

THE REPUBLIC OF RWANDA



Water and Sanitation Corporation (WASAC)

**FEASIBILITY STUDY, DETAILED DESIGNS AND SUPERVISION OF WORKS
FOR THE CONSTRUCTION OF KIVU BELT WATER SUPPLY SYSTEM**

CONTRACT NO. 11.07.053/622/908/S/IRB/022/18-19/PROC-WASAC-CEO/AM/jbd



RESETTLEMENT ACTION PLAN

MAIN REPORT

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ABBREVIATIONS

AfDB :	African Development Bank
DFIs	Development Finance Institutions
EICV:	Integrated Household Living Conditions Survey
ESMP :	Environmental and Social Management Plan
GBV:	Gender Based Violence
GoR :	Government of Rwanda
GRC :	Grievance Redress Committees
GRM:	Grievance Redress Mechanism
ISS:	Integrated Safeguard System
LRP:	Livelihood restoration Plan
LRSP :	Livelihood restoration and strengthening plan
M&E:	Monitoring and Evaluation
MINALOC:	Ministry of Local Government
MINECOFIN:	Ministry of Finance and Economic Planning
MININFRA:	Ministry of Infrastructure
MoE:	Ministry of Environment
NST1:	National Strategy for Transformation
OS:	Operational Standard
PAPs :	Project Affected People
PHA :	Project Affected Household
PPE:	Personal Protection Equipment
PRSPs:	Country-owned Poverty Reduction Support Programmes
PTC:	Project Technical Committee
RAP :	Resettlement Action Plan
RIT:	Resettlement Action Plan Implementation Team
RLMUA:	Rwanda Land Management and Use Authority
RMC:	Regional Member Countries
RSB:	Rwanda Standards Board
RURA:	Rwanda Utility Regulatory Authority
RWB:	Rwanda Water Resource Board
RWF :	Rwandan francs
SDG:	Sustainable Development Goals
SEA:	Sexual Exploitation and Abuse
SEP :	Stakeholders Engagement Plan
SH:	Sexual Harassment
SPIU :	Single Project Implementation Unit
UN:	United Nations
UR :	University of Rwanda
VUP :	Vision 2020 Umurenge Programme
WASAC:	Water and Sanitation Corporation
WSS :	Water Supply System
WTP:	Water Treatment Plant

EXECUTIVE SUMMARY

Rwanda's government has elaborated the long-term development strategy of vision 2050 which sets a new pathway that will lead the country to the living standards of upper middle income by 2035 and high-income countries by 2050. The vision will be implemented through short-term development plans, the first was the National Strategy for Transformation (NST) which lays the foundations for decades of sustained growth and transformation that will accelerate the move towards achieving high standards of living for all Rwandans. Development plans reaffirm the vital importance of investments in infrastructure and social services.

The IECV (Integrated household Living Conditions Survey) Thematic Report-Environment and Natural Resources revealed that access to improved drinking water sources in Rwanda was 87% by end of 2017 (96% in urban area vs 85% in rural area) while the Water and Sanitation Sector Strategic Plan 2018 - 2024 targets 100% of people with access to at least basic water supply services by 2024. For this to happen, adequate investment in water and sanitation infrastructure is required.

In line with the above, the Government of Rwanda has received a loan from African Development Bank (AfDB) through Water and Sanitation Corporation (WASAC) and a part of that loan shall be used to increase drinking water accessibility in districts of Karongi and Rutsiro in Western Province through Kivu Belt WSS project.

The project shall provide infrastructures required to increase access to clean water, notably water intake related infrastructure, water treatment plant, reservoirs, piping and other facilities (pumps, valve, pressure release chambers etc...). A tender for Consulting Services for Feasibility Study, Detailed Designs and Supervision of Works for the Construction of Kivu Belt Water Supply System, Phase I" was awarded to joint venture between Korea Engineering Consultants Corporation (KECC) and Holistic Consulting Center (HCC). The feasibility study and detailed designs has revealed that the project shall induce resettlement impacts and there was a need to establish a plan to mitigate those impacts.

This report constitutes a Resettlement Action Plan (RAP) which represents a plan to mitigate, the likely damage to assets, displacement and other related impacts. In accordance with AfDB Integrated Safeguard System (ISS) and its Operational Standard 2 (OS2), a socio-economic survey of the PAPs was undertaken and PAP affected assets registers were prepared (see a compensation matrix in the table below). Several consultation meetings with the project stakeholders and valuation of the affected assets and livelihoods were held in order to update this final report and a compensation package is proposed herein, a detailed report on consultation meetings is included under the consultation section in the report. The RAP proposes the settlement of compensation and resettlement assistance before demolishing PAPs properties and commencement of any project site works.

This RAP has been prepared in conformity with the AfDB Integrated Safeguard System (ISS) and its Operational Standard 2 (OS2), Government of Rwanda legal framework governing resettlement and expropriation issues.

The project shall affect 18,310 households in general and the overall RAP budget is estimated at 1,513,415,888 Rwf. This cost includes:

- Compensation of properties-building
- Compensation for land and agricultural production
- Compensation for moving graves
- Resettlement and compensation measures (Disturbance allowance of 5%)
- RAP implementation costs and other cost

1. Compensation Summary Matrix

#	Variables	Data
A. General		
1	Province	Western Province
2	District	Karongi and Rutsiro
3	Sectors	8 Sectors: <ul style="list-style-type: none"> • Rubengera, Bwishyura, Mubuga and Rugabano, Gitesi in Karongi District. • Gihango, Mushubati, Musasa, Murunda, Mukura and Manihira in Rutsiro District.
4	Activity(ies) that trigger resettlement	Construction of Water Treatment Plant, Intake works and Construction of different tanks and pipeline
5	Project overall cost (FRw)	40,830,904,877
6	Overall resettlement cost(FRw)	1,513,415,888
7	Applied cut-off date (s)	05 October 2022
8	Dates of consultation with the people affected by the project (PAP)	18 th October 2022 up to 17 th January 2023
9	Dates of the negotiations of the compensation rates / prices	10 th January 2023- 28 th April 2023
Specific Information		
10	Number of people affected by the project (PAP)	38,799
11	Number of Physically displaced	17
12	Number of economically displaced	0
13	Number of affected households	18,310
14	Number of females affected	20,563
15	Number of vulnerable affected	122
16	Number of major PAP	18,310
17	Number of minor PAP	20,489
18	Number of total right-owners and beneficiaries	18,310
19	Number of households losing their shelters	17
20	Total area of lost arable/productive lands (ha)	14.72
21	Number of households losing their crops and/or revenues	18,310
22	Total areas of farmlands lost (ha)	13.02

#	Variables	Data
2		
2 3	Estimation of agricultural revenue lost (Rwf)	642,932,144
2 4	Number of building to demolish totally	17
2 5	Number of building to demolish totally at 50%	0
2 6	Number of building to demolish totally at 25%	0
2 7	Number of tree-crops lost	37,279
2 8	Surface of annual crops (Cultures/Imyaka) destroyed (m2)	398,090
2 9	Number of perennial crops (Ibihingwa n`Ibiti Nkondabutaka/Cultures pluriannuelles)) destroyed (pieces)	26,295
3 0	Number of lumber trees (Ibiti bibazwa/Bois d'oeuvre)	32,102
3 1	Number of fruits trees and medicinal plants (Ibiti byera imbuto ziribwa n'ibiti bivamo imiti/Plantes fruitiers et medicinales) destroyed (pieces)	4,022
3 2	Number of ornamental trees (Ibiti byindabo/Arbres ornamentales) destroyed	1,155
3 3	Number of commercial kiosks to demolish	0
3 4	Number of ambulant/street sailors affected	0
3 5	Number of community-level service infrastructures disrupted or dismantled	0
3 6	Number of households whose livelihood restoration is at risk	0
3 7	Loss of housings in Hectares	2.05

1. Brief description of project/subproject/components including activities that induce resettlement

The construction of Kivu Belt WSS will benefit and/or affect the population living in the concerned two districts of Karongi District and Rutsiro in the following specific sectors: Rubengera, Bwishyura, Mubuga, Rugabano, and Gitesi of Karongi District and in Gihango, Mushubati, Musasa, Murunda, Mukura and Manihira sectors of Rutsiro District.

The project shall have 4 main components; the intake facility, water treatment plant, water reservoirs and distribution channels.

- **Water intake:** the proposed intake capacity is 21,450 m³/d. During design of intake with such capacity, consideration was given to long range water supply needs and difficulties to expand its capacity in the near future.
- **Water treatment plant (WTP):** the plant is comprised of three phases, all designed with identical capacities (19,500 m³/d), layouts and working mechanisms.
- **Water tanks:** Water shall be delivered to the 97 tanks in the system directly through the transmission main and completely separate from the town's distribution system.

- **Water Networks:** the proposed water transmission mains for Kivu Belt WSS with has an estimated total length of 116,348.59 m while distribution pipeline is 362,097.95 m and total pipeline network will equal to 478,446.54 m. Moreover, the type of the pipes to be used are all HDPE and DI.

2. Objectives of the RAP

The Resettlement Action Plan (RAP) will ensure that the planned activities are implemented in full compliance with Rwanda's environmental and social laws and policies as well as AfDB Environmental and Social safeguards policies, and also ensure that the construction works do not impact the community and is implemented in an environmentally and socially sustainable manner in full compliance with Rwanda Law on Expropriation and Land ownership as well as to the World Bank's environmental and social policies.

3. Main socio-economic characteristics of the PAPs living area

The main economic activity of the affected households is agriculture which is practiced by overall all local people, very few are doing non-farming activities like trade. According to the field survey presents the overall socioeconomic status of the people affected by the project (PAPs) in the two districts, Karongi and Rutsiro.

Fore Gender, according to the field survey, 2023 there is a predominance of women over men as confirmed by the National demographic characteristic where the female population is greater than male population. The field result showed that it is close to the data of Rwanda 5th population and housing census of 2022 which revealed that female is 51.5% and male is 48.5%

The age status of PAPs, it comes out that the most prevalent range is the group age of 18-35 which represents 34.8%, followed by the age group of 4-17 (29.5%). The group age of 36-64 which has 28.0% is followed by the range of PAPs who have 0-3 years of age with 5.4% while the elder is 2.3% (421 persons).

Education Distribution of PAPs by the level demonstrated that education level of the PAPs within the surveyed communities (PAPs) the Three percent (2.9%) i.e. 531 PAPs don't have the primary education. These are the illiterate people while 57% of total PAPs i.e. 10,437 people had primary education.

Furthermore, the vulnerability assessment in social-economic impact assessments remains a fundamental safeguard tool in protecting, supporting and accompanying vulnerable PAPs along their eviction and relocation process. In development projects requiring the loss of houses and properties, some groups of people are classified by the Government of Rwanda in the category of vulnerable people and are therefore classified in Ubudehe category. These include people living with disability, elderly people with 65 years of age and above, Orphans, child headed households and People with extreme poverty.

In additional, the study demonstrated that the source of lighting of the affected households from affected population: 57% of the PAHs represented by 3,480 PAHs use Electricity taken from the national grid for lighting, whereas the Kerosene lamp is used by 24 % of the PAHs. The solar energy is used by 4% of the households i.e. 244 PAHs.

According to the findings from the response of heads of households, only 33% of the PAHs have access to potable water, even though they said that these public taps where they get water are not stable. They are always

closed due to lack of water, the water source to potable water does not supply enough water to distribute to all public taps all time along the day which is very Critical to Hygiene and sanitation. However, a considerable percentage of respondents (49%) confirmed that they walk a distance between 0.5-2 km to fetch potable water and spent more than 30 minutes even one hour to come back home. 20% of the PAHs responded that they spend more than 1 hour to go and come back to their homes to fetch water and walk a distance greater than 2km to potable water source. The WASAC charter states that a maximum distance of 0.5 km is tolerable in order to assert water accessibility in a rural area. This long distance implies the time used to reach the water source and therefore the time lost which would be used for other productive activities.

4. Legal and institutional framework for resettlement

Water supply project implementation has to adhere and comply with Rwanda policy, legal and institutional framework highlighting environmental and social requirements that have to be fulfilled by the project including acquisition of land and other assets, social aspects, sanitation issues, property and land rights, regulations governing buying and selling assets, rights and compensation, dispute resolution and grievance mechanisms. The chapter discusses also the AfDB operational safeguards applicable to the proposed project, including identifying the gaps between the national and AfDB relevant operational safeguards frameworks and how such gaps can be bridged.

The most relevant policies are among others the following:

- **Rwanda Vision 2050:** which indicates the High Quality and Standards of Life focusing on different aspects of life including among others Sustained food security and quality nutrition, and Universal access to water and modern sanitation.
- **National Strategy for Transformation (NST 1/2017-2024):** which will provide the foundation and main conduit towards Vision 2050. The program highlights one the key strategy intervention which will be to scale up to 100% access to water by 2024 through investments in: Construction, extension, rehabilitation of 1,937 Km of water supply systems in city of Kigali and other towns.
- **Sustainable Development Goals (SDGs):** the new 2030 Agenda has water and sanitation at its core, with a dedicated Sustainable Development Goal (SDG) 6 on water and sanitation and clear linkages to Goals relating to health, food security, climate change, resiliency to disasters and ecosystems, among many others. Reaching the ambitious objectives of the 2030 Agenda demands that we address universal access to drinking water and sanitation along with issues of quality and supply, in tandem with improved water management to protect ecosystems and build resiliency.
- **National Land Policy (2019):** the policy emphasizes on effective and efficient land utilization and management across sectors such as agriculture, industry, forestry, livestock, settlement and housing, mining, and other public investment. Kivu Belt WSS project will require land for its water supply infrastructure development by respecting all land use and land management policy and regulation requirements.
- **National Water Supply Policy Implementation Strategy (2016):** the policy has been developed for proper implementation of various activities in the Water and Sanitation Sector. The Government is encouraging active participation of local private service providers and operators into the Water and Sanitation Sector and will ensure that

strategic actions advocated by this strategy are adhered to in the whole process of water supply services provision.

National legal framework applicable to the project include among others the following:

- **The Constitution of the Republic of Rwanda 2003, Revised in 2015:** The Constitution stipulates that the state shall protect important natural resources, including land, water, air, wetlands, minerals, oil, fauna and flora on behalf of the people of Rwanda. This constitution entrusts the government with the duty of ensuring that Rwandese enjoy a clean and healthy environment.
- **Law Governing land 2021:** the law determines modalities of acquisition, registration, allocation, possession, transfer, management, and use of land. It will inform and guide the process of involuntary resettlement including land acquisition, population displacement and compensation.
- **Law N° 32/2015 of 11/06/2015 relating to expropriation in the Public Interest:** Articles 3 and 4, respectively stipulate that: it is only the Government that shall order expropriation in the public interest, and must be done with prior and fair compensation. The law also bars anybody from interfering of stopping expropriation on pretext of self-centred interests (Article 3); Any project, at any level, which intends to carry out acts of expropriation in the public interest, must budget and provide funding for valuation of the property of the person to be expropriated and for fair compensation (Article 4).
- **Law no.17/2010 of 2010 establishing and organizing the real property valuation profession in Rwanda:** Articles 27, 29, 30 and 31 of the law deals with valuation methods. These articles stipulate that price for the real property shall be close or equal to the marketvalue. The valuation could also compare land values country wide. Where sufficient comparable prices are not available to determine the value of improved land, the replacement cost approach shall be used to determine the value of improvements to land by taking real property as a reference.

AfDB's OSs applicable to the proposed project: The AfDB's environmental and social policies have been developed over the years and have evolved to support the main objective of the AfDB to provide assistance to regional member countries in their economic and social development. AfDB is committed to ensuring the social and environmental sustainability of the projects it supports. The ISS is designed to promote the sustainability of project outcomes by protecting the environment and people from the potentially adverse impacts of projects (AfDB, 2013). The safeguards aim to: (i) Avoid adverse impacts of projects on the environment and affected people, while maximizing potential development benefits to the extent possible; (ii) Minimize, mitigate, and/ or compensate for adverse impacts on the environment and affected people when avoidance is not possible; and (iii) Help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks (AfDB, 2013). Some of the most relevant policies are:

- the Involuntary Resettlement Policy, 2003;
- the AfDB Group Gender Strategy (2021 -2025),
- Disclosure and Access to Information (2013);
- Handbook on Stakeholders Consultations and participation on AfDB Funded Projects; etc.

6. Compensation Plan

The total land which shall be required for the project correspond to 14.72 ha and the total value was estimated at 1,513,415,888 Frw (One Billion Five Hundred Thirteen Million Four Hundred Fifteen Thousand Eight Hundred Eighty-Eight Rwanda francs) The bigger land for compensation is located in Karongi District, Rubengera Sector, Ruragwe Cell, Nyagahinga Village where the water treatment plant shall be installed. Loss of trees and crops. The survey counted and evaluated the value of all crops annual and perennial, trees and fruits which shall be affected. Note that the seasonal crops may not be there when the project will start as they are harvested on seasonal basis. For lumber trees and perennial crops, the consultant considered the age of the crops by trying to respond to the following questions:

- Are the crops in years of growth and have not started the production period? (Before flowering)
- Have the crops attained the period of production?
- Have the crops attained their climax period?

Considering responses to the above questions, the consultant classified the stages of crops growth in placenta stage (nursery), secondary stage (medium) and climax stage (productive). All PAPs shall be compensated in cash according to market value and the crop growth stage. The evaluation of perennial crops was made by counting, by species, during the survey in the field.

Regarding eligibility for compensation and resettlement, the determination of the eligibility criteria for Kivu Belt WSS was based on both national Policies and AfDB operational safeguard-2 Involuntary resettlement: land acquisition, population displacement and compensation on Involuntary resettlement.

For this RAP, the eligibility will concern:

- **Communities**, in particular with regard to collective infrastructure, equipment and assets;
- **Households**: The basic unit eligible for resettlement measures corresponds to the household as a whole, represented by the head of household, constituting an administrative, accounting and monitoring unit vis-à-vis the resettlement process. A household designates an entity of person (man or woman) or a group of people sharing the same budget (housing, food, health etc.) and recognizing the authority of a person called head of household. This entity of people often shares the same yard and/or compound. In general, a standard household is made up of the head of household, wife(ies) of the head of household, child(ren) of the head of household and all the persons entrusted or supported by the head of household who may be ascendants of the head of household, household, non-parental adults, or grandchildren.
- **Individuals**, consisting of members of households affected by the project, including the head of household. Insofar as activities, incomes, and savings strategies can be disaggregated by gender (man, woman) and by status (head of household, wife, young person), certain compensation measures will be targeted towards individual effective beneficiaries.

PAPs are considered eligible for compensation in at least one of the following scenario category:

- **Category 1**: Those with formal legal rights to land or other property recognized under the laws of the Republic of Rwanda. This category includes people who physically reside at the project location and those who will be displaced or may lose access or suffer a loss of livelihood as a result of project activities;
- **Category 2**: Those who would not have formal legal rights to land or to other assets at the time of the survey or assessment, but can prove that

they have a claim to such land or assets provided that such claims are recognized under the laws of Rwanda or become recognized through a process identified in the resettlement plan;

- **Category 3:** Those who have no recognizable legal rights or claims to the land they occupy within the project's area of influence, and who do not belong to either of the two categories described above, but who, by themselves or through other witnesses, can prove that they occupied the area of influence of the project for at least 6 months before a deadline established by the borrower or the client and acceptable to the Bank. These categories are entitled to resettlement assistance in lieu of compensation for land to improve their previous standard of living (compensation for loss of livelihood activities, common land resources, structures and crops, etc.).

In addition, will be eligible for resettlement, people for whom the involuntary loss of land causes:

- Relocation or loss of habitat;
- Loss of assets or access to such assets or loss of sources of income or means of livelihood;
- Whether or not the people affected have to move to another site.

They are also eligible:

The formally recognized beneficiaries of persons who died between the time of the inventory of assets and that of the payment of compensation.

Some owners or occupants may, for reasons of prolonged absence, not be identified at the time of the surveys of the project affected persons. In such cases, a follow up will be undertaken in collaboration with local authorities to identify these people, contact them, assess their losses and compensate them.

However, people who come to occupy the areas to be moved/compensated after the cut-off date are not eligible for compensation or other forms of assistance.

In this RAP, we have tried to estimate, for each case of person affected (temporarily or permanently) by the loss of a building or a source of income, following the implementation of the project, the value of the compensation to which he is entitled.

The process involved review of tenure documents owned by occupants, interviews with households and groups in the affected area. Local Leaders and the Ministry of Environment (the Ministry which have lands under its responsibilities) have also helped and will help in resettlement that will be undertaken by WASAC.

7. Arbitration/Grievance Redress Mechanism

For this project, two Grievance Redress Committees (GRCs) have been created in Karongi District, specifically in Rubengera Sector, Ruragwe Cell, where the WTP shall be located and in Kayenzi Cell, Bwishyura Sector, to facilitate the water supply project to receive and resolve grievances raised by local communities, employees, and other affected stakeholders whenever they perceive a negative impact arises from the project's activities. WASAC and concerned districts (Karongi and Rutsiro) will receive any type of community feedback.

Knowing that apart from grievances from resettlement, other grievances like those related to Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) may arise during implementation of the project, the GRM shall provide for specific procedures to resolve those kind of

issues using organizational accountability mechanisms, administrative or judicial bodies for formal investigation.

8. Monitoring and evaluation of the execution

The general objective of the M&E system is to assess the overall success and effectiveness of the RAP implementation processes and mitigation measures on time.

8.1 Monitoring Tasks

Monitoring and evaluation will enable the promoter to ensure full compliance with the principles and procedures set out in the RAP and it will begin as soon as the RAP is approved and well before compensation and the release of rights-of-way.

The evaluation of the resettlement plan can be carried out once the major part of the compensation has been paid and almost all the resettlement has been completed. The objective of the assessment is to certify that all PAPs have been resettled and that all economic and productive activities have been restored.

The monitoring and evaluation activities of the RAP will consist of carrying out the following actions:

- Formulating performance monitoring indicators to measure inputs, outputs and outcomes of relocation activities;
- Verifying RAP implementation activities and milestones including timely delivery of resettlement measures and GRM;
- Verifying RAP implementation completion;
- Ensuring involvement of affected PAPs and other stakeholders in the monitoring process (participatory monitoring);
- Assessing and evaluating of the outcomes and impact;
- Planning for and ensuring post RAP implementation monitoring;
- Preparing monitoring reports as indicated in this RAP.

8.2 Monitoring and evaluation indicators

Suggested key indicators are outlined below and include (and not limited to):

- Number and place of public consultation meetings held with PAPs and local authorities in preparation of, or during RAP implementation;
- Number of PAPs effectively compensated for different types of losses (specify the types being monitored) and aggregated amount disbursed compensation (actual versus planned);
- Timings of compensation
- Number of complaints including total received, and resolved. If not resolved; reasons, total justified, and total non-justified. This should include the subject matter for all complaints;
- An explanation for non-justified complaints;
- Total resolved at various levels including the type of agreement reached;
- Total referred to the legal system/ Courts of Law, including a clarification on who initiated (local leaders, PAP or Karongi, Rutsiro district administration) the referral and the subject matter.
- Completion of payment within, or after 3 months of estimated completion date indicated in the RAP implementation plan;

- Revival of livelihood activities for the affected persons within 4 months after the compensation payment;
- Submission of monitoring reports at the frequency indicated in the M/E of the RAP implementation report or quarterly if not indicated.

8.3 RAP Monitoring Plan and responsibilities

This plan as shown in Table below displays activities to monitor during RAP process, type of information to collect responsibilities and frequency of monitoring actions.

RAP monitoring plan and responsibilities

#	Item	Main Activities	Responsible Institution	Frequency	Report
1	Public consultation	Consultation meeting with the PAPs	WASAC jointly with the concerned districts	Two times a month	RAP report
2	Database	Updating survey results	WASAC jointly with the concerned districts	Monthly	RAP report
3	Disclosure of entitlement	Display to the PAPs the results of the updated survey.	WASAC jointly with the concerned districts	After survey and assets valuation	Valuation Report & E&H Progress Quarterly report
4	Preparation of alternatives	Follow up of implementation of proposed alternatives	WASAC jointly with the concerned districts	Once a week	E&H Progress Quarterly report
5	Compensation and other resettlement measures	Follow up compensation process	Concerned districts (Karongi and Rutsiro)	Once a week	E&H Progress Quarterly report
6	Follow up of PAPs livelihoods restoration	Follow up and monitoring of PAPs livelihoods restoration	WASAC jointly with the concerned districts	Once a week	E&H Progress Quarterly report

8.4 Cost of monitoring and evaluation

The monitoring and evaluation of the RAP activities shall be carried out by WASAC with support from the concerned district administration thus, it will have no major financial impact (apart from mission, vehicle and fuel related expenses) because the activities will be completed by the existing staff in positions of the Environmental and Social safeguards in the concerned institutions.

9. Total cost for the full implementation of the RAP.

The total estimated budget is **1,513,415,888 Frw** (One Billion Five Hundred Thirteen Million Four Hundred Fifteen Thousand Eight Hundred Eighty-Eight Rwanda francs).

CHAPTER 1: INTRODUCTION

1.1. Project background

The Government of Rwanda has received a loan from the African Development Bank (AFDB) and Water and Sanitation Corporation (WASAC) representing the Government of Rwanda intends to apply a portion of it to the Feasibility Study, Detailed designs and Supervision of works for the Construction of Kivu Belt Water Supply System (Phase I: 19,500 m³ /day water treatment plant and distribution network). The target is to increase the access to clean water in Karongi and Rutsiro Districts.

Water supply affects broad areas of human life. The provision of adequate WSS services is more generally a prerequisite and indicator for socio-economic development. The Government of Rwanda (GoR) has a plan to develop towns near borders interacting with its neighboring countries. Towns would decentralize urbanization and reduce the rate of immigration to the city of Kigali, especially youth and unemployed. Those towns include: Musanze which border Southwest of Uganda and is on the road linking Rwanda and Uganda; Nyagatare and Gatsibo which border Southwest of Uganda and Northwest of Tanzania; Rubavu and Nyabihu; Rubavu borders Eastern DRC; Ngoma which borders Northern Burundi; Ngororero, Muhanga and Kamonyi which are at the center of Rwanda. There is a high economic development and estate development along the road Kigali-Muhanga mainly in Kamonyi district; Nyanza and Ruhango which are located in the center of the country and have a water scarcity problem e.g. Amayaga.

In line with the above, Water and Sanitation Corporation (WASAC Ltd) representing the Government of Rwanda intends to apply a portion of the loan received from AfDB to the Feasibility Study, Detailed Designs and Supervision of Works for the Construction of Kivu Belt Water Supply System (Phase I: 19,500 m³ /day water treatment plant and distribution network) with a target to increase the access to clean water in Karongi and Rutsiro District.

