (Rev C) envisages a new enhanced urban area with green housing for low to middle-income inhabitants, commercial spaces, light industrial uses, schools, health facilities, recreational areas, sports facilities, and green areas. New infrastructure and basic services will be provided, including information and communication technology, solid waste management, sustainable transport (with more affordable and smart public transport systems), innovative energy and water supply, and sewage management.

According to the GCK Masterplan, the following key elements will be implemented:

- Mobility networks
- Green/blue networks
- Sustainable services infrastructure
- Community infrastructure

These elements represent “sub-components” of the overall GCK Project, and thus implemented as “sub-projects”.

It is expected that most of these Project sub-components will be implemented based on international financing (e.g. by KfW or other international lenders). However, some Project sub-components will be developed based on local/national funding.

Figure 1-3 overleaf provides an overview of the Project elements. Each of the above-mentioned sub-components will be designed in detail at a later stage, and then categorized accordingly be subject to specific ESIA's and permits/approvals as defined in the Rwandan EIA legislation and the guidelines presented in this document (see **Section 3**).

Further descriptions of the Project sub-components are available in the GCK Project **High-Level ESIA Report**.



	<div>31. Kinyinya Plateau</div> <div>32. Shyamba Kinyinya</div> <div>33. Blue/Green Productive Borders</div> <div>34. Blue/Green Social Networks</div> <div>35. Kinyinya's Cultural & Civic Square</div> <div>36. Pedestrianised Imbuga Street</div>
--	--

Figure 1-3 Project elements

1.2 Objective and Scope of the ESMF

The following E&S safeguards documentation has been prepared for the Project:

- Environmental and Social Management Framework (ESMF) – this document;
- High-Level Environmental and Social Impact Assessment (High-Level ESIA);
- Stakeholder Engagement Framework (SEF);
- Resettlement Policy Framework (RPF).

Important:

The primary objective of this Environmental and Social Management Framework (ESMF) is to provide comprehensive guidance for the effective application of appropriate Environmental and Social (E&S) safeguards. This framework is designed to ensure that these safeguards are applied to the various sub-components of the Project that will be developed in the future.

This ESMF is thus to be read in conjunction with the above-indicated Project-wide Safeguard Documentation package prepared at the master-planning stage of the Project and envisaged to provide an overview of expected key E&S impacts and overall guidance on their further assessment and management throughout implementation.

The E&S screening, categorization, impact assessment and management planning (i.e. ESIA and ESMP) to be put in place at sub-components level are detailed in **Chapters 3 to 5** of this document. These are aligned with good international industry practice (GIIP) and widely implemented for projects subject to international finance. This E&S impacts assessment and management approach as defined in this ESMF is thus applicable in the case of those sub-components which are subject to international finance. However (although not statutorily required) their application to Project sub-components not financed internationally is encouraged as GIIP.

At ESMF level, the relevant safeguards for Project sub-components shall include required E&S Impact Assessments (ESIA) and associated E&S Management Planning (ESMP)⁶. The relationship between the key E&S safeguards at strategic (Project-wide) and Project sub-component levels is represented in **Figure 1-4**.

⁶ E&S Management Planning: documented policies, management systems, procedures, plans and practices to be put in place for each Project Sub-Component to address associated E&S risks and impacts.

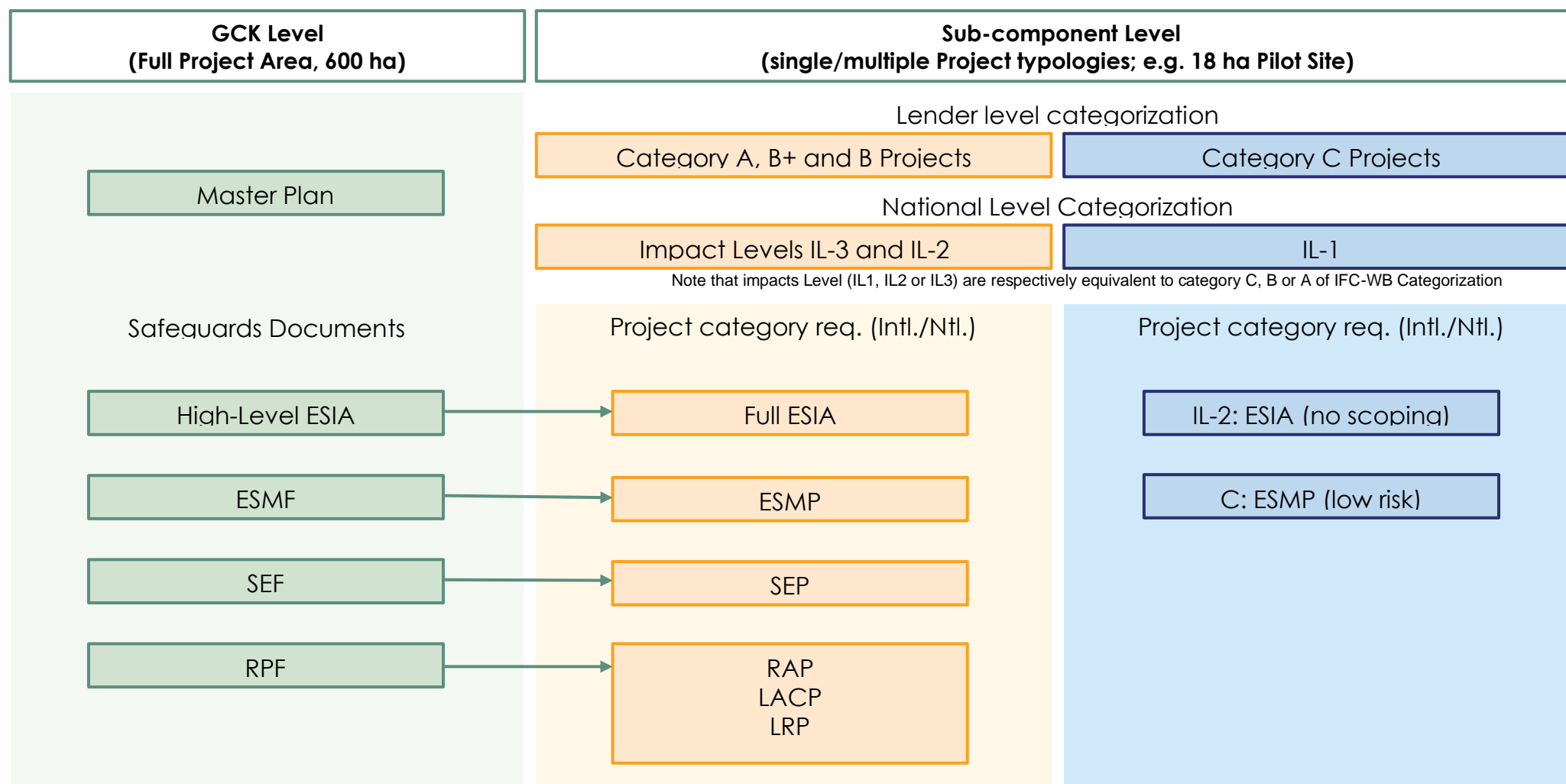


Figure 1-4 Key E&S Safeguards Documents Project-wide and at sub-components' level⁷

⁷ International/Lender sub-components Categorisation (A, B+, B, C) detailed in Chapter 3. National sub-components Categorisation (IL-3, IL-2, IL-1) introduced in Chapter 2.3 and Appendix 2. Sub-components E&S impact assessment and management planning (ESIA and ESMP) discussed in Chapters 3 to 5.

1.3 Project Phases and Key Entities Involved in Project Development

The development of the GCK Project is divided into four key phases (**Figure 1-5**); the **High-Level ESIA**, along with the ESMF and **SEF** are conducted based on the UADC Masterplan in succession to Phase B. They are intended to inform E&S management for the life of the Project.

Throughout the different Project Phases, different entities have/will be involved in the GCK Project, as shown in **Figure 1-5**. Key involvement in the Project is described below.

- **FONERWA:** is the Rwandan green fund with a purpose to be the engine of green growth in Rwanda. Its vision is to respond to Rwanda's current and future financing needs for environment, climate change, green growth to accelerate goals of national sustainable economic development. The fund invests in the best public and private projects that have the potential for transformative change and that align with Rwanda's commitment to building a strong green economy. It also provides expert technical assistance to ensure the success of its investments. Financial support of the GCK Project from government and development partners will be managed by FONERWA
- **REMA:** the agency of the Government of Rwanda responsible for implementing environmental policies and laws, is also engaged in monitoring the Environmental and Social Management Plan (ESMP) and reviewing the environmental audit submitted by the client Rwanda Green Fund / KfW
- **RDB:** operates as a consolidated entity, bringing together various government bodies in Rwanda with a focus on advancing investments. Within RDB, a dedicated department manages ESIA processes, thoroughly reviewing all project ESIA reports before granting approval for project implementation. This responsibility was previously undertaken by the Rwanda Environment Management Authority (REMA)
- **KfW:** a German state-owned investment and development bank. For the GCK Project it is acting as an International Finance Institution (IFI) by providing financing for the Project through the German Ministry for Economic Development and Cooperation (BMZ) and the Green Climate Fund (GCF). It has financed activities throughout all current Project Phases, including the 16 ha pilot site throughout Phase D.
- **Green City Kigali Company (Special Purpose Vehicle):** Green City Kigali Company (GCKC) established in 2020 by FONERWA for the development and management of the 16 ha pilot site. Further GCKC will ensure the GCK masterplan management (role taken over from SWECO).
- **Feilden Clegg Bradley Studios (FBCS):** an architectural and urban design firm appointed by GCKC for the Project Masterplan development and specifically for the design of the 16-ha pilot site (i.e. the first sub-component to be constructed).

GCKC has overall responsibility for ensuring that the Project and the E&S risks and impacts of the sub-components are adequately identified and managed in alignment with Rwandan legislation and international requirements.

The Project sub-components will be implemented by sub-component Developers mandated by GCKC. The sub-component Developers will:

- Function as the owners of the individual/multiple sub-components.
- Will be in charge of sub-component ESIA, ESMP, and related documentation, aligned to the present ESMF (depending on Project categorizations; see Section 3).
- Will employ the appointed EPC⁸ and monitor its E&S performance.

Local Rwandan authorities, REMA, FONERWA and KfW (the latter in the case of funded sub-components by KfW; it is foreseen that other lender institutions besides KfW may also participate) will have a supervisory/monitoring role (see **Figure 1-5**).

⁸ Engineering, procurement, and construction (EPC) contracts are the most common form of contract used to undertake construction works by the private sector on large-scale infrastructure projects. Under an EPC contract a contractor is obliged to deliver a complete facility to a developer. The EPC contractor coordinates all design, procurement and construction work and ensures that the whole project is completed as required and in time.

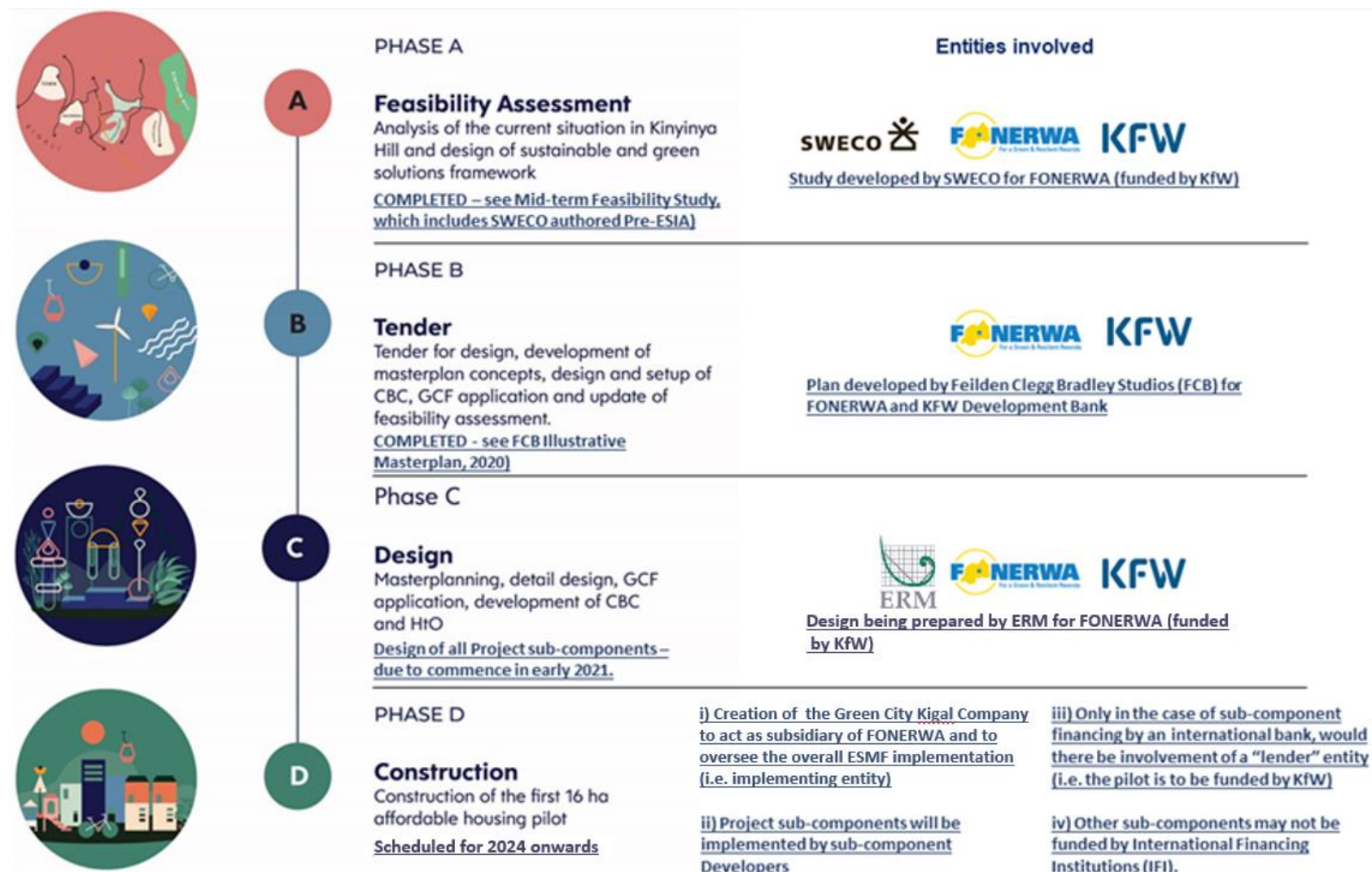


Figure 1-5 Phases, Scope and Entities involved throughout the GCK Project

1.4 Structure of this ESMF Document

This Environmental and Social Management Framework (ESMF) serves as a comprehensive guide for the sustainable management of environmental and social (E&S) aspects throughout the project lifecycle. To enhance the understanding and facilitate efficient navigation, this section provides an overview of the document's structure.

Each chapter is structured to address specific objectives, guiding stakeholders through the intricacies of E&S institutional frameworks, impact assessments, risk management, compliance assurance, and continuous improvement. A cohesive understanding of the interconnected chapters is crucial for effective project implementation. Please refer to the following overview for guidance on accessing relevant information based on your role and interests.

The ESMF is structured to address the following specific objectives:

- Provide an overview of applicable E&S institutional framework (i.e. applicable Project Requirements, Regulations and Standards) (**Chapter 2**);
- Provide guidance to GCKC and sub-component developers on the development and implementation of sub-components' E&S impact assessment and management planning (i.e. ESIA reports and accompanying ESMP and related documentation) (**Chapter 3**);
- Guide GCKC and developers on how sub-components' E&S risks and impacts are managed to conform with applicable policies, regulations and standards and ensure the Project commitments/mitigations are effectively implemented. This includes (i) establishing measures to be applied (see **Chapters 3 - 5 and 8**), (ii) communicate requirements herein to GCKC, sub-components Developers and EPC contractors, and (iii) oversight of requirements implementation, as detailed further in this ESMF (**Chapter 7**);
- Clarify requirements for E&S compliance assurance roles and responsibilities at the level of various entities involved in the sub-components' implementation (**Chapters 6 and 7**);
- Provide indication of required processes to adequately monitor sub-components' implementation activities against Project E&S policies, regulations and standards (**Chapter 7**);
- Indicate required reporting systems to be developed and implemented to communicate E&S compliance performance to the higher Project leadership (i.e. FONERWA)/ GCKC and further to all sub-components' staff including contractors (**Chapter 7**);
- Facilitate continual improvement in E&S compliance assurance (**Chapters 4 to 8**).

Important:

In essence, the ESMF provides an overview of (i) the required processes associated with implementation of the 'mitigation hierarchy' towards identifying, avoiding, mitigating/reducing and only then considering restoration/compensation measures for key E&S risks and impacts of the overall GCK Project and (ii) on how these are to be later implemented at sub-component level.

1.5 Use of this ESMF Document

Based on the guidance provided in this ESMF, GCKC and sub-components Developers are required to:

GCKC: the Project Implementing Entity/Special Purpose Vehicle

- **Implementation oversight:** Ensure the effective implementation of this ESMF by trained staff and enforce the application of relevant requirements at the sub-component level by Developers
- **E&S Staffing and Resources:** Allocate necessary E&S staffing and resources within the SPV to provide robust supervision of sub-component implementation
- **Documentation Review:** Continuously review and approve ESMP documentation provided by Developers for each sub-component

- **Field Supervision and Compliance Assurance:** Conduct ongoing field supervision and E&S compliance assurance throughout the execution phase to validate adherence to established guidelines
- **Periodic Reviews and Updates:** Conduct periodic reviews of the ESMF to ensure its relevance and effectiveness in addressing emerging environmental and social challenges
- **Reporting Mechanisms:** Establish clear reporting mechanisms for monitoring and reporting on the implementation of the ESMF
- **Non-Compliance Resolutions:** Define channels and procedures for addressing instances of non-compliance, ensuring swift and appropriate corrective actions⁹.

Sub-components Developers

- Guided by this ESMF, adequately assess sub-component's E&S impacts as basis for the sub-component E&S Management Planning.
- Develop and implement a sub-component ESMP as central E&S management document, supported by a series of subordinated E&S management plans and procedures at Developer and Contractors levels.
- Require Contractors/Subcontractors to develop and implement own E&S management plans/procedures/method statements as guided by this ESMF. Further, through established E&S compliance assurance process provide required field supervision to ensure their adequate implementation by Contractors/Subcontractors throughout execution.
- Ensure required E&S staffing and resources (at both sub-component Developer and Contractors levels) for adequate implementation of sub-component ESMP

1.6 E&S Management at GCK Project and Sub-Component Levels

The management of Project E&S risks and impacts will follow a "cascade" approach, reflecting good international practice as indicated below:

Project E&S risks and impacts management approach

- The guiding requirements are outlined in this ESMF, the High-Level ESIA, SEF and RPF (collectively, the "Safeguard Documentation" package);
- GCKC has overall responsibility for the implementation of this ESMF;
- Sub-components Developers - on this basis – are in charge of developing their own sub-component ESMPs and supporting E&S Management Plans (to be approved by GCKC);
- Sub-components Developers must implement and enforce the sub-component ESMP measures in their own activities and in those of any of their subcontractors and other services providers;
- Sub-components Developers undertake periodic monitoring of the sub-component ESMP implementation (and reports to GCKC);
- GCKC conducts their own overall monitoring of the sub-components Developers' performance (and reports to Project Lenders);
- Project Lenders (when applicable, through in-house experts and external advisors) conduct independent audits of E&S safeguards implementation throughout Project execution.
- In parallel, Project/sub-components go through the established Rwandan environmental permitting framework and monitoring by authorities.

Updates/revisions to the sub-components ESMPs and subordinated E&S management plans will be implemented as appropriate to reflect the ongoing findings of the monitoring and audits, corresponding staff training or in response to regulatory changes affecting the Project. This approach

⁹ Through own staff employed within the GCKC/Implementing Entity, or through contracted/outsourced specialists. E&S staffing needs may greatly vary pending on number of ongoing Sub-Components and their stages of implementation at a given time.

is aimed at providing a robust system with continuous improvement of Project E&S risks and impacts management.

2. E&S INSTITUTIONAL FRAMEWORK, APPLICABLE PROJECT E&S REQUIREMENTS, REGULATIONS AND STANDARDS

All entities involved in the Project implementation are required to meet a number of key E&S requirements, regulations and standards as outlined in this section. This ESMF is intended to support their transposition into Project implementation (i.e. at sub-components level).

In cases where the indicated requirements, regulations and standards are inconsistent or conflicting, PIE/SPV, sub-components Developers and Contractors are bound to applying the most stringent requirement.

2.1 GCKC – the Project Implementing Entity (FONERWA subsidiary – SPV)

FONERWA is the Rwandan green fund with a purpose to be the engine of green growth in Rwanda. Its vision is to respond to Rwanda's current and future financing needs for environment, climate change, green growth to accelerate goals of national sustainable economic development.

FONERWA's Environment and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) are developed with respect to FONERWA's wide range of projects types funded, as well as the different needs and capacities of funding applicants that include public and private sector applicants as well as CSOs. For the purpose of single/multiple sub-components implementation, a subsidiary of FONERWA was created – The Green City Kigali Company (GCKC) – through the means of a Special Purpose Vehicle (SPV). GCKC V shall consider this FONERWA ESMF/RPF as the "umbrella" management framework.

The Rwandan and International requirements for FONERWA Project Environmental and Social Safeguarding and Public Consultation and Disclosure (PCD), are considered where applicable to the environmental and socio-economic and socio-political context of Rwanda. Policies, laws, regulations and institutional framework relevant to a particular FONERWA funded project have to be assessed at International, National and District level (& included understanding of community level structures).

Table 2-1 includes the relevant national and international policy and legislation, environmental and social management and resettlement procedures as applied to this FONERWA ESMF¹⁰, establishing the framework for a prospective Project's E&S management processes.

¹⁰ FONERWA activities as per its own ESMF and RPF exclude certain activities in alignment to those indicated as per the KfW and IFC exclusion List (See Section 2.4.1).

