



DRAFT REPORT

**ABBREVIATED RESETTLEMENT ACTION PLAN FOR PROJECT OF
IMPROVEMENT OF WATER SUPPLY SERVICES IN NORTH-CENTRAL KIGALI, REPUBLIC OF RWANDA**

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EXECUTIVE SUMMARY

Project background

Water and Sanitation Corporation (WASAC Ltd) with the support from Government of Japan through Japan International Cooperation Agency (JICA) have achieved a series of actions in water supply sector. This includes the formulation of the Kigali Water Supply Master Plan (KWSMP) for efficient and effective facility development from a long-term perspective, the renewal of water transmission pipelines for the purpose of strengthening transmission capacity from the city's largest Nzove WTP to the Ntora Reservoir and technical cooperation for non-revenue water (NRW) reduction, as well as.

One of the projects under KWSMP is the development and renewal of water transmission and distribution facilities in the section between the Ntora Reservoir and the Remera Golf 8 Reservoir. NRW reduction measurement in the entire city of Kigali is planned under a long-term investment plan with 4 phases during the next 10 years and the project contributes to the first phase of NRW reduction and will be implemented in Kigali city, district of Gasabo, Gisozi Sector (Musezero and Ruhango cells); in Kinyinya Sector (Gacuriro and Kagugu Cells) and in Remera Sector (Nyarutarama and Nyabisindu cells).

Objectives of the A-RAP

The objective of the A-RAP is to ensure immediate and fair compensation or other supports to Project Affected Persons (PAPs) for their affected properties at the project sites prior to project implementation. The present report principally describes the proposed project components/activities and associated resettlement impacts. The A-RAP also provides the legal and regulatory framework for assets valuation, eligibility, compensation framework, implementation, and monitoring arrangement.

Approach and methodology of the study

To achieve the objectives, consultant followed procedures stipulated in JICA guidelines for environmental and social consideration and national expropriation and evaluations laws. The study adopted the following approach: (i) preliminary assessment and review of preliminary design of the projects, (ii) review of secondary data on baseline information (iii) review of policies and regulations, (iv) meetings and consultations with stakeholders, (v) field surveys at the project sites including socio-economic baseline data and asset inventory of the affected personnel.

Project location and description

The proposed project will be implemented in Kigali City, Gasabo district, Gisozi sector (Musezero and Ruhango cells); and Kinyinya sector (Gacuriro and Kagugu cells). The project also has a section of Nyarutarama – Golf 8 Reservoir located in Remera Sector (Nyarutarama and Nyabisindu cells). The project consists at construction of grounded water reservoirs (Kagugu and Batsinda sites) and elevated tanks at Nyarutarama and Kibagabaga sites as well as constructions of 5 pressures breaking chambers. It also includes construction of water transmission and distribution pipelines of around 57 km (with dimension varying between ND 160-300); modification of the existing transmission main from Ntora reservoir (ND 400 and ND 500) and the installation of flowmeters, level gauges and monitoring system.

Project Resettlement Impacts

The proposed project is not expected to involve massive land acquisition as new pipeline will be installed in road reserve where existing pipeline are installed. Further, three of four sites targeted for reservoir constructions are either owned by public institutions or WASAC. So far, only one private plot will be affected at Batsinda reservoir. The identified personnel to be affected by project activities is in Gasabo district, Kinyinya Sector, Kagugu Cell, Nyakabungo Village in UPI 1/02/10/03/11112. The land to be affected is currently used as agricultural despite being zoned for residential. The project will be mostly implemented along the walkways and in the buffer of the existing roads (both tarmac and non-tarmac depending of the area). No access roads shall be constructed and there will be no construction of camp site as most of the project workers will return to their home after work. Project facilities will be constructed at the existing nearby water tanks where land belongs to WASAC, project developer. Where not applicable land lease agreement was discussed and concluded between landowner and WASAC.