The available study that has already been conducted in these areas like detailed engineering design of water supply systems in Karongi district. This Detailed Design Study (DDS) Report has been prepared in compliance with the Terms of Reference (ToR) for “Consulting Services for Feasibility Study, Detailed Designs and Supervision of Works for the Construction of Kivu Belt Water Supply System, Phase I”. The Draft Detailed Design Study report is the third output in fulfilling the Consultancy Services Contract which has been agreed between the Water and Sanitation Corporation Limited (WASAC Ltd) and the Consultant joint venture between Korea Engineering Consultants Corporation (KECC) and Holistic Consulting Center (HCC). This report

provides details current and future demands by upgrading and extending the water supply systems in the locations.

1.2. Project Scope

The project will comprise feasibility study, detailed designs and supervision of water supply system in the proposed site.

The principal objective of the project is to provide 100% access to clean water supply in the target areas. The proposed project will also contribute to enhanced hygiene and sanitation hence reducing waterborne diseases. This will also contribute towards alleviation of poverty within the area through the improvement of socio-economic activities in target.

1.3. Resettlement Action Plan Objectives

As part of the deliverables, the consultant shall prepare a Resettlement Action Plan (RAP) for the affected communities, businesses structures buildings, trees and crops as well as any other asset and services by the project activities. The Resettlement Action Plan (RAP) will ensure that the planned activities are implemented in full compliance with Rwanda's environmental and social laws and policies as well as AfDB Environmental and Social safeguards policies, and also ensure that the construction works do not impact the community and is implemented in an environmentally and socially sustainable manner in full compliance with Rwanda Law on Expropriation and Land ownership as well as to the World Bank's environmental and social policies. Specifically, the RAP has the following objectives:

- To provide a baseline with regard to the socio-economic conditions of PAPs after field investigation;
- To identify the national and international legal framework to abide with as well as the institutional arrangements
- To assess the potential impacts and their mitigation mechanisms;
- To conduct public consultations with PAPs and other project Stakeholders;
- To provide the valuation and compensation strategies;
- To bring reports that meets the guidelines, policies and regulation of Government of Rwanda (GoR) and the AfDB Environmental and Social policies.

1.4. Methodological Approach

The Resettlement Action Plan (RAP) covers relocation and replacement (in kind, or cash) of the assets affected, the compensation and resettlement assistance required. The methodologies involved in developing this RAP, is based on data obtained from the socio-economic study, inventory, observation, and consultation. The data were collected

by environmental and social specialists, and valuers for preparation of RAP.

The philosophical underpinning of the plan preparation is the use of a participatory approach of major stakeholders including affected communities and PAPs. Among others, the methods and activities employed in the process of developing the RAP include:

- Literature review and analysis through secondary Data/Desk review Studies
- Socio-economic survey and inventory
- Site verification and assessment
- Survey of properties to be affected
- Survey and sensitization of Project Affected Persons
- Consultations and stakeholder's engagement
- Reverification of land and building valuation
- Reverification of land and building valuation
- Data analysis and compilation of the report

1.4.1. Literature Review

Primary and secondary data were collected for this Resettlement Action Plan. Secondary data were gathered through various desk review exercises, while primary data collection involved the design and preparation of a structured questionnaire for the household survey.

The literature review involved the identification of the applicable national legal and administrative frameworks and policies, and the AfDB Environmental and Social policies on land acquisition, restrictions on land use and involuntary resettlement. The purpose of the review was to:

- Gather knowledge and experience on compensation and resettlement;
- Harmonize differences in resettlement and compensation guidelines between the GoR policy and the AfDB's ISS and OSs.
- In this respect, among others, the following documents were reviewed:
- Terms of reference "Feasibility, Detailed Designs and Supervision of works for the Construction of Kivu Belt Water Supply System (Phase I)"
- Feasibility study and detailed of Kivu Belt Water Supply System (Phase I)
- Environmental Impact Assessment-EIA for Construction of Kivu Belt Water Supply System (Phase I)
- Socio-economical and institutional study for Construction of Kivu Belt Water Supply System (Phase I)
- AfDB's ISS and OSs, especially the AfDB Operational safeguard 2, related to involuntary resettlement: Land acquisition, population displacement and compensation
- The Constitution of the Republic of Rwanda of 2003 revised in 2015
- Land law 2021

- Rwanda expropriation law 2015.
- Rwanda land reference prices 2021
- Other relevant National Policies and strategies, including the vision 2050, NST1, gender policy, etc
- District development strategies (2018-2024) for the concerned districts (Karongi, Rutsiro).
- Integrated Household Living Conditions Survey 5 (EICV 5) by national institute of statistics of Rwanda.

1.4.2. Socio-economic survey and inventory

This RAP was developed after conducting socio-economic survey and inventory with all villages in the project area, during the weeks from 18th October 2022 to 17th January 2023. The purpose of the socio-economic study was to collect baseline data within the project targeted areas thereby enabling the social assessment of the potential affected populations/communities.

The socio-economic survey focused on identification of communities and PAPs (demographic data), livelihood, incomes and expenses, household facilities and land ownership. Also, the survey involved identification of the affected people and communities and their property (parcels, crops and trees, structures, etc.). The socio-economic survey involved the following activities:

- Identification of study population (PAPs) to whom the questionnaire was administered;
- Setting up data collection tools and methods;
- Scoping and identification of the Resettlement Impacts
- Conducting data analysis

❖ Study population, Data Collection Method and Analysis

The construction of Kivu Belt WSS will benefit and/or affect the population living in the concerned two districts of Karongi District and Rutsiro in the following specific sectors: Rubengera, Bwishyura, Mubuga, Rugabano, and Gitesi of Karongi District and in Gihango, Mushubati, Musasa, Murunda, Mukura and Manihira sectors of Rutsiro District.

In a bid to grasp the initial socio-economic status of residents as well as their perception about the Kivu Belt WSS, all project affected persons were involved in providing information on their socio-economic status. In this regard, a questionnaire was administered to them following the procedures discussed below:

❖ Data Collection Procedures

The field data collection was carried out by experienced field engineers/enumerators facilitated by the team leader and local authorities, using questionnaire. A copy of used questionnaire is attached as annex1.

❖ Data entry

Collected data were entered into an excel sheet which was elaborated based on the structure of the questionnaire. Entered data were analyzed by filtering and sorting different variables applied to PAPs and their properties.

❖ **Site verification and assessment**

Field reconnaissance trips were organized, guided by aerial topographic survey designed by using GIS tools. The identification of the Project Affected Properties was identified from the topographical delineate provided by the client. The topographical design shows the land parcel boundaries and was overlaid with the proposed pipeline and all proposed infrastructures (raw water intake, water treatment plant, main pipe, distribution pipe and tanks), it helped to depict the affected land parcels using Google Earth. The resulting extract from this overlay provided an estimated land parcel that was to be expropriated including respective ground assets like houses and other structures.

The above findings were used by the valuer to trace out the affected properties and measuring the land parcel to be expropriated.

❖ **Survey of properties to be affected**

Measurements of land and crops there on, houses and trees to be affected were enumerated and recorded. Crops/ trees were valued according to their categories, size and age. This is to ensure that the beneficiary is given the current market value of his property based on expropriation law in official gazette No.35 of 31/8/2015 mainly article 28 and/or full replacement cost as given by AfDB OS2 (whichever is more advantageous to the PAPs).

❖ **Survey and sensitization of Project Affected Persons**

The main identification and survey of the Project Affected Persons were conducted from October 2022 to January 2023. However, additional identification and survey of new PAPs was conducted due to some modifications in the boundaries of the particular site allocated to particular infrastructure. The works consisted of identifying properties which will be affected, identify respective owners and conduct a detailed survey of the socio-economic status of the owner using an interview guided by a developed questionnaire.

1.4.3. Consultations and stakeholder’s engagement

The table below indicates consultations and engagement sessions organised by the consultant from the village level at the central government level:

Table 1- 1: Consultations and stakeholder's engagement

#	Level of consultation & engagement	Participants	Dates
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1	Consultation with PAPs at village level	PAPs from Bubazi and Nyarusazi Cell	18 th October 2022
2	Consultations and engagement with the local authorities	Executive Secretaries from Rubengera and Bwishyura sectors and cells	18 th October 2022
3	Consultations and engagement at Karongi District	Karongi district's officials	19 th October 2022
4	Consultations and engagement with the local authorities from Karongi District, sectors and cells located in the project area	Local authorities from the district, sectors and cells	All the times while operating on site
5	Consultations and engagement at WASAC	Every month	From September 2022 to date

1.4.4. Reverification of land and building valuation

The consultant re-verified sizes of infrastructures which will require land and tried to count & evaluate the minimum exact size of land required and properties thereon.

1.4.5. Data analysis and compilation of the report

The data and information collected were processed and compiled to achieve this report. A draft report was prepared and shall be forwarded to the client for comments after which a final report will be prepared and submitted for validation.

CHAPTER 2: PROJECT DESCRIPTION

This chapter provide detailed information on the project focusing on project activities that will generate socio and economic impact to the receiving community. It provides also project need justification.

2.1 Project background

The project of construction of Kivu Belt Water Supply System (Phase I: 19,500 m³/day water treatment plant and distribution network) was initiated by WASAC and is supported through a supplementary financing provided by AfDB to the Government of Rwanda to extend the Sustainable Water Supply and Sanitation Program in the country considering other underserved areas like the Kivu Belt specifically with coverage areas located in Karongi and Rutsiro Districts

In line with the above, WASAC Ltd intends to apply a portion of the funds received from AfDB to the Feasibility Study, Detailed Designs and Supervision of Works for the Construction of Kivu Belt Water Supply System (Phase I: 19,500 m³/day water treatment plant and distribution network) with a target to increase the access to clean water in Karongi and Rutsiro District. For that reason, WASAC commissioned and awarded the above studies to the joint venture between Korea Engineering Consultants Corporation (KECC) and Holistic Consulting Center (HCC).

The scope of works provided to the consultant contain four components which shall be implemented in 4 phases:

- First phase: Conduct the feasibility and preliminary designs according to the current and future demands
- Second phase: Detailed design for the selected best option
- Third phase: Elaboration of the tender document
- Forth Phase: Resettlement Action Plan (RAP) and supervision of the construction.

The project will consist in the construction of a Water Supply System with key components like the raw water intake, water treatment plant, pumping station, reservoirs as well as laying the pipeline for treated water supply.

2.2 Project Objectives

The project objective is to improve the quality of life and socio-economic development of the people and country by ensuring equitable provision of adequate, reliable and sustainable water and sanitation services for targeted Districts.

2.3 Location of the project and its area of influence

The project of Kivu Belt Water Supply System will be located in Western Province, in Karongi and Rutsiro Districts. The water intake shall be

located in Rubengera sector, Karongi District from Musogoro river and water shall be distributed along four sectors of Karongi District and four sector in Rutsiro District.

Table 2- 1: Localization of the project and its area of influence

Districts	Sectors
Karongi District	Rubengera,
	Bwishyura
	Mubuga
	Rugabano
	Gitesi
Rutsiro District	Gihango,
	Mushubati,
	Musasa
	Murunda
	Mukura
	Manihira



2.4 Project components

The project shall have 4 main components: the intake facility, water treatment plant, water reservoirs and distribution channels. This sub-chapter provides description of those components as following:

I. Intake/Weir:

S Intake Capacity

Intake facilities are difficult to expand to provide additional future capacity. For this reason, long range water supply needs must be carefully considered during the intake design. We propose to design the intake for the final design capacity of the WTP for domestic needs estimated to 19,500 m³/d for the year 2035 respecting a security coefficient for losses of 10 %.

So the design will consider the intake capacity for $19,500 \text{ m}^3/\text{d} \times 1.10 = 21,450 \text{ m}^3/\text{d}$. For raw water pumps additional pumps for raw water will be added regarding extension for two other phases.

S Intake Level

Water levels at suction well is calculated as below. The ground of each water level is summarised below:

- High water level (flood flow condition): +1593.26 masl
- Average water level (Normal flow condition): +1592.67 masl

S Composition of Intake

Intake facilities divide into mainly three parts, i.e. intake weir, settling basin and pump station. Each part consists of below structure and equipment.

↪ Intake Weir

- Weir
- Stilling basion with baffle pier
- Flushing gate

Settling basin

- Trash rack
- Coarse sereen
- Fine screen (Bar size: width(5mm), depth(25mm), clear space between the bars: 25mm)
- Flushing gates
- Side spillway

↪ Pump station

- Suction well (length 12.5m x width 1.3 m x height 2.9m)
- Strainer (3 no. for each phase)
- Pumps (9 no. of pumps for 6 on duty and 3 stand-by)
- Vacuum pumps 1 set
- Moter control panel
- Crane (1.5 ton)

II. Water Treatment Plant -WTP:

S Design Water Demand and Flows

The water demands for Kivu Belt water supply project is estimated at 14,929 m^3/day as daily average demand and 19,408 m^3/day ($\approx 19,500 \text{ m}^3/\text{day}$) as daily max demand for ultimate year 2035. The project is expected to be implemented in phases with each phase having a capacity of 6,500 m^3/day .

Items	Units	Total	Phase 1	Phase 2	Phase 3	Remark
Water demand (daily average)	m ³ /day	14,929				
Water demand (daily max)	m ³ /day	19,408				Factor: 1.3
Daily production amount	m ³ /day	19,500	6,500	6,500	6,500	
Operation loss	m ³ /day	975	325	325	325	Loss factor: 5%
System capacity	m ³ /day	20,475	6,825	6,825	6,825	Operation hr:22
	m ³ /hr	930	310	310	310	

S General Layout

The Kivu Belt Water Supply System obtains its water from Musorogo River. Abstraction is by means of an intake wear from where the water is pumped by low head pumps to the proposed water treatment plant site. The plant is comprised of three phases, all designed with identical capacities, layouts and working mechanisms. However, some components are designed and built for ultimate year as detailed below:

- ↳ The raw water pump station: civil and architectural works will be built by once. Mechanical and electrical works will install by phase.
- ↳ Cascade aerator
- ↳ Inlet stiling chamber and parshall flume rapid mixer
- ↳ Treated water pump station: civil and architectural

S Treatment Process

The raw water and desirable treated water quality, along with standard Rwandese practice as directed by the Client, the water treatment sequence adopted comprises of the following:-

- ↳ Aeration
- ↳ Chemical dosing
- ↳ Rapid mMixing
- ↳ Flocculation
- ↳ Sedimentation
- ↳ Rapid sand filtration
- ↳ Chlorination and contact
- ↳ Storage and distribution

The water treatment plant also adopts sludge reticulation mechanisms to avoid water wastage and environmental pollution as follows:-

- ↳ Sludge thickening
- ↳ Sludge drying

III. Water Tanks:

The reservoirs shall be semi underground for the stability of the reservoir, the table below shows the summary of the proposed reservoirs.

TANK CAPACITY	No.	SHAPE	MATERIAL
10	55	RECTANGULAR	CONCRETE
25	10	RECTANGULAR	CONCRETE
50	5	RECTANGULAR	CONCRETE
100	8	RECTANGULAR	CONCRETE
200	4	RECTANGULAR	CONCRETE
500	14	RECTANGULAR	CONCRETE
1000	2	RECTANGULAR	CONCRETE
4000	1	RECTANGULAR	CONCRETE
Total	99		

IV. Pipe Networks (Transmission and Distribution Networks):

The transmission pipe total length is 116,348.59 m while distribution pipeline is 362,097.95 m and total pipeline network will equal to 478,446.54 m. Moreover, the type of the pipes to be used are all HDPE and DI.

V. Other Infrastructures:

S *Washout, Air-release and Valve Chambers:*

The washout, air-release, and valve chambers have been sized based on the size of hydraulic equipment they will house i.e the diameters of the fittings to be installed inside. A working space for operators has been also granted. the below table shows the number of chambers to be constructed.

	No.	SHAPE	MATERIAL
AIR RELEASE CHAMBER	865	RECTANGULAR	Stone masonry
WASHOUT CHAMBER	958	RECTANGULAR	Stone masonry
VALVE CHAMBER	151	RECTANGULAR	Stone masonry
TOTAL			

S *Water Points:*

Water points are 259 of double types for communities or private for schools, healthcare facilities and other institutions. The type indicates the number of taps the water points has. The determination of number of water points taps was based on the number of consumers the water point shall serve. A single water tap has been designed to serve 200 persons. The design tap flow is 0.3 litres per second considering the peak time. (Source: Rwanda regulation on minimum required service level, RURA 2012).

S *pumping stations (PS):* the project has 11 PS in different size as follow:

1. Musugoro pumping station
2. Bunyankungu booster pumping station (First booster to Kayenzi)
3. Kabazi booster pumping station (First booster to Rugabano)

4. Kamonyi booster pump station (Second booster to Rugabano)
5. Mubuga booster pumping station (First booster to Rutsiro)
6. Rwintore booster pumping station (Second booster to Rutsiro)
7. Ruhinga booster pumping station (Third booster to Rutsiro)
8. Kindoyi booster pumping station (First booster to Murunda)
9. Kabeza booster pumping station (second booster to Murunda)
10. Kirwa booster pumping station (Third booster to Murunda)
11. booster to Rwimpiri

S Electric power supply to run electric equipment

Special attention will be required in locating and indicating the existing powerlines that could be extended for power supply to the proposed water treatment plant, raw water pumping stations and treated water pumping stations within the network.

The power demand to operate the raw water pump station, is expected to be allocated from the nearest public electricity network passing through the area which is three-phase mean voltage (MV) power grid that was identified at Rubengera sector.

Regarding the provisional power balance for the WTP and all booster pumping stations, the estimated value of the Total Active absorbed Power (Pa.T) the electricity cost is estimated for every option are summarized in the table bellow:

Table8. 9Summary of Power consumption on each option

Name	Average Energy per Day (kWh)	Average Energy per Month (kWh)	Energy per Year (kWh)
Option 1	68,782	1,925,896	23,110,752

CHAPTER 3: - PROJECT BASELINE ENVIRONMENT

3.1 Project Site Physical characteristics

The project intake is located on Musogoro river in Karongi District, in Western Province of Rwanda. The river Musogoro drains into the Lake Kivu in the central part of it. It is part of Kivu basin part of Rwanda. All kivu basin streams and rivers are characterized by steep slopes from mountainous region of the Congo-Nile water divide above 2500 m elevation down to 1400 m at the lake. The intake is located on the river almost 1 km downstream from the main road Rubengera-Karongi. The first important aspect is the determination of the minimum guaranteed runoff which is a key issue in the estimate of available water resources at the intake site. Given the fact that the intake will not provide any storage reservoir, the minimum flow is more significant as compared to average flow.

Musogoro river is ungauged and no flow data on the river, the secondary data have been mostly used to better estimate the guaranteed flows at the intake site. Comparable streams and rivers in the same basin (Kivu basin of Rwanda) will also be used to simulate flows at the intake.

3.1.1 Basin Characteristics

The numeric elevation data of the Musogoro river watershed within Kivu L1 catchment which are required to survey its characteristics, were derived herein from a 30m×30m grid of DEM by Rwanda Water Resources Board (RWB). The same DEM model was downloaded from SRTM.

3.1.2 Catchment area & channel length

A process where precipitation leads to river runoff is significantly affected by the topographical factors of a target basin, including catchment area, channel length, basin shape, etc. These characteristic factors are very important in understanding & analyzing the river in the target basin, serving as basic factors to determine basic hydrograph in a runoff analysis, etc. Figure below shows the location of Musogoro river subcatchment. Reference source indicates its physiographic characteristics, including catchment area, channel length, mean width, shape factor, etc.:

Table 3- 1: Physiographic Features of the Musogoro River Watershed

Location		Area (km ²)	Length (km)	Mean width A/L(km)	Shape factor A/L ²
Lat.	Long.				
- 2.06 (S)	29.42 (S)	110	25	4	0.176

According to the research carried by COMETE, 2012, Musogoro river flows along a South-East North- West axis and flows into Kivu Lake, 3.5 km north-east of the town of Karongi. A water intake on the river can be seen at 4.5 km from its outlet. The Musogoro is characterized by a low flow of about 1000 m³/h. The principal water resources in the Kivu catchment are as follows (according to the Water Resources Master Plan, 2014):

- The average annual rainfall is slightly above 1,200 mm/annum which equates to some 3 000 hm³/annum from the total land surface area of 2,425 km².
- The combined average annual surface flow generated from the numerous small catchments in Rwanda stands at 28 m³/s or some 900 hm³/annum
- The groundwater annual recharge / safe yield is about 600 hm³/annum with a total storage of 2,400 hm³/annum which gives a mean residence time of about 4 to 5 years.
- The Kivu Lake collects the surface runoff from the entire catchment located in both Rwanda and DRC and constitutes an important surface water storage reservoir but generates substantial loss of water resources from evaporation.

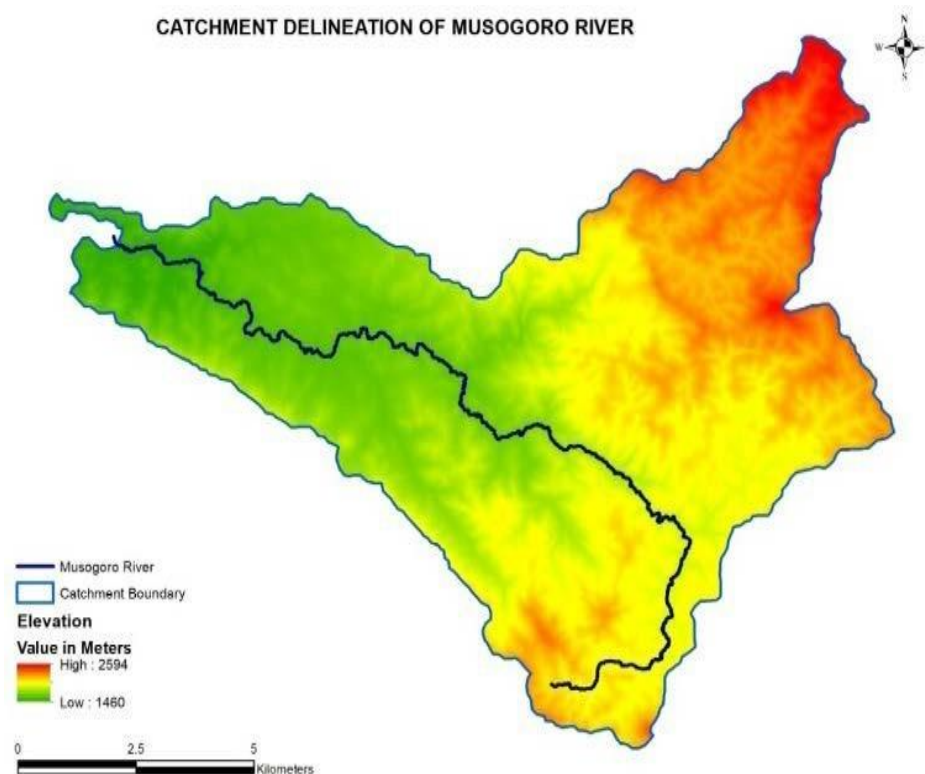


Figure 1: Musogoro River Watershed

3.1.3 Climatology

It is characterized by two main seasons: one long dry season that varies between 3 and 5 months with an annual average temperature varying between 25,3°C et 27,7°C. The monthly distribution of the rains varies from one year to another. Annual rainfalls are estimated at 1,191

mm/year and very unpredictable to satisfy the needs in agriculture and livestock along the year.

In the study areas, the estimated mean monthly temperature is more or less constant from the month of January to the month of December. The maxima and minima are also constant throughout the whole year. This shows a cool and moderated climate. The data collected from Meteo Rwanda have shown that the available temperature recordings in the vicinity of the study area are Byimana Meteo Station.

Biological Environment

3.2.1 Survey of Major Terrestrial Flora and Fauna on the WTP Site

In Karongi and Rutsiro Districts, remnant forest areas still exist, especially at the Congo-Nile mountainous ridges or at the top of hills. Individual plantations of eucalyptus trees and agroforestry plants are observed dispatched between agriculture lands. Most of the time you have three categories of vegetation:

- Remnant of pristine or semi-pristine forests in protected areas;
- Bushed grasslands dispatched on flat ground and at hilly sides;
- Some woodland and shrubs growing along the river beds and on flood plains.

In general, there are no Sensitive Habitats and Rare Species in the Area.

3.2.2 Protected Areas

Out of protected areas, the fauna is mostly composed of rodents and rats, tropical bird species, domestic animals, snakes and arthropods.

3.2.3 Delineation of on-Site Wetlands by Soils and Plants

According to the Annex I to the Prime Minister's order N° 006/03 of 30/01/2017 establishing a list of swamp lands, their characteristics and boundaries and determining modalities of their use, development and management, Mosogoro river is located within a wetland of local importance, without any conservation status and may be used without any specific conditions.

Socio-Cultural Environment

Karongi District stretches over an area of 993 km² with a total population of 373, 869 distributed into 91,444 households among which 8,794 (10%) live in urban area and 82,650 are located in rural area. The population of Karongi District is composed of 195,452 females and 178,417 males. It is among the districts of Rwanda which has a high density of 482 persons per square kilometer. (NISR, PHC5-2022 Census).

The estimated total population of Rutsiro District in 2022, as provided by NISR, PHC5-2022 Census was 369,180 persons. This represents 12.7% % of the total population of Western Province and 2.8 % of the total population of Rwanda. Females comprise 52.2 % of the population of

Rutsiro District and the males represented also 47.8%. The population density in Rutsiro accounts for 565 inhab/sq.km which is near the country average density (503 inhab./sq.km)

In Karongi, accessibility of population to clean water depends on the kind of settlement in place. However, Karongi District has a rate of 74.7 % of total improved water source, 25.1 % of unimproved drinking water from surface water of river and lake as well as unprotected spring. The objective is increasing access to clean water by local population and reduce as quickly as possible the distance covered to fetch water by women and girls.

The number of households having access to clean water in Rutsiro District has increased from 68.2 % to 82.7 % respectively in 2014 and 2015 due to various project yet implemented by the District in conjunction with other partners' such as WASAC, World Vision and LODA.

In Karongi District, the net primary school enrolments rate is 94.3% whereas the secondary school enrolment rate is 13.7%. This shows that high numbers of pupils that enroll for primary do not continue to secondary school level, and this situation is due to little number of 12 years' basic education schools, long walking distance to basic services, and increasing household poverty in the District.

3.2.4 Identification of populations for resettlement

The locations where the intakes and WTP are proposed are used by communities for sand mining for intakes and for agricultural purposes and housing as well. With the construction of the project the livelihoods of the communities will be disrupted due to the nature and sensitivity of the project.

3.2.5 Communities and their Livelihoods

The locations where the intake and WTP are proposed are used by communities for sand mining for intakes and for agricultural purposes and housing as well. With the construction of the project the livelihoods of the communities will be disrupted due to the nature and sensitivity of the project.