Table 2-1 Relevant National and International Policy, Legal and Regulatory Framework

Category	Frameworks
Relevant Rwandan Climate, Environment & Social Policies and Laws	<ul style="list-style-type: none"> • Constitution of the Republic of Rwanda of 2003 • Rwandan Environmental Law N°48/2018 of 13/08/2018 Environmental Impact Assessment Regulations • Vision 2020 and Vision 2050 National Strategy for Transformation (NST1) • National Strategy for Climate Change and Low Carbon Development • National Environment and Climate Change Policy • Nationally Determined Contributions (NDCs) • Sectoral Policies and Strategies: Forestry, Biodiversity, Wildlife, Energy, Water Supply, Sanitation, National Industry, Agriculture, Water Resource Management; Appropriate Environmental Health Legal and Institutional measures. • Integrated Water Resources Master Plan (IWRMP) • Strategic Plan for Agriculture Transformation in Rwanda (SPAT) The National Social Protection Strategy
International Performance Standards on Environmental and Social Safeguarding and Sustainability	<ul style="list-style-type: none"> • The World Bank Groups (WBG) International Finance Corporation (IFC) Environmental and Social Performance Standards • The World Bank Group Environmental, Health and Safety (EHS) Guidelines • FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security • ILO Core Labour Standards • UN Basic Principles and Guidelines on Development-based Evictions and Displacement, ILO Core Labour Standards • KfW's Environmental and Social Due Diligence (ESDD) and Climate Assessment • Safeguarding against Sexual Exploitation and Abuse and Sexual Harassment (SEAH)
Rwandan, African, Regional/East African and International Regulatory Framework Linkages	<ul style="list-style-type: none"> • The Sustainable Development Goals (SDGs) • The African Union Agenda 2063 and its First 10-Year Implementation Plan (2014-2023) • East African Community (EAC) Vision 2050 • The EAC Climate Change Policy (2010) • The EAC Climate Change Master Plan (2011–2031)
Multilateral Environmental Agreements (MEAs)	<ul style="list-style-type: none"> • Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), • Convention on Wetlands of International Importance (Ramsar Convention),

Category	Frameworks
Environment-related	<ul style="list-style-type: none">• Convention on Biological Diversity (CBD),• Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the CBD,• Convention on the Conservation of Migratory Species of Wild Animals (CMS Convention).
Climate change-related MEAs.	<ul style="list-style-type: none">• United Nations Framework Convention on Climate Change (UNFCCC)• The Paris Agreement on Climate Change• Kyoto Protocol• Montreal Protocol• Kigali Amendment to the Montreal Protocol (adopted in October 2016).
Chemical-related multilateral environmental agreements	<ul style="list-style-type: none">• Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal• Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;• Stockholm Convention on Persistent Organic Pollutants,• Cartagena Protocol on Biosafety.

2.2 National Legal and Regulatory Framework

It is deemed that the GCK Project and prospective sub-components would need to be in compliance with major part of that listed in the previous section as part of FONERWA's ESME; with all entities involved in the Project implementation to comply with the requirements of all national laws, regulations and codes of practice, and fulfil all applicable regulatory requirements.

A selection of key national regulatory documents applicable to the Project are listed and detailed on their content and relevance to the Project in **Appendix 1**.

2.3 National EIA Process Overview

The national Environmental Impact Assessment process is governed by two key regulations

- Law No 48/2018 of 13/08/2018 on Environment¹¹ and
- Ministerial Order No.001/2019 establishing the list of projects that must undergo EIA, instructions, requirements and procedures to conduct EIA.

The purpose of the Law No.48/2018 on environment is to determine modalities for protecting, conserving and promoting the environment. The Ministerial Order No.001/2019 establishes the list of projects that must undergo environmental impact assessment, instructions, requirements and procedures to conduct an EIA.

Annex 1 of the Ministerial Order contains the list of projects that must undergo a full EIA. The projects of Annex 1 are all buildings classified as residential, commercial, administrative or institutional sports facilities, social, cultural, and assembly and religious buildings, hotels, health facilities, educational buildings, or other publicly accessible facilities fulfilling at least two of the following conditions: having capacity to host more than 500 people or having a total floor area exceeding 1,500 m², or built in plot size exceeding 1,000 m². Identified GCK project components exceed these conditions and need therefore to carrying out a full EIA. In addition, projects with a lower impact level do not necessitate a full EIA, but a further level of assessment is required. Finally, projects not expected to have significant impacts, do not require any environmental assessment.

This Environmental law is therefore the guiding blue print of instruction to the GCK project implementation with regard to obligations of; performing an EIA, conserving and protecting the environment through soil protection and conservation, biodiversity protection, liquid and solid waste management, provision of green space in project design and mitigation of other possible adverse impacts to the environment.

General Guidelines and procedure for EIA were issued in 2006 by REMA. In 2009, REMA also published Guidelines for Environmental Audit. Sector-specific guidelines for EIA studies have also been developed, the most relevant for the GCK Project being:

- "General Guidelines and Procedures for Environmental Impact Assessment" REMA, 2006. Designed to ensure that participants in the EIA process understand their roles and that laws and regulations are interpreted correctly and consistently.
- "EIA Guidelines for Housing constructions, REMA 2009. These guidelines categorise housing projects into 3 categories. The criteria used are mainly size of the project and purpose.
 - Large scale residential housing projects (single and cluster units, high rise flats);
 - Low cost residential housing;
 - Small scale mixed residential and commercial.

The EIA legislation distinguish the following phases of the EIA process in Rwanda:

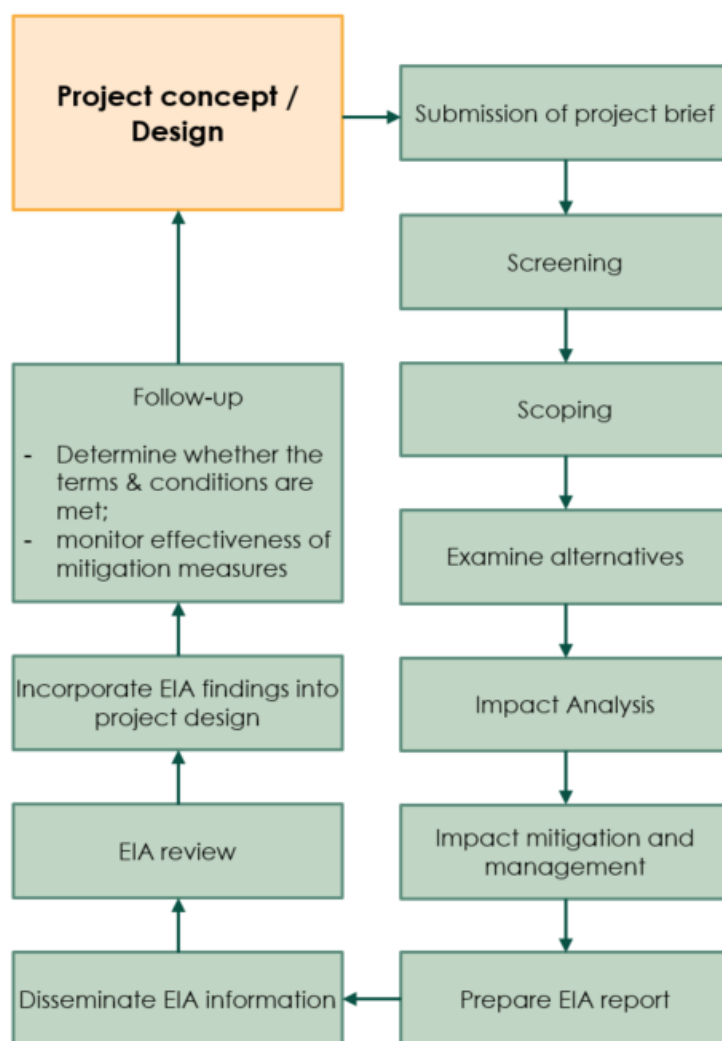
- Project Application and Registration by RDB
- Screening
- Scoping and Terms of Reference (**Appendix 5** provides guidance in ToR and ESIA contents)
- Environmental Impact Study and Report

¹¹ https://rema.gov.rw/fileadmin/templates/Documents/Law_on_environment.pdf

- Submission of EIA Report to the Authority
- EIA Report Review, and Decision-Making ([Appendix 6](#) provides guidance on its review)
- Public Hearing
- Review by Lead Agencies, Local Governments and Community
- Review by Technical/Executive Committee
- Record of Decision
- Implementation and Operations Order (IOO)
- EIA Certificate of Authorization
- Appeal Against Authority's Decision
- Environmental Auditing and Monitoring

A full EIA for a housing project follows an iterative process as shown in [Figure 2-1](#) below. More comprehensive outline of the EIA procedure with key steps for the different Project typologies (i.e. Impact Levels IL3, IL-2 and IL-1) is available in [Appendix 2](#).

Figure 2-1 Graphical depiction of the EIA process for a housing project (exemplification)



Source: REMA, 2009

2.4 Applicable International Requirements

2.4.1 KfW Sustainability Guideline

The KfW Sustainability Guideline on the Assessment and management of Environmental, Social and Climate Aspects: Principles and Procedures (February 2021) aims to promote sustainability and avoid adverse environmental, social and climate impacts and risks. The Guideline describes procedures to assess the environmental, social and climate aspects during the preparation and implementation of financial cooperation measures (FC-measures) financed by KfW Development Bank along core principles.

The KfW Development Bank only supports new projects that are in line with the “Exclusion List and Sectoral Guidelines of KfW Group”² (Annex 2 of the guideline). Further, for FC-measures with financial intermediaries (FI) the IFC Exclusion List (Annex 3 of the guideline) also applies.

Full guideline can be downloaded at:

https://www.kfw-entwicklungsbank.de/PDF/Download-Center/PDF-Dokumente-Richtlinien/Nachhaltigkeitsrichtlinie_EN.pdf

2.4.2 Environmental and Social Commitment Plan (ESCP)

The ESCP is to constitute an agreement between the Government of Rwanda/FONERWA and KFW. In this document, the Republic of Rwanda through FONERWA commits to implement material measures and actions so that the Project is implemented in accordance with the projects agreed Environmental and Social Standards (ESSs), as well as the timing for each of these.

2.4.3 Environmental and Social Standards of the World Bank

The World Bank Environmental and Social Standards (ESS, 2018) are considered a benchmark for good practice for E&S risk management in investment project financing. The WB ESS set out a number of specific E&S requirements and includes specific guidance to be applied during the planning phase and through the project lifecycle.

The ESS have been reviewed, and topics likely to be applicable to the Project are pointed out. The objective is to ensure that subsequent ESIA's for the Project are carried out in-line with such standards, in addition to national legislation and regulations in Rwanda. The ESS triggered by the Project - based on the current knowledge – are listed in **Table 2-2**.

Table 2-2 World Bank Environmental and Social Standards (ESS)

ESS	Name/ Topic	Objectives of the ESS	Triggered
1.	Assessment and Management of Environmental and Social Risks and Impacts	To identify and evaluate E&S risks and impacts of the project. To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to workers, affected communities, and the environment. To promote improved E&S performance of clients through the effective use of management systems.	yes
2.	Labour and Working Conditions	To promote the fair treatment, non-discrimination, and equal opportunity of workers. To establish, maintain, and improve the worker management relationship. To promote compliance with national employment and labour laws. To protect workers, including vulnerable categories of workers such as children. Applies to direct workers, contracted workers and supply chain workers. If applicable also requirements stemming from the corresponding Guidance Note related to prisoner work will have to be considered.	yes
3.	Resource Efficiency and Pollution Prevention	To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities; To promote more sustainable use of resources, including energy and water. To reduce project-related GHG emissions.	yes
4.	Community Health, Safety, and Security	To anticipate and avoid adverse impacts on the health and safety of the affected community during the project life from both routine and non-routine circumstances. To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the affected communities.	yes

ESS	Name/ Topic	Objectives of the ESS	Triggered
5.	Land Acquisition, Restrictions on Land use and Involuntary Resettlement	To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs. To avoid forced eviction. To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected. To improve, or restore, the livelihoods and standards of living of displaced persons. To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.	yes
6.	Biodiversity Conservation and Sustainable Management of Living Natural Resources	To protect and conserve biodiversity (e.g. species of conservation concern seen in Project Area). To maintain the benefits from ecosystem services. To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.	yes
7.	Indigenous Peoples	No indigenous people (according to WB definition) in Project Area.	no
8.	Cultural Heritage	To protect cultural heritage from the adverse impacts of project activities and support its preservation. To promote the equitable sharing of benefits from the use of cultural heritage.	yes
9.	Financial Intermediaries	Not applicable	no
10.	Stakeholder Engagement and Information Disclosure	To establish a systematic approach to Stakeholder Engagement To build and maintain a constructive relationships with relevant Stakeholders To promote inclusive engagement To ensure adequate disclosure of information	yes

Considering that the risks and impacts of any prospective sub-component would be addressed in accordance with both national and international requirements, a high-level review of the alignment between the Rwandan legislative framework and the WB ESS is presented in **Appendix 3**.

2.4.4 Other Applicable Standards

In addition to the above, the following standards will be applied and adhered to for the Project:

- ILO International Labour Standards: the International Labour Standards are legal instruments that set out basic labour principles and rights at work.
- World Bank Group's General Environmental Health and Safety (EHS) Guidelines: The WB General EHS Guidelines contain information on environmental, health, and safety issues applicable to the Project as a whole and its sub-components. They are to be applied together with the sector specific EHS guidelines.
- World Bank Group's Industry Sector EHS Guidelines applicable to the Project, (depending on the Project and sub-component specifics once designs are finalised.) Potentially applicable guidelines could be EHS Guidelines for:
 - Health Care Facilities (2007),
 - Telecommunications (2007),
 - Waste Management Facilities (2007),
 - Water and Sanitation (2007), and
 - Electric Power Transmission and Distribution (2007).
- UN Basic Principles and Guidelines on Development-based Evictions and Displacement, namely §§ 42, 49, 52, 54 and 60); and
- IFC (2002) Handbook for Preparing a Resettlement Action Plan and World Bank (2004) Involuntary Resettlement Sourcebook.

3. GUIDANCE FOR E&S ASSESSMENT OF SUB-COMPONENTS

This chapter provides guidance on the application of an E&S appraisal and impact assessment process for the Project sub-components in line with the GIIP.

This E&S appraisal is applicable in the case of those sub-components which are subject to international finance (e.g. by KfW or other international lenders). However, (although not statutorily required) its application to sub-components not internationally-financed is encouraged as good international industry practice.

Additionally, the **SEF** includes a guidance for developing a SEP and the **RPF** includes guidance for developing RAP/LRP.

3.1 Sub-Components E&S Impacts Screening and Categorization

Each Project sub-component is to be appraised at an early stage to determine associated E&S risks and impacts. This entails undergoing a screening process aimed at identifying and appraising the type and scale of any E&S risks and impacts that may arise from the sub-component implementation.

For this purpose, each sub-component will be screened for potential E&S impacts and assigned a category reflecting the associated E&S risks from High Risk to Low Risk. This initial E&S screening and categorization will define the path as well as the type and scope of E&S impact assessment a specific sub-component will undergo (**Sections 3.2 and 3.3**).

As per the GIIP, in line with the E&S Categorization adopted for the Project, each of the sub-components will be classified into one of the following four risk classes/categories: High Risk (or Category "A"), Substantial Risk (or Category "B+"), Moderate Risk (or Category "B") and Low Risk (or Category "C"), according to the significance of their potentially adverse E&S impacts and risks¹². These categories are defined as follows:

- Sub-components are classified "**High Risk/Category A**" if may have diverse and significantly adverse impacts and risks on the environment and the social conditions of the affected population¹³. Impacts and risks may potentially be significantly adverse because of the sub-components' complex nature, the scale (large to very large), and the sensitivity of the location or if the impacts and risks are irreversible or unprecedented. Such impacts and risks may affect a larger area that is beyond the site of the facility under construction, the facility itself as well as any associated facilities¹⁴. For Category A "high risk" sub-components, it is mandatory to analyse and appraise any adverse E&S effects as part of an independent ESIA study and set out management and monitoring requirements in an Environmental and Social Management Plan (ESMP).
- Sub-components are classified "**Moderate Risk/Category B**" if may have potentially adverse risks and impacts upon the environment and on the social conditions of those concerned, although to a lesser extent than these of Category A "high risk", and can usually be mitigated through standard, best available mitigation approaches. Typically, the potential impacts and risks of "Moderate Risk/Category B" projects are limited to a local area, are in most cases reversible and are easier to mitigate through appropriate measures. For "Moderate Risk/Category B" sub-components, the need for and the scope, the priorities and depth of an ESIA are determined

¹² Adopted categorization aligned with World Bank Environmental and Social Framework and KfW Development Bank Sustainability Guideline. Sub-Components funded by other international lenders may be subject to slightly different E&S categorization. However, the E&S appraisal process provided herein could be applied in the case of these Sub-Components as well.

¹³ For example projects that adversely impact important features such as tropical forests, natural protection areas, wetlands, natural/near-natural forests, important cultural heritage sites), have significant transboundary impacts or relevance with regard to international treaties (such as conventions on international waste management regulations or on conservation, or agreements on the protection of biodiversity), lead to a high consumption of resources, in particular soil, land or water, are associated with high risks to human health or safety (e.g. industry or traffic facilities located adjacent to residential areas with considerable noise pollution and harmful emissions during construction and/or operation or handling hazardous substances), require large scale resettlement, or lead to a significant loss of livelihood, are anticipated to have an adverse impact upon indigenous people. An illustrative list of projects that may be classified as category A is provided in Annex 1 of the KfW Sustainability Guideline.

¹⁴ As per the WB ESF, the term "Associated Facilities" means facilities or activities that are not funded as part of the project and are: (a) directly and significantly related to the project; and (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist.

through a case-by-case evaluation (performed in line with those included in the Screening and Scoping sections below).

If it is expected that when a “Moderate Risk/Category B” project has single significantly adverse E&S impacts and risks, the project is classified as “**Substantial Risk/Category B+**”. An ESIA and an ESMP adapted to these impacts and risks are required, as described under Category A.

- Sub-components will be classified as “**Low Risk/Category C**” if they are expected to have no or only minor adverse E&S impacts or risks, and if the implementation and operation of the FC-measure does not require any particular protection, compensation or monitoring measures. “Low Risk/Category C” sub-components usually do not require any additional analysis; however, impacts should be managed and monitored for any relevant changes over their life cycle with an ESMP.

As a complex urban development with a number of simultaneous investments, the overall GCK Project has been categorized as “High Risk/ Category A” due to its risks related to involuntary economic and physical resettlement, including of vulnerable groups and low-income households. In addition, community health and safety was found to be a potential prevailing issue, as well as vegetation clearance, water usage and sourcing of construction materials. However, it is likely that some of the planned Project sub-components may fall within lower risk categories, depending on the nature of the corresponding activities to be undertaken.

Based on the provisions of this ESMF, the individual sub-components and activities will be categorised in line with applicable international requirements. At the same time, an E&S Impacts Screening is to be performed with the objective to preliminarily determine the sub-component’s E&S aspects to be addressed in the subsequent E&S Impact Assessment stages.

The sub-component E&S Categorization and Screening Checklist provided in **Appendix 4** may be used to assist in the sub-components’ E&S Impacts Screening and Categorization. The E&S Screening and Categorization outcomes may serve in determining the lead time for obtaining the regulatory clearances and will support with identifying the type and scope of further E&S impact assessment. For example, if the E&S Screening indicates that the respective sub-component requires acquisition of land, specific assessment of displacement risks and impacts will have to be conducted. Further on, a sub-component specific RAP will have to be developed in accordance with the guidance provided in the Project **RPF**.

The E&S Screening and Categorization is therefore a key element in planning of the E&S Impact Assessment Process which is to be factored into the overall sub-components execution schedule (noting the relatively extended lead time and seasonal constraints in the execution of certain ESIA stages)

The sub-component E&S Categorization and Screening will inform on the extent and level of detail that will be required at the next steps to diligently take into account E&S impacts and risks, as defined in the following chapters.

Figure 3-1 provides an overview of the categorisation process and implications for further studies needed:

- Sub-components categorized High Risk/A, Substantial Risk/B+ or Moderate Risk/B require an independent Environmental and Social Impact Assessment (ESIA) study, including an Environmental and Social Management Plan (ESMP)
- Sub-components categorized Low Risk/Category C, will be subject to simplified E&S Assessment process as required under the national law and will require the development of a Low-risk ESMP (see also **Section 2.3** and **Appendix 2** for specifics on the local permitting process).

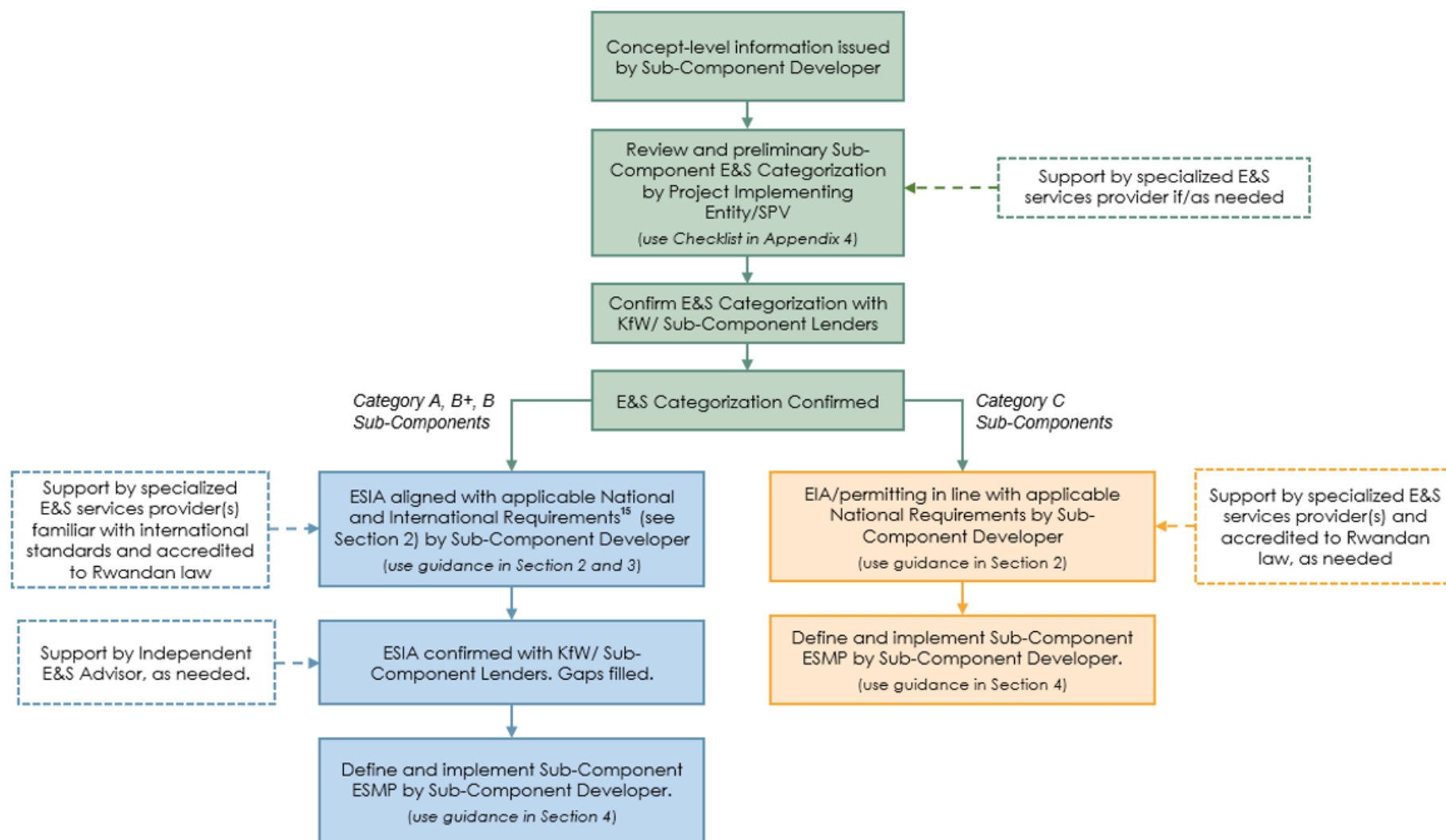


Figure 3-1 Sub-components E&S Impact Assessment Process

¹⁵ In case an ESIA to national requirements was initially performed for the Sub-Component, a gap analysis against applicable International Standards (see section 2) is to be performed, and any additional assessment and studies are to be delivered in the form of a Supplementary Lenders Information Package (SLIP).