A-RAP budget

The proposed project was designed in a way that avoids or minimizes physical and economic resettlement impacts. The water pipelines are located along the walkways and in the buffer of the existing roads (both tarmac and non-tarmac depending on the area) and other project facilities will be constructed at the existing nearby water tanks where the required land is owned by WASAC, project developer. Only one location at Batsinda was identified to be affected. There is no house or other structure within the plot except some crops and different tree species. The affected land will be lost permanently because it will be used for grounded water tank. According to the current market value, the estimated valued cost for compensation of the affected person is 69,346,027Frw equivalent to 67,108 USD this budget include land value and the estimated cost value of crops and trees and will be born from government of Rwanda funds via WASAC Ltd. The monitoring fees are estimated at 770,000frw.

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ACRONYMS

A-RAP	: Abbreviated Resettlement Action Plan
BESST	: Bureau for Engineering and Environmental Studies
DDP	: District Development Plan
EIA	: Environmental Impact Assessment
FRW	: Franc Rwandais/Rwandan Franc
GDP	: Gross Domestic Product
GoR	: Government of Rwanda
JICA	: Japan International Cooperation Agency
M&E	: Monitoring and Evaluation
MoE	: Ministry of Environment
NGO	: Non-Governmental Organization
OP	: Operational Policy
PAPs	: Project Affected Parties/People
REMA	: Rwanda Environment Management Authority
RLMUA	: Rwanda Land management and Use Authority
RPF	: Resettlement Policy Framework
ToRs	: Terms of Reference
UPI	: Unique Personnel Identification
USD	: United States Dollars
WB	: World Bank
WASAC	: Water and Sanitation Corporation

DEFINITIONS OF TERMS

Unless the context dictates otherwise, the following terms shall have the following meanings:

- **Census** is a data collection technique of completing enumeration of Project Affected Households and their assets through household questionnaire.
- **Compensation**: means payment in cash or in kind to replace losses of land, housing, income, and other assets caused by a project.
- **Cut-off date**: This refers to the date prior to which the project affected family was in possession of the immovable or movable property within the affected zone.
- **Entitlement**: is defined as the right of project affected persons (PAPs) to receive various types of compensation, relocation assistance, and support for income restoration in accordance with the policy provisions.
- **House hold** includes a person, his' or her spouse, minor sons, unmarried daughters, minor brothers, unmarried sisters, father, mother and other relatives residing with him or her and dependent on him or her for their livelihood; and includes "nuclear family" consisting of a person, his or her spouse and minor children.
- **"Involuntary Displacement"** means the involuntary taking of land resulting in direct or indirect economic and social impacts caused by:
 - ✓ loss of benefits from use of such land;
 - ✓ relocation or loss of shelter;
 - ✓ loss of assets or access to assets; or
 - ✓ loss of income sources or means of livelihood, whether or not the project affected person has moved to another location
- **Land acquisition** means the taking of or alienation of land, buildings or other assets thereon the land,
- **Loss of income**: In this A-RAP, loss of income is defined as the future benefit that was going to be gained if the project was not implemented.
- **Non-titleholder**: Affected persons/families with no legal title to the land, structures and other assets adversely affected by the project. Non-titleholders include encroachers, squatters, etc.
- **Project affected persons (PAPs)** means persons who, for reasons of the involuntary taking or voluntary contribution of their land and other assets under the project, result in direct economic and/or social adverse impacts, regardless of whether or not Project affected persons physically relocate. These people may have their:
 - ✓ Standard of living adversely affected, whether or not the Project Affected Person must move to another location;
 - ✓ Right, title, interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed, temporarily or permanently, adversely affected;
 - ✓ Access to productive assets adversely affected, temporarily or permanently;
 - ✓ Business, occupation, work or place of residence or habitat adversely affected.
- **Resettlement and Compensation Plan**, also known as a "Resettlement Action Plan (A-RAP)" or "Resettlement Plan" - is a resettlement instrument (document) to be prepared when subproject locations are identified. In such cases, land acquisition leads to physical displacement of persons, and/or loss of shelter, and /or loss of livelihoods and/or loss, denial or restriction of access to economic resources. When the project affects less than 200 households or the has low impacts, an Abbreviated Resettlement Action (A-RAP) may be appropriate;
- **Resettlement Assistance** means the measures to ensure that project affected persons who may require to be physically relocated are provided with assistance such as moving allowances, residential **housing or rentals whichever** is feasible and as required, for ease of resettlement during relocation,
- **Replacement cost/value**: Replacement cost is the cost of purchasing comparable assets elsewhere **by the affected person** in lieu of the acquired land, buildings, structures, and other immovable assets, etc.
- **Socio-economic survey**: is carried out in order to prepare profile of PAPs and to prepare for Resettlement Action Plan. The survey result is used (i) to assess incomes, identify productive activities, and plan for income restoration, (ii) to develop relocation options where applicable, and (iii) to develop social preparation phase for vulnerable groups.
- **Titleholder**: A PAP who has legal title to land, structures and other assets in the affected zone and the land has a unique personnel Identification;
- **"Vulnerable Groups"** refers to: a. Widows, the disabled, marginalized groups, b. Incapacitated households – those no one fit to work, Child- headed households and street children, old people,