CHAPTER 4: - POTENTIAL IMPACTS OF PROJECT

This section identifies the key potential environmental and social impacts due to project activities based on the analysis of subprojects during pre-construction, construction and operation phases, assesses their significance, and proposes appropriate mitigation measures to address these impacts

4.1 Impact Assessment Methodology

The significance of potential impacts was assessed using the risk assessment methodology that considers impact magnitude and sensitivity of receptors, described below. The same methodology shall also be applied in E&S studies to the impact assessment for subprojects under this project.

4.1.1 Impact Magnitude

The potential impacts of the project have been categorized as major, moderate, minor or nominal based on consideration of the parameters such as: i) duration of the impact; ii) spatial extent of the impact; iii) reversibility; iv) likelihood; and v) legal standards and established professional criteria. These magnitude categories are defined in the following table;

Table 4- 1: Parameters for Determining Magnitude

Parameter	Major	Medium	Minor	Nominal
Duration of potential impact	Long term (more than 35 years)	Medium Term Lifespan of the project (5 to 15 years)	Limited to construction period	Temporary with no detectable potential impact
Spatial extent of the potential impact	Widespread far beyond project boundaries	Beyond immediate project components, site boundaries or local area	Within project boundary	Specific location within project component or site boundaries with no detectable potential impact
Reversibility of potential impacts	Potential impact is effectively permanent, requiring considerable	Baseline requires a year or so with some interventions to return to	Baseline returns naturally or with limited intervention within a few	Baseline remains constant

Parameter	Major	Medium	Minor	Nominal
	Time intervention to return to baseline	baseline	months	
Legal standards and established professional criteria	Breaches national standards and or international guidelines/ obligations	Complies with limits given in national standards but breaches international lender guidelines in one or more parameters	Meets minimum national standard limits or international guidelines	Not applicable
Likelihood of potential impacts occurring	Occurs under typical operating or construction conditions (Certain)	Occurs under worst case (negative impact) or best case (positive impact) operating conditions (Likely)	Occurs under abnormal, exceptional or emergency conditions (occasional)	Unlikely to occur

4.1.2 Sensitivity of Receptor

The sensitivity of a receptor has been determined based on review of the population (including proximity / numbers / vulnerability) and presence of features on the site or the surrounding area. Each detailed assessment has defined sensitivity in relation to the topic. Criteria for determining receptor sensitivity of the Project’s potential impacts are outlined in the table below

Table 4- 2: Sensitivity levels

Sensitivity Determination	Definition
Very Severe	Vulnerable receptor with little or no capacity to absorb proposed changes or minimal opportunities for mitigation
Severe	Vulnerable receptor with little or no capacity to absorb proposed changes or limited opportunities for mitigation
Mild	Vulnerable receptor with some capacity to absorb proposed changes or moderate opportunities for mitigation

Low	Vulnerable receptor with good capacity to absorb proposed changes or/and good opportunities for mitigation
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4.1.3 Impact Significance

Following the determination of impact magnitude and sensitivity of the receiving environment or potential receptors, the significance of each potential impact has been established using the impact significance matrix shown below;

Table 4- 3: Significance of Impact Criteria

Sensitivity of Receptors				
Very Severe	Severe	Mild	Low	
Major	Critical	High	Moderate	Minimal
Medium	High	High	Moderate	Minimal
Minor	Moderate	Moderate	Low	Minimal
Nominal	Minimal	Minimal	Minimal	Minimal

4.2 Positive impacts

4.2.1 Positive economic Impacts

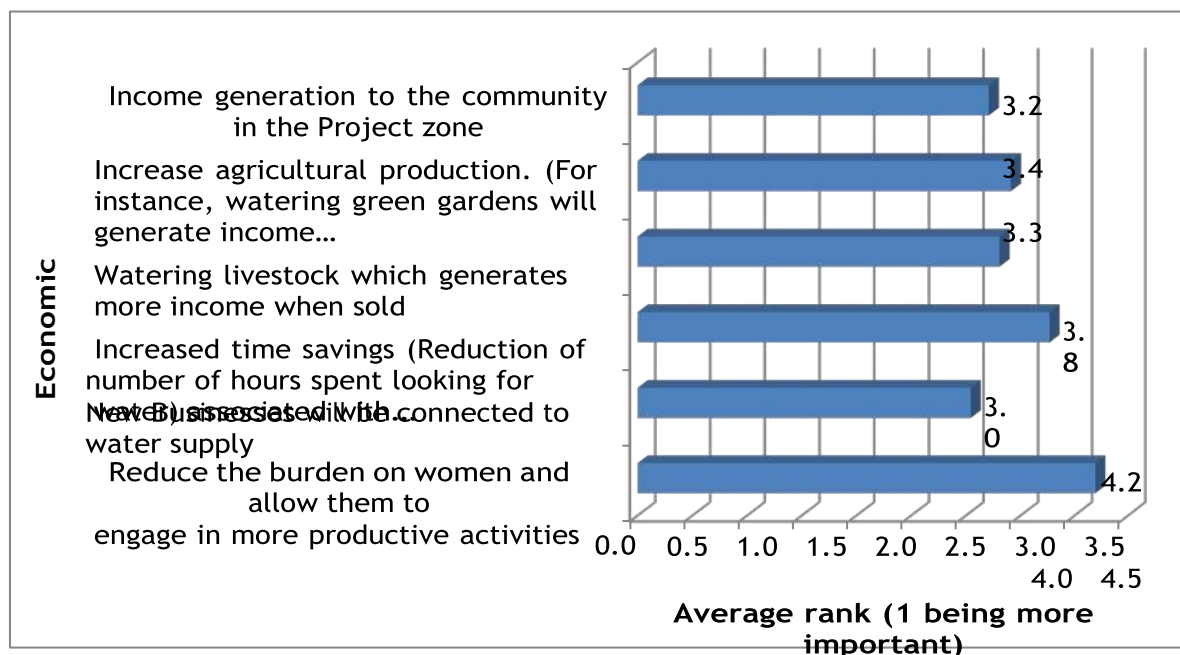


Figure 2: Economic Impacts: Source: Data collection in Karongi and Rutsiro District, November 2020

In the ranking of Economic Impact, the highest rank is 6 and the lowest is 1. The findings from the above bar chart show that 149 women respondents ranked “reduce of burden on women and allow them to engage in more productive activities” as the highest average rank of 4.2. In the districts covering the project, women and young girls form a high

percentage of population, but are inadequately participating in development activities due burden of fetching water. Increased availability of water will relieve them and thereby give them an opportunity to engage in development activities.

Secondary, they ranked “increased time savings (Reduction of number of hours spent looking for water) associated with having water close to home” with average rank of 3.8. Obviously, accesses to water will in the long-term result in improved income levels and health of the local people, this consequently will lead to poverty reduction. Reduced distances travelled and time used to collect water is relevant to economic activities.

Thirdly, Increase agricultural production. (For instance, watering green gardens will generate income through the sale of green vegetable with average rank of 3.4. The access to the clean water will also allow the improving food security and nutrition. Through diversification of farming activities of high yield, using irrigation, as well as expansion of farming can increase agriculture production and by the way boosting food security.

With access to the clean water, there will be different business like opening of the restaurants, hair saloon, etc. In additional, The Project will create temporary jobs during the execution of civil works, which will include the following professions: managers and executives, engineers, technicians, support administrative staff, carpenters, structural steel fitters, cement workers, welders, electricians, mechanics etc. For the mechanical and electrical work, foreign as well as national labor will be needed including supervisors or highly skilled labor.

There will be a need for multiple diverse services to support the workforce. Services can be expected to include the catering, cleaning, guards, transport, repair work, provision of goods etc. The provision of services will be by preference provided by existing local companies or companies from outside the area.

4.2.2 Positive social impacts

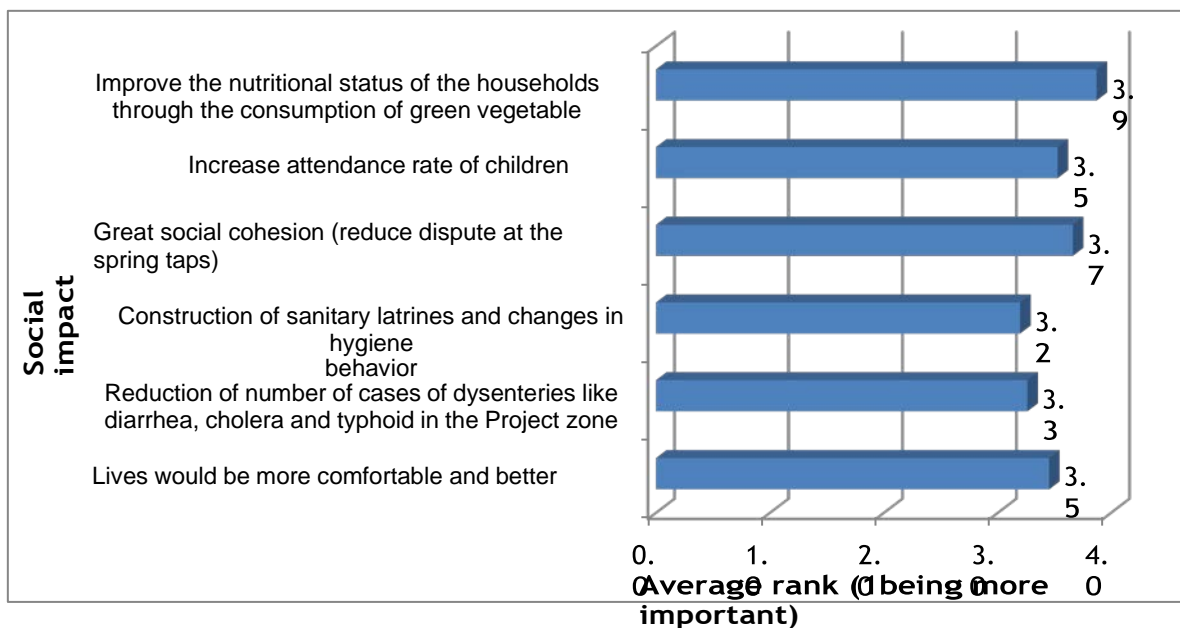


Figure 3: Social impacts of the project

Source: Data collection in Karongi and Rutsiro District, November 2020
 For the ranking of Social Impacts, the highest rank is 6 and the lowest is 1. 149 respondents have ranked “Improve the nutritional status of the households through the consumption of green vegetable” with average rank of 3.9 (highest). Access to water will allow families to cultivate in all seasons especially the cultivation of vegetables. It will be easy to maintain well their crops, have the kitchen gardens and water them during the dry period. This will allow these families to have fresh and green vegetables all the time and thus improve their nutrition status.

They ranked “Great social cohesion (reduce dispute at the spring taps)” at second place with 3.7 average rank. Access to water clean will resolve the problem of insufficient of water and reduce the dispute at spring taps. The families will have taps water in their houses and there will be enough public taps to allow the families to get easily water without waiting a long time at spring taps.

“Lives would be more comfortable and better” is at third place with average rank of 3.5. The employment opportunities will increase the income and spending capacity of the local population. The increased income should enable people to improve their standing of living for example by improving development. Taxes paid to local government will increase the national treasury

The Increase school attendance rate of children was ranked with average rank of 3.5. The distance from household to water source, involvement of children in collection of water lead to decrease of school attendance rate. The access to clean water will increase the school attendance rate. In addition, improving water in school is essential towards improving children’s health and educational achievement.

The respondents ranked the “reduce the number of cases of dysenteries

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like cholera and typhoid in the project zone with average rank of 3.3.

Improved water quality for domestic consumption will reduce risk to the waterborne diseases of the consumers and dependents of water resources. General hygiene in the served areas will improve through use of acceptable water quality. In other hand, the project will produce enough water to meet the demand in all concerned Sectors.

Table 4- 4: Waterborne Diseases in Karongi and Rutsiro Districts

District	Waterborne Diseases	2015	2016	2017	2018	2019	2020
Karongi District	Entamoeba histolytica	4742	6403	8406	8121	13484	20225
	Giardia Positive	1937	1543	1938	2947	2583	3746
	Ascariasis Positive	9423	10364	10168	10664	11638	12179
	Trichuris Positive	356	348	626	299	414	444
	Schistosoma Positive	17	3	5	40	20	10
Rutsiro District	Entamoeba histolytica	4246	5269	7084	5832	7955	13792
	Giardia Positive	401	289	441	611	486	847
	Ascariasis Positive	9544	11274	13496	14221	14440	14277
	Trichuris Positive	1565	1740	2249	2233	2042	1420
	Schistosoma Positive	70	88	216	111	140	231

Source: Health Information System (HMIS), Extraction performed on 21/04/2021

Entamoeba histolytica, Giardia positive, Ascariasis positive and trichuris are transmitted by drinking unsafe (contaminated water). Complication and consequences of those diseases are Diarrhea, malnutrition/ stunting, and sometimes death.

Schistosoma positive penetrate through the skin when washing the body with contaminated water or when in contact with contaminated water during fetching in lakes, in dams or marshlands. Its complication/consequences are skin rash, ascites (urushwima), malnutrition/ stunting and sometimes death.

Table 4- 5: Surveys for Intestinal Worms in Karongi and Rutsiro Districts

District	Waterborne Diseases	only children screened		Children & adults screened
		2008	2014	2020
Karongi District	Schistosoma Positive	67,5	72,3 %	50,8%
Rutsiro District	Giardia Positive	93,5	87,7 %	72,1%

Source: National mapping report, RBC

4.2.3 Socio- Economic benefits of project

In Urban area, the water supply system is managed by WASAC while the ones in rural area is under management of Rutsiro and Karongi District officials and private operators.

In accordance with RURA board decision of setting water tariff, the water tariff in WASAC is based on monthly water consumption per m³ as indicated below:

Table 4- 6: Water tariff

Customer Category	Block of consumption per month	Applied tariff in Rwf (VAT exclusive)
Public tap	Flat rate per m ³	323
Residential	0-5m ³	340
	6-20m ³	720
	21-50m ³	845
	Above 50m ³	877
Non-Residential	0-50m ³	877
	Above 50m ³	895
Industries	Flat rate per m ³	736

Some households have water into dwelling and other buy water at public tap of WASAC at 20 RWF for one Jerrican of 20 liters and 8 RWF/Jerrican in rural area where the water supply is managed by the private operators. According to the discussion conducted with different people in the area, the water supply is not enough considering the current need; some time, there is a shortage of water. WASAC staff announced that they manage the situation by putting in place a rotating system where water is distributed to different parts according to a schedule with equal days of distribution. At least, in each area, WASAC avail water in 1 or 2 days a week and for other days, there is a shortage. It means that when there is water, the households try to store a lot of water. To cope with a total shortage of water, the households go to fetch water at river, from spring or they collect rainwater and some time there are the households who buy water at expensive price example 100 RWF for 20 liters.

Kivu Belt project will bring the social and economic benefits. For example, the project will respond to the issue of shortage of water and related problems. This will reduce the time spent while going to fetch water and the household members could concentrate more to other economic activities like income generating activities. They will save the money that they spend for water at expensive price from the private operators who store water and determine their own prices when there is a shortage and

buy at price fixed by RURA.

It will also reduce the problem of waterborne diseases, as the households will use improved water. In addition, there will be increase of jobs creation. The table below indicates the performance indicators for Kivu BeltWSS.

Table 4- 7: Performance indicators for Kivu belt WSS

#	INDICATORS	Baseline	Target		
		2020/21	2025	2030	2035
	ACCESS TO WATER SUPPLY SERVICES				
1	% of households with improved water source in dwellings	18	90	95	100
2	% of population using an improved water source	95	100	100	100
3	% of rural households using an improved water source within 500m	70	100	100	100
4	% of population using an improved water source within 30 minutes round-trip in rural areas	65	100	100	40
5	% Waiting time at drinking water source less or equal to 30 minutes	80	100	100	100
6	% of households using an improved water source within 200m	48	90	100	80
7	% of population using an improved water source within 30 minutes round-trip in Urban areas	65	100	100	90
8	% of health centers with improved Water Supply	TBD	100	100	100
9	Primary and secondary schools with improved water supply	TBD	100	100	100
10	Motel and hotels with improved water supply	TBD	100	100	100

Some baseline data were calculated based on data collected through Socio-Economic survey tool and analyzed with SPSS software

4.3 Potential Negative Impacts

4.3.1 Impact on hydrological regime downward

By construction of a weir and water intake on Musogoro River, downstream sections of the weir may undergo important changes in hydrological regime associated with filling of the small reservoir, storing water and water treatment plant operating modes. Thus, abstraction of more water from the Musogoro River might reduce flow level downstream. This induces change in physico-chemical parameters which may in turn affect aquatic biodiversity. Lower flow levels mean that water will not be sufficient for downstream users.

4.3.2 Impact of heavy sedimentation from the watershed and during construction

Tributaries of the Musogoro River such as Ndaba, Kavumbi and Karuganzu pass through a mining region and their waters are used to separate minerals from mud and other aggregates. Thus, waters are heavily loaded with sediments to such an extent that Musogoro, which receives these, is impacted by sediment pollution (Turbidity more than

240 NT). Furthermore, release of high sediment load in Musogoro waters may occur mainly from erosion in rainy season and during works on the diversion channel construction, excavation works at dam site, construction of protection dikes and coffer-dams, quarrying works, sand borrowing in river bed, etc. These activities may create an increase in the sediment load discharged into the river.

The Musogoro river is also polluted by the liquid waste from the coffee processing plant which is flowing directly into the river without any



treatment.

Figure 4: High Turbidity in Musogoro

4.3.3 Potential water quality deterioration due to direct release of mixed sludge and backwash water from WTP.

For the project Kivu belt water supply systems, the water treatment plant will be constructed at about 300 meters on the Kayenzi hill overlooking the Musogoro valley. Thus, accumulated sludge and backwash water containing chemicals from the WTP shall be treated before any release to environment and in particular to Musogoro river. Otherwise, there may be severe effects on the downstream population which relies on the river for domestic and cattle water supply, washing and irrigation activities. The treatment and release of the sludge and backwash water is explained in Treatment and process, section focusing on the sludge disposal.

4.3.4 Impact generated by chemicals handling and use

Water purification process requires the addition of chemicals such as Sulfloc and Chlorine to assist in the removal of particles suspended in water. Improper use of these chemicals may have an impact on water and soil quality. The standard level of chemicals to be added to water for purification are presented in the section above on treatment and process, the part focusing on Chemical reagent.

4.3.5 Impact from noise and vibrations

Some of the storage reservoirs may be constructed at rocky based sites which would necessitate blasting activities for platforms preparation. Therefore, high noise levels will be produced during blasting activity as well as during transport of materials using heavy trucks. Therefore, the

use of vehicle horns, and speakers and bursting or cracking by construction companies shall be monitored to meet the RSB standard DRS 236: 2020 related to acoustics, Noise Pollution and Tolerance limit. High quality equipment with low vibration shall be encouraged to be used by contractors.

Figure 5: Rocky Based sites in the area which may serve as the foundation for the Construction



of Storage Reservoirs

4.3.6 Impact on the water quality in the river at the intake site and downstream from the intake

Spreading of large volumes of gasoline, lubricant products as well as significant quantities of explosives and chemicals (concrete additives, paints, thinners, solvents) which will be stored and handled on the construction sites, with related risk of leakage or accidental spill in the environment. The contractors, prior to works starting should submit for approval their C-ESMP, for the authority to be sure of their plan to manage those impacts.

4.3.7 Soil and water pollution by solid waste generated during construction and decommissioning phases

Spreading of large quantities of solid construction waste including mainly scrap metal, wood, plastic, cement bags, used tires and batteries will also be produced and will require proper management

4.3.8 Environment pollution by domestic waste.

Domestic waste will be produced by staff and workers in camps sites and the release of pathogens and coliforms in the river may affect the population as well as domestic animals downstream.

4.3.9 Impacts on community facilities and places of socio-cultural significance

The project activities particularly new sites may impact or damage the community facilities and or sites/buildings of socio-cultural significance. This will have undue impacts on the associated communities. Attempts will be made to avoid such community facilities and socio-cultural sites when selecting the sites for new project facilities or carrying out works on

the existing ones. Any damages caused to such community facilities and socio-cultural sites will be repaired at no cost to the community.

4.3.10 Impact on lands acquisition and their utilization/ displacement impacts

The project's facilities construction associated with creation of Intake, water treatment plant, pump stations, storage reservoirs and excavation for pipelines network installation will require acquisition of several hectares of lands, with destruction of agriculture crops such as: Irish potatoes, bananas, coffee trees, maize, eucalyptus plantations as well as expropriation of several individual properties (houses, fences, toilets etc). The magnitude and importance of the potential impact on the lands acquisition and use will depend on the overall surface areas required for the execution of project's activities.

During the construction phase of the project, some households will experience displacement because of the Project's land acquisition process. The table below provides a high-level overview of the displacement impacts that the PAPs are expected to face, along with the predicted scale of these impacts in terms of number of affected households /people.

In total, 18,310 households will be affected through loss of their own land, houses, trees and crops. 112 households are land tenants, 262 PAHs will lose their land only, whereas 17 PAHs have houses on their land and will be physically displacement. 18310 land owners will be temporarily affected, will be compensated for the asset developed on their land (crops and trees) as they will be allowed to use the land after the infrastructures are installed.

Table 1 Key Displacement Impacts and Associated Magnitude

Key Displacement Impacts	Type of loss	Magnitude	HHs to be affected
A. Households affected			
- Loss of houses and plots they occupy	Loss of houses and land they occupy	High	17
- House Tenants	Requires moving	Minor	0
- Land Tenants	Cultivable rented land	Minor	112
- Loss of land and crops/trees on it	Loss of land	High	18,310
- Loss of trees and crops only	Temporarily loss of land	High	6,461
B. Vulnerable People (household heads)	Social protection scheme and asset	High	122

Source: Field Survey, 2022-2023

4.3.11 Temporary blocking of access to community facilities

The access to facilities, shops/businesses and houses might be blocked during the construction of new and rehabilitation of existing water supply and sewerage pipes. If the access is fully blocked, it might cause temporary loss of business. If not well managed, the excavated open trenches would bring risk to the community safety. Such impact is estimated as moderate.

To address the risk, the contractors should fence the construction site or install visible signs and lights at the open trenches. In addition, paths should be provided over the trenches to the facilities. In the case of fully blocking, the contractors should arrange bypass roads and crossings for pedestrians and cars and inform the community with the plan prior to the construction. If any business/economic loss is foreseen, the compensation should be agreed and paid in accordance with the laws. With these measures, the residual impact will be low.

4.3.12 Inventory of possible compensations or expropriation

The construction of water intake, water lifting channel, water treatment plant, storage reservoirs and excavation for pipelines network installation will require a certain portion of land and eventually the destruction of crops and trees on acquired land.

Land for pipeline network will be temporary acquired and properties there on shall be destroyed and shall be restored, re-used after soil backfilling. Only affected crops and trees will be evaluated and compensated.

Land for WTP, water intake and water reservoirs will be permanently acquired and will need to be compensated. Correspondingly, Crops and trees on acquired land will also be destroyed and compensated as well.

The Water treatment plant and intake will be constructed on 26,000 m² (2.6ha) while 16532.65 m² (1.62 ha) are required for new water reservoirs and 298,182.5 m² (29.8 ha) will be required for water pipeline channels with the Right of Way (ROW) of 2 meters.

Water distribution network is underground; its accommodation will entail excavation activities on around 4 m of width and for the whole length of the distribution network affecting all crops and trees on the concerned land. Affected trees and crops will be compensated.

However, land on distribution network will not be compensated as long as after land filling affected land will be used again either for agriculture or for animal husbandry purposes. The estimated cost was calculated in reference with "Land and crops prices as provided in special Gazette No. Special of 08/11/2018 and is presented below.

4.3.13 Summary of Assessed Impacts

The impact assessment concluded that the Project will generate mostly positive socio- economic benefits due to the improvement of water

supply and sanitation (WSS) facilities in project region. Construction of Kivu Belt WSS infrastructure will significantly improve living conditions, water supply and sanitation, which will overall have significant effects on the health of population and environment of region in general.

At the same time the proposed project activities might generate various adverse environmental and social impacts. These impacts would be associated with physical and economic displacement particularly related to land acquisition for the new facilities, generation of wastes, noise, dust, air pollution, wastewater, impacts on cultural heritage, disturbance to community and traffic, health hazards and labor safety issues, due to facility siting, civil works and operation and maintenance.