3.2 Category A, B+, B Sub-Components ESIA Process

The Developers of High Risk/Category A, Substantial risk/Category B+ and Moderate Risk/Category B sub-components will need to employ adequately-qualified, specialised E&S services providers familiar with the applicable E&S standards (refer to [Section 2](#)) to perform the sub-component ESIA process.



Important:

As the sub-component ESIA authors are expected to employ their own ESIA methodologies aligned with the GIIP. This section is therefore not intended as a complete ESIA Guideline or Manual. It does highlight key requirements and provides exemplification of methodologies and processes to be employed at the various ESIA stages to allow for high-quality sub-components ESIA development, in line with GIIP.

3.2.1 E&S Scoping

The objective of the scoping stage is to focus the sub-component's impact assessment process on the impacts that are likely to result in significant effects and scope-out those aspects not associated with potentially relevant E&S impacts. Scoping is undertaken to identify the potential Area of Influence for the sub-component (and thus the appropriate Study Area), to identify potential interactions between the sub-component and resources/receptors in the Area of Influence and the impacts that could result from these interactions, as well as to prioritize these impacts in terms of their likely significance.

During the early stages of project inception, the scoping process acts as a proactive measure to identify potential environmental and social aspects that may influence project design and execution. This early integration allows for informed decision-making that aligns with the project's overarching goals.

During scoping, sufficient baseline information and stakeholder input shall be collected to facilitate the identification, on a preliminary basis, of the potential interactions between the sub-component activities and resources/receptors within the preliminary Area of Influence. The focus is on collecting data for those resources/receptors which have a reasonable potential to experience significant impacts. Insights gained from the scoping stage directly inform the development of robust project plans.

This step is usually conducted primarily on the basis of desktop (i.e. secondary) data supported by a field reconnaissance. Depending on the available time in which this step can be conducted, it could include the complete secondary data collection for the impact assessment. Scoping should also identify key data gaps and identify the methods to be employed to fill those gaps.

This is an important aspect of the assessment of each project and, ideally, it should run in parallel with concept phase of a sub-component.

This stage is intended to ensure that the impact assessment focuses on those issues that are most important for design, decision-making and stakeholder interest. The scoping stage contributes to the formulation of specific measures for environmental and social impact management. Integration at this stage ensures that mitigation and monitoring strategies are embedded in operational practices, fostering responsible project execution.

The early Identification of stakeholders, ranging from local communities and regulatory bodies to non-governmental organizations, allows for proactive engagement and collaboration. By understanding the concerns, needs, and expectations of these stakeholders during the scoping stage, a foundation is laid for transparent communication, informed decision-making, and the establishment of positive relationships. This early engagement ensures that diverse perspectives are considered, mitigating potential conflicts and fostering a sense of shared responsibility throughout the project life cycle.

Throughout the project life cycle, the scoping process provides a foundation for ongoing monitoring and evaluation. By integrating with monitoring efforts, the scoping stage facilitates adaptive management, allowing for adjustments based on real-time data and evolving environmental and social conditions.

The outcome of the scoping process is expected to define the subsequent impact assessment and management requirements and the aspects that will feed into the Terms of Reference (ToR) for the ESIA and any additional documentation for E&S impact assessment or management, e.g. RAP, ESMPs.

3.2.2 E&S Baseline Definition

The E&S Baseline is a critical phase aiming to comprehensively capture the existing environmental and socio-economic conditions within the Area of Influence.

One of the key results of the Scoping stage should be the identification of resources/receptors that can be significantly impacted by the sub-component, and development of requirements for collection of additional Baseline information relevant to these resources/receptors.

The Baseline represents the conditions existing before the sub-component initiation and the baseline definition should attain the following objectives:

- to identify the key environmental and socio-economic conditions in the Area of Influence, focusing on the resources/receptors that may be impacted by the sub-component;
- to describe and, where possible, quantify their characteristics (nature, condition, quality, extent, etc.);
- to provide data in support of the prediction and modelling of impacts; and
- to inform judgments about the sensitivity, vulnerability and/or importance of resources/receptors.

Structuring Baseline Information

- Methodology employed for Baseline data collection.
- Limitations encountered during data collection.
- Structured presentation of results, organized by resource/receptor.
- A summarized overview of Baseline conditions within the Impact Assessment chapter, preceding the detailed discussions.

The Baseline is to consider other sub-components and developments in the area which are underway or to initiate in the near future (this will be key in support of cumulative impacts assessment later on).

Additionally, a concise overview of the Baseline conditions for each resource/receptor should be presented in the Impact Assessment chapter of the ESIA, upfront the discussion of the impact assessment for each resource/receptor.

The Baseline Description should not be overloaded with unnecessary detail. If methods are described in a published reference, it is better to provide the reference to keep the text concise. Also, whenever detailed Baseline data can be provided in an annex to the ESIA deliverable, the Baseline Description section should include only enough detail to convey a sufficient understanding of Baseline conditions to facilitate impact assessment.

A brief Project-level baseline description is provided in the **High-Level ESIA**. Further recommendations are made regarding additional baseline data needs for subsequent sub-component ESIAs.

3.2.3 Impact Assessment

3.2.3.1 General Considerations

The impact assessment stage of the ESIA comprises a number of steps that collectively determine the manner in which the sub-component interacts with elements of the physical and social environment to produce impacts to resources and receptors.

The Impact Assessment stage is crucial, representing a culmination of insights gathered from prior stages, notably the Scoping and Baseline Definition. By delving into potential interactions identified during Scoping and enriched with the Baseline Definition's data, the Impact Assessment unfolds.

As initial step, prior to moving to impact assessment, an **update of the identification of potential interactions** between the Project and the physical and social environment (initially done at the

Scoping stage) is to be performed with consideration of the additional information gathered during Baseline Definition.

Once this has been done, the assessment process can move to **predicting the impacts** that will result from these interactions. This is to represent an objective exercise aimed at determining what can potentially happen as a result of the sub-component's interaction with the physical and social environment, with consideration of sub-component's associated with facilities.

Once this has been completed, the full suite of potential significant impacts are identified and the process could proceed to assessing the E&S impacts significance. In line with GIIP, this process should typically comprise of the following steps:

- Characterisation of each impact: Comprehensive description and understanding of each identified impact
- Assignment of impacts magnitude: A systematic categorization of the magnitude of each impact
- Definition of sensitivity/vulnerability/importance of impacts: A nuanced analysis determining the sensitivity, vulnerability, and overall importance of each impact
- Impacts significance assessment: An overarching evaluation to determine the significance of the identified impacts;
- Identification of warranted impacts mitigation: A conclusive step wherein mitigation measures for impacts deemed significant are identified, contributing to a comprehensive Impact Assessment.

These assessment steps are further described in the following sections.

3.2.3.2 Impact Identification

The initial stage of the assessment process is the identification of potential impacts is based on the prospective Project features and their interaction with existing receptors; the development of a high level matrix of potential interactions (i.e. a modified Leopold matrix) is devised with proposed activities (rows) and the relevant environmental/social aspects in the project area (columns). The key objective of this exercise is to focus the subsequent stages of the assessment on those impacts¹⁶ that are likely to result in significant effects¹⁷. To achieve this, the following were performed:

- Identification of potential interactions between the Project and the physical, biological and socioeconomic environment that may be affected (intersections in the Leopold matrix); and
- Identification of potential significant impacts of the Project that will require investigation in subsequent stages (using a color coding for the intersections in the Leopold matrix).

Environmental and social resources and receptors that could potentially interact with the project include:

Physical Environment

- Air quality (e.g. atmospheric emissions from stationary sources and from vehicles and machinery);
- Climate change and GHG emissions;
- Noise and vibrations;
- Surface water quality (e.g. from wastewater discharges and due to storm water runoff);
- Groundwater quality (e.g. due to spills and discharges);
- Water quantity / stream flows / aquifer levels (due to changes in catchment hydrology, water use and abstraction, etc.);
- Waste management;

¹⁶ Any alteration of existing conditions, adverse or beneficial, caused directly or indirectly by the Project

¹⁷ The specific consequence (to a resource/ receptor) arising from an alteration of existing conditions caused by the Project. In this sense, it is technically the effect whose significance is assessed in the Impact Assessment process. However, it is recognized that the predominant practice in the industry is to report on the significance of "impacts" rather than "effects".

- Soil conditions (e.g due to soil sealing/covering, topsoil management, spills, soil erosion and siltation);
- Landscape and visual;

Biological Environment

- Habitat loss and transformation (including terrestrial forest/grassland habitats and aquatic/wetland habitats) as a result direct impacts and more indirectly through changes in catchment hydrology (water flow volumes, timing and patterns) and altered water quality;
- Flora and fauna (i.e. effects to natural plants and animals through direct loss and/or disturbance, introduction of invasive species, pests and nuisances) here there could be negative and positive effects based on how wetlands will be managed in the future ;
- Ecosystem Services – here there could be negative and positive effects based on how wetlands will be managed in the future.

Socio-Economic and Cultural Environment

- Physical and economic displacement (physical displacement of people, economic displacement, permanent or temporary due to Project land take and land access)
- Implications to the human society distribution, demography, settlement patterns, changes to the cultural lifestyle and traditional indigenous knowledge of the local society;
- Changes in land use systems and the general land utilization types where applicable;
- Infrastructure and services (due to landscape alterations and changes to infrastructure facilities);
- Local economy (effects associated with income generation opportunities created by the project due to the prospective construction and operations);
- Community health and safety (effects associated with the construction and operation activities and related handling and disposal of generated wastes, construction workforce interactions and related hazards/risks such as HIV/AIDS, disease out breaks, use of medical/sanitary facilities, etc);
- Human rights (gender-based violence and harassment);
- Labour and working conditions (including occupational health and safety and workers accommodation);
- Cultural Heritage.

The potential interactions between the Project and the resources and receptors were analysed and indicated in **Figure 3-2**. The matrix displays generic Project activities (through entire life cycle) against resources/receptors in support of a preliminary identification of the potential interactions each activity may have on the range of resources/receptors.

This exercise allowed the preliminary identification of potential interactions between Project activities and resources/receptors to develop generic conclusions as to the interactions likely to lead to significant effects.

This exercise is to be performed on case-by-case basis for each for each sub-component as part of the environmental and social impact assessment to allow identification of interactions leading to significant effects in each particular sub-component case.

The exercise performed indicated that while potential impacts would be expected for all Project phases, Project activities during the construction phase are typically expected to cause the majority of potential impacts. It also indicated that implementation of adequate mitigation strategy in line with the approach set forth in this **ESMF** may result in a number of **Positive Impacts** including:

- Avoiding unsafe informal settlement by providing affordable and inclusive housing;
- Hiring temporary and permanent workers for construction and operation of the Project will create jobs and boost the local economy;
- Water design included in the Masterplan will ensure reduced and delayed storm water runoff volumes, reduced localised floodings and a storm water pollutant reductions;

- Improved waste and wastewater management will have a positive impact on the community;
- Project design focuses on increasing resilience to climate change by incorporating energy efficiency (e.g. water use, green energy, etc.) and resilient housing into planning and design;
- Improvement of transportation, sewerage, water and energy supply, ICT networks;
- Improvement of security; and
- Improvement of quality of life (e.g. less air pollution due to alternative transportation systems, sufficient public parks for recreation).

A colour code was used to display the results of the performed analysis of Project activities - receptors interactions as indicated in the legend embedded in the Leopold matrix.

Activity/Aspect/Receptor	Environmental and Socio-economic Aspects															
	Physical / Biological										Socio-economic					
	Air Quality and climate change	Noise and vibration	Surface water quality	Groundwater quality	Geomorphology and Soil quality	Visual Landscape	Habitat	Flora	Fauna	Ecosystem Services	Displacement & local society	Demography, cultural & local society	Local economy	Community H&S	Infrastructure and service	Cultural heritage
Aspect Key:																
An interaction:																
- that may have a positive impact with implementation of Project-embedded and ESIA-defined mitigation (Green)																
- that is unlikely to have an interaction or of minor consequence (White)																
- that may have a significant negative impact (Orange)																
Pre-Construction Phase																
Land acquisition and land access																
Construction Phase																
Site preparation works: land clearance and earthworks																
Land occupation (permanent + temporary)																
Use of vehicles and heavy machinery																
Masonry and concrete works; steel works, roofing; electrical/power distribution, plumbing.																
Presence of workers (including recruitment and influx)																
Waste production and management																
Water abstraction and use																
Materials abstraction and transport (aggregates, steel, timber, use of quarries)																
Landscaping works																
Demobilisation of construction front																
Operation Phase																
Storm water management																
Solid waste/wastewater management																
Utilities operation (lighting, electricity, running water)																
Residential activities: Presence of housing Project and associated population and traffic																
General maintenance services																

Figure 3-2 High level interactions of potential sources of impact and potential receptors

3.2.3.3 Impacts Characterization

At this stage, the characteristics of each impact are to be defined. Typical characteristics to be taken into account are:

- Type (i.e. direct, indirect, induced);
- Extent (i.e. local, regional or international);
- Duration (i.e. temporary, short-term, long-term or permanent);
- Scale or size (no fixed designations; typically numerical values e.g. affected area in ha, etc.);
- Frequency (no fixed designations; typically numerical values e.g. number of occurrences in a given timeframe); and
- Likelihood – only applicable in the case of unplanned events (i.e. unlikely, possible, likely).

3.2.3.4 Impacts Magnitude Designation

At this stage, the above-indicated characteristics are to be used to assign a magnitude to each sub-component's impact.

In essence, the magnitude defines the degree of change a given impact is likely to affect a resource/receptor. It is important that the magnitude designation is assigned in consistent manner across all considered impacts using same designations. Typical magnitude designations considered in the ESIA practice are:

- Negligible;
- Small;
- Medium;
- Large.

Given the diverse range of impacts to be considered and the variable relevance of potential impacts on the various resources and receptors, applied magnitude designation may include quantitative, semi-quantitative and qualitative methods applied on a case-by-case basis for each environmental and social aspect considered.

Quantitative methods can be applied when the effects can be expressed or measured in a numerical manner. Qualitative approaches require subjective description and typically require an increased professional judgement level as compared to the quantitative approaches.

3.2.3.5 Resources and Receptors Sensitivity/Vulnerability/Importance Definition

In addition to characterising impacts' magnitude, the definition of the sensitivity/vulnerability/importance of the impacted resource/receptor is the other principal stage in assessing the significance of impacts.

As impacted resources/receptors may be of different nature (e.g. physical, biological, cultural, human) there are various factors to be considered when defining the sensitivity/vulnerability/importance.

Such factors may include quality, sensitivity to change (e.g. for physical receptors like air or water), importance (e.g. local, regional, national, international in the case of a habitat or water body, or a cultural heritage value etc.), vulnerability (e.g. in the case of human or biological receptors etc.).

As in the case of magnitude it is important that sensitivity/vulnerability/importance designation is assigned in consistent manner across all considered impacts using same designations e.g.:

- Low;
- Medium;
- High.

3.2.3.6 Evaluation of Impacts Significance

Once the magnitude of the impact and sensitivity/vulnerability/importance of the resource/receptor have been characterised, the impact significance shall be assigned for each impact.

The significance is typically designated with the consideration of the above indicated two factors, typically using an evaluation matrix similar to the one provided for exemplification purposes in **Table 3-1** below:

Table 3-1 Impact Significance Designation Matrix Example

		Sensitivity / Vulnerability / Importance of Receptor / Resource		
		Low	Medium	High
Magn itude of Im p a c t	Negligible	Negligible	Negligible	Negligible
	Small	Negligible	Minor	Moderate
	Medium	Minor	Moderate	Major
	Large	Moderate	Major	Major

Source: ERM, 2012.

Again, it is important that the employed significance designation is consistently applied to all considered resources/receptors, and all impacts to these resources/receptors.

Further, the above significance ratings are to be defined based on clear definitions indicating how these should be assigned. A possible set of such impact significance ratings to apply is provided in **Table 3-2** below.

Table 3-2 Impact significance rating example

Significance Rating	Description
Negligible	Impact is of negligible significance if the resource/receptor (including people) will not be affected in any way by a particular activity or the predicted effect is deemed to be 'imperceptible' or is indistinguishable from natural background variations.
Minor	Impact is of minor significance if the resource/receptor will experience a noticeable effect, but the impact magnitude is sufficiently small (with or without mitigation) and/or the resource/receptor is of low sensitivity/ vulnerability/ importance. In either case, the magnitude should be well within applicable standards.
Moderate	Impact is of moderate significance if its magnitude is within applicable standards, but falls somewhere in the range from a threshold below which the impact is minor, up to a level that might be just short of breaching a regulatory limit.
Major	Impact is of moderate significance if an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued/sensitive resource/receptors.
Positive	There will be a beneficial impact to a resource/receptor. (Note: assigning significance to positive impacts not typically required).

Source: ERM, 2012.

3.2.3.7 Impacts Mitigation

Once the impacts significance has been characterised, the next step is to evaluate what mitigation measures are warranted by implementing the Mitigation Hierarchy. I.e. priority is to be given to addressing the source of impact (i.e. avoid impact or reduce at source) and only afterwards address resultant effect to the resource/receptor via abatement or, as last resort, compensatory measures or offsets (i.e., reduce the significance of the effect once all reasonably practicable mitigations have been applied to reduce the impact magnitude). In many cases, a specific mitigation plan is developed in order to group measure directed towards the mitigation of a specific activity, or of a specific receptor (See [Section 4.1](#), [Figure 4-2](#)).

ESIA is to identify the aspects of a sub-component that need to be managed, demonstrate how these have been appropriately dealt with and resulted in an appropriate development. The ESIA is to influence the sub-component decision makers based on balanced judgements as to what mitigation is warranted, informed by a high quality evidence.

In doing so, additional mitigation measures are not required for impacts rated as not significant. Further, it is not an absolute necessity that all impacts are mitigated to a not significant level, but to mitigate impacts to an ALARP level.

Once mitigation measures are declared, the next step is to assign residual impact significance. Where residual impacts remain significant after proposed mitigation, options for additional technically and financially feasible mitigation measures are to be considered for the sub-component, and then the impacts re-assessed (with consideration of additional mitigation proposed) in iterative manner until residual impacts are deemed to be within acceptable levels.

The proposed mitigation measures are then to be taken into consideration and transposed (as executable E&S management provisions) into the Environmental and Social Management Plan (ESMP) of the sub-component (refer to further Sections of this document for the ESMP requirements).

3.2.3.8 ESIA Report Structure and Content

A proposed content and structure (main chapters) of an ESIA is provided in [Figure 3-3](#).

The ESIA Report is to also incorporate applicable national requirements for impact assessment (see additional information about the national content and structure requirements in [Section 2.3](#), [Appendix 5](#) and [Appendix 6](#)).

The above-indicated are to be considered as suggestion only. As the sub-components ESIA authors will apply own GIIP impact assessment methodologies, the structure of the ESIA reports may be adjusted to reflect the applied approach. The elements included in the exemplification provided herein is however to be included as a minimum and in a fit-for-purpose format.

PROPOSED STRUCTURE OF THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT	
Chapter	Information to be Included
Chapter 1	Introduction in the Project: General Description; Need for and Benefits of the Project; ESIA Objectivities; ESIA Limitations; ESIA Structure
Chapter 2	Project Description: Project Components; Project Construction; Project Operation; Description of the Project Alternatives
Chapter 3	Administrative Framework: International Standards and Guidelines; Treaties & Conventions; Lender Requirements; National Requirements; Corporate Requirements
Chapter 4	Approach to ESIA: Basis of Assessment; Scope of Assessment; Cumulative Effects
Chapter 5	Scoping & Terms of Reference for ESIA
Chapter 6	Baseline Conditions: Data Sources; National & Regional Overview; National Environment; Social Environment; Summary of Identified Receptors
Chapter 7	Construction of the Project: Impacts; Mitigation and Residual Impact
Chapter 8	Operation of the Project: Impacts; Mitigation and Residual Impact
Chapter 9	Summary of ESIA Findings: Summary of Impacts and Mitigation
Chapter 10	Environmental & Social Management Plan: Comments Register and ESMP

3.3 Category C Sub-Components E&S Assessment Process

Category C Project sub-components are those expected to have only minor adverse E&S impacts or risks.

Category C sub-components implementation and operation do not require further assessment, besides the applicable Rwandan requirements E&S impact assessment (if any) and permitting.

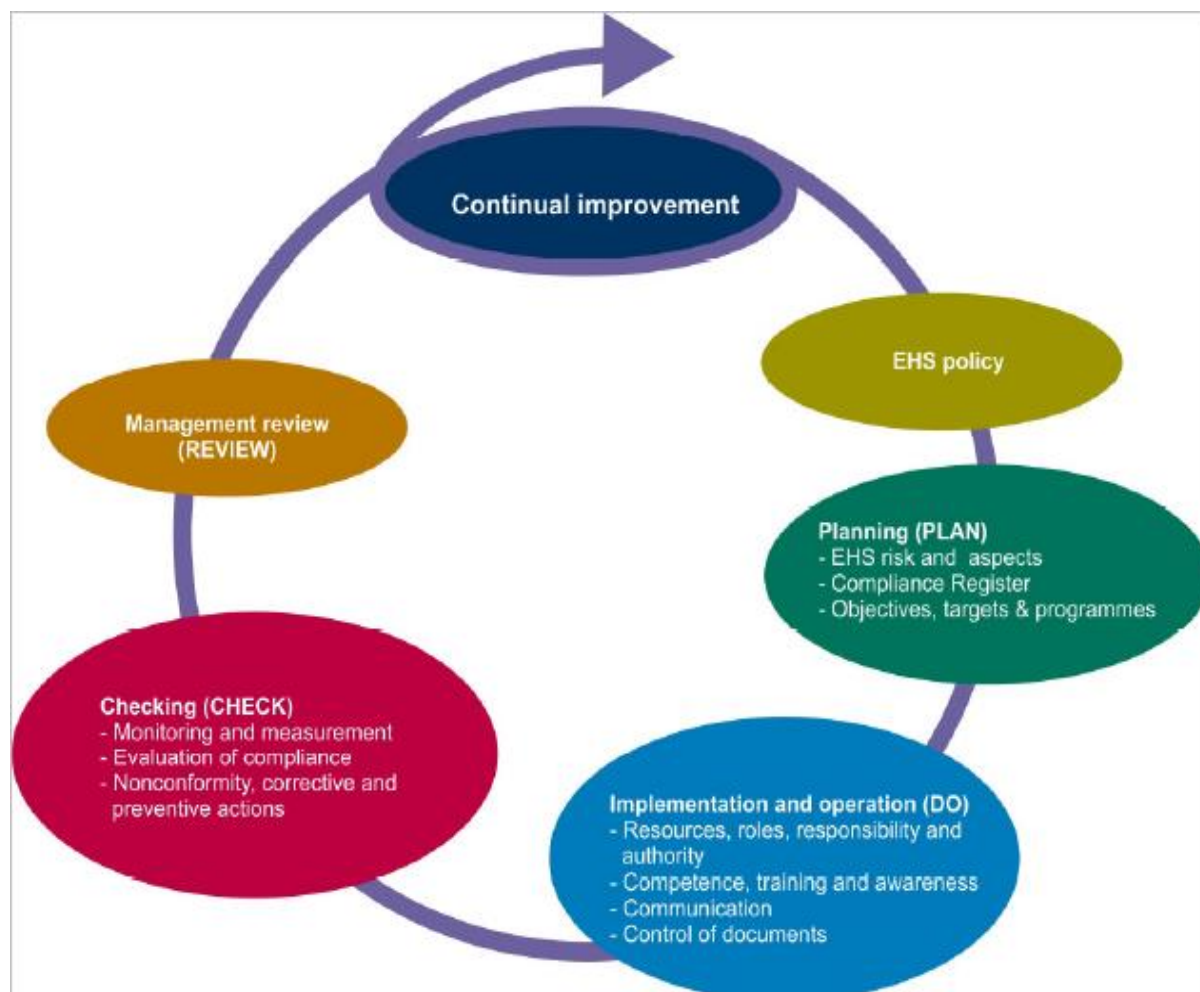
ESMP requirements applicable to Category C sub-components are indicated in **Section 5** of this ESMF.

4. ESMP FOR CATEGORY A, B+, B SUB-COMPONENTS

4.1 Overall Management System Framework

The GCK Project E&S Management shall be based on a four-step iterative process aligned with the Plan-Do-Check-Act model (PDCA) represented in **Figure 4-1**, and should be implemented by the Project Implementing Entity (i.e. GCKC), or using as basis FONERWA's own management system provisions).

The PDCA concept reflects an adaptive management loop allowing for accommodation of changes that occur as the Project moves through the various implementation stages.



Source: ERM, 2012

Figure 4-1 Indicative E&S Management Cycle

The Plan-Do-Check-Act model shall be transposed in the GCK Project's E&S Management System (ESMS) following a staged approach, organized in three levels (from 1 to 3) as represented in **Figure 4-2**. Such system shall also be cascaded to sub-component level, as described in **Section 1.6**.

This process will be initiated with the identification of the applicable requirements, regulations and standards (see Section 2) and the definition of the GCKC principles and leadership commitments stated in the FONERWA/subsidiary applicable policies (**Section 2.1**). Subsequently, the overall Project's/sub-component E&S risks and impacts shall be identified and assessed based on the Project-wide Safeguard Documentation package.

Developers of Category A, B+ and B sub-components are further required to assess each sub-components' E&S risks and impacts through an ESIA performed following the Guidance in **Section 3**.

The sub-component ESIA will identify the embedded E&S controls¹⁸ and will define the mitigation measures required to address the residual E&S impacts and ensure that the Project requirements, regulations and standards are met throughout the sub-component implementation. Addressing the E&S risks and impacts represents a Project commitment, more specifically a commitment by GCKC to ensure that these measures will be implemented during the execution of all sub-components through a combination of processes implemented by GCKC as well as by the sub-components Developers and their contractors.

The E&S mitigation measures defined as resulted from the sub-component ESIA process are to be transposed into a "Commitments Register" which will serve as a tool informing the sub-component ESMP as well as the subordinated E&S management planning and processes to be implemented at the various levels throughout implementation.



Important:

The ESMP is a key component of the sub-component E&S risk management, providing an overview of the processes and tools to manage sub-component's E&S risks within the frame of the Plan-Do-Check-Act model.

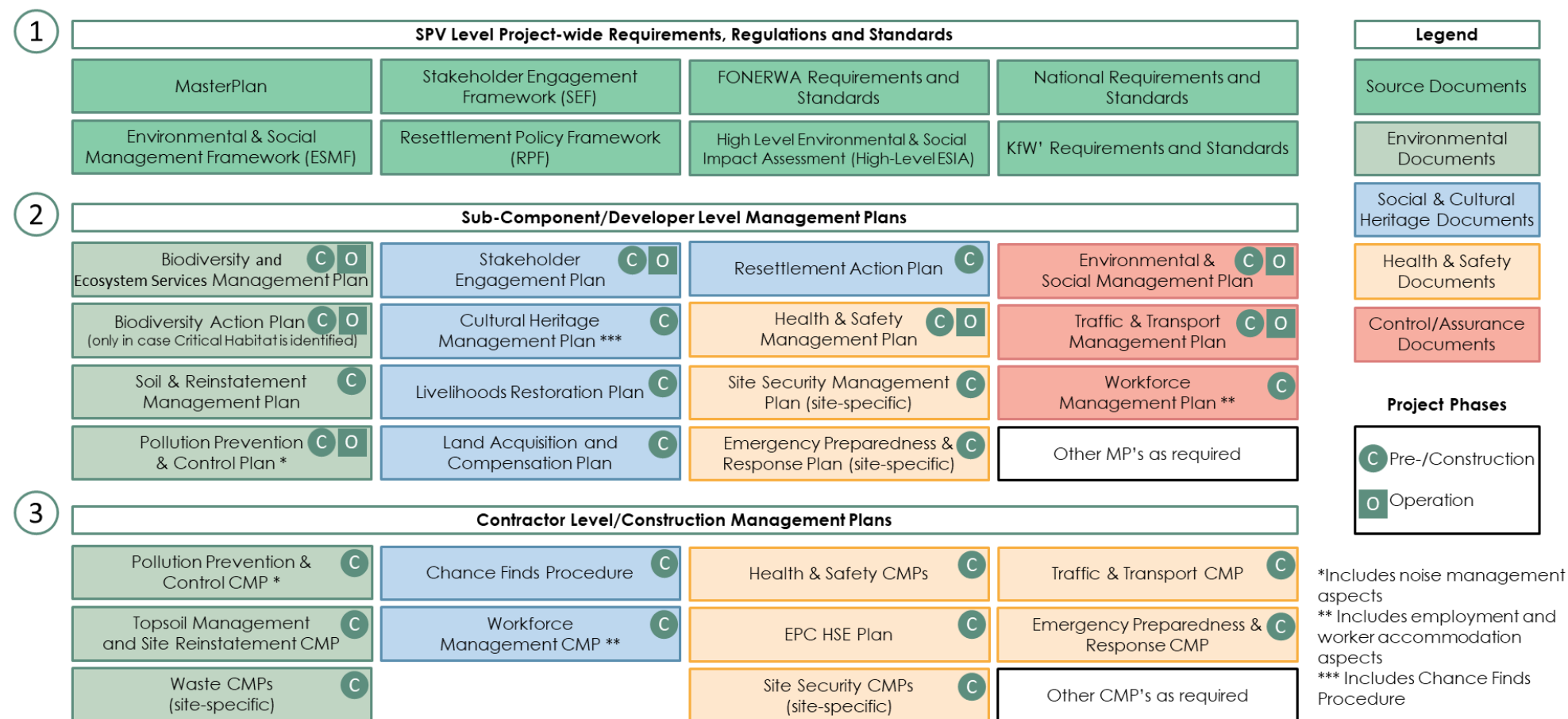
The sub-component ESMP is to also set the requirements for the management planning (i.e. operational controls, performance review and evaluation) to be established and maintained by the sub-component Developers and their Contractors.

The above-indicated management system concept and the relationship between Project requirements, regulations and standards (see [Section 2.2](#)), this ESMF, the sub-component ESMP and subordinated management plans at sub-component Developer and Contractors levels are represented in [Figure 4-2](#) Overleaf.

This E&S management concept is structured according to the following three levels:

- **Level 1: Project Requirements, Regulations and Standards (Project/GCKC – level).**
- **Level 2: Sub-component-level Management Plans (Sub-component/Developer – level).**
- **Level 3: Sub-component Contractors-level Management Plans (Sub-component/Contractor – level).**

¹⁸ The term "Embedded Controls" refers to those mitigation measures that are already included in the approved Project Design, such as air filters, wastewater treatment, etc. – therefore such items do not normally need to also be added as a further commitment.



Note: all management plans marked with 'O' are either high-level documents that are also relevant for the operations phase, or include respective monitoring elements that may enter into the operations phase of the respective sub-component.
Any additional management plans relevant for the operations phase will depend on the nature of activities of the respective sub-component and are to be determined during the sub-component ESIA phase.

Figure 4-2 Project E&S Management Concept and Relationship between Management Planning Documents at various Levels

4.1.1 Level 1: Project-wide Level

These documents refer to the GCK Project overarching documents developed by GCKC as part of Phases A and B, which include:

- GCK Masterplan
- High-Level ESIA
- ESMF (this document)
- SEF
- RPF

These documents represent the basis of the Project E&S management as a whole, in compliance with relevant Rwandan legislation, International standards/policies and KfW requirements; discussed throughout the previous sections of this ESMF and in the High-Level ESIA.

4.1.2 Level 2: Sub-Component - E&S Management Plans

The sub-component Developer has the overall responsibility for the implementation of the sub-component E&S mitigation measures. To ensure this, the sub-component Developer will define and implement a "sub-component ESMP", in alignment to the requirements stated in this ESMF, and will be supported by a number of E&S Management Plans to facilitate the implementation of Project commitments, requirements, regulations and standards.

4.1.2.1 Sub-Component ESMP

The sub-component ESMP is the operational control document defining sub-component Developer's self-verification and assurance processes to ensure the Project E&S commitments are implemented at site level.

The sub-component ESMP will detail the roles and responsibilities, the self-verification and assurance processes put in place at the sub-component organization level to ensure the requirements of this ESMF and the Project E&S Commitments are met. This will include all aspects related to staffing, roles and responsibilities, resources, self-verification and assurance processes, communication, and management of Non-conformances.

To enhance clarity and completeness, some important points shall be considered:

- Alignment with the ESMF: Emphasize that the sub-component ESMP aligns with the broader Environmental and Social Management Framework (ESMF) to ensure consistency and adherence to overarching project commitments.
- Comprehensive staffing details: Provide detailed information about the qualifications, expertise and responsibilities of the individuals assigned to key E&S management roles. This will ensure that the sub-component E&S management team is well-equipped to implement and uphold the Environmental and Social commitments of the project/sub-component.
- Communication protocols: Clearly outline communication protocols within the sub-component organization, emphasizing how information regarding E&S commitments and activities will be disseminated internally and externally.
- Management and Non-conformances: Provide a robust plan for managing non-conformances, detailing the procedures for identification, reporting, and corrective actions, ensuring a systematic approach to addressing deviations from E&S requirements.
- Monitoring and reporting: Include information on monitoring mechanisms to track the implementation of the sub-component ESMP, as well as the reporting procedures to keep stakeholders informed of progress and any corrective measures taken.

The sub-component ESMP will be structured to provide the information detailed in **Table 4-1** below.

Table 4-1 Suggested Sub-Component ESMP Content

Suggested Sections	Corresponding Sub-Component ESMP Content
Introduction	<ul style="list-style-type: none"> • Purpose & objective • Reference to Sub-Component Developer's E&S Policies and Procedures • Applicable E&S Requirements, Regulations and Standards
Project E&S Management	<ul style="list-style-type: none"> • Sub-Component Project E&S management concept • Sub-Component E&S management documents (the Sub-component Management Plans detailed below)
Project Organization	<ul style="list-style-type: none"> • Overall Sub-Component Developer's E&S Project Organization • Sub-Component E&S Staffing, Roles and Responsibilities
E&S Management Controls	<ul style="list-style-type: none"> • Sub-Component E&S Self-verification (daily/weekly etc. oversight inspections of own and subcontractor activities, joint inspections with Employer, monitoring etc.) • Sub-Component E&S Assurance (internal and external audits, management review etc.) • Action Tracking System (system for recording and monitoring of E&S actions until closure) • Non-conformity Notification, Recording and Corrective Action • E&S Incident Reporting and Investigation • E&S Monitoring Program • E&S Reporting (daily, weekly, monthly reporting, KPI reporting etc.) • E&S Documentation Management (E&S records management)
Contractors Management	<ul style="list-style-type: none"> • Roles & responsibilities • Contractor E&S management planning/method statement requirements • Contractor requirements for E&S self-monitoring and reporting to EPC
Communication Arrangements	<ul style="list-style-type: none"> • Internal Project communication arrangements (Sub-Component Developer's – EPC communication) • External communication (communication with authorities, external Project stakeholders, etc.) • Emergency communication arrangements
E&S Training Program	<p>In alignment with Sub-Component Developer's Guidelines for Health & Safety Compliance</p> <ul style="list-style-type: none"> • Types of E&S training. • Training planning, delivery, tracking.
Change Management¹⁹	<ul style="list-style-type: none"> • E&S Change Management Process (interfaces with overall Project Change Management process, described in Section 8) • E&S assessment of Project/Design changes.

The structure provided in the table above is a suggestion only. While the sub-component Developer may alter the structure of the sub-component ESMP as needed to align with their own management system requirements, the above indicated content is to be included as a minimum and in a user-friendly and fit-for-purpose format.

4.1.2.2 Sub-Component E&S Management Plans

The specific E&S Management Plans to be developed at this level in support of the sub-component ESMP may vary from one sub-component to another (e.g. these can be single typology Project, or a mix of various Project types). For each sub-component, the actual management plans to be put in place will be informed by the outcomes of the sub-component ESIA ([Section 3](#)).

¹⁹ A process for requesting, determining feasibility, planning, implementing, and evaluating Project changes.

Based on the impacts discussed in the **High-Level ESIA**, it is expected that sub-component-level Management Plans would basically address the following topics:

- Pollution Prevention and Control (including, among others, air, noise, water supply and wastewater, spill prevention, soil/topsoil, waste management)
- Biodiversity and Ecosystem Services;
- Resource Use and Management;
- Workforce Management (includes influx, employment and worker accommodation aspects);
- Cultural Heritage Management (including Chance Finds Procedure);
- Stakeholder Engagement;
- Livelihoods Restoration;
- Emergency Preparedness and Response;
- Community and Occupational Health and Safety;
- Traffic and Transport Management.

Sub-component level Management Plans will detail the management and implementation processes required to achieve commitments, requirements, regulations and standards. The main roles of the sub-component level Plans are to:

- Define the processes in place to ensure that the sub-component Developer as an organization is implementing the overlaying GCK Project commitments, requirements, regulations and standards under their direct responsibility.
- Define compliance and assurance processes to ensure that the work planned and performed is conducted according to the Project E&S commitments, requirements, regulations and standards.
- Ensure that sub-component Developer ensures the E&S oversight of their Contractors to measure the effectiveness of their self-verification processes with E&S Project commitments, requirements, regulations and standards;
- Define and communicate to the Contractors the requirements regarding the specific management procedures they will have to implement during sub-component execution.

Applicable sub-component level Management Plans are deemed to be at first instance identified in the corresponding sub-component ESIAs, considering the prospective nature of the infrastructure to be built as part of the GCK Project, typical management plans may include (but will not be limited to) the topics described in the following table.

Table 4-2 Sub-Component-level Management Plans (by each sub-component Developer)

Project Management Plan	Aspects covered
Pollution Prevention and Control Plan	<ul style="list-style-type: none"> ● General pollution prevention and protection measures ● Pollution prevention and protection measures at hazardous materials storages, such as bunding of storage areas, tank overfilling prevention measures etc. ● Spill prevention containment measures around sensitive equipment, installation of appropriate spill clean-up equipment and development of response procedures ● Measures at source to prevent pollutants to enter a pathway ● Actions to be followed in case pollutants enter the pathway ● Management of spill-contaminated soil ● Wastewater discharge and management ● Construction dust mitigation and monitoring ● Noise management, <ul style="list-style-type: none"> ○ Noise abatement/mitigation measures ○ Noise monitoring ● Resource Management including:

Project Management Plan	Aspects covered
	<ul style="list-style-type: none"> ○ Objectives, targets, processes in place for resource efficiency ○ Material sourcing (and depositing) management measures ○ Water abstraction, conservation, discharge measures ○ Energy and fuel management.
Waste Management Plan	<ul style="list-style-type: none"> ● Non-hazardous and hazardous waste management, including: <ul style="list-style-type: none"> ○ Waste hierarchy implementation (i.e. reduction at source, reuse, recycling, energy recovery, responsible disposal); ○ Identification and classification of waste; ○ Waste register; ○ Waste handling (i.e. collection, segregation and containers, storage, treatment, transport and documentation, disposal); ○ Waste duty of care process (waste transfer, waste consignment provisions); ● Monitoring and reporting.
Soil and Reinstatement Management Plan	<ul style="list-style-type: none"> ● Pre-construction conditions recording and documentation ● Identify areas of high erosion risk / susceptibility ● Earthworks & construction management <ul style="list-style-type: none"> ○ topsoil management ○ subsoil management ○ trenching ○ waste soil & rock management ○ access restrictions ● Temporary/permanent erosion control requirements and measures ● In case of waterbodies crossing <ul style="list-style-type: none"> ○ Pre-construction and design considerations to avoid impact to surface waters, sensitive habitats and species (e.g. send and receive pits location to avoid sensitive flora & fauna, location/requirements for settlement ponds and dewatering discharges etc.) ○ watercourse crossing construction techniques, ○ Watercourse crossing Method Statements environmental mitigation requirements ○ water quality monitoring ○ sediment control ○ control measures implementation roles and responsibilities ○ specific emergency response procedures ● Reinstatement and revegetation measures, planning, monitoring and verification <ul style="list-style-type: none"> ○ management of reinstatement, soil erosion and sediment control to achieve physical reinstatement of disturbed sites to original condition, upon completion of construction ○ bio-restoration requirements (passive and active/assisted revegetation measures) ○ monitoring of the implementation and success of ecological mitigation ● Maintenance requirements
Biodiversity and Ecosystem Services Management Plan	<ul style="list-style-type: none"> ● Plan for implementation of mitigation measures identified in the assessment focused on overall biodiversity features and ecosystem services in the area. ● Measures to avoid the introduction and / or spreading of invasive alien species. ● Sets out requirements for pre-construction check surveys. ● Access controls to avoid sensitive areas. ● Improvement of wetlands through restoration, artificial wetland creation. ● Habitat/vegetation restoration strategy and guidelines. ● Fauna/flora capture and translocation measures. ● Monitoring requirements during both the construction and operational phases of the project.
Biodiversity Action Plan (this plan only triggered in case of impacts on identified “Critical	<ul style="list-style-type: none"> ● Sets out the aims and objectives of the Biodiversity Action Plan; ● Summary of the residual effects from the impact assessment; ● Mitigation strategy including: <ul style="list-style-type: none"> ○ How the mitigation hierarchy has been followed, ● The approach to achieving No Net Loss (NNL) of natural habitat / priority biodiversity features and net gains for loss of critical habitat through additional conservation actions

Project Management Plan	Aspects covered
Habitat").	<ul style="list-style-type: none"> and/or biodiversity offsets. <ul style="list-style-type: none"> How NNL will be achieved (Net Gain for critical habitat) including options that are technically feasible, financially feasible and acceptable to landowners / Government; Additional measures to promote and enhance the conservation objectives of the affected designated sites Targets for management measures Trials required to confirm feasibility of management measures Management measures monitoring Roles and responsibilities, Limits of acceptable change and remedial actions if limits exceeded. Consultation and key stakeholders. Estimated budget for implementing the BAP.
Stakeholder Engagement Plan	<ul style="list-style-type: none"> Note: this aspect is further outlined in the SEF
Livelihoods Restoration Plan Resettlement Action Plan Land Acquisition and Compensation Plan	<ul style="list-style-type: none"> Note: this aspect is further outlined in the RPF
Cultural Heritage Management Plan	<ul style="list-style-type: none"> Cultural heritage responsibilities, management and works supervision during construction Chance finds procedure Chance finds training, management and response Interface and coordination with relevant authorities
Health and Safety Management Plan	<ul style="list-style-type: none"> GCK Project safety principles and philosophy H&S policies and commitments Project H&S objectives Project H&S challenges GCK Project H&S management system structure H&S leadership, organization, competence, communication H&S contractors management PPE requirements and enforcement Incident reporting, investigation and monitoring of Non-conformances Risk profiling and emergency preparedness and response planning H&S audit & review H&S performance monitoring/ improvement Management of change H&S records and documents control
Traffic and Transport Management Plan	<ul style="list-style-type: none"> Traffic-related aspects management for construction traffic Approved access and haulage routes Road traffic management including on-site and off-site/public roads speed limits, vehicle inspection requirements, operating rules and procedures Dust, air emissions, noise abatement requirements and measures Access roads management Road-related accidents prevention Local traffic signage Oversized equipment shipment road safety and management requirements Communication in advance of heavy construction traffic through communities Training of drivers and equipment operators

Project Management Plan	Aspects covered
	<ul style="list-style-type: none"> Community awareness program on traffic-related risks, in line with SEF provisions Monitoring system Internal monitoring and reporting
Workforce Management Plan	<ul style="list-style-type: none"> Training and skill development activities; Employee grievance mechanism (as per SEF); Camp and worker accommodation management aspects Measures for fair treatment, non-discrimination, and equal opportunity in employment. Requirements related to provision of safe and healthy working conditions, and the health of workers Management of potential communicable diseases associated with construction workforce. Local Content measures address inter alia: <ul style="list-style-type: none"> Promotion of local recruitment at all levels of the Project and facilitating the qualification and recruitment of local candidates, for example with appropriate skills training. Measures to maximize use of national subcontractors and suppliers. Workers' community interaction behavioural code of conduct Contractor employment practices conformance, reporting and monitoring Management measures related to child labour, forced labour, third-party workers.
Emergency Preparedness and Response Plan	<p>Provision of a consistent and systematic approach to ensure effective control and management of emergencies that may be encountered during project development on project sites</p> <ul style="list-style-type: none"> definition of roles and responsibilities, chain-of-command and communication framework definition of different incident tiers response teams: <ul style="list-style-type: none"> On-site incident response team (IRT) Off-site emergency response team (ERT) Corporate crisis management team (CMT) definition of incident notification procedure definition of incident notification and investigation requirements potential incident scenarios and their management definition of media and public relations during emergency definition of training and review requirements

All sub-component-level Management Plans listed above are expected for the construction phase. Any relevant Management Plans needed for the operations phase will depend on the nature of activities of the respective sub-component and are to be determined during the ESIA phase. High-level management plans such as general ESMP and SEP may be carried on through the operations phase (unless construction respectively operations stage specific plans are defined and implemented). Specific management plans such as Biodiversity Management Plan may include respective monitoring elements that may enter into the operations phase of the respective sub-component.