Table 2 Type of PAH by impact

Type of PAH by impact	No	Percent age
PAHs affected by Kivu Belt WSS Project (loss of land and/or structures)	101	1.5 %
PAHs affected by Kivu Belt WSS Project (land tenants)	471	7.5 %
PAHs affected by Kivu Belt WSS Project (house tenants)	0	0 %
PAHs affected by the pipeline only (Land owners)	5,533	91%
Total PAHs affected	6,105	100%

The project’s potential environmental and social impacts have been assessed with the methodology described in the first section of this chapter. The key impacts are summarized in the table below;

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Table 4- 9: Summary of Potential Impacts and their Significance

Potential Impacts	Duration of Impact	Spatial Extent	Reversible or not	Likelihood	Magnitude	Sensitivity	Significance Prior to Mitigation	Significance after Mitigation
Improved water supply system	Long term	Local	Yes	Certain	Major	-	High positive	N/A
Improved sewerage system	Long term	Widespread	Yes	Certain	Major	-	High positive	N/A
Impacts related to Project siting								
Impacts on community facilities and places of socio-cultural significance	Short term	Local	Yes	Likely	Medium	Low	Minimal impact	Minimal impact
Land acquisition and resettlement	Medium term	Local	Yes	Likely	Major	Mild	Moderate	Low
Loss of farmlands and income	Short term	Local	Yes	Certain	Major	Mild	Moderate	Low
Environment impacts during construction phase								
Land cover and land use changes	Short term	Within project boundary	Yes	Certain	Medium	Mild	Moderate	Moderate
Loss of trees and crops	Short term	Local	No	Certain	Medium	Mild	Moderate	Moderate
Loss of fertilized soil	Long term	Local	Yes	Certain	Major	Severe	High	Moderate
Impacts on borrow areas	Short term	Widespread	No	Certain	Medium	Severe	High	Moderate
Air pollution	Short term	Widespread	Yes	Certain	Major	Mild	Moderate	Low
Noise and vibration	Short term	Local	Yes	Certain	Medium	Mild	Moderate	Low
Water pollution	Short term	Widespread	Yes	Likely	Medium	Mild	Moderate	Low
Soil contamination	Medium term	Local	Yes	Certain	Medium	Severe	High	Moderate
Solid wastes	Short term	Local	Yes	Certain	Medium	Mild	Moderate	Low
Hazardous wastes (including used)	Short term	Local	Yes	Certain	Medium	Severe	High	Moderate
Occupational health and safety	Short term	Local	Yes	Likely	Medium	Severe	High	Moderate

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Potential Impacts	Duration of Impact	Spatial Extent	Reversible or not	Likelihood	Magnitude	Sensitivity	Significance Prior to Mitigation	Significance after Mitigation
Site clearance and restoration	Short term	Local	Yes	Certain	Medium	Mild	Moderate	Low
Social impacts during construction phase								
Impacts on cultural resources	Short term	Local	Yes	Likely	Medium	Mild	Moderate	Minimal
Temporary blockage of access to community facilities such as shops, houses and schools, etc.	Short term	Local	Yes	Likely	Medium	Mild	Moderate	Low
Disturbance to the traffic	Short term	Widespread	Yes	Certain	Major	Severe	High	Moderate
Disturbance to public utilities (electricity, telecom cables, gas pipes and etc.)	Short term	Widespread	Yes	Likely	Medium	Severe	High	Low
Community health and safety	Short term	Widespread	Yes	Likely	Medium	Severe	High	Low
Influx of workers and labor issues	Short term	Widespread	Yes	Likely	Medium	Mild	Moderate	Low
Environmental impacts during O&M								
Impacts on groundwater	Long term	Local	No	Likely	Medium	Severe	High	Moderate
Generation of wastes including hazardous materials	Long term	Local	Yes	Certain	Major	Mild	Moderate	Low
Increasing of sewage due to increase of water supply	Long term	Widespread	Yes	Certain	Major	Mild	Moderate	Moderate
Air pollution	Long term	Widespread	Yes	Certain	Major	Mild	Moderate	Low
Noise and vibration	Long term	Local	Yes	Certain	Major	Severe	High	Moderate
Water pollution	Long term	Widespread	Yes	Certain	Major	Mild	Moderate	Low
Water consumption	Long term	Widespread	No	Certain	Major	Mild	Moderate	Moderate
Occupational health and	Short term	Local	Yes	Likely	Medium	Severe	High	Moderate

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Potential Impacts	Duration of Impact	Spatial Extent	Reversible or not	Likelihood	Magnitude	Sensitivity	Significance Prior to Mitigation	Significance after Mitigation
safety								
Social impacts during O&M								
Emergency situations	Short term	Local	Yes	Occasional	Medium	Severe	High	Low

4.4 Environmental and Social Supervision and Monitoring Programme

WASAC is required to comply with the laws, regulations, codes of conduct and other provisions in force intended to prevent, control and protect the physical, natural and human environment through the establishment of a supervision and monitoring system that makes it possible to assess the relevance of environmental measures and to identify appropriate corrective measures, if necessary. Overall, these programmes should ensure:

- The integration of relevant mitigation measures into the final design of the works and the competitive bidding documents;
- The environmental supervision of construction activities and the implementation of prescribed mitigation measures;

Long-term monitoring of environmental conditions during the operation of facilities. More specifically, environmental supervision helps to ensure that environmental commitments and requirements are fully applied by the enterprise(s) in charge of the works during project implementation, and that corrective measures are identified and implemented.

Environmental monitoring is conducted based on a specific concern, and deals with the evolution of natural and human environments affected by the project, as well as with the effectiveness of the mitigation measures implemented.

The works execution contracts will contain the description of the penalties that will be applied to the companies in case of non-compliance with the specific technical prescriptions relating to the environmental and social aspects. The contract should contain and be clear in regards to the technical prescriptions for environmental and social management as well as the required coordination plan for Safety and Health Protection during the construction phase.

The person in charge of the Hygiene, Safety and Environment (HSE) aspects should be knowledgeable in the following areas:

- Environmental protection laws and regulations applicable to the works; Environment- specifications mentioned in the competitive bidding documents,
- The technical specification on environmental and social management during the construction phase;
- Noise and air quality control methods; and
- Emergency response in the event of contamination of water resources or a drinking water catchment.
- In addition, the HSE Officer will have a copy of the ESMP to enable him/her to ascertain the implementation of environmental measures outlined in the document. In the preparatory phase, environmental monitoring will cover the following aspects:

- Identification of the project enclosures, which should be done carefully to limit the impact of nuisances (spills, leaks, dust, noise, etc.). In this regard, the sites chosen should be precisely indicated and within certain limits (fence, access roads, etc.); Identification the project's right-of-way (water intake at future dams, pumping stations, the location of the raw water treatment plant, loading reservoirs, and pipes). Special attention should be given to the installation of appropriate and visible signage at work sites (along the roads bordering water supply pipelines, at treatment plant development sites, etc.);
- Development of an earth-moving plan specifying the quantities of materials to be carted away or brought in, the borrow and deposit sites, as well as the management of temporary deposits; Information of residents and the locals on the nature of the works, their schedules, possible nuisances and risks (cutting up of access roads, temporary interruption of certain services, noise and vibrations, dust emissions, stability of houses, etc.); and
- Establishment of systems for the collection and treatment of solid (recyclable and final) or liquid waste (domestic wastewater and polluting discharges).
- Supervision forms will be kept and completed by successful companies, controlled by the environmental monitoring officer and validated by WASAC, which will be responsible for monitoring the implementation of the mitigation measures and the incorporation of the environmental and social performance aspects of each sub-project into the quarterly programme monitoring reports to be forwarded to the Bank.
- Under the sub-projects of this programme, the supervision and monitoring programme is as follows:

Table 4- 10: Monitoring and Supervision in the Preparatory Phase

Supervision Programme	Monitoring Parameters	Monitoring Entity
PREPARATORY PHASE		
Clarification of property rights	Verification of the indemnification and compensation of the affected persons and owners of land expropriated.	WASAC
Participatory approach and stakeholder involvement (information and awareness-raising among the local population)	Implementation of a communication plan to ensure the dissemination of information (nature of works, schedule, nuisances and possible risks: roadblocks, temporary interruptions in certain services, noise and vibrations, dust emissions, stability of houses, possibility of recruiting local labor, etc.) from the target public before the start-up of operations on the site; Posting of signs at a maximum of 50 m from the most sensitive operation sites.	WASAC
Choice of suitable locations for site installation	Compliance with the objectives pursued and rationalization of the scope of operations (presence of an enclosure, development of access routes, areas reserved for temporary depots, setting up of collection systems and treatment of solid and liquid waste, preparation of contaminant storage areas, etc.).	WASAC
Preparation of site workers	Development of the procedures for coaching and training site workers on environmental, social and safety measures; Preparation of an emergency response plan; Acquisition of personal protection equipment (PPE) for site workers adapted to the nature of the planned operations; Administration of vaccines or conduct of preliminary medical examination in case of operations requiring prior vaccination.	Company in charge of works/HSE Expert WASAC
CONSTRUCTION PHASE		
Public safety	Safe management of fuels and flammable materials on-site and in working areas Safe storage of equipment on-site Correct demarcation of the project's right-of-way and prohibition of access Verification of the presence of signs at a maximum of 50 m from the most sensitive operation sites	Site Manager / HSE Expert
Workers' safety on-site	Wearing of work and personal protection equipment Presence of absorbent material on-site Existence of first aid kit on-site Permanent presence of vehicle on the site for rescue and emergency purposes Presence of notices posted at the sight of workers showing the names and phone numbers of officials and describing the early warning system	
Site hygiene	Existence of toilets, water closets at workplaces and on-site drainable latrines Presence of garbage cans for ordinary garbage	

Supervision Programme	Monitoring Parameters	Monitoring Entity
	Presence of a place for catering and coffee breaks	
Sound and atmospheric pollution	Humidification and watering of tracts and rights-of-way whenever necessary for dust elimination Tarpaulin covering for trucks carrying cuttings and materials likely to generate dust Verification of the condition of the machines and equipment used on-site to ascertain their conformity with the specifications	
Pollution of water and soil resources	Existence on site platform of oil or fuel leaks or of any type of polluting spill Proper management of effluents and solid waste on-site (existence of a temporary storage area and appropriate containers, regular evacuation, safe management of fuels and flammable materials on-site and in the working places) Respect for the surface drainage at all times and ensuring that it is not obstructed by the work site Removal of debris that can interfere with the normal flow of surface water	
State of the post-works environment	Site restoration: Demolition of buildings Closure of collection and processing systems Management of residual deposits of soil and site scrap: solid waste, demolition waste, scrap metal, spare parts, etc. Rehabilitation of access roads for use by villagers; Rehabilitation of pavements degraded by the works; Remodeling of the relief; Revegetation, reforestation and replacement planting in case of felling of trees	Site Manager/HS E Expert / District/REMA

Supervision Programme	Responsible Entity	Monitoring Parameters
OPERATION PHASE		
Supervision of the status of the network and leaks	WASAC	Flow measurement with a macrometer-Rate of loss
Equipment maintenance according to the manufacturer's standards	WASAC	Adhere to best practice in the performance of civil engineering work and to the manufacturer's standards when repairing and maintaining the equipment installed
Supervision of the bacteriological and chemical quality of the water at the point of outlet from the plant	WASAC	Ensure compliance with applicable standards (full chemical and bacteriological analysis)
Supervision of liquid discharges	Annual temperature sampling, pH, CE, nitrates, heavy metals, etc.,...	Company in charge of works/HSE Expert
Accidental pollution	WASAC	Inspection of the reagent storage area
Improvement of living conditions	Ministry of Health, Ministry of Local	Income level per household, poverty index rate and type of diseases recorded, rural

	Government/WASAC	enrolment rate, women's status, etc.
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CHAPTER 5: - POLICY LEGAL AND INSTITUTIONAL FRAMEWORK

5.1 Introduction

The policy and legal framework chapter highlights the Rwanda policies, law, regulations and institutions governing project social aspects, sanitation, property and land rights, acquisition of land and other assets, regulations governing buying and selling assets, rights and compensation, dispute resolution and grievance mechanisms. The chapter discusses also the AfDB operational safeguards applicable to the proposed project, including identifying the gaps between the national and AfDB relevant operational safeguards frameworks and how such gaps can be bridged.

5.2 Policy framework

5.2.1 Rwanda Vision 2050

Rwanda aspires to become an upper middle-income country by 2035 and a high-income country by 2050. Vision 2050 takes into account the aspiration of Rwandans to leave to our children a better world to live in. As such, growth and development will follow a sustainable path in terms of use and management of natural resources while building resilience to cope with climate change impacts. Rwandans' aspiration for high quality of life will be further appreciated through the quality of the environment, both natural and built.

The vision indicates the **High Quality and Standards of Life** as Moving beyond meeting basic needs to ensure a high standard of living by focusing on:

- Sustained food security and quality nutrition
- Universal access to water and modern sanitation
- Affordable, reliable and clean energy
- Quality education and health care
- Modern housing and settlements with environment-friendly and climate resilient surroundings
- Inclusive financial services
- Adequate social security and safety nets
- National and regional peace and security

The above vision focus shows that access to clean water is fundamental to achieve the vision.

5.2.2 National Strategy for Transformation (NST 1/2017-2024)

The National Strategy for Transformation (NST1) is a 7 Years Government Programme (7YGP). The programme comes at a unique moment in the country's development blueprint which will see the crossover from Vision 2020 towards Vision 2050.

NST1 will provide the foundation and main conduit towards Vision 2050. The vision aspirations focus on five broad priorities: High Quality and Standards of Life; Developing Modern Infrastructure and Livelihoods; Transformation for Prosperity and International cooperation and positioning. The government of Rwanda has prioritized service infrastructure development.

The National Strategy for Transformation (NST1) highlights priority areas under the Economic Transformation pillars which shall consist of moving towards a Modern Rwandan household through universal access to basic infrastructure such as electricity, water, sanitation. The program highlights one the key strategy intervention which will be to scale up to 100% access to water by 2024 through investments in: Construction, extension, rehabilitation of 1,937 Km of water supply systems in city of Kigali and other towns.

5.2.3 Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are a set of 17 goals the world will use over the next 15 years to end extreme poverty, fight inequality and injustice, and fix climate change. Formed through extensive consultation with all levels of society, the SDGs are a comprehensive development plan to leave no person behind. With the SDGs, Rwandans have the opportunity to act upon their vision for the future. No poverty, zero hunger, good health, gender equality and infrastructure are among 17 set goals.

The new 2030 Agenda has water and sanitation at its core, with a dedicated Sustainable Development Goal (SDG) 6 on water and sanitation and clear linkages to Goals relating to health, food security, climate change, resiliency to disasters and ecosystems, among many others. Reaching the ambitious objectives of the 2030 Agenda demands that we address universal access to drinking water and sanitation along with issues of quality and supply, in tandem with improved water management to protect ecosystems and build resiliency. During the UN High-Level Water and Sanitation Days 2015 participants will be reflected on the transition from the Millennium Development Goals to the set of interconnected water-related SDG targets that set forth a broad and ambitious vision for the next fifteen years. The major targets for water and sanitation relevant to the project are;

By 2030, achieve access to adequate and equitable sanitation and hygiene for all, paying special attention to the needs of women and girls and those in vulnerable situations

By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency,

wastewater treatment, recycling and reuse technologies

Support and strengthen the participation of local communities in improving water and sanitation management

Goal 12. Ensure sustainable consumption and production patterns

Target 12.1, implement the 10-Year Framework of Programs on sustainable consumption and production (10YFP), all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

Target 12.2, by 2030, achieve sustainable management and efficient use of natural resources.

5.2.4 National Land Policy (2019)

The revised land policy has 3 pillars: Land use Planning, Surveying and Mapping, Land use management and Land Administration

The policy emphasizes on effective and efficient land utilization and management across sectors such as agriculture, industry, forestry, livestock, settlement and housing, mining, and other public investment

The Land administration pillar provides system in which land-related laws and regulations about land tenure are applied and made operational. It provides also the process of recording, handling and disseminating information about land transactions, land tenure, ownership, value, and use.

This policy is considered relevant as Kivu Belt WSS project will require land and this land will be used effective & efficiently respecting administrative requirements.

5.2.5 National Social Protection Policy (2020)

The policy aims to set out a vision for Social Protection in Rwanda and guide the continued process of establishing a comprehensive, life-cycle- based social protection system that ensures a minimum level of income security to all Rwandans at critical points in their lives and protects them against a wide range of socio-economic risks while contributing to the social transformation of the society. The policy is built on four pillars;

- (i) social security,
- (ii) social care services,
- (iii) short-term social assistance and
- (iv) livelihood and employment support.

The aim is not only to secure the eradication of extreme poverty but also promote human capital development as the foundation for long-term prosperity, breaking the cycle of intergenerational poverty, support the delivery of equitable and inclusive social transformation and

development.

Rwanda has ratified several international conventions that establish the right to social security and protection. These include the International Covenant on Economic, Social and Cultural Rights (ICESCR); the Convention on the Elimination of Discrimination against Women (CEDAW); the Convention on the Rights of the Child (CRC); and, the Convention on the Rights of Persons with Disabilities. At the heart of all of these conventions are the entitlements set out in the Universal Declaration of Human Rights (specifically under Articles 22, 23.3 and 25).

In addition, Convention 102 of the International Labour Organisation (ILO) - of which Rwanda is a member - provides a widely accepted framework for social protection systems. The ILO has set the provision, as a member of ILO, Rwanda has committed to the goal of “universal access” to social protection in order that all older people, children and people with disabilities enjoy income security.

5.2.6 National Environment and Climate Change Policy, 2019.

The National Environment and Climate Change Policy aspires our country to become a nation that has a clean and healthy environment, resilient to climate variability and change that supports a high quality of life for its society.

The project will promote the provisions of this law through installing climate resilient water supply infrastructures and increase access to clean water to population living in Karongi and Rutsiro Districts.

5.2.7 National sanitation policy, 2016

The policy provides a clear direction for proper implementation of various activities in the Water and Sanitation Sector. The sector faces a number of challenges and threats and it equally has a number of opportunities. The Policy and outlines key policy directions on how to tackle these issues in an integrated manner in order to effectively contribute towards achieving the National Development Agenda.

The GoR will ensure improved coverage and sustainable access to safe and clean water through operations and maintenance of existing water supply infrastructure and provision of new water facilities in a sustainable manner. However, it is necessary to put in place mechanisms for operations and maintenance of water supply systems. Such mechanisms will include clustering service areas for improved service delivery, establishing and operationalizing district water boards, reducing non-revenue through implementation of performance improvement programme

As part of the project, the water supply infrastructures will bring an answer to sanitation problems in the project area.

5.2.8 National Water Supply Policy Implementation Strategy (2016)

The Ministry of infrastructure has developed the national water supply strategy for proper implementation of various activities in the Water and Sanitation Sector. The sector faces a number of challenges and threats and it equally has a number of opportunities. The strategy outlines strategic actions on how to tackle these issues in an integrated manner in order to effectively contribute towards achieving the National Development Agenda.

The Government is also encouraging active participation of local private service providers and operators into the Water and Sanitation Sector and will ensure that strategic actions advocated by this strategy are adhered to in the whole process of water supply services provision.

5.2.9 Green Growth and Climate Resilience Strategy (GGCRS)

Green Growth and Climate Resilience Strategy (GGCRS) has set 14 programs of action, which aim to promote sustainable land and natural resources use, food security, preservation of biodiversity, social protection, improved health and disaster risk reduction among others. It is relevant to this project as it tackles challenges related to disaster reduction, resources use and sustainable land natural, and the disaster risk reduction as well.

5.2.10 National Policy for water resources management 2011

The water resource management policy aims at fair and sustainable access to water, improvement of the management of water resources.

The project activities will ensure that water abstraction from Musogoro river conforms to the sustainable use of groundwater and surface water.

5.3 National legal framework

National legal framework applicable to the project are summarized in table below:

5.3.1 The Constitution of the Republic of Rwanda 2003, Revised in 2015

As the supreme law of the country, all laws and regulations in Rwanda must be aligned with principles in the Constitution

The Constitution of the Republic of Rwanda 2003 as revised in 2015 stipulates that the state shall protect important natural resources, including land, water, air, wetlands, minerals, oil, fauna and flora on behalf of the people of Rwanda. This constitution entrusts the government with the duty of ensuring that Rwandese enjoy a clean and healthy environment.

The Constitution makes clear the right to private property where it states that private property whether individually or collectively owned, is inviolable. The right to property shall not be encroached upon except in public interest and in accordance with the provisions of the law.

The development of the proposed project will comply with the Constitution by implementation of applicable laws (Law in expropriation) and will ensure social economic development and comply with environmental laws.

5.3.2 Law N° 32/2015 of 11/06/2015 Relating to Expropriation in the Public Interest

This law determines procedures relating to expropriation in the public interest.

Article 3 stipulates that it is only the Government that shall order expropriation in the public interest, and must be done with prior and fair compensation. The law also bars anybody from interfering of stopping expropriation on pretext of self-centred interests.

Article 4 requires that any project, at any level, which intends to carry out acts of expropriation in the public interest, must budget and provide funding for valuation of the property of the person to be expropriated and for fair compensation.

Project development will affect lands and properties there on, especially when acquiring land for pipes laying, erecting infrastructures (intake, WTP, tanks, etc.). Since the project is in the public interest, this law will be applied during the compensations of PAPs.

5.3.3 Law no.17/2010 of 2010 establishing and organizing the real property valuation profession in Rwanda.

Articles 27, 29, 30 and 31 of the law deals with valuation methods. These articles stipulate that price for the real property shall be close or equal to the market value. The valuation could also compare land values country wide.

Where sufficient comparable prices are not available to determine the value of improved land, the replacement cost approach shall be used to determine the value of improvements to land by taking real property as a reference.

The law also allows the use of international methods not covered in the law after approval from the institute of valuer council.

5.3.4 Law Governing land 2021

This law determines modalities of acquisition, registration, allocation, possession, transfer, management, and use of land.

This law will inform and guide the process of involuntary resettlement including land acquisition, population displacement and compensation.

5.4 Institutional framework

Some of the most indicated institutions regulating infrastructures development (drinking water supply and sanitation included), environmental protection as well as involved in implementation

arrangement of water supply and sanitation management at national and district levels are the following:

5.4.1 The Ministry of Infrastructure (MININFRA)

The Ministry of Infrastructure is the parent ministry of the Water and Sanitation Corporation (WASAC). It covers the following sectors: transport; energy; housing and human settlement; water and sanitation. The mission and purpose of the ministry of infrastructure is to ensure the sustainable development of infrastructure and contribute to economic growth with a view to enhancing the quality of life of the population.

5.4.2 The Ministry of Environment (MoE)

MoE is responsible for developing the policies and norms for efficient land, water resources and environmental management. In this project, this Ministry will ensure that policies, norms and guidelines for environment protection are respected in the project implementation.

5.4.3 Water and Sanitation Corporation (WASAC) WASAC

WASAC is a company that distributes water in Rwanda. WASAC will be the main agency involved in the implementation of the RAP and as the project Executing Agency, it will have overall responsibility for implementation of RAP, with responsibility holding all information relevant to the RAP. WASAC will also have overall responsibility for monitoring and evaluation of resettlement implementation (i.e., annual audits and review of sub-project level monitoring undertaken by affected District), ensuring that the RAP is implemented in accordance with Rwandan laws and AfDB requirements.

5.4.4 The Rwanda Land Management and Use Authority (RLMUA) RLMUA

RLMUA is an authority that leads the overall land use management. It shall be entrusted with supervision, monitoring and to ensure the implementation of issues relating to the promotion and protection of land. In this project, this institution will be responsible of mapping affected areas and their registration, providing technical assistance to the Project and the District in assets' identification and valuation, while monitoring effective and efficient land use and management.

5.4.5 District and Sector administration

In line with the law N° 87/2013 of 11/09/2013, a District is a decentralized administrative entity with legal personality, and shall constitute the basis for community development. In the same vein, the Law N° 32/2015 of 11/06/2015 governing expropriation for public interest stipulates that the executive committee of the District is responsible to initiate the expropriation and approved by the District Council.

In the context of this project, the District will play a critical role in the expropriation process and by the virtue of the article 8 of the law

N° 32/2015 of 11/06/2015; the District shall establish a committee in charge of supervision of projects of expropriation.

In addition, the article 21 of the law N° 32/2015 of 11/06/2015, gives to the District the responsibility of approving the list of the persons to be expropriated which serves as a basis for drawing up an inventory of the property to be expropriated, and the District is responsible to inform the persons to be expropriated in the public interest of the expected start date of measurement of land and inventory of property incorporated thereon. It is the role of the District and the Sector to call and participate in public consultation meetings, support in the formation and trainings of grievance committees, and participate in resolving grievances raised.

5.5 AfDB's OSs applicable to the proposed project

The AfDB's environmental and social policies have been developed over the years and have evolved to support the main objective of the AfDB to provide assistance to regional member countries in their economic and social development. AfDB is committed to ensuring the social and environmental sustainability of the projects it supports. The ISS is designed to promote the sustainability of project outcomes by protecting the environment and people from the potentially adverse impacts of projects (AfDB, 2013). The safeguards aim to:

- Avoid adverse impacts of projects on the environment and affected people, while maximizing potential development benefits to the extent possible.
- Minimize, mitigate, and/ or compensate for adverse impacts on the environment and affected people when avoidance is not possible.
- Help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks (AfDB, 2013).

5.5.1 Involuntary Resettlement Policy, 2003

The AfDB has in place an Involuntary Resettlement Policy (OS2), which addresses the involuntary displacement and resettlement of people caused by an AfDB-funded project. This policy applies when a project causes resettlement or loss of habitat, assets or impact on livelihoods of people residing in the project area.

The main objective of the Involuntary Resettlement Policy is to ensure that when people need to be relocated, they are treated fairly and they receive the benefits of the project that causes their resettlement. The Policy has the following key objectives:

- i. To avoid involuntary resettlement where feasible, or minimize resettlement impacts where population displacement is

unavoidable, exploring all viable project designs. Particular attention must be given to socio-culture consideration such as culture or religious significance of land, the vulnerability of affected population, or the availability of in-kind replacement for assets, especially when they have important intangible implication. When a large number of people or a significant portion of the affected population would be subject to relocate or would suffer from the impacts that are difficult to quantify and to compensate, the alternative of not going ahead with the project should be given serious consideration;

- ii. To ensure that the displaced people receive resettlement assistance, preferably under the project, so that their standards of living, income earning capacity, and production levels are improved;
- iii. To provide explicit guidance to Bank staff and to the borrowers on the conditions that need to be met regarding involuntary resettlement issues in Bank operations in order to mitigate the negative impacts of displacement and resettlement and establish sustainable economy and society;
- iv. To set up a mechanism for monitoring the performance of involuntary resettlement programs in Bank operations and remedying problems as they arise so as to safeguard against ill-prepared and poorly implemented resettlement plans.
- v. In order to achieve the goals of this Policy that involve Involuntary Resettlement, the Plan shall be prepared and evaluated according to the following guiding principles:
- vi. The borrower should develop a resettlement plan where physical displacement and loss of economic assets are unavoidable. The plan should ensure that displacement is minimized, and that the displaced persons are provided with assistance prior to, during and following physical relocation. The aim of the relocation and of the resettlement plan is to improve displaced persons former living standards, income earning capacity, and production levels. The resettlement plan should be conceived and executed as part of development program, with displaced persons provided with sufficient resources and opportunities to share in the project benefits. Project planners should work to ensure that the affected communities give their demonstrable acceptance to the resettlement plan and the development program, and that necessary displacement is done in the context of negotiated settlement with affected community.
- vii. Additionally, displaced persons and host community should be meaningfully consulted early in the planning process and encourage participation in the planning and implementation of the resettlement program. The displaced persons should be informed

- about their options and right pertaining to resettlement. They should be given genuine choices among technically and economically feasible resettlement alternatives. In this regard, particular attention should be paid to the location and scheduling of activities. In order for consultations to be meaningful, information about the proposed project and the plans regarding resettlement and rehabilitation must be made available to local people and national civil society organizations in a timely manner and in a form and manner that is appropriate and understandable to the local people. As well, careful attention should be given in the organization of meetings. The feasibility of holding separate women’s meetings and fair representation of female heads of households, in addition to mixed meetings should be explored. Also, the way in which information is disseminated should be cautiously planned as levels of literacy and networking may differ along gender lines;
- viii. Particular attention should be paid to the need of disadvantaged groups among those displaced, especially those below the poverty line, the land less, the elderly, women and children, and ethnic, religious and linguistic minorities; including those without legal title to asset, female head of households. Appropriate assistance must be provided to assist the disadvantaged groups cope with the dislocation and to improve status. Provision of health care services, particularly for pregnant women, and infants, may be important during and after relocation to prevent increases in morbidity and mortality due to malnutrition, the psychological stress of being uprooted, and increased risk of diseases;
 - ix. Resettles should be integrated socially and economically into host communities so that any adverse impact on host communities is minimized. Any payment due to the hosts for land or other assets provided to resettles should promptly render. Conflicts between hosts and new arrivals may develop as increased demands are placed on land, water, forests, services, etc, or if the new arrivals are provided services and housing superior to those of the host. These impacts must be carefully considered when assessing the feasibility and cost of any proposed project involving displacement, and adequate resources must be reflected in the budget for the mitigation of those additional environmental and social impact.
 - x. Displaced persons should be compensated for losses at “replacement cost” prior to their physical displacement or before taking-over of the land and related assets or commencement of project activities, whichever occurs first; and
 - xi. The total cost of the project as a result should be included in the full cost of all resettlement activities, factoring in the loss of livelihood and earning potential among affected peoples. This

attempt to calculate the “total economic cost” should also factor the social, health, environmental and psychological impacts of the project and displacement, which may disrupt productivity and social integration. The resettlement cost should be treated against economic benefits of the project and any other net benefits to new arrivals should be added to the benefit stream of the project.