4.1.3 Level 3: Contractor E&S Management Plans

At construction stage, sub-component Contractors are responsible for the implementation of the E&S mitigation associated with the execution of the sub-component construction activities.

To ensure this, the appointed EPC Contractors are required to define and implement their own E&S compliance monitoring and assurance processes for the sub-component works execution. These will be outlined in topic-specific Contractor Management Plans (CMP) as depicted in **Figure 4-2** Level 3 of E&S management planning.

Each Contractor is required to ensure that all requirements set in the sub-component-level E&S Management Plans (i.e. Level 2 in **Figure 4-2**) and which are relevant to their own and their subcontractors activities are transposed and detailed in the CMPs.

The CMPs will be compliant with the sub-component ESIA documents, the Commitments Register, the Project Requirements Regulations and Standards referred to in section 2 of this ESMF including national regulations and international standards.

Prior to the start of construction works, GCKC will review and approve the CMPs in line with the Project documents approval process.

The Contractor Management Plans (CMPs) required to be put in place by each Contractor will generally mirror in terms of topics addressed the Management Plans set at sub-component level (i.e. Level 2 in **Figure 4-2**). The CMPs are to further detail how the sub-component Contractor (and its subcontractors) will implement the requirements outlined in the corresponding Project-level Management Plans and in the sub-component EPC Contract.

The sub-component E&S CMPs will be informed by the respective sub-component level E&S Management Plans (as referred to **Section 4.1.2** above) and shall be generally structured to provide the following information:

- Objectives of the management plan/purpose and scope,
- Reference documents (indication of other Project-level documents and sub-component CMPs of relevance for the management plan; reference to relevant applicable standards);
- Identification of Project activities/operations associated with the impacts addressed by the CMP and triggering the implementation of all or part of the CMP requirements;
- Description of management practices employed to implement impacts mitigation and ensure accomplishment of related commitments;
- Roles and responsibilities;
- Subcontractor requirements (including those regarding addressing E&S aspects in the subcontractor method statements);
- Monitoring and reporting; staff training needs.

The topic-specific E&S Contractor Management Plans (i.e. Level 3 in **Figure 4-2**) to be developed and implemented by the sub-component Contractor are as a minimum the following:

- Health and Safety CMP
- Site-specific Security CMP.
- Workforce CMP (includes employment and worker accommodation aspects)
- Pollution Prevention and Control CMP (including, among others, air, noise, water supply and wastewater, spill prevention, contaminated land management)
- Topsoil Management and Site Reinstatement CMP
- Chance Finds Procedure
- Waste CMP
- Emergency Preparedness and Response CMPs (site-specific)
- Traffic and Transport CMP

Stakeholder engagement activities will be managed by in line with the Project Stakeholder Engagement Plan. While contractors are not required to perform Project-related stakeholder engagement, the sub-component Developer will work with the contractors to ensure that their social responsibility related activities will be aligned with those envisaged by sub-component Developer, as applicable.

5. ESMP FOR CATEGORY C SUB-COMPONENTS

As discussed in **Section 3.3**, Projects assessed as of Category C as per WB ESS or Rwandan Impact Level 1 (IL-1), as depicted early in the document (**Figure 1-4**) are expected to have no or minor adverse environmental and social impacts or risks. Provided that Project implementation and operation does not require any specific mitigation, compensation or monitoring measures no additional specific E&S management planning is required. In the case of Rwandan permitting process IL-1 projects are not subject to Environmental Impact Assessment, instead they go directly to the Decision-making and Authorization stage. IL-1 projects are, however, subject to a period of public review during which stakeholders may submit written views to the Authority.

For the purpose of this ESMF, in the case of Category C/IL-1 Projects; a Project sub-component specific ESMP shall be prepared so that identified impacts be managed and sub-components monitored for changes potentially triggering significant impacts over their life cycle.

6. PROJECT E&S MANAGEMENT ORGANIZATION

6.1 GCKC/Project Implementing Entity E&S Roles and Responsibilities

As indicated previously, the overall Project will be developed, constructed and operated by GCKC, a Special Purpose Vehicle (SPV) established by FONERWA/Rwandan Government as implementing entity.

GCKC is a company operating under the Rwandan law and will employ required staff to ensure the successful implementation and management of the Project.

GCKC is ultimately responsible for ensuring that all Project activities comply with the Project E&S policies, regulations and standards. GCKC will therefore establish an appropriate organizational structure, responsibilities and practices and will ensure the resources required for the E&S management during the Project execution.

Suggested key E&S management staff roles to be employed by GCKC including their envisaged main responsibilities are summarized in **Table 6-1** below.

The needs of the E&S management and supervision positions may greatly vary pending on number of ongoing sub-components and their stages of implementation at a given time. The GCKC will therefore have to adjust their organisation in response to staffing needs at a given Project development stage. As flexibility is required, in addition to own/employed staff this could be also supplemented based on external support (e.g. seconded specialist staff, specialised services providers engaged for determined period, as needed).

Table 6-1 Key Project Implementing Entity/SPV E&S staff and associated responsibilities

Role	Responsibility
Senior Management	<ul style="list-style-type: none"> Overall accountability for the Project including delivery in line with applicable national and international standards. Ensures allocation of sufficient resources for this ESMF implementation including for E&S organization, permitting, training, equipment and qualified personnel. Ultimate responsibility for ensuring implementation of required corrective actions including in response to identified E&S non-compliances or incidents. Ensures periodical review of the ESMF effectiveness in line with the provisions of this plan.
HSE Manager	<ul style="list-style-type: none"> Appropriately qualified professional familiar with HSE aspects (including environmental, health and safety) associated with internationally-financed projects implementation. Performing duties both at GCKC corporate level and partially on site. Provide HSE resources for implementation of the Project E&S management requirements. Inform sub-components Developers on HSE responsibilities as defined in this ESMF and ensure these are understood and implemented at sub-component level throughout all implementation stages. Ensure that HSE risks are systematically identified and managed (assessed avoided or mitigated) Ensure the HSE oversight of sub-components Developers including training, auditing and corrective actions. Manage the HSE team's budget and ensure that HS team's activities are effectively executed. Provide the Project management team with HSE management advice, guidance and assurance. Communicate the content of this ESMF (including any updates) to GCKC and sub-components Developers teams and act as the focal point to promote implementation, performance monitoring and provide guidance and support. Manage the review and acceptance of sub-components Developers HSE Management Plans and procedures.

	<ul style="list-style-type: none"> Inform sub-components Developers on HSE responsibilities as defined in this ESMF and ensure these are understood and implemented throughout all implementation stages. Act as focal point for sub-components Developers HSE oversight in accordance with this ESMF. Ensure that all HSE-related incidents are reported and dealt with effectively and lessons learned are shared in accordance with GCKC incident reporting procedure.
Social/ Communication and Social Responsibility Manager	<ul style="list-style-type: none"> Appropriately qualified professional familiar with Social aspects associated with internationally-financed projects implementation. Performing duties both at corporate level and on site. <ul style="list-style-type: none"> Provide functional support to the field staff to implement the social requirements of this ESMF and of the GCKC management system Coordinate Project Stakeholder Engagement activities, and perform monitoring of SEF/SEP implementation outcomes Provide timely information to communities on all Project works through regular meetings with stakeholders and ensure that long term relationships are not negatively impacted. Provide information on potential issues with local community and stakeholders and contribute to implementing specific measures to prevent and mitigate risks Identify key stakeholders, requiring engagement in the frame of GCKC stakeholder engagement activities and update regularly the stakeholder mapping in response to stakeholders activities and their relationship with the Project. Ensure that stakeholder engagement activities are documented and records (e.g. Minutes of Meetings) are kept on file. Training of contractors on SEF/SEP and its implementation process, including the Grievance mechanism Coordinate and manage implementation of the project Grievance Mechanism. Ensure GCKC Grievance Committee Meetings are formally documented and recorded Prepare responses to grievance raised and agree content with other members of GCKC Grievance Committee; Responsible for ensuring responses to grievances are provided in line with the Grievance Mechanism provisions Report to GCKC Management Team on grievance management. Responsible for the project general information disclosure, mass media coverage/press releases.
HSE Supervisors	<ul style="list-style-type: none"> Appropriately qualified local/national professionals reporting to HSE Manager. Based permanently on site. <ul style="list-style-type: none"> Perform oversight inspections of the sub-components Developers and their Contractors activities to ensure they align with Project, health, safety and environmental management requirements and with the E&S management plans/procedures/method statements provisions pertaining to health, safety and environment. Provide feedback on inspections findings to the HSE Manager. Provide HSE advice and training/deliver toolbox talks to field teams. Report on HSE compliance and corrective actions implementation to the HSE Manager. Record HSE incidents and follow up on closure by sub-components Developers. Participate in internal and external HSE audits. Report to the HSE Manager on daily basis and agreed format on all health, safety and environmental matters and activities performed.
Community Liaison Officer(s)	<ul style="list-style-type: none"> Appropriately qualified local/national professional reporting to Social/Communication & CSR Manager. Based permanently on site. <ul style="list-style-type: none"> Act as local liaison between the community/stakeholders and GCKC and maintain positive relationship with them. Provide timely information to communities on all Project works through regular meetings with stakeholders and ensure that long term relationships are not negatively impacted. Provide information on potential issues with local communities and stakeholders and

	<p>contribute in implementing specific measures to prevent and mitigate risks</p> <ul style="list-style-type: none"> Identify key stakeholders, requiring engagement in the frame of GCKC stakeholder engagement processes/activities and update regularly the stakeholder mapping in response to stakeholders activities and their relationship with the Project. Monitor local developments with potential to impact Project activities, and report to the Social/Communication and CSR Manager. Support with the Grievance Mechanism implementation at the field level. Ensure that stakeholder engagement activities are documented and records (e.g. Minutes of Meetings) are kept on file. Report on all activities performed to the Social/Communication and CSR Manager on daily basis and agreed format.
E&S Specialist Support (external/on need)	<ul style="list-style-type: none"> Appropriately qualified professional support by specialised services providers specialised E&S aspects associated with internationally-financed projects implementation. Support roles to the HSE Manager and the Social/Communication and CSR Manager Performing duties both at corporate level and on site, on-call basis. <ul style="list-style-type: none"> Provide the Project Management team with E&S management advice, guidance and assurance. Support with communicating the content of this ESMF (and any updates) to GCKC and sub-components Developers teams and provide guidance and support in its implementation and performance monitoring. Support in ensuring the E&S responsibilities as defined in this ESMF and detailed in the Project E&S Management Plans are understood and implemented throughout all construction stages. Provide support in the review and acceptance by GCKC of sub-components Developers and their Contractors E&S Management Plans. Support with organization of and participation in the review and audits of the sub-components Developers and their Contractors E&S performance with respect to the requirements of this ESMF. Support in the field-based E&S oversight of the sub-components Developers and their Contractors as required. Delivery of any specialised expert support required at various project implementation stages, in agreement with the HSE Manager and the Social/Communication and CSR Manager.

6.2 Sub-Component Developer E&S Roles and Responsibilities

It is sub-component Developers' responsibility to ensure that E&S compliance is achieved at sub-component level according to the requirements and processes defined in this ESMF.

In attaining this objective, the sub-component Developers will establish and maintain through their own E&S Management System a documented process to identify risks and impacts, implements adequate management measures to mitigate these in line with the Project Requirements, Regulations and Standards indicated in Section 2 of this ESMF. Sub-component Developers E&S monitoring of their own activities and of their contractors and subcontractors E&S performance.

Throughout sub-components' implementation, the sub-component Developers are responsible for:

- Supervision of their own and their contractors compliance by maintaining a system to manage E&S aspects and impacts in line with requirements set in this ESMF which are to be considered as part of their own management system;
- Ensuring that all E&S Non-conformances and incidents are reported and dealt with effectively and that lessons are learned;
- Ensuring their organizations have adequate resources and expertise for adequate E&S compliance monitoring and control to meet this ESMF requirements throughout sub-components' implementation;
- Keeping GCKC fully informed of any E&S issues occurred;
- Performing, recording and reporting E&S monitoring observations, required actions and raising non-conformance reports where appropriate;

- Instructing own and contractor/subcontractor staff in their responsibilities with respect to compliance assurance and incident reporting and response;
- Establish and maintain own Grievance Mechanism at sub-component level in line with guidance provided in **SEF**. Report on grievances resolution to GCKC with the monthly sub-component progress reports. Escalate grievances received to GCKC for resolution through the Project-level Grievance Mechanism where the case;
- Cooperating with GCKC in relation to E&S compliance assurance activities;
- Participating in joint inspections, performance reviews and audits as required by GCKC;
- Providing GCKC with access to monitoring records (including all relevant documentation and databases) as required;
- Ensuring adequate expertise, planning and resources are in place to appropriately identify sub-component E&S risks sufficiently in advance of construction, in order to ensure compliance;
- Identifying sub-component E&S risks as part of own planning processes and through implementation of appropriate mitigation measures and communicating these to own and contractors workforce;
- Reporting to GCKC on sub-component E&S performance, including KPIs on weekly and monthly basis in a commonly agreed format;
- Maintaining and reporting updated registers to GCKC that capture the range of compliance monitoring and assurance information necessary to demonstrate that Project E&S standards are being met during sub-component implementation.

To ensure implementation of the above, the sub-component Developers are required to structure their organizations to include sufficient and adequately qualified E&S staff. The sub-component Developers are responsible for determining the required number of E&S personnel to ensure that Project E&S policies, regulations and standards are met throughout the sub-component implementation. Furthermore, the sub-component Developers are responsible to ensure that their contractors and subcontractors implement throughout their Project activities the requirements set forth in this ESMF and the sub-component-level Management Plans (refer to **Section 4.1**). For this purpose, the sub-component Developers are required to put in place adequate, documented processes for supervision and monitoring of subcontractor responsibilities.

Sub-Component Developers are responsible to scale their organization so that their E&S management teams include appropriately qualified personnel covering following roles as a minimum (individual positions may combine multiple roles as appropriate):

- HSE Manager(s) (responsibilities including Environmental, Social, Health and Safety, and Cultural Heritage aspects);
- HSE Supervisors
 - multiple positions as needed;
 - to ensure permanent presence of at least one HSE Supervisor on each construction work site and each shift.



Important:

In case, during sub-component implementation, the GCKC's monitoring of the E&S performance of a sub-component Developer indicates insufficient E&S oversight, compliance assurance resources or practices, GCKC is entitled to enforce required corrective actions on the respective sub-component Developer. This may include requiring the sub-component Developer to allocate additional E&S staff and resources.

7. E&S MANAGEMENT CONTROLS

7.1 General Approach

For adequate Project's E&S management planning supervision and monitoring, a continuous performance review and evaluation process further referred to as **E&S management controls** is to be put in place with the involvement of all entities participating to the Project implementation. These required E&S management controls which are aligned with the Plan-Do-Check-Act model are detailed in the following sections.

E&S management controls to be put in place are to be based on an E&S compliance assurance (monitoring and reporting) process ensure that E&S policies, regulations and standards are met.

E&S management controls to be put in place by GCKC focus on the following points:

- i. the implementation of the Project's E&S Management planning as described in this ESMF,
- ii. implementation by the sub-component Developers of the Project Policies, Regulations and Standards at sub-components level,
- iii. E&S oversight of sub-component-level/ Developers activities, and
- iv. E&S compliance assurance to verify that the works are performed according to the Project Policies, Regulations and Standards.

This E&S compliance assurance process (including the full range of environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage aspects) is implemented at two levels:

- At sub-component level: sub-component Developer Self-Verification program (inspections, monitoring, reporting) to demonstrate compliance with E&S policies, regulations and standards, and to provide evidence that the sub-component Developer and their contractors/subcontractors meet their obligations. Includes oversight of contractors and subcontractors.
- Project level: GCKC E&S Oversight and Assurance activities.

Oversight is performed by GCKC E&S staff to ensure that GCKC-own and sub-component Developers activities (including their E&S self-verification) are aligned with the Project standards and the provisions of this ESMF. This includes review/approval of E&S procedures, reports, documentation, monitoring data, procedures & plans, undertaking formal inspections and attendance of meetings with sub-component Developers to drive performance and raise issues.

Assurance activities are performed by personnel (or specialized service providers) not directly involved in the works being checked, to provide an additional layer of assurance beyond self-verification and oversight and measure the compliance of Project activities. Assurance process comprises E&S field supervision (site visits), targeted audits and formal reviews. Assurance activities are typically detailed and focused on defined risk areas or guided by feedback from the results of the self-verification and oversight activities.

In addition to the above, independent audits of compliance with Project Requirements, Regulations and Standards and including both GCKC and sub-component Contractor performance are to be performed periodically, typically on annual basis or upon attaining specific milestones in implementation.

The controls put in place to manage, monitor, measure and report compliance with Project E&S policies, regulations and standards are outlined in this ESMF section.

7.2 Sub-Component Developer Self-Verification Program

Sub-component Developers are required to operate an Environmental and Social Management System (ESMS) in alignment with the principles of ISO14001 and OHSAS 18001, which requires self-verification of compliance in accordance with the plan-do-check-review cycle (ESMS accreditation to ISO14001 and OHSAS 18001, although recommended, is not a requirement).

As part of their works planning, sub-component Developers are required to prepare and implement a sub-component ESMP and a number of topic-specific Management Plans (refer to [Section 4.1.2](#)). These E&S management planning documents will detail how the sub-component Developer will meet

and comply with the Project E&S policies, regulations and standards through a self-verification program including:

- Performing E&S inspections and audits of own and contractors/subcontractors activities;
- Performing E&S monitoring;
- Implementation of a non-conformance and incident notification and response system (NCR).

7.2.1 Sub-Component Developer Inspections and Audits

To provide assurance that the provisions of the sub-component ESMP and topic-specific management plans/method statements are implemented effectively, each sub-component Developer is required to implement a program of documented inspections and audits at sub-component sites and the associated facilities addressing own activities and those performed by contractors and subcontractors.

This includes undertaking walk-around inspections during construction works execution to visually monitor that mitigation measures are implemented, undertaking joint inspections with GCKC, and engagement with project-affected parties, stakeholders and regulators. These activities will also include inspection of contractors/subcontractors labour and working conditions aspects against Project Requirements, Regulations and Standards with quarterly frequency.

Sub-component Developer internal audits will be performed in line the sub-component Developer's management system procedures as approved by GCKC. As a minimum E&S internal audits are to be performed by the sub-component Developer on annual basis or at the stage of completion of pre-defined sub-components implementation/contractual milestones. Focused audits or performance reviews addressing specific aspects as required in line with the sub-component implementation stage are to be typically performed every 6 months. The audits are to be performed by an interdisciplinary team of appropriately qualified health and safety, environmental and social auditors. GCKC E&S staff may join the sub-component Developer audit team and participate in the sub-component Developer's internal audits.

7.2.2 Sub-Component Developer Action Tracking, Non-Conformance and Incident Response and Notification System

In response to any issues, observations, non-conformances and incidents, the sub-component Developer is to propose appropriate corrective actions and record these (including responsibilities and timescale for completion) in their own E&S (including environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage aspects) Non-conformance Response and Notification (NCR) system. The NCR shall be implemented to ensure recording and follow-up of Non-conformances and incidents and their associated corrective actions.

GCKC E&S management staff will regularly review sub-component Developer's NCR records, typically on weekly basis, and will follow-up on progress to confirm actions closure.

Non-conformances identified as result of inspections, monitoring and audits performed are recorded by sub-component Developer as actions to be addressed within their own management systems and reported to GCKC in the monthly reports as a minimum.

Sub-component Developer is required to implement own E&S Incident Reporting and Investigation procedures. All E&S incidents and near misses will be notified to GCKC. Incidents will be notified immediately as they occur, while near misses will be reported on weekly basis.

GCKC will reserve the right to carry out its own investigations of sub-component Developer's accident/incident/near-miss/non-conformance or be part of the investigation teams.

GCKC HSE Manager will review and qualify Non-conformances and incidents reported by the sub-component Developer. GCKC HSE Manager will regularly meet relevant sub-component Developers representatives to review the NCR and status of actions progress and closure.