The policy defines the affected population in a resettlement program, describes the modes of identifying their loss of assets/income resources or access to assets, eligibility and entitlements within the context of a resettlement plan.

The proponent will be required to prepare a comprehensive resettlement plan for all projects that involve a significant number of people (200 people or more) who would need to be relocated with loss of assets, access to assets or a reduction in their income.

For any project involving the resettlement of less than 200 people, an abbreviated resettlement plan must be produced. According to the AfDB Disclosure Policy and the AfDB Environmental and Social Assessment Procedures the Full Resettlement Plan and the Abbreviated Resettlement Plan must be posted in the AfDB Public Information Center and on the website AfDB to allow for public review and receipt of comments.

Finally, it should be noted that the AfDB, within the framework of the Integrated Safeguards System (ISS) (SO1), also asks to protect the health and safety of the communities and to ensure that they participate in the benefits of the project and to ensure that

5.5.2 AfDB Group Gender Strategy (2021 -2025)¹

AfDB Group recognizes that promoting gender equality and women and girl’s empowerment constitutes a reliable instrument in fostering inclusive and dynamic economies and establishing prosperous and healthy societies.

Considering the region-specific gender characteristics that are of direct relevance to its economic and social development, AfDB has made gender equality and the empowerment of women and girls a central part of its activities by developing and implementing strategies on the need to integrate women's concerns into internal operations and engagements and external to the Bank. This strategy will be guided by principles. Some examples are cited below:

- Resource optimization through gender mainstreaming
- Selectivity
- Alignment with regional member countries (RMC) priorities;
- Synergy and enhanced delivery capacity;

¹ <https://www.afdb.org/en/documents/african-development-bank-group-gender-strategy-2021-2025>

- Knowledge generation and data-informed decision making
- Forward-looking
- Tailored approaches in fragile contexts
- Leading role in driving a gender-sensitive COVID-19
- Strategic alignment

The overall objective of the strategy for equality between women and men 2021-2025 is to reduce gender inequality and give women the means to participate actively at all levels of the hierarchy. It relies on three strategic intervention levers as effective entry points: (i) financing and access to markets, (ii) skills development, (iii) an evidence-based policy environment, and (iv) infrastructure development.

5.5.3 Bank Group Policy on Poverty Reduction (2004)

The goal of the Bank's poverty policy is to ensure that poverty in Africa is reduced. This involves development of strategies that facilitate national ownership, participation and an orientation towards improvements in the welfare of the poor, especially in the achievement of Sustainable Development Goals (SDG).

The objectives of the policy are to bring poverty reduction to the forefront of the Bank's lending and non-lending activities and to support its Regional Member Country's (RMCs) in their efforts towards poverty reduction. Support for country-owned Poverty Reduction Support Programmes (PRSPs) plays an important role in this respect. The following are the policy Guiding principles:

- Poverty Focus:** Poverty reduction has become the overarching goal of the Bank for the last four years. The realization of this goal requires a more focused analysis of the incidence, depth and causes of poverty in Africa. Such focus on poverty reduction instance, it is necessary to go beyond a general support for agricultural, human resource and private sector development by designing and implementing pro-poor policies within these broad areas.
- National ownership, participation and outcome orientation:** The principles of the new strategic framework form the basis for the policies discussed in this chapter. A number of policy measures such as support for national capacity building, promotion of the participatory approach development of new forms of partnerships and establishment of poverty monitoring systems relate directly to this principle.
- Internal policy coherence.** The importance of the priority areas and the cross-cutting issues has been discussed in the Bank's sector specified policies. The purpose of the poverty policy is to strengthen existing sector policy prescriptions and to fill gaps on specific areas from standpoint of poverty reduction.

- d. **Country-led partnership:** The policy also underscores the importance of a coordinated donor response to the demand from RMCs for supporting their PRSPs. A strong partnership ensures the consistency between the Bank's poverty policy and the poverty reduction strategies of its RMCs as articulated in the PRSPs for African Development Fund (ADF) countries and similar planning documents for African Development Bank (AfDB) member countries.
- e. **Enriched conceptual framework:** The policy takes into account the new conceptual framework which expands the concept of poverty beyond income measures and its causes. It also addresses the economic and non-economic causes of poverty

5.5.4 Disclosure and Access to Information (2013)

This revised policy supersedes the AfDB Policy on disclosure of information dated October 2005. The Policy provides the Bank group with an improved framework within which to disclose information on policies and strategies and key decision made during project development and implementation. Maximum disclosure and access to information will increase public support for the Bank Groups Mission and enhance the effectiveness of its operations. The policy contains the following new elements:

- a. A strengthened presumption of disclosure, eliminating the positive list and emphasizing a limited negative list;
- b. Introduction of an appeals mechanism;
- c. Provision of simultaneous disclosure; and
- d. Increased access to the broad range of stakeholders.

The policy aims to:

- a. Maximize disclosure of information within the Banks Groups possession and limit the list of expectations to reflect the Banks willingness to disclose information
- b. Facilitate access to and share information on the Bank group's operations with abroad range of stakeholders;
- c. Promote good governance, transparency and accountability to provide leadership in these areas to RMCs;
- d. Improve on implementation effectiveness and better co-ordinate the information disclosure processes;
- e. Give more visibility to the Bank Group's mission, strategies and activities to stakeholders
- f. Support the Bank Group's consultative process in its activities and stakeholders' participation in the implementation of the Bank Group financed projects. Ensure harmonization with other Development Finance Institutions (DFIs) on disclosure of information.

During the RAP implementation it is strongly recommended that concerned authorities at District level together with WASAC should embark on sensitization to keep the community and the PAPs fully informed on the progress being made in the implementation of the project. This strategy will include among others: Holding workshops and seminars for the PAPs and the community, distribution of materials and literature on the project, Audio and visual presentations including talk shows in the local FM stations. This should be conducted in a language understood locally by the community.

5.5.5 Handbook on Stakeholders Consultations and participation on AfDB Funded Projects

Participation in development can be defined as the process through which people with an interest (stakeholders) influence and share control over development issues that affect them. Measures have to be taken to identify the relevant stakeholders and involve them in the process of formulating the project. This entails sharing with them the objective of the project and seeking their views for integration in the project design before decisions are concluded. It might be necessary to take the stakeholders through a process of training and thus empowering them not only to meaningfully contribute to the project design but also for their future participation in the sustainability of the project.

According to the Handbook, many methods and technique have been developed to promote participation by stakeholders in development. Some of the methods and techniques used include:

- a. Participatory stakeholder's analysis
- b. Participatory meetings and workshops
- c. Participatory research /Data collection.
- d. Participatory planning

5.6 Comparison between National policy & legislative framework and AfDB Standards related to involuntary settlement

Some of funders' requirements are not met by certain aspects of the Rwandan legislation and practice in the field of compensation. This section provides the main differences between Rwandan Expropriation Law and provisions of the AfDB Operational Safeguard (OS) 2.

- **Avoid Resettlement:** While international standards stipulate that project should first avoid involuntary resettlement as much as possible, there are no similar provisions in Rwandan national legislation, which states that 'expropriation of land will be done when deemed necessary for public purposes.
- **Resettlement planning, implementation and monitoring:** The African Development bank requires to plan, implement and monitor involuntary resettlement. These mainly include a resettlement action

plan (RAP). Based on Rwandan laws and regulations, the entity in charge of expropriation identifies affected parties, informs them about why the project and resettlement process are necessary and if the decision is approved by the Local Land Commission, a compensation contract is drawn. Although the national Expropriation Law protects the interests of affected parties more than perhaps other neighboring countries, it still does not go as far as to require the preparation of one cohesive RAP under the national legislation, nor the National Legislation require to monitor the process of resettlement and livelihood assistance.

- **Eligibility determination:** The AfDB OS 2 require that affected people with and without formal land rights are entitled to compensation, including those with claims to land, and those with no recognizable legal right to some compensation, including resettlement assistance to vulnerable people. Based on the Rwandan legislation only “landholders” with legal land titles are entitled to compensation for affected land. Thus, the African Development Bank resettlement principles cover a broader range of parties who are eligible to compensation and assistance, than the national policy.
- **Fair and just compensation:** Furthermore, whilst the Expropriation and Valuation Laws of Rwanda provide that affected parties are entitled to “fair and just” compensation, the definition of ‘fair and just’ is not defined. At the same time, the national legislation strongly supports cash compensation. In contrast, the AfDB OS 2 define what the compensation principles are for main categories of affected people, and stipulate a clear preference for non-cash compensation for land-based livelihoods.
- **Valuation of compensation:** The AfDB guidelines require an adequate replacement cost that is not only based on market value of an equal asset, but that also takes into account loss of livelihoods and productive assets, as well as loss of access to social and public services. Based on the Rwandan legislation, compensation is estimated by independent valuers based on a number of different valuation methodologies where they can choose which valuation method to apply, thus eroding the transparency of the asset valuation process, which is one of the major disagreement points among the affected parties.
- **Meaningful and participative consultation:** The AfDB OS 2 require that project affected people should be meaningfully consulted and have the opportunity to participate in planning and design of the resettlement process. The Rwandan Expropriation Law simply stipulates that affected people should be fully informed about the expropriation issues and prohibits any opposition to the expropriation process.
- **Monitoring:** Whilst monitoring measures are specified in the Rwandan legislation, the focus is to ensure that the agreed compensation amount was paid in full. It does not require assessment as to whether the compensation provided was appropriate, or whether the

PAPs livelihoods have been restored or improved as stipulated by the AfDB OS 2.

The following table provides a detailed comparison of the Rwandan National Policies, legal framework and the AfDB policies regarding compensation. It should be noted that the AfDB guidelines and policies on involuntary resettlement are more favorable to Project Affected People than the provisions of the Rwandan Legislation, although some principles are very closely aligned.

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Table 5- 1: Comparison of the Rwandan policy and legal framework with AfDB policies

Policy and legal framework aspects	Rwandan Framework	AfDB framework	Comment
Categorization of projects	<p>Ministerial order No 001/2019 of 15/04/2019 establishes the list of projects that must undergo environmental impact assessment, instructions, requirements and procedures to conduct environmental impact assessment. The order provides criteria for the three categories of projects:</p> <ul style="list-style-type: none"> • Projects which shall undergo a full environmental impact assessment (EIA). • Projects which shall undergo partial environmental impact assessment. • Works, activities and projects that are not included on the list 	<p>SO1 classifies projects as follows:</p> <p>Category 1: Bank operations likely to cause significant environmental and social impacts.</p> <p>Category 2: Bank operations likely to cause negative environmental and social impacts of lesser magnitude than those of Category 1 projects.</p> <p>Category 3: Bank operations with negligible environmental and social risks.</p> <p>Category 4: Bank operations involving loans to Financial Intermediaries (FIs).</p> <p>The SO2 describes according to the importance of the project the realization of two types of RAP:</p> <p>A Full Resettlement Action Plan (FRAP) for (i) any project that affects 200 or more people (as defined by the Involuntary Resettlement Policy) or (ii) any project that may have negative impacts on vulnerable groups.</p> <p>A Full resettlement action plan (RAP) for any project for which the number of people to be displaced is greater than or equal to 200 people and land acquisition and the potential for displacement and disruption of livelihoods are considered important.</p>	<p>The project was considered category 1 and was the subject to a Resettlement Action Plan since more than 200 people are affected.</p>
Land Owners (loss	According to the provisions of	Project Affected People (PAPs) with title as	The AfDB has a wider

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Policy and legal framework aspects	Rwandan Framework	AfDB framework	Comment
of land)	National Constitution and National Land Policy, all Rwandese citizens have equal rights of access to land, with no gender discrimination in regards to land ownership. Land ownership is proved through relevant documentation. Article 26 of expropriation law states that the owner of land designated for expropriation in the public interest shall provide land titles and documentary evidence that he/she is the owner of property incorporated on land. Compensation for non-transferable property is typically based on market value.	well as PAPs who do not have a formal title but have customary and traditional land rights or who have a recognised claim to the land at time the census begins - are entitled to compensation for land that they lose (as well as other assistance) Land-for-land exchange is the preferred option; compensation for affected assets is to be provided for full replacement cost based on market values.	recognition of rights of those who are entitled to compensation, if affected by a project. The national legislation does not explicitly call for provision of the land compensation option as the best/preferred option. All affected property owners have been considered for compensation.
Land Squatters (i.e. those who have no recognisable claim to the land that they are occupying)	Based on the National Legislation, only those who are “landholders” with legal rights to the property, are entitled to compensation. Land tenants, under Rwandese Law, are entitled to compensation based on the contracts that they have in regards to the land in question.	This category of people will need to be assisted with the resettlement process and livelihood restoration regardless of their land-less status (see above the definition of PAPs). This category of people is also entitled to compensation for loss of crops/trees.	This category of PAPs is entitled to assistance with the resettlement and livelihood restoration process and also compensation for their crops and trees, as per the OS 2
Land Users/ Land Sharecroppers / Tenants (These P	Land users are not entitled to compensation for land, but entitled to compensation for crops and any	Land users are not entitled to compensation for land, but entitled to compensation for crops and any other economic assets that	his category of P APs is entitled to compensation for crops and other assets

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Policy and legal framework aspects	Rwandan Framework	AfDB framework	Comment
APs include tenants or any other persons using the land to grow crops).	other economic assets that belong to them.	belong to them, as well as to relocation assistance as the case may be and income must be restored to at least pre-project levels.	that belong to them, assistance with the resettlement and livelihood restoration process, as per the OS 2 All people who had crops have been valued and will be compensated.
Owners of structures (residential or otherwise)	Owners of structures are entitled to cash compensation based on market values.	This category of PAPs is entitled to in-kind compensation or cash compensation at full replacement cost including relevant taxes, labour and relocation expenses, prior to displacement. For movable structures, such as kiosks or stalls, comparable replacement sites should be offered.	Families should be consulted on their preferred options and should be able to choose between them.
Livelihood restoration	There are no explicit provisions on livelihood restoration in the National Legislation.	Livelihoods and living standards are to be restored to the pre-project levels or better conditions	Follow AfDB OS 2 guidelines and principles and offer assistance for livelihood restoration or improvement through provision of training, credit, job placement, and/or other types of assistance.
Timeline for compensation payments	The agreed compensation must be paid by a project developer within 120 days (or 4 months) after the	The promoter is required to have made the payment by check or deposited beforehand the agreed compensation (as per valuation	Follow AfDB OS 2 guidelines and principles. Provisions of the National

RESETTLEMENT ACTION PLAN FOR KIVU BELT WSS PROJECT

Policy and legal framework aspects	Rwandan Framework	AfDB framework	Comment
	<p>publication of the Land Acquisition and Expropriation decision by the Local Land Committee. If the project developer does not fulfil this timing obligations, the process of land acquisition and expropriation is invalidated.</p> <p>A PAP who received compensation, must vacate the area within the next 90 days. Failure to vacate the land within this period will trigger forceful evictions.</p>	<p>undertaken) to an individual or joint account for the affected person’s access prior to accessing land.</p>	<p>law related to 120 days will be observed.</p>
<p>Consultation disclosure</p>	<p>The Expropriation Law provides for public consultation on.</p> <p>In addition, disclosure of reasons for the project to be developed and the need for expropriation. In addition to this, the Expropriation Law requires prior consultative meetings and examination of the project proposal involving expropriation, with a view to avoid eventual prejudice towards a person or entity subject to expropriation. A consultative meeting is held within 30 days after receipt of the application for expropriation. Based on these consultations, the relevant Land</p>	<p>Consult project-affected persons and host communities as appropriate.</p> <p>Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits (as documented in a project resettlement policy framework), and establishing appropriate and accessible grievance mechanisms.</p>	

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Policy and legal framework aspects	Rwandan Framework	AfDB framework	Comment
	Committee (the Cell level) takes a decision to approve the project within a period of 15 days.		
Relocation and restoration assistance livelihood	There is no provision for relocation assistance or post- resettlement livelihood restoration in the Rwandan Legislation.	Where involuntary resettlement cannot be avoided, assist displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. Provide assistance (such as moving allowances) during relocation.	Follow AfDB OS 2 guidelines and principles on livelihood restoration assistance and moving allowance (as defined in the resettlement policy framework). Livelihood restoration in this RAP has been provided for in the 5% addition to compensation packages and months rent free given to tenants who were renting part of the land.
Grievance mechanism and dispute resolution	The Expropriation Law Article 26 defines the complaints procedures for individuals dissatisfied with the estimates of their compensation values. The complainant has 30 days after the project approval decision to appeal against the compensation value estimates (Article 19).	The promoter should set up and maintain an independent and free grievance mechanism to address specific concerns about compensation and relocation from the affected people and host communities. The mechanism should be easily accessible, culturally appropriate, widely publicized, and integrated in the promoter's project management system. It should enable the promoter to receive and resolve grievances	Follow AfDB OS 2 guidelines and principles on grievance mechanism (as defined in this resettlement policy framework).

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Policy and legal framework aspects	Rwandan Framework	AfDB framework	Comment
		related to compensation and relocation by affected persons or members of host communities, and use the grievance log to monitor cases to improve the resettlement process.	

CHAPTER 6: - SOCIO-ECONOMIC PROFILE OF THE AFFECTED PERSONS

6.1 Introduction

This chapter describes the current socio-economic situation of the people to be affected by the project and provides the baseline status that will be used to measure the project impact on them.

The information presented has been collected through socio-economic survey by one-on-one interviews, focused group discussions and filling of questionnaires conducted to the person owning the land which will be used or required for construction of Kivu belt WSS. The PAP household head and or spouse was targeted and the questionnaire solicited information regarding the PAPs' household demographic structure, employment and labor, property and land holdings, assets affected, educational profile, household health wellbeing and welfare, income and expenditure patterns, the anticipated impact of the proposed project activities, the preference for compensation among other issues.

6.2 Demographic characteristics of the project affected persons

People likely to be affected by the project has been evaluated to 38,799 PAPs including males and females and vulnerable groups composed of elderly people over 65 old years and people, orphans, widows and people living with disability. People identified in this vulnerable category need particular attention, especially during the implementation of the livelihoods restoration process. Households that will be affected by the project are about 18,310 AH and on average 5 persons are dependent to head of the household.

Most of the interviewed people were the heads of households, and for the very few who were not heads were close relatives of the heads of the households, either a spouse, or a brother or sister.

The main economic activity of the affected households is agriculture which is practiced by overall all local people, very few are doing non-farming activities like trade. Table below presents the overall socioeconomic status of the people affected by the project (PAPs) in the two districts, Karongi and Rutsiro.

Table 6- 5: Socioeconomic status of PAPs

Number of Project affected persons (PAPs).	38,799
Number of affected households	18,310
Number of affected females	20,563
Number of affected vulnerable persons	122
Number of building impacted	17
Total area of land lost (ha)	14.72
Surface of annual crops (Cultures/Imyaka) destroyed (m2)	42,235
Number of perennial crops (Ibihingwa n`Ibiti Nkondabutaka/Cultures pluriannuelles)) destroyed (pieces)	26,295
Number of lumber trees (I biti bibazwa/Bois d'oeuvre)	32,102
Number of fruits trees and medicinal plants (Ibiti byera imbuto ziribwa)	4,022

Number of Project affected persons (PAPs).	38,799
n’ibiti bivamo imiti/Plantes fruitiers et medicinales) destroyed (pieces)	
Number of ornamental trees (Ibiti byindabo/Arbres ornamentales) destroyed	1,155

6.2.1 PAH distribution within intervention area

Table 3 Distribution of affected households

Sl. No.	Covered Districts	PAH	%
1	Karongi	10,071	55%
2	Rutsiro	8,240	45%
Total		18,310	100%

Source: Field survey, 2022-2023

The above table shows the households to be affected by the project activities concerning Intake works, WTP, tanks and pipelines network construction in Karongi and Rutsiro Districts. 55% of PAHs are in Karongi whereas 45% are located in Rutsiro district. Karongi PAPs number is slightly above Rutsiro PAPs number as the WTP, Intake, and Main tanks will be constructed in Karongi district, whereas in Rutsiro only distribution tanks will be constructed and the length of main pipeline in Karongidistrict is slightly greater to the pipeline in Rutsiro district. The survey founded that most land-use regime is agriculture with 14.72 ha.

6.2.2 Gender

Overall, the census revealed that 56% of the individuals from the affected households are female and 44% are male. Gender distribution is presented in Table - 6.

Table 4 Distribution of the PAPs by gender

Sex	Female	Male	Total
Frequency	20,563	18,236	38,799
Percentage	53%	47%	100%

Source: Field survey, 2022

The above table represents the distribution of the PAPs by gender. The table reveals that there is a predominance of women over men confirming the National demographic characteristic where the female population is greater than male population. The data in the table above is close to the data of Rwanda 5th population and housing census of 2022 which revealed that female is 51.5% and male is 48.5%

6.2.3 Marital Status of the head of households

Approximately Ninety-six (96%) of household’s heads are cohabitants or married However, even if a good number of inhabitants in these households heads were married, 4% are widow/widower and 0% represented by 0.6% person is single.

Table 5 Marital status of the PAHs heads

Marital	Cohabiting/	Singl	Widow /	Total
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Status	Married	e	Widower	
Frequency	37,169	233	1,397	38,799
Percentage	95.8%	0.6%	3.6%	100.0%

Source: Field survey, 2022-2023

From the above table, the majority of the respondents (one person within the household to be affected was interviewed who was the head of household or his/her representative) are married or cohabitating represented by 95.8% (i.e. 37,169 respondents), while single category is represented by 0.6% where 37 persons responded to be single while conducting the community survey and the Widow/widower 3.6% - represented by 1,397 PAHs.

6.2.4 Age Profile in Affected Households

The affected population age profile is relatively young with the range between 4-17 and 18-35 being respectively dominants.

The working age of the affected population and this could be attributed to stakeholder reports of young people of working age within the affected population in search of work or training opportunities. Age-wise distribution of the PAPs is presented in Table - 8.

From the table below, it comes out that the most prevalent range is the group age of 18-35 which represents 34.8%, followed by the age group of 4-17 (29.5%). The group age of 36-64 which has 28.0% is followed by the range of PAPs who have 0-3 years of age with 5.4% while the elder is 2.3% (421 persons).

Table 6 Distribution of the PAPs by age

Age Group	0-3	4-17	18-35	36-64	65 and above	Total
Frequency	2,095	11,446	13,502	10,864	892	38,799
Percentage	5.4%	29.5%	34.8%	28.0%	2.3%	100.0%

Source: Field survey, 2022-2023

6.2.5. Education

Distribution of PAPs by the level of education is presented in Table - 9; this demonstrates the education level of the PAPs within the surveyed communities (PAPs). Three percent (2.9%) i.e. 531PAPs don't have the primary education. These are the illiterate people while 57% of total PAPs i.e. 10,437 people had primary education.

For the secondary education, 34.3 % i.e. 6,280 PAPs attended secondary schools. Tertiary education (Universities and institutes) has been accessed (attended) by 0.9 % i.e., 165 PAPs among the community. Children below 3 years of age are not concerned in this education level distribution, but they are all inclusive because their parents are mobilized to bring the children to the school when they have the pre-schoolage and the

Government has a target of having one Early Child Development (ECD) in every village and currently the program is being implemented countrywide for this category of the children.

Table 7 Distribution of PAPs by Level of Education

Education level	Primary school	Secondary school	University/ Tertiary education	Never went to school	Not concern (below 3 years)	Total
Frequency	10,437	6,280	165	531	897	38,799
Percentage	57.0%	34.3%	0.9%	2.9%	4.9%	100.0%

Source: Field survey, 2022-2023

6.2.6. Distribution of the PAPs by health status

The health indicators are very important during the project preparation and implementation, It was also imperative to identify the frequent diseases in the PAHs given that the affected people should demonstrate their capacity to work for their development. It is therefore essential to classify chronic and acute diseases as malaria, diarrhea, Upper Respiratory Tract Infections, blood pressure, skin diseases, diabetes and other diseases such as dental diseases, metabolic diseases, etc. among 38,799 PAPs, 203 PAPs encountered different diseases. Table - 10 demonstrates the diseases frequency during the last six months in Karongi and Rutsiro administrative Districts within PAHs.

Among 38,799 PAPs, only 203 people got sick from different diseases within a period of six months before the survey, as demonstrated in the below table. The incidence of diseases within the PAPs were Malaria, Diarrhoea, Upper Respiratory Tract Infections (URTIs), and non- communicable diseases (NCDs) the like of Blood pressure, Diabetes, Cancers etc. The table shows again that URTIs are the most prevalent followed by Diarrhoea and NCDs with 41%, 30% and 21% respectively while only 16 PAPs (8%) contracted malaria. This is important as the presence of borrow pits due to project activities may trigger a spike in malaria cases thus need for health education and sensitization by local authorities on need to use preventive measures such as Mosquito treated nets.

Table 8 Distribution of people by frequency of diseases

Diseases	Malaria	Diarrhea diseases	Respiratory Tract infections	NC Ds	Total
Frequency	16	61	83	43	203
Percentage	8%	30%	41%	21%	100%

Source: Field survey, 2022-2023

What is your medical insurance?

The health insurance plays a vital role in safeguarding individuals and families from the financial burden of medical expenses. The conducted survey founded that all PAPs has and use one of common and efficient health insurance call “ Mutuelle de Sante “ at 100 % which help them for Financial Protection, Access to Quality Healthcare, Comprehensive Coverage, Timely and Appropriate Care ,Preventive Care and Wellness Programs and Support for Chronic Conditions etc,..



Figure 6 : medical insurance

6.2.7. PAPs Vulnerability Analysis

The vulnerability assessment in social-economic impact assessments remains a fundamental safeguard tool in protecting, supporting and accompanying vulnerable PAPs along their eviction and relocation process. In development projects requiring the loss of houses and properties, some groups of people are classified by the Government of Rwanda in the category of vulnerable people and are therefore classified in Ubudehe² category. These include people living with disability, elderly people with 65 years of age and above, Orphans, child headed households and People with extreme poverty.

Table - 11 demonstrates the categories of vulnerable PAPs in the areas to be affected by the Water Supply system construction.

Table 9 the vulnerability level of the heads of households.