7.2.3 Sub-Component Developer Monitoring and Reporting

The procedures for monitoring implementation and outcomes of the E&S mitigation measures, E&S KPIs and environmental and social monitoring are defined by each sub-component Developer in their

ESMP, topic-specific management plans and method statements. The monitoring frequencies, parameters, methodology and duration are determined based upon site activities requiring monitoring, which is assessed on a case-by-case basis dependent upon construction activity type and location.

Each sub-component Developer is responsible for reporting monitoring results to GCKC on monthly basis.

7.3 GCKC E&S Oversight and Assurance Program

7.3.1 GCKC /Project Implementing Entity E&S Oversight (Monitoring)

E&S oversight by GCKC is aimed at monitoring implementation activities to determine whether environmental, occupational health and safety, labour and working conditions, socio-economic, community safety and cultural heritage mitigation measures implemented by each sub-component Developer are effective (i.e. are avoiding and minimizing the impacts as intended, or whether work practices require improvement).

During construction stage, E&S oversight monitoring is undertaken by the GCKC HSE Manager through ongoing review and follow-up on sub-component Developer's weekly and monthly reports and on non-conformance/incident reporting, as well as by performing inspections of the construction work sites.

E&S oversight inspections are performed regularly, and are intended to highlight key sub-component Developers' conformance aspects, and their outcome is used to determine the required response actions. In addition to the regular inspections, unscheduled inspections (spot-checks) of critical/key Project areas are performed as needed. The locations and timing of the unscheduled inspections are determined based on the ongoing activities and issues, as informed by the sub-component Developers weekly/monthly reports and the non-conformance/incident reporting.

The E&S oversight is aimed at addressing all Project E&S aspects and worksites and ensure that each of them are regularly visited.

Checklists may be used in support of the field inspections which may be organized based on specific E&S topics addressing key aspects associated with the construction works/activities being inspected.

Inspections observations and findings are discussed with sub-component Developers' E&S representatives to determine and agree on any required actions.

GCKC E&S oversight (monitoring) reports are generated as simple records to include:

- indication of the construction works/site inspected;
- indication of the construction activities inspected;
- observation notes providing description of positive aspects/good practice or issues/non-compliances identified;
- photographic evidence of the observations made/issues identified.

Where E&S oversight (monitoring) inspections identify issues or Non-conformances, the remedial actions required in response are discussed and agreed with the sub-component Developer and recorded into the sub-component Developer's NCR as needed.

7.3.2 GCKC Regular E&S Oversight Reporting

A brief E&S oversight report is to be provided by the EHS Manager to GCKC Project Management on quarterly basis. The report is to summarize the key issues and challenges during the reporting period as resulted from the E&S oversight inspections and the review of the sub-component Contractors' E&S reports and NCR status.

Regular reporting is intended to keep GCKC Project Management informed on E&S aspects, so that direction and feedback can be provided to sub-component Developers and leadership support obtained for addressing key and more strategic issues at appropriate decision levels, as applicable.

7.3.3 GCKC E&S Assurance Audits

Environmental, social, health and safety audits of each sub-component Developer are performed on annual basis or upon attaining specific construction works delivery milestones by the sub-component Developer (e.g. 0 – 50%, 50-100% construction works execution).

The E&S Assurance Audits are conducted primarily by GCKC staff independent of the activities audited, or by contracted specialized third-party specialists to provide assurance of oversight and self-verification activities.

The sub-component Developers are formally notified about the E&S audits and their scope which may include but not be limited to:

- Sub-component Developer E&S organization/staffing adequacy;
- Sub-component E&S documentation;
- Implementation by sub-component Developer of the ESMP and topic-specific management plans, method statements and specific E&S Procedures;
- E&S training and inductions;
- E&S Key Performance Indicators (KPIs);
- E&S Non-conformance and incident reporting, tracking and closure.

Audit protocols are developed based on the defined scope and used by auditors for guidance and for recording audit observations including good practice and Non-conformances.

Audit outcomes are summarized in reports and formally communicated to and discussed with the sub-component Developer. Any required corrective actions are agreed with the sub-component Contractor and recorded in their Non-conformance Reporting system as appropriate. Progress in addressing the audit findings is followed up on a regular basis to close the open and pending actions and reported monthly.

7.3.4 Key Performance Indicators

GCKC and its sub-component Contractors will track and monitor various performance indicators, both leading and lagging, so as to identify potential trends in environmental, health&safety and social performance, as defined in the topic-specific management plans.

7.4 Incident and Non-Conformances Reporting, Investigation and Corrective Actions

All non-conformances and incidents (including near-misses) will be investigated to establish the immediate and underlying/root causes (plans must be established to deal with immediate risks following unforeseen events) and to identify actions to:

- Evaluate and correct the situation as quickly as possible;
- Assess and limit adverse E&S effects relating to the incident;
- Prevent a recurrence and improve E&S performance; and
- Ensure planned actions integrate with other E&S requirements, including contractor interfaces where appropriate;
- Improve the future management of risk;
- Ensure lessons are learned throughout the Project organization;
- Demonstrate commitment to effective E&S management.

Non-conformances are unapproved deviations from GCKC E&S Specifications or Standards or deviations from GCKC or sub-component Developer E &S Management Plans. These are typically identified through the oversight and assurance process (e.g. daily monitoring, oversight inspections and audits).

Non-conformities may be categorised as minor or major and are to be recorded and reported in a pre-defined format including: description of source/cause, categorization (severity), description and evidences, responsible party and corrective actions.

Non-conformances are to be recorded in a register maintained by GCKC and acting as a tool for following up on non-conformances to closure.

Incidents are typically classified using a 3-level severity scale (i.e. Minor, Serious, and Major) and aligned with severity definitions and reporting timeframes detailed in an Incident Reporting and Investigation Procedure.

All incident investigations are to be conducted and documented to appropriate level of detail dependent upon the severity of the incident.

Actions identified as being required in the incident investigation report are recorded on Corrective Action Forms to prevent reoccurrence of similar incident. Action plans for the remedial measures implementation as identified in the investigation are defined and include information on responsibilities, resources required, completion dates and reporting requirements.

The status of corrective actions and associated action plans are tracked and once all the actions completed, this is recorded in a Corrective Action Form signed off for closure. The status of corrective actions implementation and closure is to be tracked in the Project Incident Register.

Incident reports and key incident statistics are analysed for trends for each project activity and reported on a monthly basis as part of the performance monitoring program. Relevant findings are communicated throughout the Project organization.

Arrangements for incident reporting and investigation system, as well as the effectiveness of corrective actions are periodically reviewed, as a minimum with annual frequency, as part of the management review process.

7.5 External Reporting

GCKC will prepare an annual report on environmental, health and safety performance and implementation of the stakeholder engagement plans and grievance procedure. The annual report will be disclosed on the GCKC website.

In addition, GCKC is to ensure following external reporting:

- Statutory Notifications and Reporting to national regulatory bodies as required in line with the applicable regulations and Project permits.
- Incident Notification and Reporting.

Medium and major incidents (fatalities included) are to be reported to authorities within 2 hours from occurrence. Any such incidents will also be reported to Project lenders within 72 hours.

All environmental and social incidents will be appropriately documented, notified and reported in accordance with established procedures as indicated in previous sections of this ESMF.

Incident notification and reporting to relevant national regulatory bodies will be performed in line with applicable legislation in force and as stipulated in permits and licenses.

8. MANAGEMENT OF CHANGE

The ESMF and supporting overarching management plans that may be identified for the overall Project and/or sub-components will adopt a Management of Change (MoC) process throughout the life cycle of the Project, in accordance with FONERWA's Management of Change Procedure.

The ESMF is a living document that is to be updated as required. Any updates will reflect relevant changes to the Project and its environment. The development of the different overarching management plans at the outset of the design phase for the Project/sub-components is a fluid process with the management objectives and performance indicators tailored to the current design and objectives of the Project. The ESMF and these overarching plans (described in Chapter 4) utilize to the extent possible existing Project knowledge to fully address the actual E&S impacts of the Project at the time and allow flexibility in environmental and social management decisions made on the Project.

Management of change relates to any temporary or permanent alteration (physical/procedural) that deviates from the original design, assets, systems, processes, operations, products, organization and personnel.

Changes covered in the MoC approach may include:

- Changes in national legislation and requirements;
- Project design physical changes (e.g. layout, location, constructions methods, etc.);
- Baseline documents upon which these physical changes are designed and constructed e.g. design documents;
- Organisation changes e.g. patterns of work, changes to key personnel that have the potential to affect HSE, Sustainability (including the transition between current and future arrangements);
- Within E&S changes, high potential risks include:
 - any proposed change in the Project which falls outside the area covered by the ESIA and which would require substantial additional environmental and social assessment and mitigation measures to ensure that it does not irreversibly impact important environmental and/or social resources; and/or
 - any potential Project impacts on the environment, neighbouring communities, occupied residences, social infrastructure, or cultural resources that are not detailed in the ESIA or which fall outside the Project footprint, where one or more of the following conditions are encountered or otherwise might be irreversibly impacted:
 - Significant cultural properties where physical recovery will be required;
 - Critical habitat or legally protected and internationally recognized areas;
 - Endangered or critically endangered species;
 - Permanent exceedance of Project environmental effluent and emissions standards; and/or
 - Physical relocation or economic displacement of households not covered by the principles and types of compensation measures addressed in the relevant plans (e.g. Resettlement Framework).

To ensure management of change of this ESMF, other relevant Project frameworks (i.e. SEF and RPF) and any Project ESMP, the following actions will be implemented:

Request for change: including details on the type and timing of changes and nature of change. The proposed change will be assessed by a MoC Team that will be formed by the change requestor and technical/HSE departments involved. Depending on the complexity and criticality of the change, other team members might be also involved.

Risk evaluation The objective of the risk assessment is to fully assess the potential impact of the change and ensure that no new or additional risks are introduced. All existing inherent risks (including environmental, health, safety and social risks and contextual risk changes) will be identified, analysed and treated.

Potential risks shall be categorized as follows:

- High potential means that risk-reducing measures need to be implemented with immediate effect;
- Medium-high potential means that risk-reducing measures need to be implemented in the short term;
- Medium potential means that risk-reducing measures can be implemented if deemed necessary based on a cost/benefit evaluation;
- Low potential means that no further measures are deemed necessary.

Review and implementation of measures: including the preparation of a plan for implementing the measures that the Change Owner shall ensure application. The plan should establish specific deadlines and responsibilities for each of the identified measures, including also a communication strategy to make all affected parties aware.

Approval and Closeout: documenting of the results of the review.

As a result of the change, some internal Project documentation might need to be updated or new Project documents issued. These shall be listed with the appropriate due and completion dates, responsibilities and verification. Likewise, any training needs identified in response to the change, shall be presented with the type of training, the target staff that will take part of the training and due and completion dates.

Note, despite the MoC process for the ESMF (and other Project frameworks), the user (e.g. sub-component Developers) will have to confirm and double-check the ESMF to avoid any missed recent updates to applicable laws, regulations and similar that have not yet been incorporated into the ESMF (and SEF and RPF).

GCKC and Project leadership (i.e. FONERWA) will be notified about major / significant changes proposed to the Project and classified as having high potential HSE/Sustainability risks. No notification will be required for changes with low or medium potential risk. For medium and medium-high potential risk changes, a description will be included in the monthly and annual reports, as applicable. A medium-high and high potential risks change will be notified to the Implementing entity at least 15 days before the relevant change is implemented.

For high potential risk and medium and medium-high risk changes, GCKC and Project leadership may require the Independent E&S Consultant to review and provide comments and confirm that the change does not affect the significance of the HSE/Sustainability risks.

Appendix 1

RWANDAN NATIONAL LEGAL AND REGULATORY FRAMEWORK

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
Constitution, of 2003 revised in 2015.	<p>Everyone has the right to a clean and healthy environment.</p> <p>Everyone has the duty to protect, safeguard and promote the environment, while the state ensures environmental protection</p> <p>Mentions that there is a law determining modalities for protecting, conserving and promoting environment.</p> <p>Prohibits any international agreements permitting transit or dumping of hazardous waste in the country.</p>	<p>Establishes the right and importance of conservation of the environment.</p> <p>Validates the importance of the law to ensure conservation and promotion of the environment.</p> <p>Ensures the access to information for all citizens.</p>
Environmental Policy	<p>Provides improvement of the population's wellbeing, the judicious utilisation of natural resources and the protection and rational management of ecosystems for sustainable and fair development.</p> <p>Provides for decentralisation of environmental management.</p> <p>Assigns the District or Towns the responsibility for the day-to-day management of the environment and the implementation of policies and programmes for the protection of environment at the local level.</p>	<p>This Policy relates to FONERWA's project management, by requiring, through the EIA regulations that for each sub-component an environmental assessment is carried out. The Policy also puts the responsibility for monitoring and E&S performance to the implementers.</p>
Law on Environment N 48/2008 of 13/08/2018	<p>Determines modalities for protecting, conserving and promoting the environment.</p> <p>Based on article 30 of this law, a list of projects that must undergo an environmental impact assessment (EIA) before authorization for their implementation is established by an order of the minister.</p> <p>Environmental impact assessments, environmental audits and strategic environmental assessments must be approved by the REMA or another State organ authorised in writing to do so by the Authority.</p>	<p>Legalises the need for carrying out an EIA for a project.</p> <p>REMA is the authorized Institution to license EIAs or any authorised person and ensure conservation of environment.</p>
Ministerial order No. 001/2019 of 15/04/2019	<p>Establishing the list of projects that must undergo EIA, Instructions, requirements, and procedures to conduct EIA</p>	<p>Project sub-components are eligible for a full EIA.</p> <p>EIA procedure in Rwanda:</p> <p>Application for authorisation to conduct the EIA,</p> <p>Selection of EIA expert from the list,</p> <p>Reception and analysis of the project brief and proposed terms of reference,</p> <p>Issuance of ToRs for EIA within 14 days. ToRs may also be prepared by the developer and approved by the authority (REMA),</p>

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
		EIA is done with due consideration of the opinion of all the relevant stakeholders, Review of EIA by authority (REMA) in 20 days, public participation where necessary an addition 15 days (disclosure) and decision making & authorization (Project licenced).
The Environmental Impact Assessment Regulations, 2007	REMA has developed the EIA regulations that provide the requirements for an EIA in Rwanda. Under these new regulations, Sub Article 1 makes it mandatory for all the projects listed under Schedule I to be subjected to a full-scale EIA. The Sub Article further states that: No environmental authorization shall be granted by the Authority for any project in Schedule I to these Regulations if no Environmental Impact Assessment has been submitted to the Authority in accordance with the provisions of these Regulations. Any project listed under Impact Level III of Schedule I to these Regulations shall require a full environmental impact assessment by the preparation of an environmental impact report, unless the Authority refuses permission.	The GCK falls in this Schedule 1 category and thus must be subject to a full-scale EIA. As per the Project details and its screening, the Project will be classified as per categorization of World Bank guidelines and Rwanda EIA guidelines. In case the classification results differ, the most stringent one will apply.
Biodiversity Policy (2011)	Goal is to conserve Rwanda's biological diversity, to sustain the integrity, health and productivity of its ecosystems and ecological processes, whilst providing lasting development benefits to the nation. States that urgent attention is required to ensure that biodiversity is conserved not only within protected areas, but also across the landscape, and that sustainable development is promoted throughout Rwanda.	Design and implementation of the Project in an environmentally sound and sustainable manner to conserve indigenous biodiversity will be a clear compliance to this policy's goal of conserving Rwanda's biological diversity. This policy shall apply to not only to construction at the Project site but also its surroundings and affiliated areas such as; restoration of borrow pits for stabilized soils and mined quarries for construction material.
Biodiversity Law N 70/2013 of 02/09/2013	Determines modalities for management and conservation of biological diversity within Rwanda. Article 3 states that the Minister shall monitor the conservation status of various components of Rwanda's biodiversity and promote biodiversity research.	The Project developer shall consider the list of protected species during the preparation of the ESIA, during the construction and operation of the Project, as a measure to avoid negatively affecting protected species.

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
		Avoid introduction of alien species to the site as instructed by this law.
National Environment and Climate Change Policy (2019)	<p>Policy Objectives include:</p> <ol style="list-style-type: none"> 1. Greening economic transformation, 2. Enhancing functional natural ecosystems and managing biosafety, 3. Strengthening meteorological and early warning services, 4. Promote climate change adaptation, mitigation and response, 5. Improve environmental well-being for Rwandans, 6. Strengthen environment and climate change governance, and 7. Promote green foreign and domestic direct investment and other capital inflows. 	Most relevant to the Project are policy objectives 1, 4 and 7.
Green Growth Climate Resilience (2011)	<p>Proposes to adopt energy and water efficiency standards into building codes;</p> <p>Proposes to establish an integrated multi-node urban transport system;</p> <p>Proposes to employ low carbon urban planning and</p> <p>Proposes to fully utilise urban waste as a high-value resource stream.</p>	Project should consider to include efficient use of land through high density buildings, energy and water efficiency, waste in the Project design.
National Land Policy (2004 revised 2019)	The Policy provides for productive use of land based on suitability of specific land units. It also provides for recognition and safeguarding of land ownership rights, and for the development and maintenance of land registry and documentation centre.	Some subprojects are expected to cause land acquisition. In such a scenario, the Land Policy applies, requiring the landowners to be duly consulted and compensated for any involuntary land losses.
Law on management of land, No. 43/2013 of 16/06/2013	<p>Guides modalities of allocating, acquiring, transfer, use and management of land in Rwanda.</p> <p>Under this law and relevant to this study are the definitions given to:</p> <p>Land tenure: the system by which land is held, describing the rights, responsibilities and restrictions that are attached to the land holder.</p> <p>Expropriation: an act of taking away individuals' land by the State due to public interest in circumstances and procedures provided by law and subject to fair and prior compensation.</p>	<p>Equal rights to all to own land, prohibiting any form of discrimination.</p> <p>2 types of land ownership; Freehold title (owns land forever) and lease hold (land leased from state for a period of 20, 49 or 99 years. This is most common land ownership).</p> <p>Article 30 says: “.....It is prohibited to subdivide plots of land reserved for agriculture and animal resources if the result of such subdivision leads to parcels of land of less than a hectare in size for each of them”</p>

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
Law to expropriation in public interest, No. 32/2015	Guides procedures relating to expropriation in the public interest	<p>Expropriation can be done by the Government in case of public interest.</p> <p>Fair compensation recommended on agreement between the two parties (developer and asset owner).</p> <p>Compensation- monetary or alternative land/ building.</p> <p>Compensation based on market price & done by certified property valuers.</p> <p>Compensation done within 120 days (penalties of 5% paid by the expropriator in case of fail compensation).</p> <p>5% added to asset value as disruption fee.</p>
Agriculture Policy	<p>The Rwandan Government formulated this Policy to contribute to the achievement of food security, integrate agriculture and livestock in a market oriented economy and to generate increasing income to the producers.</p> <p>The policy addresses three (3) sub sectors: (i) Agriculture, (ii) Animal resources, and (iii) soil and water management.</p> <p>The Policy puts emphasis on marshland development for increased food production because soils on hills are degraded by erosion and not sufficient. The policy promotes small-scale irrigation infrastructure development in the country's selected marshlands while preventing Environmental degradation.</p>	Some of the Project sub-components could cause impacts on agriculture, soil and water resources.
National Forest Policy (2018)	<p>Defines, medium to long-term intentions for the development and management of the national forest resources.</p> <p>Policy statement 5, proposes intervention areas as; management and maintenance of forest resources to ensure biodiversity conservation and sustainable provision of ecosystem goods and services and identification and protection of threatened species.</p> <p>Policy statement 7, which concerns trees in cities, on farms, along roads and in many other locations not considered forests. This statement highlights important areas of intervention to focus during the implementation of this policy as; developing and implementing urban forest management plan,</p>	The Project could need to design green areas as part of the project design in which trees can be planted as a contribution towards agroforestry outside forests and forest conservation.

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
	mainstreaming trees outside forest practices in forest management planning processes, putting in place mechanisms for incentives to attract private landowners to plant forest trees on their land.	
Law No.47bis/ 2013 determining the management and utilization of forests in Rwanda	Determines the management and utilisation of forests in Rwanda.	In case timber for construction is required, the Project shall need to take precaution to engage suppliers that comply to requirements of this Law.
National Water Resources Management Policy	This Policy was designed to manage and develop the water resources of Rwanda in an integrated and sustainable manner, to secure and provide water of adequate quantity and quality for all social and economic needs of the present and future generations with the full participation of all stakeholders in decisions affecting water resources management. The Policy is based on the principle that water is a finite resource, as well as economic, environmental and social good. The Policy also recognised that water management must be integrated and catchment-based to be efficient. Climate change is also recognised as a threat to water sources in the Policy.	Water Supply is expected to be an important topic throughout the development of the Project and its future sub-components.
Law N°62/2008 of 10/09/2008 putting in place the use, conservation, protection and management of water resources regulations	Defines applicable rules to the use, conservation, protection and management of water resources. Provides for the application and management of water resources in accordance with some of the following principles; the principle of prevention of the pollution with priority to the source, the principle “user-payer and polluter-payer” according to which the user of water and the polluter support a significant part of expenses resulting from measures of prevention, of pollution reduction and restoration of the resource in quality and in quantity, the principle that users of the public distribution services of drinking water and sanitation should play a major role in these services provided to them, according to the contributory capacity of users.	The Project, in accordance to this law, is required to abide to all relevant requirements towards conservation, protection and management of water resources, some already mentioned above comprising of; which body to go to for public water network, who pays for damages caused to a public water source and how to handle wastewater generated from the project before discharge to the environment.
National Sanitation Policy (2016)	Concepts of significant importance to the policy and relevant to the Project are; Urban stormwater management and Faecal sludge management.	The policy direction on off-site collective sanitation, storm water management and solid waste management shall be considered in preparation of the Project masterplan and affiliated sub-project designs.