Disability Criteria	Disabled (handicap)	Orphan	Elderly (over 65 years)	Child - Head of household	Women - Head of household	Extreme poverty	Total
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² Ubudehe is a social stratification programme depending on income among households.

Frequency	4	0	98	0	16	6	122
Percentage	3%	0%	80%	0%	13%	5%	100%

Source: Field survey, 2022-2023

The above table indicates that the vulnerable PAPs include the elderly, represented by 80% (98 PAPs) among all the PAPs and the woman-headed households are represented by 13% (i.e. 16 people) among PAPs; 6 people (5%) living with extreme poverty whereas 4 people (3%) are disabled.

Affected people in this category are mostly elders and some of them are supported by the Nation social protection scheme where all basic needs and livelihoods are included in the package of the social protection system in Rwanda. But, as they will be affected by the project, specifically their crop lands and planted trees, they have to benefit from the project livelihood restoration program, with a package of interventions or projects which will be identified, designed and implemented in full consultation with the beneficiaries and in close collaboration with local administrations, taking into consideration of the needs, preferences, and capability of the beneficiaries, and aiming at the restoration of the livelihoods of the affected persons at a level which are better in comparison to their respective initial status.

6.2.8. Distribution of the PAHs by energy and water access and structures

The affected population has different sources of lighting and water for domestic use, such as Electricity, Kerosene lamp, solar energy and Battery. About cooking, these are the identified sources: Charcoal, firewood and gas. For water, the dominant source is Portable water. Table 12 indicates the distribution of the PAHs by source of the lighting.

Table 10 PAHs distribution by source of lighting

Source of Light	Electricity	Battery	Rechargeable Torch	Solar energy	Kerosene lamp	Total
Frequency	7,372	1,164	517	517	3,363	12,933
Percentage	57%	9%	4%	4%	26%	100%

Source: Field survey, 2022-2023

The above table demonstrates the source of lighting of the affected households from affected population: 57% of the PAHs represented by 7,372 PAHs use Electricity taken from the national grid for lighting, whereas the Kerosene lamp is used by 24 % of the PAHs. The solar energy is used by 4% of the households i.e. 517 PAHs.

Table 13 illustrates the distribution of the PAHs by source of the water.

Forty-three percent (43%) of PAHs use Potable water, 23% of the PAHs use water from protected spring/well, 17 % reported to use surface water mainly from lake Kivu and streams whereas 13 % reported to use water from unprotected spring/well, 3% use rain water and 1% of the PAHs use other source of water. However, during the survey, the team identified that they walk along distance to public tap where some of them would walk like 4 km to fetch water, using more than 30 minutes to arrive to a standpipe.

Table 11 Distribution of the PAHs by source of water for domestic use

Source of water	Surface water/ Lake water	Public tap / standpipe	protected spring/well	unprotected spring/well	rainwater	Other source of water	Total
Frequency	2199	5561	2975	1681	388	129	12,933
Percentage	17%	43%	23%	13%	3%	1%	100%

Source: Field survey, 2022-2023

Table 12 Distribution of PAHs by source of cooking

Source of energy for cooking	Gas	Firewood	charcoal	Total
Frequency	1,164	10,217	1,552	12,933
Percentage	9%	79%	12%	100%

Source: Field survey, 2022-2023

The above table demonstrates distribution of the PAHs by the source of cooking. The firewood dominates with 79% and charcoal is used by 12% which demonstrates the massive forest degradation. The Government has been encouraging People to use other forms of energy than firewood in order to reduce the indoor air pollution and forest degradation. This is why we have some of PAHs using Gas (LPG: Liquefied Petroleum Gas) which is a clean source of energy, 4% of the population use charcoal for cooking.

6.2.9. Income generating activities and livelihoods

6.2.9.1. General

Agriculture is the main income generating occupation (86%) for community members, given that all PAPs are in rural area.

Table 13 Income generating activities

Source of income	Agriculture	Government salaried	Private Sector	Trading	Total
Frequency	10,346	776	647	1,164	12,933

Percentage	80%	6%	5%	9%	100%
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Source: Field survey, 2022-2023

As the table above presents, the majority of PAPs’ occupation is agriculture (majority of them combining cultivating and livestock farming) with 80%, while others earn their lives from Government job, Privatesector salaries and trading with 6%; 5% and 9% respectively.

Economic activity in some developing countries still consists mainly of supplying material goods to meet basic needs - food for home consumption, for instance. Such economies would be called agriculture- based or primary economies; but even here, trade is playing an increasingly important and dynamic role even if it is practiced by the small number of the people in the PAPs. However, this form of profession (agriculture) is still rudimentary and unable to provide enough income for a better living condition.

6.2.10. Distance from Dwellings to water points and time used.

Unimproved water sources, inadequate sanitation facilities and poor hygiene are the main causes of diarrheal diseases, especially in developing countries. In Rwanda any Household is said to have access to safe drinking water if it fulfills the two requirements: a) The water point should not be more than 500 meters from the household;) The time required to reach the water point, queue, collect water and return to the household should not be more than 30 minutes (National Guidelines for Sustainable Rural Water Supply Services, 2019). The table below presents the findings from the data collected on water access.

Table 14: PAHs location to potable water points

Distance	>500 m=0.5km	0.5-2km	greater than 2km	Total
Frequency	4,009	6,337	2,587	12,933
percentage	31%	49%	20%	100%

Source: Field survey, 2022-2023

According to the findings above from the response of heads of households, only 33% of the PAHs have access to potable water, even though they said that these public taps where they get water are not stable. They are always closed due to lack of water, the water source to potable water does not supply enough water to distribute to all public taps all time along the day which is very Critical to Hygiene and sanitation. However, a considerable percentage of respondents (49%) confirmed that they walk a distance between 0.5-2 km to fetch potable water and spent more than 30 minutes even one hour to come back home. 20% of the

PAHs responded that they spend more than 1 hour to go and come back to their homes to fetch water and walk a distance greater than 2km to potable water source. The WASAC charter states that a maximum distance of 0.5 km is tolerable in order to assert water accessibility in a rural area. This long distance implies the time used to reach the water source and therefore the time lost which would be used for other productive activities.

CHAPTER 7: - PUBLIC CONSULTATION AND ENGAGEMENT

7.1 Context and objectives

Public consultation meetings were organized in the project area, by the Consultant with full support of local administration from the districts, sectors and cells. Participants were PAPs and the overall local community members living in the project area.

The meetings at the cell level were held at agreed places with easy access to many participants. Consultation meetings were organized in preparation and further implementation of Resettlement Action Plan (RAP) for which local people who are the direct beneficiaries have to be involved in the whole process. In addition, during the public consultation meetings communities/stakeholders' concerns and views about the project are heard and noted for their integrated in the project implementation process.

Consultations meetings were organized from 8th October 2022 to January 2023 in different sectors and cells, with the objectives of:

- i. Informing the stakeholder's regarding the Project, its potential impacts, but also the mitigation measures set to address the resettlement negative impacts.
- ii. Engage with the interested and affected members of the community about the project benefits, challenges and how they can be solved.
- iii. Identification of vulnerable people within the project intervention areas.
- iv. Discuss the entitlement matrix for the PAHs.
- v. Identify common community assets likely to be affected.
- vi. Establishment of a grievance redress mechanism.
- vii. Communicate and discuss the different compensation measures in place.
- viii. Communicate to the stakeholders the benefits of the project.

7.2 Methodology used along the public consultation planning and implementation

7.2.1 Community and PAPs Meetings

People were mobilized in collaboration with the local authorities of sector and cells in the project area. An introduction letter/to whom it may concern describing the project in brief to Karongi and Rutsiro District, its objectives and detailed schedule of meetings in each sector and cell was sent.

The District Authorities informed the sectors and requested the Executive Secretaries of interested sectors differently to facilitate by inviting right people (people affected by the Project activities and everyone that will benefit from the Project works) to participate in these public / consultation meetings. After the above administrative methods, follow-ups calls were made (with sectors executive secretaries) to make sure that people are mobilized to attend the meetings.



Meetings were held at different cell offices and establishment of Grievance Redress Committee (GRCs) held at cell level. In total, 4 consultation meetings were held between 8th October 202 to January 2023.

Table 15 Consultation Meetings

N o.	Date	Venue of Meeting	Cells Targeted	Sector	Main stakeholder Groups attending	Male	Female	Total
1	Refer Annex	Nyagahinga	Ruragwe	Rubengera	PAPs and other beneficiaries (with different profession)	23	32	55
2	Refer Annex	Bubazi	Bubazi	Rubengera	PAPs and other beneficiaries (with different profession)	51	37	88
3	Refer Annex	Gacaca	Gacaca	Rubengera	PAPs and other beneficiaries (with different profession)	21	25	46

N o.	Date	Venue of Meeting	Cells Targeted	Sector	Main stakeholder Groups attending	Male	Female	Total
4	Refer Annex	Kabuga	Bubazi	Rubengera	PAPs and other beneficiaries (with different profession)	19	24	43
5	Refer Annex	Kayenzi	Kayenzi	Bwishyura	PAPs and other beneficiaries (with different profession)	31	36	67
6	Refer Annex	Gitega	Gitega	Bwishyura	PAPs and other beneficiaries (with different profession)	24	27	51
7	Refer Annex	Nyarusazi	Nyarusazi	Bwishyura	PAPs and other beneficiaries (with different profession)	45	50	95
Total						214	231	445

The list of minutes and attendance register for each meeting are provided in Annex 2.

Public meetings were chaired by mostly the Executive secretary who introduced the RAP teams. After the opening remark given by the local authority, the RAP teams explained briefly:

- the project,
- process of RAP,
- brief on new expropriation law,
- grievance mechanism,
- valuation process & principles,
- the cut-off date etc.

After the presentations the community was given opportunity to give their views, comments and queries. Questions were answered, clarifications offered, and their recommendations received and will be valued along the resettlement process.

7.2.2 Meetings with other Key stakeholders

Table 16 Key stakeholders' meeting

N o.	Date	Type of Stakeholder Met	Male attendants in Meeting	Female	Total
1	Refer annex	- Vice Mayor in Charge of Economic Development Karongi and Rutsiro District - Director One stop center	8	8	16

		<ul style="list-style-type: none"> - District officials - Land officers at sector - Executive secretaries of sectors - Executive secretaries of Cells - Farmers 			
2	Refer annex	<ul style="list-style-type: none"> - District Engineer in charge of Water and Sanitation - WASAC engineer - Karongi and Rutsiro District WASH Board members 	6	7	13

7.3 Concerns and views raised by PAPs and other participants

Concerns and views raised by PAPs and other participants as well their responses are summarized in the below table.

Table 7- 1: Concerns and views of PAPs and others

#	Concerns	Response
1	Loss of land, crops, trees, houses	Any affected property shall be fairly valuated and compensated prior then use of the land and assets.
2	How can ensure that the valuation of affected properties shall be fair	<ul style="list-style-type: none"> - The valuation shall be guided by the law provisions related to expropriation and compensation, - Prices of each item including land and other assets (houses, crops, trees, ...) are known and listed in the “Journal official”, - - Where the values of different item are too low, market price shall be used further applying the replacement cost compensation method. - GRC will help in addressing any complaint in collaboration with the project implementers
3	Some of the land owner do not have required documents	Local administration will help and speed up the acquisition of such documents
4	How to get job in the WSS project	Priority shall be given to local people, especially the PAPs who want to compensate the advantage lost due their displacement. However, children are not at all allowed to work in the project.
5	Compensation payment is most of time delaying and	WASAC and the districts are involved in the compensation process and they will make the follow up and ensure all PAPs are

#	Concerns	Response
	affected people are not allowed to use the affected land	compensated prior the use of his land.
6	When the construction works will start	Once the study is complete, construction works will follow.

7.4. Consultations highlights

- PAPs and other community consulted are in favor of the project.
- PAPs prefer financial compensation for houses and other properties likely to be affected.
- Most of the PAPs are looking forward to getting employed by the project and hope the project implementation will start soon.
- Detailed minutes of public consultation meetings, pictures and some of the signed attendance list of people who participated in public consultation are presented in appendices of this report.

CHAPTER 8: - RESETTLEMENT IM- PACTS AND COMPENSATION OF LOSSES

The project shall acquire land, either temporally or permanently, which is currently occupied by residences, agricultural activities, social and cultural facilities. During design, efforts have been deployed to minimize the size of land required and avoid resettlement where practicably possible by prioritizing placement of the transmission pipe in the land belonging to the government. However, considering the project size, its technical requirement, there shall be resettlement impacts.

This chapter provides details of the resettlement impacts that the Kivu Belt WSS Project's sets to induce. It gives inventory of resettlement impacts, compensation measures, eligibility criteria and cut-off dates. It also provides an overview of best practice guidance on how such resettlement impacts should be addressed.

8.1 Evaluation and compensation of affected assets

This section provides a detail of categories of impacts and census of PAPs and assets that will lead to economic loss and/or physical displacement and resettlement. The section also provides a conclusion with a summary of the total magnitude of loss identified through the PAP census and the valuation exercise.

This RAP has identified all people affected by the project and all adverse impacts on their livelihoods associated with the project's land acquisition.

Projected effects include:

- Loss of dwellings (residential structures)
- Loss of land,
- Loss of trees and crops
- Loss and perturbation due to moving of graves
- Reduced income resulting from these losses

8.2 Loss of dwellings (residential structures)

The compensation for houses and other buildings which shall be destroyed by the project shall be governed by the law N° 32/2015 of 11/06/2015 determining procedures relating to expropriation in the public interest. The value of the land on which those houses are built were valued based on the Rwanda land reference prices 2021 published in an Official Gazette n° Special of 01/12/2021. The estimation was done by Institute of Real Property Valuers (IRPV) as mandated by the mentioned law on expropriation, the prices are based on land parcel database held by the Rwanda Land Use Management Authority (RLMUA) and enriched

with land-value driving attributes using Geographic Information System (GIS) techniques. These attributes included:

- Location of the land;
- Accessibility: both general accessibility and access to public transport;
- Population density;
- Topography;
- Land use: existing and proposed land use;
- Proximity to amenities and infrastructures (education facilities, health facilities, water network facilities, electricity network, markets);
- Proximity to water bodies



Figure.: Houses to be destroyed during implementation of the project

The calculation of the compensation costs was made on the basis of the unit prices defined in the table below and the compensation will be made in cash without age-related depreciation in accordance with the requirements of the AfDB and on the basis of the total quantities corresponding to the affected constructions.

Table 8- 1: Unit cost for houses and other buildings

Item	Specifications	Unit	Rate (Rwf)
Compensation for site preparation works	Site preparation works (site clearing)	m ²	140
	Levelling works	m ³	2,900
Compensation for foundation	Excavation works	m ³	2,900
	Stones foundation	m ³	35,200
	Mud block foundation	m ³	14,500
Roof covering	Clay tiles + timber roof truss	m ²	6,500
	Iron sheets + timber roof truss	m ²	12,500
Ceiling	Ceiling of woven grass	m ²	2,500
	Ceiling of iron sheets	m ²	10,500
	Fascia Board (Planche d'arrive)	Lm	1,500
	Ceiling in triplex	m ²	7,500
Internal external walls	Walling using the mud and wood; 200 mm thick; bedded in mud mortar.	m ³	14,500

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Item	Specifications	Unit	Rate (Rwf)
	Walling using clay burnt bricks and; size 200 x 250x100 mm; bedded in cement + sand mortar.	m ³	72,500
	Reinforced concrete lintel including reinforcing bars and formwork	m ³	172,000
	Claustra	pces	1,200
In-Situ Finishings	10 mm thick mud plaster	m ²	300
	External cement and sand (1:3) plaster	m ²	5,200
	Two coats of emulsion paint including undercoat and smoothing the wall	m ²	2,800
Windows & external doors	Single door in wood 900mm*2000mm	Pces	59,200
	Single steel door 900mm*2000mm	Pces	135,000
	Steel windows size 800x 900 mm	Pces	65,000
	Steel windows size 600x 900 mm	Pces	35,200
	Wood windows size 600mmx 600mm	Pces	22,500
	wood windows size 600x 550 mm	Pces	15,000
	Wood windows size 400x 400 mm	Pces	12,500
Floor finishing	Cement pavement + stones	m ²	12,500
	Cement pavement + burnt bricks	m ²	9,500
Electrical Installation	Supply from electricity main to the building.	lm	500
	Electrical wiring	Pces	35,000
	Flourescent lamp Light 18W LED	Pces	2,000
	Switches	Pces	1,000
	Socket outlets	Pces	1,500
	Electrical connection from REG	ls	100,000
	Installation fees (More than 4 lamps)	ls	200,000

8.3 Loss of land and compensation value.

In general, the water pipes will be placed underground and people will have possibility to continue the normal use of their land. However, the survey identified land which shall be lost for construction of the following infrastructures; raw water intake infrastructures, pumping stations, water treatment plant, chambers and tanks.

Identified land are reserved and used mainly for agriculture according to RLMUA, as provided in the previous subchapter, the value of the land was estimated based on the Rwanda land reference prices 2021 published in an Official Gazette n° Special of 01/12/2021.

The total land which shall be required for the project correspond to 14.72 ha and the total value was estimated at 1,513,415,888 Frw (One Billion Five Hundred Thirteen Million Four Hundred Fifteen Thousand Eight Hundred Eighty-Eight Rwanda francs). The bigger land for compensation is located in Karongi District, Rubengera Sector, Ruragwe Cell, Nyagahinga Village where the water treatment plant shall be installed.

The survey counted and evaluated the value of all crops annual and perennial, trees and fruits which shall be affected.

Note that the seasonal crops may not be there when the project will start as they are harvested on seasonal basis

For lumber trees and perennial crops, the consultant considered the age of the crops by trying to respond to the following questions:

- Are the crops in years of growth and have not started the production period? (Before flowering)
- Have the crops attained the period of production?
- Have the crops attained their climax period?

Considering responses to the above questions, the consultant classified the stages of crops growth in placenta stage (nursery), secondary stage (medium) and climax stage (productive). All PAPs shall be compensated in cash according to market value and the crop growth stage.

The evaluation of perennial crops was made by counting, by species, during the survey in the field. The table below provides unit rates for lumber trees.

8.4 Moving graves

For the compensation of the graves, the consultant's team held meetings with the customary authorities of the villages concerned as well as with the administrations concerned at the departmental level. They all confirmed that in addition to the costs necessary for the construction of the tomb, many sacrifices and various rites are essential for the operations of exhumation and re-burial of the remains.

The cost of moving graves are considered as equal to the cost of rebuilding the new tomb and they are proposed as following:

- Constructed tomb: 400,000 Rwf
- Earthen tomb: 200,000 Rwf;

Taking into consideration rituals, the consultant proposes additional amount necessary for the operations of exhumation and re-burial of the remains corresponding to 500,000 Rwf per tomb. As per now only one tomb was identified at the place where the water treatment plant will be constructed, but during the excavation works possible other might be found.

8.5 Eligibility for compensation and resettlement

Determination of the eligibility criteria for Kivu Belt WSS was based on both national Policies and AfDB operational safeguard-2 Involuntary resettlement: land acquisition, population displacement and compensation on Involuntary resettlement.

For this RAP, the eligibility will concern:

- **Communities**, in particular with regard to collective infrastructure, equipment and assets;
- **Households**: The basic unit eligible for resettlement measures corresponds to the household as a whole, represented by the head of household, constituting an administrative, accounting and monitoring unit vis-à-vis the resettlement process. A household designates an entity of person (man or woman) or a group of people sharing the same budget (housing, food, health etc.) and recognizing the authority of a person called head of household. This entity of people often shares the same yard and/or compound. In general, a standard household is made up of the head of household, wife(ies) of the head of household, child(ren) of the head of household and all the persons entrusted or supported by the head of household who may be ascendants of the head of household. household, non-parental adults, or grandchildren.
- **Individuals**, consisting of members of households affected by the project, including the head of household. Insofar as activities, incomes, and savings strategies can be disaggregated by gender (man, woman) and by status (head of household, wife, young person), certain compensation measures will be targeted towards individual effective beneficiaries.

PAPs are considered eligible for compensation in at least one of the following scenario category:

- **Category 1**: Those with formal legal rights to land or other property recognized under the laws of the Republic of Rwanda. This category includes people who physically reside at the project location and

those who will be displaced or may lose access or suffer a loss of livelihood as a result of project activities;

- **Category 2:** Those who would not have formal legal rights to land or to other assets at the time of the survey or assessment, but can prove that they have a claim to such land or assets provided that such claims are recognized under the laws of Rwanda or become recognized through a process identified in the resettlement plan;
- **Category 3:** Those who have no recognizable legal rights or claims to the land they occupy within the project's area of influence, and who do not belong to either of the two categories described above, but who, by themselves or through other witnesses, can prove that they occupied the area of influence of the project for at least 6 months before a deadline established by the borrower or the client and acceptable to the Bank. These categories are entitled to resettlement assistance in lieu of compensation for land to improve their previous standard of living (compensation for loss of livelihood activities, common land resources, structures and crops, etc.).

In addition, will be eligible for resettlement, people for whom the involuntary loss of land causes:

- Relocation or loss of habitat;
- Loss of assets or access to such assets or loss of sources of income or means of livelihood;
- Whether or not the people affected have to move to another site.

They are also eligible:

The formally recognized beneficiaries of persons who died between the time of the inventory of assets and that of the payment of compensation.

Some owners or occupants may, for reasons of prolonged absence, not be identified at the time of the surveys of the project affected persons. In such cases, a follow up will be undertaken in collaboration with local authorities to identify these people, contact them, assess their losses and compensate them.

However, people who come to occupy the areas to be moved/compensated after the cut-off date are not eligible for compensation or other forms of assistance.

In this RAP, we have tried to estimate, for each case of person affected (temporarily or permanently) by the loss of a building or a source of income, following the implementation of the project, the value of the compensation to which he is entitled.

The process involved review of tenure documents owned by occupants, interviews with households and groups in the affected area. Local Leaders and the Ministry of Environment (the Ministry which have lands under its

responsibilities) have also helped and will help in resettlement that will be undertaken by WASAC.

The following eligibility matrix indicates the different categories of affected people and the compensation to which they are entitled according to the types of losses.

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Table 8- 2: Eligibility matrix

Type of loss	Specification	Rights holder	Entitlement	Details of entitlement	Eligibility criteria
Loss of land	<ul style="list-style-type: none"> • Farmland • Vacant land for residential use. • Land occupied by plantations • Land occupied by building. 	<ul style="list-style-type: none"> • Individuals • Community 	Compensation by cash	Amount corresponding to market value within limit set in the Rwanda land reference prices 2021.	Clear delimitation of the affected area. Presentation of land titles
Assets occupying the affected land	<ul style="list-style-type: none"> • Crops • Plantation • Habitation • Collective infrastructures (church building) • Fruits trees 	<ul style="list-style-type: none"> • Individuals • Community 	Compensation by cash	<p>Crops and fruits trees value according to the established ongoing market prices, and in line with provisions of the Rwanda Expropriation Law.</p> <p>Structures including collective infrastructure: Valuation was based on full replacement cost which shall consider the sizes of structures, materials used and their prices, transportation costs of delivery of these materials and manpower.</p>	Clear delimitation of the affected area. Presentation of land titles Recognized assets ownership
Economic loss	Disruption of business activities, loss	<ul style="list-style-type: none"> • Individuals 	<ul style="list-style-type: none"> • Disturbance allowance 	Disruption and loss of livelihood Business income: Compensation to be paid for the lost income and	Recognized infrastructure ownership

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	of livelihood		<ul style="list-style-type: none"> s • Job opportunities • Capacity building 	<p>production during the transition period (the time between losing the business and full re-establishment of livelihood). This was estimated based on the daily or monthly income of the affected parties. Addition of 5% was added as provided by the expropriation law.</p>	
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8.6 Eligibility cut-off date

While AfDB OS2 indicates that the PAPs should be informed of a cut-off date, Rwanda law has no such mechanism. Thus, the cut-off date was established in accordance with the AfDB OS2 to prevent opportunistic invasions/rush migration or construction activities into the chosen land areas. The cut-off dates in the project area were set and agreed on with the PAPs following the schedule of consultation meetings and the exact dates are presented in the following table:

Table 8- 3: Cut-off dates set for different districts

#	District	Meeting objective	Cut-off date
1	Karongi	PAPs consultations, sensitization and announcement of the eligibility cut of date	05/10/2022
2	Rutsiro	PAPs consultations, sensitization and announcement of the eligibility cut of date	05/10/2022

The cut-off date is the date of cessation of eligibility. This date was clearly communicated to the populations in the areas affected by the project during public consultations, meetings at the village and cell level. The dates were communicated to Districts during public consultation and engagement at District level. Those who encroach on the area after the established cut-off dates will not be eligible for compensation or assistance. Any claims for occupation prior to that date, and therefore mistakenly omitted from the survey, will be reviewed against evidence, and referred to the GRM for resolution. However, if the execution of the works should take place more than one year after the end of the studies, the Client will revise the deadline accordingly.

8.7 Support to restore the communities

Apart from the compensation based on valuation of lost land and assets, the following will be the assistance to be provided to PAPs:

- A livelihood restoration and strengthening plan (LRSP) will be prepared to provide extra support to the vulnerable PAHs
- Compensation for the loss of business income: there was no commercial structure which would be affected by the project. However, there shall be compensation for the lost income and production for PAPs who are in agricultural activities. This compensation is to assist the PAPs during the transition period (the time between losing the income sources and full re-establishment of livelihood).
- Inflation Tendencies: In consideration of possible inflation in the period between the valuation of the assets and the compensation,

inflation allowances will be added, when computing compensation costs.

- In addition to the compensation, the project will assist the vulnerable people that are within the project areas to improve their livelihoods through national assistance programme.
- Priority will be provided to PAPs in recruitment for job opportunities and capacity building where applicable;
- A percentage of 5% of the total compensation fee will be provided as disturbance allowance
- WASAC will assist in getting update or new land titles, and construction permits where necessary through district land bureau.

Other assistance to PAPs shall be administered through the following national assistance programs:

- Vision 2020 Umurenge Programme (VUP),
- Ubudehe Programme,
- The Fund for the Support and Assistance to the Survivors of the Tutsi Genocide and Other Crimes against Humanity,
- Rwanda Demobilization and Reintegration Commission.

8.8 Advises and Social support PAPs

Social support and advises shall be provided to PAP during the implementation of the RAP as required by the AfDB policy on involuntary resettlement. In line with the above, the following activities shall be conducted by the Resettlement Administrative Committee with support from WASAC:

- Advise and support PAPs to compile files for compensation;
- Advise and support the PAPs to get the payment of compensation;
- Advise and support the PAPs to start of house construction work;
- Advise and support throughout the required period of moving, taking possession of new houses and restoring livelihoods;
- Consult, communicate and keep the PAPs informed about the progress of the implementation of the Resettlement Action Plan.

The consultant recommends that the proponent hire an independent organization (independent socio-economist consultant or a relevant NGO to follow up on resettlement and livelihood restoration.

Considering that all PAPs chose compensation in form of cash, in order to ensure that the PAPs use the compensation to restore their livelihoods and don't become poorer than they were, the consultant proposed that payment should be made in full where the project proponent through a hired consultant make a close follow up of the use of the compensation to ensure that the livelihoods of PAPs is well restored. Financial literacy trainings can be organized to sensitize and create awareness among the PAPs.

8.9 Aid to vulnerable people

The socio-economic survey and subsequent analysis indicate that there are PAPs who are particularly vulnerable and are at greater risk of further impoverishment because of the implementation of the project. Groups that are considered particularly vulnerable by the Government of Rwanda are children under five years old, elderly people aged 60 and over, people with chronic diseases and people with disabilities. There shall be more consultation to identify additional vulnerable persons and special treatment that would be provided to them during the resettlement process.

In addition to compensation allowances, the poorest vulnerable people will be facilitated to get reestablishment of livelihood activities (provision of seedlings, agricultural inputs, and financial credits for equipment, health insurance, etc). Severely affected PAPs and those from vulnerable groups will be given the option to select any training they wish, which would help them to maintain and/or improve their income generation potential. The skills training program will be designed during project implementation.

8.10 Information and awareness of the rights of persons affected by the project

Throughout resettlement implementation phase, it is necessary to sensitize and inform the people affected by the project and the population living in the villages bordering the project. This information and sensitization will be carried out jointly by the contracting authority, the district officials and WASAC. They will cover, among other things:

- Displacement program and its possible negative effects;
- The process and timing of resettlement activities;
- Positive and negative social impacts on displaced populations;
- Grievance redress mechanism (GRM) and procedures;
- Organization of the grievances redress committee (GRC);
- The assistance to be provided to them so that they can prepare and manage their complaints in the best possible conditions.

8.11 Choice of the form of compensation

During the survey, it was left to the affected people to freely choose the form of compensation they wish. All respondents expressed a desire for cash compensation. This option was chosen to allow each PAP to freely choose their resettlement location so that they can maintain their social network as they wish. As the amounts are not most often cases of large sums, payment will be made in cash and will be paid in full at once.

Before the remittance of the amount of compensation, each PAP will sign an act of acceptance in the presence of the Resettlement Administrative

Committee which will also sign through its president or his representative. The deed to be signed will specify the surname and first name of the signatories, the date, the amount of compensation received and the property affected. This document will serve as evidence to WASAC for them to process the full payment of the compensation.

8.12 Terms of payment of compensation

WASAC in collaboration with respective districts will, after identification of PAPs and their properties to be damaged by the project, sign an agreement with them related to the compensation. This agreement will be related not only to the compensation but also to the eligibility and the cutoff date for related claims. The compensation shall be paid to PAPs bank accounts or through any other means agreed on and specified in the contract.

The monetary fair compensation will be done through a recognized financial institution of his/her choice. Each PAP is requested to open a bank account before the payment is done. Currently, the saving and Credit Cooperative (SACCO) is a recognized micro-financial institution based at the Sector level and farmers are encouraged to open accounts in SACCO from their respective Sector because it is not far away. As this project will be implemented especially in cities, each PAP is allowed to provide account in any recognized bank in Rwanda.

In order to ensure the good governance of the compensation, the different stakeholders perform their respective responsibilities as follows:

a) Project:

- S Informing the District that payment was done. The payment order accompanied with the payment lists are released to the District to inform that PAPs were paid through their accounts.
- S Requesting for financial report to District;
- S Conducting regular crosschecking visits to PAPs and banks to ensure PAPs were paid and properly use the compensation. Particular attention is given to those losing their houses and needing to construct new ones.

b) District:

- S Availing the payment documents to the PAPs' Banks, Communicating and calling PAPs for payment by the bank
- S Requesting for financial report from the bank
- S Submitting the financial report to the Project
- S Conducting regular crosschecking visits to PAPs and banks ensure receipt of the compensation and its proper use
- S Handling complaints or grievance raised by PAP

c) Bank: Payment of PAPs

- S Producing the financial report after payment and submitting it to the District

d) PAPs:

- S Opening an account in a recognized financial institution of his/her choice Using properly compensation payment;
- S Raising issue/ complaint related to compensation payment, if any.

8.13 Cases of owners absent or unknown

During the survey, some PAPs were not present and could not be identified and investigated because they could not be found during the period of the survey. For these affected persons, the Resettlement Administrative Committee, through WASAC, and in conjunction with the local authorities (chief of village and cell executive secretary), continue the search for identification. In all cases, the consultant has recorded the value of assets and the due compensation amount Resettlement Administrative Committee review and secure the amounts to be paid to the beneficiaries.

8.14 Livelihoods and Community Development

8.14.1. International Best Practice

Guidance notes that “simple restoration of livelihood may be insufficient to protect affected populations from adverse project impacts, especially induced effects such as competition for resources and employment, inflation, and the breakdown of social support networks. For this reason, projects should seek to promote the improvement of the living standards of people affected by the project”.

8.14.2. Livelihood Program Approach

The internationally recognized "Sustainable Livelihood Framework" (SLF) by DFID adopted by most international development practitioners presupposes that there are five types of resources that households require to assure their access to livelihoods. These five resources include; physical capital, human capital, natural capital, financial capital, and social capital, as described in below table.

Table 14: Livelihood Assets

Livelihood Asset	Description
Physical	Farm equipment, seeds, tools, sewing machines, vehicles, livestock, houses
Natural	Agricultural and grazing land, water resources, food, timber, fish
Human	Labour power within a household, education, skills, vocational training
Financial	Wages, access to credit, savings
Social	Kinship structures, religious groups, neighborhoods

The SLF further shows how these assets and resources are interlinked, and when effectively combined, can lead to sustainable livelihood outcomes. Therefore, Project Livelihood Programs could enhance these physical assets in the following ways:

- S **Physical Asset:** Through the provision of farm inputs for re-establishment of farming activities by significantly impacted project-affected households, combined with the provision of improved housing through comprehensive and adequate compensation.
- S **Natural Asset:** Ensuring households can resettle where necessary close to their home locations, with continuity of access to natural assets, and easily accessible clean water sources. Improving remaining land productivity through agricultural supports and inputs
- S **Human Asset:** Provide farm extension training. In addition, displaced households will be prioritized for project-related employment opportunities. Provide financial management training
- S **Financial Asset:** The Project will create employment opportunities, with displaced households prioritized. In addition, a micro-finance program could be developed with delivery partners. Money management and financial training will be provided to all affected households in receipt of compensation.
- S **Social Asset:** The Project will continue to foster social networks within the communities and ensure these networks are maintained. Where appropriate, existing community groups should be involved in the delivery of livelihood initiatives.

Agriculture is the backbone of the Rwandan local economy. Approximately 91 % of the population depends on this sector, which is also estimated to contribute about 40 % to the Gross Domestic Product (GDP) and 30 % to export earnings.

The Fifth Population and Housing Census - 2022 revealed that more than 7 out of 10 people are employed in agriculture, including 81 % of men and 93 % of women (NISR, 2022)³. However, the agricultural sector is facing major problems: a production system dominated by small farming operations, rudimentary techniques, a low rate of investment in agriculture, and climate change.

Due to its high population density, Rwanda faces the problem that almost all available land is exploited to the very limits of agricultural possibilities and often beyond. The small size of the country (26.336 km²) does not offer any alternative for increasing the amount of arable land. Landholdings are very small with more than 60% of households cultivating less than 0.7 ha, 50 % cultivating less than 0.5 ha, more than 25 % cultivating less than 0.2 ha and about 2 % not owning land. This constraint is aggravated by the fact that most farms have multiple, scattered plots of land, many of them tiny.

Agrarian reforms are being gradually introduced to address these problems, in particular through population resettlement and land consolidation. Because of the land shortage in Rwanda, the extension of cultivated land to increase the production is no longer possible, the government has opted to increase the productivity of land and efforts are made to cultivate the crops where they can ecologically produce more (regionalization) and expand the use of agricultural inputs.

³ National census of 2022 _ NISR

Food crops hold a very dominant position in Rwandan agriculture. Beans, bananas, sorghum, Irish potatoes, sweet potatoes, cassava and maize are by far the dominant crops in terms of area planted by farmers. The crops cultivated in the Investigation Area are dominated by sweet potatoes, beans, bananas, cassava, sorghum and maize. Therefore, agricultural assistance will be the key basis of the livelihoods program.

8.15 Livelihood Program Components

Based on the predominant livelihood in the Project area, initiatives which restore and improve farming practice will be the key element of the Livelihood Program. The Livelihood Program will focus on:

- Agriculture
- Financial and business management
- Micro-Finance.

For those with over 20% of their productive lands impacted the following is essential:

- Timely delivery of appropriate agricultural inputs
- Training in agricultural methods and in management of agricultural schemes
- The offer of agricultural extension programs, as support to the farmers
- The option of credit facilities, with low affordable interest rates.

All impacted households will be eligible for the Financial Management Training element of the Livelihoods Program. Livelihood Programs developed will be complemented by a Community Development Program, which will include community infrastructure projects. Where possible, potential partners in delivery will be identified, including Community Based Organizations and NGOs. The analysis and the Program components discussed below will be reconfirmed and agreed with government, communities and key stakeholders.

8.15.1. Agriculture Program

The Agriculture Program is the primary mechanism to restore livelihoods, addressing issues of food security and income generation.

Table 15: Agriculture Program Objectives, Outcomes & Strategies

Objective	Desired Outcome	Strategy
Re-establish and improve productivity through use of sustainable farming systems	Increased access to key agricultural inputs by farmers	Provide agricultural farm inputs, mainly seeds and fertilizers, for farmers to re-establish and intensify productivity
	Increase availability and quality of key agricultural and livestock services	Provision, support and Strengthening of agricultural extension services. Partner with existing government extension agents and identified local

		community based organization(s) in undertaking agricultural extension services for farmers
		Support introduction of improved farming techniques
	Adoption of improved farming systems by farmers, through an enabling social and policy environment	With relevant government departments, encourage participation of project-affected farmers 'in agricultural initiatives, such as associations and agricultural open days.

Table 16: Agriculture Program Practices and Services

Activity	Desired Practices	Services
Livestock	<ul style="list-style-type: none"> ■ Vaccination of animals ■ Improved pasturing 	<ul style="list-style-type: none"> ■ Provision of drugs and vaccines Extension Services
Crop Production	<ul style="list-style-type: none"> ■ Crop diversification ■ Land preparation ■ Cropping ■ Cropping ■ Seed Selection ■ Use of organic manure ■ Storage 	<ul style="list-style-type: none"> ■ Provision of crop farming inputs ■ Provision of extension services ■ Strengthening of Farmer Associations

8.15.2. Financial Management Training Program

Project-affected households will receive cash compensation in relation to structures, crops and land, as well as additional allowances (e.g. 5% of disturbance, loss of income). For many households this will be much more cash than they are used to managing. Therefore, it is important that all impacted households have access to financial management and basic business training in order to ensure households understand that cash compensation should be utilized to restore lost assets and needs to be held securely.

Table 17: Financial Management Training Objectives, Outcomes & Strategies

Objective	Desired Outcome	Strategy
Increased knowledge & skills in basic financial management	Improve PAPs utilization and management of cash resources	Provide agricultural farm inputs, mainly seeds and fertilizers, for farmers to re-establish and intensify productivity
	Improved utilization of compensation money for long term sustainable livelihood initiatives	Provision, support and Strengthening of agricultural extension services. Partner with existing government extension agents and identified local community based organization(s) in undertaking agricultural extension services for farmers

Objective	Desired Outcome	Strategy
		Strengthening of community groups (farmer associations, cooperatives, etc.)

Table 18: Financial Management Program Practices and Services

Activity	Desired Practices	Services
Financial Management	<ul style="list-style-type: none"> ■ Utilizing cash compensation for livelihood strategies ■ Enterprise establishment Undertake income-generating activities ■ Use of credit facilities Market driven production ■ Formation of saving schemes 	<ul style="list-style-type: none"> ■ Money management training Business Training ■ Formation of associations and credit groups

8.15.3. Micro-Finance Program

Limited funding to undertake income-generating activities (IGA) can be a significant obstacle to development of households and communities.

The common practice is for community-based groups to rely on members contributions as a savings base for setting up a revolving fund to buy required materials, benefiting from economies of scale, and selling to members at a subsidized rate. Though this approach encourages enterprise development, vulnerable or poor households are disadvantaged.

The Livelihood Program proposes establishing a microcredit scheme, focused on assisting less advantaged households, whose income/savings base is low. Again, this can be linked to the village level, participatory poverty assessment that has been undertaken in almost every village in Rwanda by the Ubudehe program.

Table 19: Micro-Finance Program Objectives, Outcomes and Strategies

Objective	Desired Outcome	Strategy
Increased incidence of Profitable income generating initiatives and marketing practices	Increase access to key income generating and marketing inputs & services	Establishment of revolving fund micro-credit scheme
	Increase quality of key income Generating and marketing services	Strengthening of finance base for community based self-help groups (farmer associations, cooperatives, etc.) Strengthening of community groups (farmer associations, cooperatives, etc.)

Table 20: Micro-Finance Program Practices and Services

Activity	Desired Practices	Services
Income-Generating Initiatives	<ul style="list-style-type: none"> ■ Enterprise establishment Undertake/start IGA ■ Use of credit facilities Market driven production Formation of saving schemes 	<ul style="list-style-type: none"> ■ Strengthening self-help groups, farmers' associations, youth enterprises, etc. Available credit

8.16 Livelihood Program Management and Partnership

The Local government officials of new community where PAPs will choose to resettle, WASAC together with stakeholders are responsible for execution of the Livelihood Restoration Programs.

The Livelihood Restoration Program will be undertaken in partnership, through identifying existing government agencies, NGOs and community-based groups undertaking such initiatives. These include the existing National Social Protection Scheme implemented in Rwanda such as One Cow per Poor Family program, Vision 2020 Umurenge Program (VUP) and Ubudehe Program. All these programs are implemented in all districts of the country and a budget is provided for this purpose for each budget year. All HHs to be physically resettled who lost income from their renting houses, Vulnerable PAPs and tenants occupying some of houses in the project area will benefit from livelihood restoration program. The Vulnerable PAPs identified in this community are also part of these 12,933 households, Table below provides the details on LRP.

Table 17 Livelihood Restoration Program

Sl. No	Category of PAP	Benefits	Responsible entity	Estimated Budget in Rwf
1.	17 HHs to be fully relocated	Four months of transitional period	WASAC	Not Calculated
		Capacity Building on cash management and entrepreneurship	WASAC and Local Government Officials	Calculated within RAP Implementation
		Right to houses salvage materials without deduction from compensation	PAPs and WASAC	Not calculated
		5% of Disturbance allowance	WASAC	Already counted
2.	405 Identified Tenants	Free three months of renting fees Four months to yield crops for land renters Capacity Building on cash management and	WASAC and Local Government Officials	10,500,000

Sl. No	Category of PAP	Benefits	Responsible entity	Estimated Budget in Rwf
3.	122 Vulnerable PAPs	entrepreneurship		
		5% of Disturbance allowance	WASAC	Already counted
		Four months of transitional period	WASAC	Not calculated
		Capacity Building on cash management and entrepreneurship	WASAC and Local Government Officials	Already counted during RAP Implementation
		Linking them to the existing National Social Protection Scheme in the receiving community and LRP Implementation monitoring	WASAC and Local Government Officials	8,750,000
		Right to houses salvage materials without deduction from compensation	PAPs and WASAC	Not calculated
Estimated cost of LRP				19,250,000

The total estimated amount for the LRP is **19,250,000 Rwf**. Alongside the calculated amount there are other services, which will be provided to PAPs like four months of transitional period and building materials from their demolished houses.

The Program should cover a three-year period, to ensure restoration, and ideally, improvement, of livelihoods for the most significantly affected households. Many of the Programs developed for the Livelihoods Program may in turn be expanded to other indirectly affected communities through community development plans and initiatives.

Clear roles and responsibilities will be agreed upon in advance of program implementation, and various skills will be required to execute the Program. It is envisaged that a Livelihood Management Team would be established within the WASAC Social Team, to liaise with the District, and oversee the program as a whole.

8.17 Local Employment and Procurement

The Project will develop a proactive Local Recruitment and Procurement Policy, with a focus on the most impacted households and vulnerable groups. Unskilled and semi-skilled labour should be sourced from project-affected households wherever possible. Opportunities for local procurement should also be investigated. Focussed on Project related job opportunities, affected persons will be prioritized in gaining employment in the works linked to the project. WASAC and local authority will ensure that this is done.

CHAPTER 9: - ORGANIZATIONAL RESPONSIBILITIES

Administrative organizations

9.1.1 Study area (Karongi and Rutsiro District)

Rwanda is currently composed of two layers of government (central and local) and of six administrative entities: These structures, which were reorganized under the 2005 reform, are complementary. The country is divided into four Provinces and the City of Kigali which are also further divided into 30 districts. Moreover, the districts are further divided into 416 Sectors. Additionally, the sectors are further divided into 2,148 cells and lastly, these cells are divided into 14,837 villages. All these subdivisions are headed by different people at every level and they all have different roles though directing towards the same cause.

The study area is located in the Western province and comprises of 2 districts; Karongi and Rutsiro. The WSS shall pass through 8 sectors in those districts. The authorities at district, sector, cell and village level in the concerned area will play a critical role in implementation of this RAP.

9.1.2 RAP Implementation Team

As provided by the expropriation law; in case planned activities concern more than one District, the relevant Ministry determines projects of expropriation in the public interest and the Ministry in charge of land approves expropriation in the public interest.

WASAC as project developer/proponent with support from the districts, will be the lead agency in RAP implementation and will work in close collaboration with the Ministry of infrastructure and Ministry of Environment which will act as coordination and supervision agencies. RAP implementation team (RIT) shall therefore be established through the institutional arrangements between the above institutions and will work harmoniously. The role of RIT is indicated below.

The RIT will be responsible for implementing the approved RAP through:

- Developing work plans for implementation of the RAP including the phasing of compensation payments in line with project development requirements for site handover;
- Coordination between the RIT and other agencies involved in RAP implementation;
- Updating the Stakeholders Engagement Plan (SEP) and facilitating stakeholder engagements for effective RAP implementation;
- Disclose the compensation awards in manner consistent with the Rwanda law and AfDB OS 2 to PAPs;
- Delivery of RAP resettlement compensation and other support or assistance measures;

- Providing support to other agencies involved in RAP implementation; Monitoring and reporting on the progress of the RAP implementation to the project developer
 - i. Update the Livelihood restoration Plan (LRP) and deliver livelihood restoration assistance to the economically displaced;
 - ii. Update the vulnerable social groups matrix and deliver assistance to such PAP groups;
 - iii. Supporting the GRCs to manage grievances related to compensation;
 - iv. Register PAPs objections to compensation awards and initiate process for management;
 - v. Assist vulnerable PAPs to access verification or necessary information and awards.

9.1.3 RIT Composition and Structure

The preparation and implementation of the resettlement strategies will involve the participation of several institutions at different levels. Coordination of the participating institutions will be critical to a successful resettlement program. It is therefore important have the institutional arrangements clearly mapped out and understood by all those involved early into the project cycle, so that all participating parties are made aware of each other’s responsibilities, lines of reporting, communication channels, expectations and authority limits.

WASAC will ensure the overall coordination of the project and will institutionalize this coordination through a high-level RAP Implementation Team (RIT) composed of MININFRA, MINECOFIN, MINALOC (concerned Districts), MoE, and WASAC to discuss strategic issues related to RAP and the overall management of the project. Furthermore, the project will also include a more technical level Project Technical Committee (PTC) comprised of relevant Department Heads involved in project implementation, including Karongi District, Rutsiro District, MINALOC, RLMUA, and WASAC, and chaired by MININFRA.

9.2 Institutional responsibilities

Table 9- 1: Institutional role in implementation of RAP

#	Institution/ Entity	Responsibilities
1	AfDB	■ Approval and dissemination of the RAP

#	Institution/ Entity	Responsibilities
2	MININFRA	<ul style="list-style-type: none"> ■ The Ministry of Infrastructure as the leading ministry of water supply and sanitation sector shall: ■ Oversee the implementation of the project in general including this RAP in particular. ■ Coordinate and monitor implementation performance of the project, risk management, monitoring & evaluation and disclosure of information. ■ Formulate and initiate to the attention of the Minister in charge of land, the request for expropriation for public utility. ■ Mobilize funds to support the project implementation and compensation of the affected persons. ■ Collaboration with local implementing structures.
	Ministry of Environment	<ul style="list-style-type: none"> ■ Examine the request and authorize expropriation in the public interest. ■ Establishment of the Expropriation Commission ■ Declaration of public utility (DUP) ■ Coordination/Supervision ■ Elaborate and have notified to the interested parties, the decision to the expropriation request.
	WASAC	<ul style="list-style-type: none"> ■ WASAC as the project promoter shall have the overall responsibilities in RAP implementation. ■ Ensure the projects designs comply with national requirements ■ Assist Project Implementation Unit (PIU) in development and validation of project designs in compliance with national policy. ■ Work with MININFRA to initiate the request for expropriation for public utility ■ Develop the project for which the declaration of public utility is sought. ■ Mobilize funds to support compensation due to affected persons ■ Mobilize the necessary funds to carry out the project ■ Provide boundary markers and signs for the perimeter of the site chosen by the commission ■ Dissemination of the RAP (districts and other actors involved) through WASAC communication channels including publication on the website. ■ Collaboration with local implementing structures ■ Assistance to organizations, local authorities, NGOs ■ Coordination and monitoring of resettlement; ■ Hire a social safeguard specialist to ensure proper implementation of RAP. ■ Submission of activity reports to Donors
	Rwanda Land Management and Use Authority (RLMA)	<ul style="list-style-type: none"> ■ RLMA has a key responsibility for registering land, issuing and keeping land authentic deeds and any other information relating to land.
	Karongi and Rutsiro Districts	<ul style="list-style-type: none"> ■ Participate in identification of PAPs ■ Support, sensitization and mobilization of PAPs ■ Sensitization and mobilization of populations ■ Facilitate PAPs to get land titles for those who don't

#	Institution/ Entity	Responsibilities
		<p>have them during survey.</p> <ul style="list-style-type: none"> ■ Participate in processing of complaints as the districts shall be part of the grievance resolution committee at District level. ■ Monitoring of resettlement and compensation ■ Participation in local monitoring ■ Witness the process of land survey, census of affected property and persons. ■ Collection of grievances in the event of complaints. ■ Participation in public awareness and monitoring
	PAPs	<ul style="list-style-type: none"> ■ Participate in measurement and valuation of assets of PAP ■ Provides right information during surveys ■ Participate in consultations at village level.
	Consultants	<ul style="list-style-type: none"> ■ Conduct Socio-economic survey and analysis ■ Evaluation of the RAP implementation ■ Capacity building ■ The consultant team will be responsible for issuing instructions to the contractor and where social and environmental considerations call for action to be taken. ■ The Consultant will be responsible for the monitoring, reviewing and verifying of compliance with RAP recommendations.

CHAPTER 10: - GRIEVANCE MANAGEMENT AND RESOLUTION MECHANISM

10.1 Introduction

Grievances Resolution Mechanism (GRM) is proposed for this project considering that grievances may arise during the process of resettlement for a variety of reasons, including disagreement on the compensation value during valuation for assets, controversial issue on property ownership etc.

Considering that sorting grievances through judicial system is not always the right solution because the judicial system often results in long delays before a case is processed, inducing significant expenses to the complainant and requiring complex processes involving experts and lawyers while the grievances may be derived from misunderstandings of the RAP procedures which could be solved through mediation or more explanation by the set GRM.

Therefore, the Project will put in place an extra-judicial mechanism for managing grievances and disputes arising from the resettlement process based on explanation and mediation by third parties. Each of the affected persons will be able to trigger this mechanism, while still being able to resort to the judicial system.

For this project, two Grievance Redress Committees (GRCs) have been created in Karongi District, specifically in Rubengera Sector, Ruragwe Cell, where the WTP shall be established and in Kayenzi Cell, Bwishyura Sector, to facilitate the water supply project to receive and resolve grievances raised by local communities, employees, and other affected stakeholders whenever they perceive a negative impact arises from the project's activities. WASAC and concerned districts (Karongi and Rutsiro) will receive any type of community feedback.

Knowing that apart from grievances from resettlement, other grievances like those related to Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) may arise during implementation of the project, the GRM shall provide for specific procedures to resolve those kind of issues using organizational accountability mechanisms, administrative or judicial bodies for formal investigation.

10.2 Legal provisions

The Expropriation law will be used as the supreme guide in matters that relate to grievance handling if they cannot be handled at the committee level. Article 26 of the Expropriation Law N° 32/2015 of 11/06/2015 provides complaints procedures for individuals dissatisfied with the value of their compensation. The Law stipulates that the dissatisfied person

has a period of 30 days after the project approval decision has been taken to appeal (Article 19). The first step of redress is to inform those to be expropriated of their rights during the expropriation process. Articles 17-20 of the Expropriation Law obliges the representative government authority (that which is implementing the project requiring expropriation) to inform affected people of their rights at each stage of the process.

According to article 26, all the grievances concerning non-compliance with the provisions of the contract, the value or timing of compensation or seizure of land assets without compensation shall be addressed to the Land Commission at the level at which the issue is based. The aggrieved party is provided with a legal expert in the matters of Land Law or any other survey expert with value verification skills, who will proceed to recalculate the value of compensation due.

If the new value is rejected by the Land Commission hearing the complaint, the aggrieved party may appeal to the immediate higher Land Commission within 15 working days which must then deliver its verdict within 30 days. If the aggrieved party is still dissatisfied with the decision, their final resort shall be to file the case to the competent Court of Law. According to article 26, filing a case in courts of law does not stop expropriation process to be affected.

To ensure that the affected parties are fully aware and to reduce possible backlog of complaints, it should be noted in advance that most members of the rural communities take time to decide to complain when aggrieved and as a result, may miss the 30 days' period required to file their complaints. As per international standards, grievances logged outside this timeframe may still be valid and legitimate. Customarily, the government expropriation authorities ensure that all affected people are fully informed and will issue warnings about the consequences of failure to lodge their complaints in time. Within this customary procedure, affected people are informed of the procedures before their assets are taken.

The grievance redress mechanism should be designed with the objective of solving disputes at the earliest possible time. This will be in the interest of all parties concerned, and it implicitly discourages referring such matters to a court of law for resolution. The procedures for complaints and redress should ideally be made in the simplest language and media/ format that are easily accessible to, and understood by, every local inhabitant. They should also provide enough detail to be meaningful.