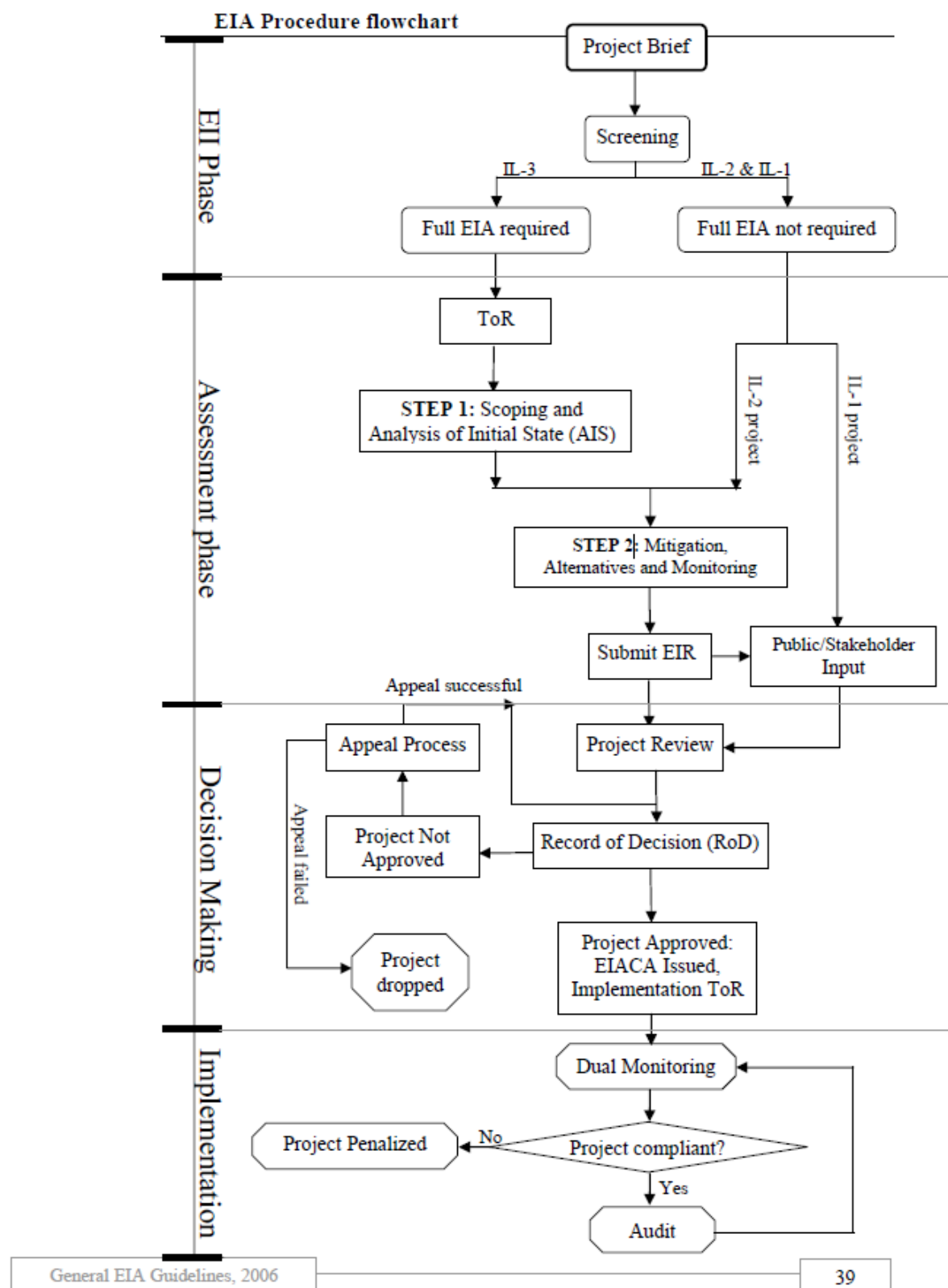
Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
National Transport Policy	<p>The National Transport Policy provides guidance on the management of various modes of transport in Rwanda. Road transport is responsible for more than 80% of human and goods traffic in the country. The Policy, in this respect, guides on the management of the road sub-sector in Rwanda, which includes construction, maintenance and rehabilitation of roads.</p> <p>Accordingly, a Road Maintenance Fund has been established to provide adequate, reliable financing for road maintenance activities; and a Road Maintenance Strategy formulated to guide the process.</p>	This Policy is relevant to development of roads within the Project area, since the planning, funds allocation, monitoring and evaluation are all to be aligned to the Policy requirements.
National Urbanisation Policy (2015)	<p>Sets well-coordinated urban settlement and development to positively transform the economy of the country, improve the socio-economic conditions for all, and preserve resources to sustain the life of future generations.</p> <p>Integrates urban planning and management in order to achieve resource-efficient and compact growth</p>	The densification strategy could apply to the design of the Project by optimising urban land use, urban compactness, well-structured functionality and connectivity with-in urban areas with a low ecological footprint by integrating green principles
National Housing Policy (2015)	<p>Ensures adequate living conditions, to enable all residents to access housing, and to establish and anchor both objectives within national policies and programs, thereby positively impacting on the needs of a human, including shelter, income, food security, social inclusion, knowledge and personal productivity.</p> <p>Sets three pillars comprising public benefit, resource-efficient planning, green technology and professionalism, and governance and partnership.</p>	Essential towards developing a sustainable Project design.
Law No.10/2012 governing urban planning and building in Rwanda	<p>Covers topics on; rules in building planning, real estate development regulations, liability of construction professionals, masterplan for land management and urban planning, local and specific land development plans</p> <p>Covers the purpose for building planning, which is to promote harmonization of professional practice in construction.</p> <p>Covers the modes of land acquisition including expropriation in the public interest as well as the qualifications for occupancy and building permits.</p> <p>Requires urban planning to perform with the aid of the following documents:</p> <ul style="list-style-type: none"> (a) master plan for land management and urban planning; (b) local land development plans; (c) specific land development plans; and 	<p>As a housing project, the Project is required to refer and apply its housing and real estate procedure in compliance to provisions in this law.</p> <p>States that the City of Kigali and Districts shall have Masterplans for land management and urban planning in conformity with the pattern of rational land use in Rwanda.</p> <p>The development will be implemented after effective expropriation and compensations of affected parties.</p>

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
	<p>(d) land subdivision plans.</p> <p>Requires building planning (architectural project) is to be carried out using the following documents:</p> <ul style="list-style-type: none"> (a) the cadastral register; (b) the layout of structures; (c) the graphic document; (d) the composition of the graphic document and cost estimates; (e) stability calculations of the structure; and (f) aspect of the structure. 	
Energy Policy	<p>Ensures that all residents and industries can access energy products and services that are sufficient, reliable, affordable, and sustainable.</p> <ul style="list-style-type: none"> ■ Encouraging and incentivizing more rational, efficient use of energy in public institutions, and amongst industrial and household end-users 	The Project may look into benefits and incentives arising from introduction of off-grid renewable energy solutions (e.g. solar power for heating and lighting) and cleaner cooking fuels (such as LPG for cooking) in the design and implementation of the project, as a means of achieving sustainable, affordable, reliable energy for Project activities.
Sector Strategic Plan (SSP) (2018-2024)	<p>The ICT sector has set out priority areas of intervention including</p> <ul style="list-style-type: none"> ○ Universal broadband usage by all ○ Sustainable development through smart cities 	The Project is required to understand the weight by this SSP given to universal broadband usage by all and sustainable development of smart cities, in developing the design and implementation of the GCK.
EDPRS II (2013-2018)	<p>National Economic Development and poverty Reduction strategy for the period 2013-2018.</p> <p>Guiding blue print towards the nations development</p>	<p>All District development plans are directed to address its priority areas.</p> <p>E&S is acknowledged as a cross cutting issue to be considered in all major projects.</p> <p>Example of action taken is Budget Call circular included Environment & climate change mainstreaming guidelines.</p> <p>Priority 5 is to pursue a green economy approach to economic transformation, i.e. green urbanisation, regulation on green urban development, green innovation centres.</p>

Rwandan Policy/ Law	Content	Relevance for ESMF/GCK Project
		<p>National recognition of environment and climate change.</p> <p>Adoption of the National Green growth and climate change strategy shows the importance given to this issue.</p>
National Strategy for Transformation and Vision 2050	<p>Rwanda has embarked on Vision 2050 with five broad priorities, most relevant to the Green city Kigali (GCK) project is the Priority 2 “Developing modern infrastructure and livelihoods” and Priority 3 “Transformation to prosperity”.</p> <p>The National Strategy for Transformation (NST1) 2017-2024, is the implementation instrument for the remainder of the country's Vision 2020 and the first four years of Vision 2050.</p>	<p>Guidance in developing criteria to consider for project masterplan and designs, e.g. project concept to consider modern and smart infrastructure, green eco-friendly initiatives, use of local construction material and employment mostly of Rwandans.</p>
City of Kigali Masterplan 2050	<p>Introduces a more equitable, flexible and incremental approach to city development, aligned with UNHABITAT principles and supporting the United Nations Sustainable Development Goals.</p> <p>It will guide Kigali city planners in their plans to accommodate a population of 3.8 million residents and provide 1.8 million jobs by 2050.</p>	<p>According to the new City of Kigali Masterplan, the Kinyinya Project area has 4 zoning regulations.</p> <p>R3-Medium density residential - Expansion zone: This is where is falling the Pilot and Upgrade zones.</p> <p>R1-Low density residential zone</p> <p>R2-Medium density residential - Improvement zone</p> <p>R1A-Low density residential densification zone</p> <p>The City of Kigali Masterplan is binding on the Project development. Possibility for consultations with City of Kigali One Stop Centre for any proposal regarded as exception or changes on the Masterplan.</p>

Appendix 2

RWANDAN EIA PROCEDURE FLOWCHART



Source: REMA, 2006.

Appendix 3

GAP ANALYSIS OF RELEVANT LOCAL LEGISLATION AGAINST WB ESS

WB Environmental and social standards (ESS)	Rwandan National Environmental and Social framework	Additional Requirements stemming from WB ESS
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	<p>Law conserving and promoting environment, No. 48/2018 of 13/08/2018 requires an EIA is prepared for all projects before implementation.</p> <p>Ministerial order No.001/2019 of 15/04/2019 indicates a list of activities that have to undergo an EIA as well as it reflects EIA procedure to follow.</p> <p>Differentiation between full and partial EIA</p>	<p>ESMPs for every project and activity although not directly required by national legislation. Associated facilities need to be considered as per the WB ESF definition.</p> <p>Cumulative impacts to be considered (specifically during construction).</p> <p>Social aspects to be considered during preparation of EIA.</p> <p>Management of contractors and development partners as per WB ESS.</p>
ESS 2: Labour and Working Conditions	<p>Rwanda has ratified the Fundamental ILO Conventions.</p> <p>Law N° 66/2018 of 30/08/2018 regulating Labour in Rwanda</p> <p>Labour law addresses the following:</p> <p>Prohibits child labour, forced labour and discrimination.</p> <p>Protection of workers against violation or harassment, freedom of opinion and mentions general guidance on how employment contractual terms are followed and disputes can be resolved</p> <p>Ministerial order No.01 of 17/05/2012 on OHS conditions indicates duties of employers and self-employed persons.</p> <p>Gives powers of an occupational safety and health expert and labour inspector.</p> <p>Gives general provisions of health and hygiene, machinery safety, safety measures like safety signs, fire risk, air and noise pollution.</p> <p>Elaborates on workplace welfare, health and safety</p> <p>Precaution measures for vulnerable groups.</p>	<p>Development and implementation of an overall labour code of conduct;</p> <p>Development and implementation of written labour management procedures applicable to the Project (this includes a workers' grievance mechanism).</p> <p>Enforcement and monitoring specifically observed with regard to H&S. Common practice at construction sites shows H&S is neglected, e.g. no protective wear (helmets, boots, overalls, gloves), safety equipment is lacking (safety belts on scaffoldings), health of workers (drinking water, site first aid kits or mini-clinics)</p> <p>Development and implementation of H&S plans according to international best practice and industry-specific guidelines.</p>

WB Environmental and social standards (ESS)	Rwandan National Environmental and Social framework	Additional Requirements stemming from WB ESS
ESS 3: Resource Efficiency and Pollution Prevention	<p>Law No. 18/2016 of 18/05/2016 governing the preservation of air quality and prevention of air pollution in Rwanda</p> <p>Law N°62/2008 of 10/09/2008 Putting in place the use, conservation, protection and management of water resources regulations</p> <p>Green Growth and Climate Resilience Strategy 2011 (GGCRS) set out a vision for low carbon growth (low carbon economy by 2050)</p>	<p>Development and monitoring of specific pollution control management plans (especially for the management of pollution prevention during construction):</p> <ul style="list-style-type: none"> ○ Specific waste management plan during construction ○ Specific wastewater management plan during construction.
ESS 4: Community Health and Safety	<p>Constitution states that everyone has the right to live in a clean and healthy environment</p> <p>Ministerial order No2 of 17/05/2012 determining conditions for OHS provides for the protection of persons other than those at work against hazards to health and safety arising out of or in connection with activities of persons at work.</p>	<p>Development and implementation of community H&S and security plan, specific emphasis on:</p> <ul style="list-style-type: none"> ○ Workers' influx management plan including unplanned influx (including accommodation, and workers demobilisation procedures) ○ Gender Based Violence prevention and management plan ○ Focus on needs and vulnerabilities of vulnerable groups in relation to influx of workers.
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	<p>Law to expropriation in public interest, No. 32/2015 states that: Only government shall perform expropriation for public interest. Public consultation to inform of expropriation. Fair compensation based on market value for affected assets An independent real property valuer performs valuation of assets affected. District council approves asset valuation before compensation is officially accepted. Compensation paid within 120 days from agreement between affected land owners and developer 5% added to compensation price to cover displacement disturbance. 5% penalties for delays in compensation.</p> <p>Law relating to expropriation in public interest, No. 18/2007 states that:</p>	<p>Non-conformances identified regarding Involuntary resettlement Development of RAP or Livelihood restoration plan (LRP)., including: entitlement matrix Compensation considerations also for informal landowners. Compensation cost at 'replacement value' (including current market price, to be identified by valuers, AND transaction costs). cut-off date. social baseline survey to monitor against.</p>

WB Environmental and social standards (ESS)	Rwandan National Environmental and Social framework	Additional Requirements stemming from WB ESS
	<p>Project Budget must have funds available for asset inventory and just compensation.</p> <p>Expropriation shall be initiated by Executive committee at the District level.</p> <p>Expropriation shall be approved by District Councils after considering decision of the land commission at the District level.</p> <p>Through agreement compensation may be monetary, alternative land, a building equivalent to the determined valuation.</p> <p>Law relating to Real Property valuation profession, 2010</p> <p>Establishes and organises the profession of land valuation.</p> <p>In terms of valuation, it instructs valuers to compare prices in determining a fair market price.</p> <p>Ministerial order no. 001/16 of 2009 determining the reference land prices in the city of Kigali and Ministerial order no. 002/16.01 of 2010 determining land price outside the Kigali city determines reference land prices used in Districts outside Kigali city.²⁰</p>	<p>monitoring & evaluation procedures of the resettlement process.</p>
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	<p>Law conserving and promoting environment, No. 04/2005 of 08/04/2005 requires the EIA to address the environmental conditions of the project area.</p> <p>Ministerial order No. 007/2008 of 15/08/2008 establishing a list of protected animal and plant species.</p> <p>Law on management of land, No. 43/2013 of 16/06/2013 classifying protected areas on state land. e.g. National parks.</p> <p>Ministerial Order No. 007/16.01 of 15/07/2010 on management of land on shores of lakes, rivers</p> <p>Ministerial Order No. 006/MINIRENA/2015 of 18/06/2015 on management of state protected forests</p> <p>Law on forest management and utilization No. 47 bis/2013 of 28/06/2013 encourages planting and conservation of forests. It also instructs on how forest clearing licensing is obtained and how forests can be harvested. It gives guidance on management of state, District and private forests.</p>	<p>Critical habitat screening and assessment.</p> <p>Biodiversity management in case of presence of critical habitat.</p> <p>Application of the impact mitigation hierarchy.</p> <p>Biodiversity no net loss and net gain definitions and requirements.</p> <p>Definitions and differentiation between modified and natural habitat and management requirements.</p> <p>Identification and requirements for internationally recognized areas of high biodiversity value.</p> <p>Recognition of ecosystem services and impacts.</p> <p>Recognition of supply chain impacts.</p> <p>Acknowledging potential cumulative effects.</p>

²⁰ Both Ministerial Orders are currently not widely applied by land valuers as they are out-dated.

WB Environmental and social standards (ESS)	Rwandan National Environmental and Social framework	Additional Requirements stemming from WB ESS
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Rwanda is a country with a single/common culture, tribe and language, with a National constitution that recognises all Rwandans are born and remain equal in rights and freedom (article 16 of Rwandan Constitution, 2015).	The Project currently does not trigger ESS 7. In case a project has adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation FPIC of the affected Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional will be obtained
ESS 8: Cultural Heritage	Law No. 28/2016 of 22/7/2016 on preservation of cultural heritage and traditional knowledge address the following: Defines cultural heritage as both tangible and intangible, how they are classified. Stipulates how cultural heritage and traditional knowledge can be preserved and protected.	Development and implementation of Chance Finds Procedure of cultural resources that could be found during project construction and operation phase.
ESS 10: Stakeholder Engagement and Information Disclosure	Ministerial order No.003/2008 of 15/08/2008, EIA general guidelines and procedure 2006 require: Public consultation done during EIA preparation. Public hearing and post consultation is conducted in the presence of REMA after the EIA report has been submitted. Licensing will only be issued after this session. Communication of public hearing is done through radio, newspapers or posters.	No gap in regulations except that common practice is that public hearing or disclosure is done by RDB and not done for all projects but for only complex ones. Also its not common practice to disclose the EIA report via media. Only donor-funded projects require more extensive disclosure at community level. SEP and continuous engagement. Project specific grievance mechanism.

Appendix 4

SUB-COMPONENTS E&S CATEGORIZATION AND SCREENING CHECKLIST

SUB-COMPONENTS E&S CATEGORIZATION AND SCREENING CHECKLIST

The E&S Categorization and Screening Checklist is to be used by the Project Implementing Entity/ GCKC as early in the sub-component development, based on the concept-level information provided by the sub-component Developer.

Support by specialised E&S Services Provider can be used if deemed necessary to assist in sub-components E&S Categorization and Screening.

This Categorization and Screening Checklist shall support with the sub-component E&S Categorization and further with screening of E&S risks and subsequent upgrade of the ToR issued for the EIA and/or other studies and plans in alignment with international requirements.

Given that projects are very diverse in nature, some of the questions might not be relevant to certain project types or components.

The following screening questions are intended to help in determining how the sub-components E&S risks and impacts are to be further addressed throughout sub-component implementation.

The outcome of the initial E&S Categorization performed by the Project Implementing Entity/ GCKC based on this Checklist is to be further confirmed with KfW/Sub-component Lenders prior to proceeding with the subsequent sub-component E&S Impact Assessment stages.

The Checklist can be used to initially screen out projects where no further review is required, so that only those sub-components with potential relevant E&S impacts will undergo a more detailed ESIA process.

Sub-Component E&S Categorization and Screening Checklist

Project Categorization

Based on the below information, the indicated colours for each risk / impact will trigger categorisation of projects as indicated in the table below:

Colour Code	Risk level	Result for studies needed
	<u>All questions above are answered with “No”</u> Impact risk level One- Low risk (Category C projects) <i>Minimal or no adverse environmental or social risks and/or impacts.</i>	No ESIA is required. A project specific ESMP needs to be prepared.
	<u>Only orange coloured questions are answered with “Yes” or “Unknown”</u> Impact risk level two- Moderate risk (Category B projects) <i>Potential limited adverse environmental or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.</i>	ESIA to be prepared on a case-by-case basis and level of detail and extent to be defined. Robust ESMP including SEP required.
	<u>At least one of the red coloured questions is answered with “Yes” or “Unknown”</u> Impact risk level three- High risk and Substantial risk(Category A or B+ projects) <i>Potential significant adverse environmental or social risks and/or impacts that are diverse, irreversible, or unprecedented.</i>	Full ESIA and ESMP including SEP needs to be prepared. Potentially RAP/LRP or equivalent document needed.

Project E&S Risk Screening Checklist

No.	Aspect	Status (Yes/No/Unknown)	Comments/Justification	If Yes or Unknown, suggestion for specific studies
Exclusions List				

No.	Aspect	Status (Yes/No/ Unknown)	Comments/Justification	If Yes or Unknown, suggestion for specific studies
1.	Is the sub-component on the Exclusions list ²¹ ?			To be assessed previous to ESIA development.
Environmentally Sensitive and Protected Areas				
2.	Is the sub-component site affecting a conservation area/protected site?			To be assessed in ESIA.
3.	Are there surface water recourses, aquifers or natural springs at the site?			To be assessed in ESIA.
4.	Do wetlands (lakes, rivers, swamp, seasonally inundated areas) exist at the sub-component site?			To be assessed in ESIA.
5.	Is there any habitat of endangered/vulnerable/threatened species for which protection is required under Rwanda national law/local law and/or international agreements at the sub-component site?			To be assessed in ESIA.
6.	Is there any protected area, nationally or internationally (national park, national reserve, world heritage site etc.) at the sub-component site or in its immediate surrounding?			To be assessed in ESIA.

²¹ <https://www.kfw.de/nachhaltigkeit/KfW-Group/Sustainability/Sustainable-Banking-Operations/Sustainable-Investment/KfWs-Sustainable-Investment-Approach/Exclusion-Criteria/>.

Note: FONERWA ESMF also excludes certain activities in alignment to those indicated as per the KfW and IFC exclusion List.

No.	Aspect	Status (Yes/No/ Unknown)	Comments/Justification	If Yes or Unknown, suggestion for specific studies
Biodiversity and Natural Resources				
7.	Would the proposed sub-component pose a risk of introducing invasive alien species?			To be assessed in ESIA.
8.	Does the sub-component involve extraction, diversion or containment of surface or ground water that could cause depletion of water sources?			To be assessed in ESIA.
9.	Does the sub-component pose a risk of degrading soils?			To be assessed in ESIA.
10.	Does the sub-component or activity include vegetation clearing? Are pesticides going to be applied?			To be assessed in ESIA.
Wastes and Pollution				
11.	Would the proposed sub-component result in the release of pollutants (e.g. dust, noise, vibration, etc.) to the environment due to routine or non-routine circumstances			To be assessed in ESIA.