The Expropriation Law (article 6) assumes that the only grievances likely to arise are those related to monetary compensation. This article has not provided a procedure for complaint about other aspects of the project like Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA)

and Sexual Harassment (SH). This may create some confusion on how to approach land authorities and this may result in delay in conflicts between different role players in the project.

10.3 Grievance Redress Mechanism (GRM)

The purpose of the GRM is to record and address any complaints that may arise during the implementation phase of the project. As the GRM works within existing legal and cultural frameworks, it is recognized that the GRM will comprise community level, project level and national judiciary level redress mechanisms. The mechanism will not be limited to only compensation complaint but also GBV, SEA, and SH complaints. For GBV/SEA/SH the grievance resolution committee shall have an MoU with competent service providers like Isange One Stop Center.

10.4 Grievance resolution committees (GRC) and composition

First, all interested stakeholders have developed a Grievance Redress Mechanism (GRM) for potential use. The aim of the grievance redress mechanism is to achieve mutually agreed resolution of grievances raised by such stakeholders. This grievance redress mechanism ensures that complaints and grievances are addressed in good faith and through a transparent and impartial process, but one which is culturally acceptable.

The Grievance resolution committees are established at different levels starting from the site (example the site where there is planned a WTP), cell level where the members of the committee are elected by the PAPs, at sector level, district and WASAC. The following table provide details of different GRC levels and corresponding members.

Table 10- 1: GRCs Levels and composing members

No	GRC Levels	GRCs members
1	Site level	A minimum of one GRC at site level shall be established in each cell and will be composed of three people: (1) the representative of casual workers, (2) the representative of the contractor, and the (3) representative of the supervising firm. GRCs shall be established in respect of construction sites delineated in agreement with the contractor and the supervising firm, and there might be more than one GRC per cell as needed.

No	GRC Levels	GRCs members
2	Cell Level	<p>The GRC at cell level will be elected during community consultation meetings to be held between WASAC, the district, sector officials, and PAPs. The PAPs will select and vote five (5) candidates: President, Vice President and a Woman Representative, Youth representative as well as representative of People with Disability.</p> <p>The woman representative will serve as the <i>Committee Secretary</i>. The Village Leader representative, representatives of cell council and mediators as well as the cell Executive Secretary of where construction activities are implemented will be part of the elected Committee.</p> <p>Note: GRC of workers shall include representative of casual labor, contractor, and supervising firm</p>
3	Sector Level	<p>The GRC at sector level will comprise 8 members; the Sector Executive Secretary who will be the President, the Social Protection Officer who will be the Vice President, Representatives of sector council who will be secretary, National Women Council, National Youth Council, Representative of PWDs, sector mediators, Land officer.</p>
4	District Level (Karongi and Rutsiro)	<p>The committee will be composed of 7 members namely the Vice Mayor in charge of Social Affairs who will be the President, District Director of One Stop Centre who will be the Vice President, Directors of Social Development and Good Governance who will be secretary, Representative of Social affairs commission in the district council, Representatives of National Women and Youth Councils as well as Representative of PWDs.</p>
5	WASAC Level	<p>The GRC committee will be composed of members of WASAC Senior Management of which the Director General will be the chair; and Public Relations and Communications Officer will be the Secretary.</p>

As the GRM works within existing legal and cultural frameworks, it will be effectively implemented by a **Grievance Redress Committee (GRC)**, which is organized in such a way that it comprises of local community representative, PAPs representative, local authority representative at village and cell levels, WASAC representatives.

As mandated by the law on gender equality, women representation will make up at least 30% of the GRC. All PAPs representatives will be directly elected by their peers and the number of members may vary depending on the context and particularities of each sub-project site characteristics.

Table 10-0: Proposed Members of GRC and their respective roles under the project

No	Member of GRC	Roles and responsibilities
1	President (PAPs representative)	<ul style="list-style-type: none"> ■ Chairing meetings; ■ Give direction on how received grievances will be processed; ■ Assign organizational responsibility for proposing a response; ■ Referring cases to next level; ■ Speaks on behalf of GRC and she/he is the one to report to the cell or the sector administration level; ■ Represents the interests of aggrieved parties. ■ Give feedback on the efficiency of GRM.
2	Village Leader	<ul style="list-style-type: none"> ■ Represents local government at village level; ■ Resolves and lead community level grievance redress; ■ Sends out notices for meetings; ■ Records all grievance received and report them to next local level
3	Cell Executive Secretary	<ul style="list-style-type: none"> ■ Proposes responses to grievances and lead in resolving community grievance unsolved from village level; ■ Records and reports all grievances received from village leaders; ■ Chairs sensitization meeting at the cell level during public consultations meetings; ■ Assists and guides in identifying vulnerable and disadvantaged groups within the cell. ■ Signs the valuations sheets for compensation facilitate a proper Resettlement Plan
4	Women and youth Representatives	<ul style="list-style-type: none"> ■ Represent the interests of women and youth; ■ Advocate for equity and equal opportunities; ■ Help in prevention of sexual harassment and promote wellbeing of the women and youth; ■ Take part in resolution of any grievance related to sexual harassment and any gender domestic violence that may arise; ■ Mobilize women and youth to be active in income generating activities specifically for opportunities in the project's intervention areas.
5	Contractor representative	<ul style="list-style-type: none"> ■ Receive and log complaints/grievances, note date and time, contact details, nature of complaint and inform complainant of when to expect response; ■ Handle complaints revolved around nuisance resulted from construction and endeavor to handle them satisfactory; ■ Inform engineer (supervisor) and GRC of received complaints/grievances and outcomes and forward

		<ul style="list-style-type: none"> ■ unresolved complaints/grievance to GRC ■ Attend community meetings, respond and react to PAPs complaints raised concerning the contractor.
	Supervising firm representative	<ul style="list-style-type: none"> ■ Represent client (WASAC); ■ Ensure that all grievances raised have been responded to, and that the contractor responds to the complaints raised concerning them, ■ Attend community meetings and respond to all concerns related to the project from community ■ Report on monthly basis the progress of GRM process.

10.3.2 Types of Grievances and feedbacks

There are various grievances that are likely to occur during the implementation of proposed WSS project. Grievances or forms of feedback that might arise from water supply project include:

- a) Grievances related to land acquisition, land boundaries, assets valuation and compensation and loss of sources of income or livelihood.
- b) Misunderstandings between PAPs and the contractor regarding access arrangements.
- c) GBV, SEA, SH related grievances and other social issues.
- d) Tensions between workers and residents.
- e) Grievances arising from construction work including nuisances generated during construction such as noise, dust, vibration, workers’ disputes, etc.
- f) Misuse of funds.
- g) Complaints about misbehavior of project staff.
- h) Complaints about procurement by contractors.
- i) Complaints about contractor performance

10.3.3 Grievance & Dispute Handling Procedure

The GRM procedures ensure that project affected people (PAPs) are able to raise complaints or concerns, without cost, and with the assurance of a timely and satisfactory resolution of the issue. All stakeholders will be informed of the procedure and it will be communicated before the starting of works.

Any grievance shall be submitted to the GRC, which shall record the case and try to resolve it. The procedure shall follow hierarchic stages as designed in the figure below, however when the grievance originates from outside the site, it shall be submitted directly to the GRC at cell level.:

Table 10- 2: Grievance resolution escalation design

#	Grievance level	Escalation period
1	Grievance committee at site level	Maximum 3 days

2	Grievance committee at Cell level	Maximum 4 days
3	Grievance committee at Sector Level	Maximum 1 week
4	Grievance committee at District Level	Maximum 2 weeks
5	Grievance committee at WASAC level	Maximum 2 weeks
6	Grievance submitted to RIT	Maximum 2 weeks
7	Court of law	

It is worth stressing that the communities and/or individuals who believe that they are adversely affected by the project may submit complaints to existing project-level GRM. However, the project level process will not impede affected person access to the legal system. If a complainant is not satisfied with the resolutions at all project levels, he/she will be allowed to take the matter to the appropriate legal or judicial authority as per the Rwandan laws.

10.3.4 Sensitive GBV, SEA and SH

Sensitive cases with relation to GBV, SEA and SH will not be recorded in the grievance logbook it shall be kept confidential; therefore, after recruitment of workers the GRC will be established separate from the one of PAPs already established to ensure GBV, SEA and SH grievances are addressed and resolved on time as well.

CHAPTER 11: - RAP IMPLEMENTATION

11.1 Introduction

The preparation of a RAP implementation plan is very important for such project to ensure that the project is implemented in a sustainable manner, the lack of a good plan can result in delays to the overall implementation of the project and can induce additional cost to the project. This plan includes list of activities and their timeline. Such activities shall include but not limited to RAP review and approval, RAP dissemination, organizing and operationalizing the RIT, conducting awareness campaign, agreement with PAPs, RAP monitoring, PAPs relocation and resettlement, post construction follow up.

11.2 RAP review and approval

The implementation of the RAP begins after its review and approval by WASAC and by the African Development Bank. Once the RAP is approved, it must be put into action immediately so that the compensation and expropriation operations are completed before the construction works begin, which is a fundamental condition.

11.3 RAP dissemination

RAP dissemination shall consist of filing of the RAP document to WASAC concerned department and the concerned districts to ensure that the affected persons are informed (by consultation or other approved means of communication), and have the possibility to see the RAP document.

The people affected will be invited to give their opinion on the accuracy of the data as determined during the field mission and the feedback workshop. If a PAP is not satisfied with the data included in the RAP, the Project will have to open new consultations for a reconciliation of points of view. At the end of the conciliation, the Project signs with the PAP a new protocol for the recognition and approval of the RAP data, in the presence of the district officials (or his representative).

11.4 Organizing and operationalizing the RIT

The administration of this RAP will require a close collaboration between different actors. WASAC shall initiate the organization and operationalization of the RAP implementation Team (RIT). The team shall be composed of representative from MININFRA, MINECOFIN, MINALOC (concerned Districts), MoE or REMA, and WASAC. RIT shall meet quarterly (physical or online) to review the RAP implementation progress and shall also be convened to resolve grievance which has reached that stage.

The districts will have to monitor whether, along the implementation, the contractor respects aspects related to social requirements. Then districts

will ensure to cooperate with WASAC for a common monitoring of every step of the project implementation. At grassroots level or at the sites, district engineers will play a day-to-day management of the implementation and district engineers will work with the contractor in assuring a smooth project implementation, to assure that residents and their properties are not victimized by the project.

11.5 Awareness campaign

Awareness campaigns will be of paramount relevance in informing residents about the project to be undertaken, the RAP and the compensation process and the cutoff date whenever it shall be set up. This campaign will consist of putting in place communication panels related to the damage to assets and grievance management, community safety, to HIV/AIDS and other transmitted diseases, GBV and SEA provided that the project areas will be cohabitating with foreigners who are engineers, trucks and machines drivers and therefore, the need for local residents to be cautioned.

11.6 Agreement with PAPs

The project proponent (WASAC) in collaboration with respective districts will, after identification of PAPs and their properties to be damaged by the project, sign an agreement with them related to the compensation. This agreement will be related not only to the compensation but also to the cutoff date that will be officially communicated to avoid related claims and ensure that relocation of PAPs will not cause delay to the project.

11.7 PAPs relocation and resettlement,

After signing and the agreement and receiving their compensation, the PAPs will be able to harvest, move and/or rebuild on new sites. Possession of the land can then take place.

Construction work can only begin once all the PAPs have been compensated and relocated in an accepted manner. No temporary displacement will be accepted.

Respective districts shall ensure a smooth implementation of this activity, and special attention will be paid to vulnerable people among the PAPs. Districts will make sure elderly and widow PAPs and other vulnerable PAPs have been properly settled by the time of the start of the project. Skilled PAPs and those who are physically fit will be given priority in the project job allocation.

11.8 RAP monitoring and post construction follow up.

Following the approval and effective payment of compensation, the next step will be the monitoring of the resettlement of PAPs according to the schedule below;

10.9 RAP implementation schedule

Table 10-1: RAP Implementation schedule

N o.	Designation of activities	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
1	Review & approval and filing a copy of the RAP to (i) WASAC concerned department and (ii) the 2 concerned districts.	■	■	■			
2	Establishment of the RAP Implementation Team (RIT) and the Grievance redress committee (GRCs)	■					
3	Capacity building of the RAP implementation stakeholders (RIT and GRCs).	■					
4	Awareness of PAPs	■	■				
5	Preparation of PAP files	■	■				
6	Presentation of the compensation and acceptance protocol (contracts). Signature of the contracts (deeds of acceptance indicating the asset affected, its financial estimate, the compensation arrangements)	■	■				
7	Mobilizing funds for RAP implementation	■	■				
8	Payment of financial compensation	■	■	■			
9	Relocation and resettlement	■	■	■	■		
10	Acquisition of land restoration livelihoods	■	■	■	■	■	
11	Follow-up of residual cases	■	■	■	■	■	■
12	Follow-up of building reconstruction work	■	■	■	■	■	■
13	Follow-up of the relocation and reinstallation process	■	■	■	■	■	■

RESETTLEMENT ACTION PLAN FOR KIVU BELT WSS PROJECT

N o.	Designation of activities	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
14	Closure of the individual file (assessment of the assets affected and the payments made)						
15	RAP Implementation Report Submission						

10.10 RAP Costs and Budget

The budget for the implementation of the current RAP is summarized in the following table. The total estimated budget is 1,513,415,888 Frw (One Billion Five Hundred Thirteen Million Four Hundred Fifteen Thousand Eight Hundred Eighty-Eight Rwanda francs).

Table 10-2: Cost for the implementation of RAP

Item	Cost (Rwf)
Compensation for losses of residential buildings	266,212,223
Compensation of annual crops (CULTURES/IMYAKA)	25,324,544
Compensation of perennial crops (IBIHINGWA N`IBITI NKONDABUTAKA /CULTURES PLURIANNUELES ET PERENNES)	258,475,335
Compensation of lumber trees (IBITI BIBAZWA/BOIS D'OEUVRE)	276,301,324
Compensation of fruits trees and medicinal plants (IBITI BYERA IMBUTO ZIRIBWA N`IBITI BIVAMO IMITI/PLANTES FRUITIERES ET MEDICINALES)	82,239,453
Compensation of ornamental trees (IBITI BY`INDABO/ARBRES ORNEMENTAUX)	591,487
Compensation for land	321,618,425
Compensation for moving grave (1)	8,900.00
Compensation for reconstruction of tomb (1)	3,200,000.00
Cost related to exhumation and re-burial activities	6,000,000.00
Sub-total	1,239,971,691
Disturbance allowance (5%)	61,998,584.55
RAP implementation costs (10%)	123,997,169.10
Contingency (10% of RAP subtotal)	6,199,858.46
Compensation for access roads and worker camps (5% of RAP subtotal)	61,998,584.55
Livelihood Restoration Program	19,250,000
Grand Total	1,513,415,888

CHAPTER 12: - MONITORING AND EVALUATION OF IMPLEMENTATION

12.1 Background

The AfDB Operational Safeguard 2 objective is to ensure that when people must be displaced, they are treated fairly, equitably, and in a socially and culturally sensitive manner; that they receive compensation and resettlement assistance so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved; and that they share in the benefits of the project that involves their resettlement.

To fulfill this objective, the Borrower is required to establish a resettlement action plan (RAP) which includes procedures to monitor and evaluate the implementation of the same plan and will take corrective action as necessary during implementation.

For this project WASAC shall retain competent resettlement professionals to monitor the implementation of resettlement plans, design corrective actions as necessary, provide advice and produce periodic monitoring reports. Affected persons will be consulted during the monitoring process.

The purpose of monitoring and evaluation is to report on the effectiveness of the implementation of the RAP, and the outcomes and impact of resettlement compensation in relation to the objectives and goals of the RAP. This section describes the monitoring and evaluation (M&E) system for the RAP implementation including the, parameters, indicators to be used, role of the key persons(s) involved, post implementation monitoring activities and resources needed to carry out the monitoring activities.

Monitoring of the RAP will be carried out during the whole process of land acquisition and the compensation to ensure that the objectives are met and successful implementation of the RAP occurs. The monitoring will be carried out by a team composed of representatives from the affected districts; Karongi and Rutsiro, SPIU-WASAC and GRCs to ensure that all of the responsible implementing agencies follow the schedule and comply with the principles of the RAP.

12.2 Objectives

The general objective of the M&E system is to assess the overall success and effectiveness of the RAP implementation processes and mitigation measures on time.

12.3 Monitoring Tasks

Monitoring and evaluation will enable the promoter to ensure full compliance with the principles and procedures set out in the RAP and it will

begin as soon as the RAP is approved and well before compensation and the release of rights-of-way.

The evaluation of the resettlement plan can be carried out once the major part of the compensation has been paid and almost all the resettlement has been completed. The objective of the assessment is to certify that all PAPs have been resettled and that all economic and productive activities have been restored.

The monitoring and evaluation activities of the RAP will consist of carrying out the following actions:

- Formulating performance monitoring indicators to measure inputs, outputs and outcomes of relocation activities;
- Verifying RAP implementation activities and milestones including timely delivery of resettlement measures and GRM;
- Verifying RAP implementation completion
- Ensuring involvement of affected PAPs and other stakeholders in the monitoring process (participatory monitoring);
- Assessing and evaluating of the outcomes and impact
- Planning for and ensuring post RAP implementation monitoring
- Preparing monitoring reports as indicated in this RAP

12.4 Monitoring and evaluation indicators

Suggested key indicators are outlined below and include (and not limited to):

- Number and place of public consultation meetings held with PAPs and local authorities in preparation of, or during RAP implementation;
- Number of PAPs effectively compensated for different types of losses (specify the types being monitored) and aggregated amount disbursed compensation (actual versus planned);
- Timings of compensation
- Number of complaints including total received, and resolved. If not resolved; reasons, total justified, and total non-justified. This should include the subject matter for all complaints;
- An explanation for non-justified complaints;
- Total resolved at various levels including the type of agreement reached;
- Total referred to the legal system/ Courts of Law, including a clarification on who initiated (local leaders, PAP or Karongi, Rutsiro district administration) the referral and the subject matter.
- Completion of payment within, or after 3 months of estimated completion date indicated in the RAP implementation plan;
- Revival of livelihood activities for the affected persons within 4 months after the compensation payment;
- Submission of monitoring reports at the frequency indicated in the M/E of the RAP implementation report or quarterly if not indicated.

12.5 Monitoring & Evaluation

The purpose of monitoring is to provide Project Management, and directly affected persons, households and communities, with timely, concise, indicative information on whether compensation, resettlement and other impact mitigation measures are on track to achieve sustainable restoration and improvement in the welfare of the affected people, or that adjustments are needed. Monitoring verifies that:

- Actions and commitments for compensation, resettlement, land access, and development in the RAP are implemented fully and on time
- Entitled persons receive their compensation on time Compensation and livelihood investments are achieving sustainable restoration and improvement in the welfare of Project-Affected Persons, households and communities
- Complaints and grievances are followed up with appropriate corrective action
- Vulnerable persons are tracked and assisted as necessary.

In brief, monitoring answers the question: Are Project compensation, resettlement and other impact mitigation measures on time and having the intended effects?

This plan as shown in Table below displays activities to monitor during RAP process, type of information to collect responsibilities and frequency of monitoring actions.

Table 12 - 1: RAP monitoring plan and responsibilities

#	Item	Main Activities	Responsible Institution	Frequency
1	Public consultation	Consultation meeting with the PAPs	WASAC jointly with the concerned districts	Two times a month
2	Database	Updating survey results	WASAC jointly with the concerned districts	Monthly
3	Disclosure of entitlement	Display to the PAPs the results of the updated survey.	WASAC jointly with the concerned districts	After survey and assets valuation
4	Preparation of alternatives	Follow up of implementation of proposed alternatives	WASAC jointly with the concerned districts	Once a week
5	Compensation and other resettlement measures	Follow up compensation process	Concerned districts (Karongi and Rutsiro)	Once a week
6	Follow up of PAPs livelihoods restoration	Follow up and monitoring of PAPs livelihoods restoration	WASAC jointly with the concerned districts	Once a week

Monitoring will consist of (a) internal monitoring by WASAC as an integral part of management, working with the impacted communities; and (b) external monitoring by consultants appointed, working with government and the impacted communities.

Monitoring will be done by:

- Audit
- Conventional sample surveys
- Community participation.

12.5.1 Internal Monitoring

It is proposed that internal monitoring of RAP implementation will be undertaken by WASAC. Regular progress reports will be prepared and submitted to management and relevant government authorities. The internal monitoring will look at inputs, processes, and outcomes of compensation/resettlement/other impact mitigation measures.

Monitoring will include stakeholder participation where possible, particularly directly-affected communities. This may include participation in household sign-off activities, monitoring of livelihood program activities, etc.

Indicator selection for the purpose of monitoring and evaluation would be guided by the following principles:

- Preference for fewer indicators that have significant validity over more indicators of less significant value
- Preference for indicators used by national institutions in order to be able to compare results with control groups in other parts of Rwanda, and avoid reinventing the wheel
- Measuring outcome and impacts on the following levels:

Monetary measuring of livelihoods through a quantitative income or expenditure survey
Qualitative indicators measuring perception of Project-Affected Persons.

Table 29: Selection of Indicators for Internal Monitoring

MONITORING ASPECT	ACTIVITY AND SPECIFIC MONITORING PARAMETERS	MONITORING FREQUENCY
Performance against schedule	- Progress in technical validation of affected assets and signature of compensation agreements between PAP and WASAC: % complete	Monthly
	- Payment of compensation and delivery of livelihood restoration measures: % complete	
	- Grievance process: no. of grievances received/ responded/ resolved	
	- Consultation activities: records of meetings, discussions, interviews, etc.	
	- Summary of monitoring activities, to be integrated into the RAP Implementation Status Reports	
Overall restoration of livelihoods and income	- Was compensation paid to assets owners?	Monthly
	- % of total payments/livelihood measures completed, in progress, not started, on appeal	
	- Was compensation in general in line with agreed rates and in - time? % of total payments made at agreed rates % within agreed time frame	
	- How is the response of affected people to the Livelihood programs? % enrolment of affected households	
	- Where livelihood restoration measures delivered for all groups of affected people? % of total	

	<ul style="list-style-type: none"> livelihood restoration measures in progress not started - Was financial training delivered to all groups of affected people? % of affected households in financial training completed, in progress, not started, appeal - Did affected businesses receive entitlements? % of total completed, in progress, not started, in appeal - Have vulnerable people been identified on the household level? % of household situations reviewed - Have special needs of vulnerable groups been identified and addressed? % of vulnerable people addressed with targeted measures people established new place of residence - Have affected businesses been restored? % of restored businesses - Change in farm productivity levels (%) and PAP incomes (%). Same for businesses - How have changes of income changed overall household economy of PAPs? Factual description - Number of skilled and non- skilled PAPs engaged in construction workforce (or otherwise employed as part of Project)? Total no. of PAPs who applied for jobs, % employed part-time/full-time, % undergoing job training - Are livelihood restoration measures proving effective? Summary professional opinion - Are any additional support measures required? Professional opinion based on all results to date 	
<p>Level of PAP satisfaction</p>	<ul style="list-style-type: none"> - How do PAPs perceive the extent to which their overall livelihood has been restored? Results of routine interviews with PAPs - Have PAPs experienced any hardship as result of the Project? - Results of routine interviews with PAPs 	<p>Continuously</p>
<p>Consultation and Grievances</p>	<ul style="list-style-type: none"> - Do PAPs understand the process of land acquisition/ compensation/ livelihood restoration measures? Results of routine interviews with PAPs - Do PAPS understand avenues for expressing grievances? Results of routine interviews with PAPs - What types of grievances have been issued and how have these been resolved? How many outstanding? Summary of input from Grievance Procedure and routine interviews with PAPs: factual information. 	<p>Continuously</p>

12.5.2. External Monitoring and Evaluation

An external audit will be undertaken by an external party to the project implementation team with the aim to assess the compliance of the RAP implementation.

For this purpose, WASAC will hire a qualified external auditors (Environmental and Social) with significant experience in resettlement to carry out an annually review focusing on the assessment of compliance with social commitments contained in

Rwanda legislation, AfDB regulations, this Abbreviated Resettlement Action Plan, and the ESIA and its attached social action plans. Objectives of the review are as follows:

- S To assess overall compliance with the RAP
- S To verify that measures to restore and enhance Project-Affected Peoples' livelihoods and are being implemented and to assess their effectiveness
- S To assess the extent to which the livelihoods of affected communities are being restored in an appropriate manner and how their living standards were improved.

12.6 Resettlement Implementation Completion report

The purpose of the Completion Audit is to verify that WASAC has complied with resettlement Commitments defined by the RAP, and more generally are in compliance with national and AfDB procedures on involuntary resettlement.

A completion report of the entire resettlement process for this project will be prepared and will include a hand over certificate which will ostensibly provide a verification of when the compensation and assistance were undertaken and to whom these services were provided as well as to indicate that indeed all the compensation has been delivered.

Reference documents for the Completion Audit are the following:

- This Resettlement Action Plan,
- Rwanda Legislation and
- AfDB regulations and guidance related to involuntary resettlement.

The main objectives of the completion audit are the following:

- General assessment of the implementation of the RAP against the objectives and methods set forth in the RAP,
- Assessment of compliance of implementation with laws, regulations and safeguard policies,
- Assessment of the fairness, adequacy and promptness of the compensation and resettlement procedures as implemented,
- Evaluation of the impact of the compensation and resettlement program on livelihood restoration, measured through incomes and standards of living, with an emphasis on the “no worse-off if not better-off” requirement and
- Identification of potential corrective actions necessary to mitigate the negative impacts of the project, if any, and to enhance its positive impacts.

This report will be prepared and submitted to the Bank Six months after the end of compensation payment by WASAC. The RAP implementation report will include (but not be limited to) the following information:

- Background of the RAP preparation including a description of the project activities, scope of impacts, number of affected persons, and estimate budget;

- Update of its implementation with actual numbers of displaced persons by segments, compensation paid, issues/complaints raised and solutions provided;
- Complaints status;
- Socioeconomic status of the PAP families, their living conditions and livelihood.

Highlight a few case studies of individual PAP family experience, including at least one family considered “vulnerable”; such as how the PAPs used the cash compensation they received, etc.

- Early assessment of the impacts of resettlement and compensation on affected categories at the time of the report production;
- Total sum disbursed; and,
- Lessons learned from the RAP implementation

12.7 Cost of monitoring and evaluation

The monitoring and evaluation of the RAP activities shall be carried out by WASAC with support from the concerned district administration thus, it will have no major financial impact (apart from mission, vehicle and fuel related expenses) because the activities will be completed by the existing staff in positions of the Environmental and Social safeguards in the concerned institutions. However, 5% of the total budget of the RAP, might be availed to facilitate easy and motivated monitoring activities. The estimated amount to cover monitoring activities and logistics is **Rwf 39,056,138** (Thirty-nine Million Fifty-six Thousand One hundred thirty-eight Rwanda Francs).