No.	Aspect	Status (Yes/No/ Unknown)	Comments/Justification	If Yes or Unknown, suggestion for specific studies
	with the potential for adverse local, regional, and transboundary impacts?			
12.	Is there a potential for the release to the environment of hazardous materials resulting from their production, transportation, handling, storage and use for sub-component activities?			To be assessed in ESIA.
13.	Will the proposed sub-component involve the application of pesticides and fertilizers that have a known negative effect on the environment or human health?			To be assessed in ESIA.
Geohazards and Landscape				
14.	Would the proposed sub-component be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?			To be assessed in ESIA.
15.	Is there a possibility that the sub-component will adversely affect the aesthetic attractiveness of the local landscape?			To be assessed in ESIA.
Historical, Archaeological or Cultural Heritage Sites				

No.	Aspect	Status (Yes/No/ Unknown)	Comments/Justification	If Yes or Unknown, suggestion for specific studies
16.	Based on available sources, consultation with local authorities, local knowledge and/or observations, could the sub-component alter any historical, archaeological, cultural heritage traditional (sacred, ritual area) site or require excavation near same?			To be assessed in ESIA.
17.	Is the sub-component likely to significantly affect the cultural traditions of affected communities, including gender-based roles?			To be assessed in ESIA.
Land, Property and Social Setting				
18.	Would the proposed sub-component produce a physical “splintering” of a community?			To be assessed in ESIA.
19.	Will the sub-component cause (involuntary) resettlement or physical displacement of households?			Assessment of impacts in ESIA and Resettlement Action Plan
20.	Will the sub-component result in the permanent or temporary loss of crops, fruit trees and household infrastructure (such as granaries, outside toilets and kitchens, livestock shed etc.)?			Assessment of impacts in ESIA and Resettlement Action Plan

No.	Aspect	Status (Yes/No/ Unknown)	Comments/Justification	If Yes or Unknown, suggestion for specific studies
21.	Is the proposed sub-component likely to affect land tenure arrangements and/or traditional cultural ownership patterns?			Assessment of impacts in ESIA and Resettlement Action Plan
22.	Would the proposed sub-component result in land acquisition and/or resettlement of populations (more than 20% of land owned by one person and negative effect on economic viability of the land)?			Resettlement Action Plan
23.	Is the sub-component likely to result in influx of people into the affected community(ies)?			To be assessed in ESIA.
Cumulative Impacts				
24.	Are the E&S impacts of the sub-component likely to overlap in time or space with the impacts of other existing or proposed activities in the sub-component Area?			To be assessed in ESIA.

Appendix 5

TEMPLATE ESIA TERMS OF REFERENCE

TEMPLATE FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT –
TOR



Important:

Guides on how international best practice ESIA should be structured. Shall be used to upgrade the Terms of Reference (ToR) issued by Rwandan Development Board (RDB).

- 1. 2
- 2. 2
- 3. 2
- 4. 2
 - 4.1. 2
 - 4.2. 3
 - 4.2.1. 3
 - 4.2.2. 4
 - 4.3. 4
 - 4.4. 4
 - 4.5. 5
 - 4.6. 5
 - 4.7. 5
 - 4.8. 6
 - 4.8.1. 6
 - 4.9. 6
- 5. 6
- 6. 7

1. PROJECT BACKGROUND

The Project Background shall include at a minimum the following information if available:

- *Project setup (explain who is the Project Executing Agency, involvement of KfW, where applicable, and other lenders) and rationale for the Project and this Assignment;*
- *Concise summary of the subject Project in terms of:*
 - Project type, (e.g. development of housing, schools, etc.), size/area (m², ha), capacity (e.g. MW, throughput), duration and timing of any phases, number of employees (construction/operations), any phased or related developments;
 - Project location- and layout maps if available;
 - Known sensitivities, e.g. located in a protected area, resettlement required, protests of local communities; huge amounts of foreign workers;
 - The stage of the Project (e.g. conceptual design/feasibility, detailed design/engineering, or construction) and tentative development/ implementation schedule.
- *List of existing available documentation, e.g.:*
 - Any reports relating to E&S baseline
 - Existing Action Plans, Stakeholder Engagement Plans
 - Feasibility Studies
 - Detailed design engineering studies
 - Project Layout drawings

Not all of this information may be available while preparing the ToR but this description is an important source of information for the Developer and thus should be as detailed as possible. If deemed appropriate these documents can be attached to the ToR.

2. OBJECTIVE OF THE ASSIGNMENT

The ESIA aims to identify and assess potentially negative and positive E&S impacts of all phases of the proposed Project. This assessment is intended to be used for decision-making by local authorities, lenders and internally by the Project developer.

The ESIA process is intended to inform the development of an Environmental and Social Management Plan (ESMP) to mitigate any potential negative impacts, enhance benefits and establish ongoing monitoring activities.

3. RELEVANT STANDARDS

The Assignment will be conducted according to the following Relevant Standards and guidelines:

- Host country laws and regulations;
- Applicable International Requirements
- Applicable IFI standards (only in the case of Project International financing, refer to ESMF)

4. SCOPE OF THE ASSIGNMENT

4.1. Introduction

The scope of work described below will lead to an ESIA which meets the requirements set out in Sections 2 and 3 of these ToR. The ToR attempt to outline the Developer's tasks in as much detail as possible.

Nevertheless, the Developer shall bear in mind that this outline shall not be considered as a complete and comprehensive description of all duties and that the Developer should critically verify the scope of services indicated and, extend, reduce or amend those services wherever such is deemed necessary according to own professional judgement and knowledge. Any suggested amendments to the ToR should be clearly documented within the Developer's submission, with accompanying justification for the amendments.

It is understood that the Developer will perform all necessary works and services to ensure the fulfilment of the objectives of producing a fit for purpose ESIA for the Project.

It is anticipated that the Assignment will be undertaken through the following Tasks:

- Task 1: Stakeholder Engagement
- Task 2: Preparation of a Project Description
- Task 3: Consideration of Alternatives
- Task 4: Description of Legal Framework
- Task 5: Baseline Description
- Task 6: Quantitative Modelling Studies
- Task 7: Identification and Assessment of Environmental and Socioeconomic Impacts
- Task 8: Environmental and Social Management Plan (ESMP)

4.2. **Task 1: Stakeholder Engagement**

The Developer will undertake planning and implementation of stakeholder engagement activities to inform the ESIA process and disclose the outcomes of the ESIA. The stakeholder engagement activities should continue throughout the ESIA process and contain the following activities:

- Preparation of a Stakeholder Engagement Plan (SEP);
- Implementation of stakeholder engagement activities;

These are described in further detail below.

4.2.1. **Preparation of a SEP**

The Developer shall prepare a Stakeholder Engagement Plan (SEP) to guide the stakeholder engagement activities to be undertaken during the Project stage(s) (as applicable, e.g. Project planning/design, construction, operation) in accordance with the principles set out in the Stakeholder engagement Framework (SEF, see separate high-level guidance document).

As per the SEF and Applicable Standards (WB ESS 10); for each sub-project/sub-component stakeholder engagement must be carried out; the scope of the SEP will be commensurate with the risks to and impacts of each sub-component and will depend on the level of information on the local communities and other stakeholders available.

As per the SEF, the SEP shall contain information on the following (at least but not limited to):

- **Background information.** Overview of the proposed Project, Project standards
- **Stakeholder identification.** The first step of the stakeholder engagement activities is the identification and characterisation of the Project stakeholders. This would include local communities, landowners, civic organisations, Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs) and government representatives.
- **Stakeholder planning.** The SEP shall describe the engagement planning activities to be undertaken. The planning activities should define appropriate communication methods (culturally appropriate and relevant language(s)), timing and activities for stakeholder engagement.
- **Stakeholder documentation.** The Developer shall prepare the necessary documentation required for engagement activities. This will include a Background Information Document (BID), presentation for use at stakeholder meetings, advertisements and notices as well as maps, pictures and posters as required.

- **Stakeholder interactions:** including meetings, provision of information, advertisements, notices, radio and TV advertisements.
- **Reporting.** The results of the stakeholder interactions should be summarised within the Scoping Report and ESIA Reports. The issues raised should be listed and grouped, and the ESIA should demonstrate how these issues have been addressed within the ESIA. All documents and tools used within stakeholder engagement activities should form part of the Scoping and ESIA reports and a comments and responses report should also be prepared to list the issues raised and how these were addressed.
- **Monitoring and Review.** Monitoring activities for review of the stakeholder engagement activities and the need for updating of the SEP through a management of change process.
- **Disclosure.** The stakeholder engagement activities should include sufficient disclosure of Project information, including release of the Scoping Report and ESIA Report.

4.2.2. *Implementation of stakeholder engagement activities*

The Developer should note the following in the preparation of the proposal for this work:

- Stakeholder engagement activities need to satisfy host country legal requirements, guidelines and formats.
- Engagement meetings will be well advertised, at least two weeks in advance of each meeting. The communication mechanisms shall be culturally appropriate and be defined within the Developers proposal.
- Every effort should be taken to include broad representation from all stakeholder groups with particular attention made to include potentially marginalised or vulnerable groups such as women and lower income groups. Efforts should be made to accurately and thoroughly document the meeting attendees, their affiliation, gender, profession, views and concerns.
- The nature, frequency, and number of the engagement meetings shall be determined by the Developer as appropriate for the Project nature and context.

4.3. **Task 2: Preparation of Project Description**

The Developer shall initially produce a concise and comprehensive description of the proposed Project options and its geographic, ecological, social, and temporal context. The description shall be based on the information as provided by the Project Executing Agency on the Project development (e.g. this may be an extract from the pre-feasibility study or other design document). The Project Description shall include (but not be limited to) the following contents:

- Comprehensive description of all key aspects of the planned Project, including associated facilities;
- Reference within the description to any international norms or standards that will be adopted.
- Highlighting of the embedded operational and design controls for environmental protection and safety already included in the design (e.g. air filters and bunding of tanks, emergency response procedures).
- Presentation of the overall Project and all key components through maps, plans, graphs and charts providing an easy and structured overview.

The level of detail of the Project Description shall be commensurate with potential Project effects on the receiving environment.

4.4. **Task 3: Consideration of Alternatives**

The Developer shall systematically compare the optional Project sites in general, feasible alternatives to the proposed Project sites, technology, design, and operation – including the “No Project” situation – in terms of their potential E&S impacts. The explanation of the choice of alternatives shall be considered and provided.

Possible and sensible alternatives should be explained concerning their environmental effects and social effects, including related rationales for these decisions.

4.5. **Task 4: Description of the Legal Framework**

The Developer shall provide a comprehensive and appropriately detailed description of the host-country legislative framework relevant to the Project (i.e. describing the key laws, regulations or ordinances etc.), the context of E&S programmes and regional development or sector development frameworks in place. The legislative framework should clearly identify the relevant environmental and socioeconomic standards and guidelines applicable to the impact assessment and to be adhered to within Project implementation (e.g. related to air emissions, wastewater discharge, noise, etc.).

The Developer shall describe the relevant international E&S obligations of the country (conventions etc.) as well as details of the international E&S standards which are referenced for the Project and ESIA.

4.6. **Task 5: Preparation of Baseline Description**

The Developer shall prepare a description for the environmental and socioeconomic baseline conditions of the Aol of the Project. This baseline description shall be derived from both secondary sources and fieldwork to collect primary data where required.

The Developer shall ensure that the following baseline information (at a minimum) exists for use in the ESIA, either as part of existing (and sufficiently recent) studies/reports or gained via additional studies as part of the ESIA efforts. This analysis of available information shall be undertaken as part of the Scoping Study and in defining the ToR for the remaining ESIA tasks.

Based on current Project information it has been determined that the following studies are expected to be required, and the scope and costing for these should be defined by the Developer as part of the response to the ToR. As above, the need for these studies will be confirmed through the Scoping exercise. These studies shall in most cases include:

- Ambient air quality monitoring;
- Ambient noise monitoring;
- Groundwater study;
- Surface water/ hydrology study;
- Biodiversity study, including critical habitat assessment;
- Socio-economic survey;

The Developer should make reasonable assumptions to justify the inclusion of additional studies.

Typical methods of data acquisition are:

- Evaluations of statistical documents and reports of the management,
- Interviews with local knowledge bearers,
- Site surveys and site visits,
- Interviews with focus groups (e.g. women, farmers, members of ethnic minorities etc.),
- Ecological field studies,
- Samplings and laboratory analyses etc.

The Developer shall provide a justification of the number of weeks or months required for the field studies, including the consideration of seasonality. Data gaps or uncertainties inherent in the baseline description shall be stated and explained.

Data presented within the baseline description shall be sufficient to describe the key aspects of the Area of Influence (Aol) and focused on identified determinants such as Project location, design or operational controls. Baseline description shall also indicate the accuracy, reliability and sources of the data presented.

4.7. **Task 6: Quantitative Modelling Studies**

In order to quantify the impacts of the Project, the Developer shall undertake the following quantitative modelling studies as part of the ESIA (especially for the construction phases):

- Noise modelling;
- Air quality modelling;
- Fire and explosion risk assessment modelling;
- Traffic and Transport modelling.

The Developer should make reasonable assumptions to justify the inclusion of additional studies. Please note that these studies are expected to be required for this ESIA but will be confirmed through the Scoping exercise.

4.8. **Task 7: Identification and Assessment of Environmental and Socio-economic Impacts**

The Developer will assess and predict the anticipated negative and positive effects of the planned Project on the environment and socioeconomic baseline. The Developer will make use of a robust and consistent qualitative or semi-quantitative methodology to assess the impacts in line with international norms and identify major, moderate, minor and negligible impacts.

The impact assessment shall assume that the embedded controls included within the Project description will be implemented. Based on the initial impact assessment, the Developer shall identify and propose adequate and suitable additional measures - based on the mitigation hierarchy - to anticipate and avoid, or where avoidance is not possible, to minimise the identified impacts. Where significant residual impacts remain after application of mitigation measures, Developer shall propose measures to compensate/offset the identified impacts.

The impact assessment shall be presented in a logical and clear format and include an assessment of the impacts prior to and following the implementation of mitigation measures.

4.8.1. **Assessment of cumulative impacts**

A cumulative impact assessment shall be undertaken in line with the IFC Good Practice Handbook: Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets Handbook²². To complete this, the Developer shall take current and proposed development activities within the Project area into account.

4.9. **Task 8: Environmental and Social Management Plan (ESMP)**

The Developer shall prepare an Environmental and Social Management Plan (ESMP) to manage, mitigate, and monitor any potential negative impacts and enhance benefits associated with the Project. The ESMP shall include a table of the commitments based on the mitigation measures identified, with detail on the anticipated objectives of each measure, related milestones and time frames and reporting requirements as well as competencies and human resources, required equipment, materials and budgets required for the implementation of this commitment. In particular the ongoing monitoring activities shall be clearly outlined for the key aspects, as identified through the ESIA.

The ESMP shall also contain information on the intended Environmental and Social Management System (ESMS) that will be developed for the Project, organisational structure as well as information on reporting, monitoring, auditing and change management for the ESMP. The management plan shall be clearly structured and should cover all Project phases.

5. **DELIVERABLES**

Deliverables shall be performed in accordance with the Developer's schedule, and shall comprise at least the following:

- ESIA Report, including Non-technical Summary (NTS)
- ESMP

²² <https://www.ifc.org/en/insights-reports/2013/publications-handbook-cumulativeimpactassessment>

■ SEP

The ESIA report with the NTS (draft, draft final and final) shall summarise the results of the ESIA process and should be compiled in accordance with KfW's requirements.

The contents of the ESIA Reports shall include (but may not be limited to) the following:

- Non-technical Summary – NTS (as separate document)
- Introduction
- Legislative and institutional frameworks
- Description of the Project, including alternatives
- Stakeholder engagement
- Description of the social, environment, and health baseline
- Issue or Impact identification and assessment including cumulative Impacts ²³
- Mitigation measures
- ESMP
- References
- Annexes including:
 - List of ESIA report preparers—individuals and organisations.
 - Record of stakeholder engagement activities including meetings, documentation disclosure and other interactions the Project stakeholders. Copies of stakeholder engagement material used should be included.
 - Tables presenting the relevant data referred to or summarised in the main text.

All reports shall be provided as a hard/soft copy in English language and/or in Kinyarwanda language (or NTS in two languages e.g. English/Kinyarwanda).

The Developer shall assume that each of the reports shall be updated to address subsequent sets of comments from the Project Executing Agency, KfW and other lenders, government agencies and public comments.

6. STAFF

The Developer shall provide a description of tasks to be performed by each team member as well as details on the selection and experience of the proposed members with regard to their tasks.

The following staff should be included in the proposal as a minimum:

- An overall responsible Project Director/manager
- Key ESIA experts international
- Key ESIA experts local/national

Other international and local experts, as needed with specific expertise in the key areas to be studied within the ESIA

²³ The Scoping Report will identify the relevant E&S "Issues", while the ESIA Report will identify the E&S "Impacts"

Appendix 6

GUIDANCE ON ESIA REVIEW

ESIA REVIEW GUIDANCE

In an effort to ensure quality identification and assessment of environmental and social (E&S) risks of projects, and ensure that project affected persons are adequately consulted and compensated, FONERWA has developed these guidelines to aid in the evaluation of the ESIA Consultant's output against FONERWA and RDB Requirements. The guidelines spell out the main factors to consider in the evaluation of the compliance of the consultants and outputs to the Terms of Reference for the specific studies.

General Review Criteria

The following elements will be used to check the quality of the ESIA reports during review:

S. No	Review Criteria	Finding (Yes/No)	Recommendations
Report Format			
1	Includes all the content as stipulated in the Terms of Reference (baseline studies, impact assessment, mitigation planning);		
2	Includes a table of contents at the beginning of the document		
3	Reads as a single document with appropriate cross-referencing		
4	Uses consistent terminology with a glossary.		
5	References all information sources used.		
6	Has a clear explanation of complex issues.		
Report Content			
7	Includes necessary information for each major project component;		
8	Describes stakeholder engagement activities		
9	Considers stakeholders' views;		

S. No	Review Criteria	Finding (Yes/No)	Recommendations
10	Provides clear, easy-to-understand information to decision makers and the public;		
11	Provides relevant and sufficient information for the specific decision-making situation.		
12	Has a clear structure with a logical sequence		
13	Is concise, comprehensive and objective.		
14	Is written in an impartial manner without bias.		
15	Includes a full description of the project to be developed.		
16	Makes effective use of diagrams, illustrations, photographs and other graphics to support the text.		
17	Contains a good description of the methods used for the studies of each environmental or social topic.		
18	Includes a clear discussion of alternatives.		
19	Makes a commitment to mitigation (with a Plan / Program) and to monitoring (Environmental and Social Management Plan and sub-plans)		
20	Resolves (proposing consistent mitigation solutions) all significant impacts.		

S. No	Review Criteria	Finding (Yes/No)	Recommendations
21	Proposes mitigation solutions that are consistent with good international practices.		
22	Has a Non-Technical Summary that does not contain technical terminology.		
23	Refers to the World Bank Operational Policies (and further international best practice) as required by the FONERWA ESMF		

Specific Review Criteria for ESIA

S. No	Review Criteria	Finding (Yes/No)	Recommendations
Project Description			
1	The purposes and objectives of the development are adequately explained.		
2	The design, size or scale of the development, and the nature and duration of charts and/or maps are used effectively for this purpose.		
3	Important design features, especially those for environmental planning and socio-economic management (e.g. pollution control, waste management, and erosion control, handling of toxic or hazardous materials, worker services) are highlighted.		
4	The nature and quantities of material needed during both the construction and operational processes		

S. No	Review Criteria	Finding (Yes/No)	Recommendations
5	The numbers of workers involved with the project during both construction and operation are estimated		
6	The land area taken up by the development site is well defined and its location clearly shown on a map.		
7	Where alternate plans, designs or sites are being considered each is adequately discussed.		
8	The types and quantities of waste matter, energy and residual materials and the rate at which these will be produced, are adequately estimated. Uncertainties are acknowledged and ranges or confidence limits given where possible.		
9	The Area of Interest expected to be affected by the development is delimited with the aid of suitable scale map(s).		
Baseline Environment			
10	The important components of the affected environments are adequately identified and described. The methods and investigation undertaken for this purpose are disclosed and are appropriate to the size and complexity of the assessment task. An appropriate amount of field work was done. Uncertainties are indicated.		
11	Existing data sources were searched and, where relevant, used. These		

S. No	Review Criteria	Finding (Yes/No)	Recommendations
	include local authority records and previous studies.		
12	Local land use and development plans were consulted and other data collected as necessary to assist in the determination of the probable future state of the environment, in the absence of the project, taking into account natural fluctuations and human activities.		
Impact Identification and Assessment			
13	All important issues identified in the ESIA/ESMP terms of reference are included in the report. Deviations and exclusions are adequately accounted for.		
14	Direct and indirect impacts are identified using a systematic methodology (e.g. project specific checklists, matrices, impact networks expert judgment, and extensive consultations). A brief description of the impact identification methods is given along with the rationale for using them.		
15	Due attention is paid to environmentally sensitive areas, to off-site, time delayed or recurring (e.g. seasonal) impacts and to cumulative or synergistic effects with existing and anticipated developments		
16	Impacts are analysed as the deviation from baseline conditions, i.e. the		

S. No	Review Criteria	Finding (Yes/No)	Recommendations
	difference between environmental conditions expected if the development were not to proceed and those expected as a consequence of it.		
17	The significance of impacts is assessed using appropriate national and international quality standards where available. Explicit account is taken of the values placed on affected environmental features locally, nationally and (where appropriate) internationally.		
18	Individuals, groups, communities and government agencies affected by the project are clearly identified.		
19	Concerned stakeholders (e.g. individuals, groups, communities, Government agencies) have been adequately consulted and their views accounted for in the development of mitigation measures.		
20	It is clear to what extent the mitigation methods will be effective. Where effectiveness is uncertain or depends on assumptions about operating procedures, climatic conditions, etc. Data is introduced to justify the acceptance of these assumptions.		
ESMP			
21	An effective environmental monitoring and management plan (ESMP) is presented to deal with expected; possible but uncertain; and unforeseen		

S. No	Review Criteria	Finding (Yes/No)	Recommendations
	impacts caused by the project. Training needs are identified. The costs of the program are estimated. Developer and government responsibilities are distinguished, reporting and review procedures are specified.		
22	Structure and responsibility for environmental management (considering operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting and staff training). Description of existing capacity and projected organizational changes intended to ensure the effective implementation of the ESMP, including approval and licensing requirements; reports on the ESMP (legal and organizational requirements and commitments); environmental training: description and schedule; including technical assistance programs, if applicable; ESMP projected budget;		

Summary Review Recommendations:

Agency	Recommendations
District Environmental Officer	
Project Implementing Entity/SPV Environmental Support Officer	
Project Implementing Entity/SPV Social Support Officer	