1. INTRODUCTION

1.1 Project background

Government of Rwanda has made sustainable water supply one of the priorities of the National Development Agenda and is establishing supportive policies and legislation. The government also acknowledges that access to safe and clean water plays a vital role in social and economic development, poverty reduction and public health. The main objective of water supply and sanitation policy is to ensure safe, reliable, and affordable water supply services for all 100% by 2024 thereby ensuring universal and equitable access to safe and affordable drinking water for the people while achieving NST-1 along with Sustainable Development Goals (SDGs). In this regards, the Government of Rwanda with the support from Government of Japan through Japan International Cooperation Agency (JICA) have achieved a series of actions in water supply sectors which include the renewal of water transmission pipelines for the purpose of strengthening transmission capacity from the city's largest Nzove WTP to the Ntora Reservoir, technical cooperation for non-revenue water (NRW) reduction, as well as the formulation of the Kigali Water Supply Master Plan (KWSMP) for efficient and effective facility development from a long-term perspective.

One of the priority projects identified under KWSMP selected the development and renewal of water transmission and distribution facilities in the section between the Ntora Reservoir and the Remera Golf 8 Reservoir. NRW reduction measurement in the entire city of Kigali is planned under a long-term investment plan with 4 phases during the next 10 years and the present project contributes to the first phase of NRW reduction and will be implemented in Kigali city, district of Gasabo, Gisozi, Kinyinya and in Remera Sectors. The implementation of the present project will be conducted via accomplishment of a series of activities to be done which include but not limited to the construction of water storages and water transmission and distribution facilities such as water reservoirs and water tanks, water pipelines and equipment required for block systems.

Four (4) water reservoirs are planned to be constructed or extended during this project at (i) Kagugu (Elevated Tank (500 m³) (ii) Batsinda: (Ground Reservoir, 1,000 m³) (iii) Gacuriro: (Elevated Tank, 500 m³) and at (iv) Nyarutarama: (Elevated Tank, 200 m³).

1.2 Scope of the A-RAP

The aim of the A-RAP report is to develop an action plan that ensures that the PAP livelihoods and standards of living are improved or at least restored, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher. The scope of work undertaken during the RAP preparation included public consultation, PAPs identification, and assets inventory, establishment of legal and regulatory framework for assets valuation and compensation, monitoring, and grievance redress mechanism. The provisional assets inventory and estimated cost was included in the A-RAP but shall be updated by independent valuer upon the completion of final design studies and compensation made prior construction.

1.3 Methodology

The preparation of this A-RAP followed the combination of different steps including desk study, field surveys and involved the consultations with local resident and PAP identification. The desk study involved review of previous study; field surveys and measurement of land and inventory of crops which are likely to be affected. Discussions with PAP and key stakeholders including district administration local authorities were also other tools used along the preparation of this A-RAP.

1.4. Project description

1.4.1. Project Location

Administratively, the proposed project is in Kigali City in Gasabo, Gisozi Sector (Musezero and Ruhango cells) and Kinyinya Sector (Gacuriro and Kagugu Cells). The project also has a section of Nyarutarama – Golf 8 Reservoir located in Remera Sector (Nyarutarama and Nyabisindu cells). The present A-RAP was developed for the site for construction of Batsinda ground water tank located in Gasabo district, Kinyinya Sector, Kagugu Cell, Nyakabungo Village in UPI 1/02/10/03/11112.

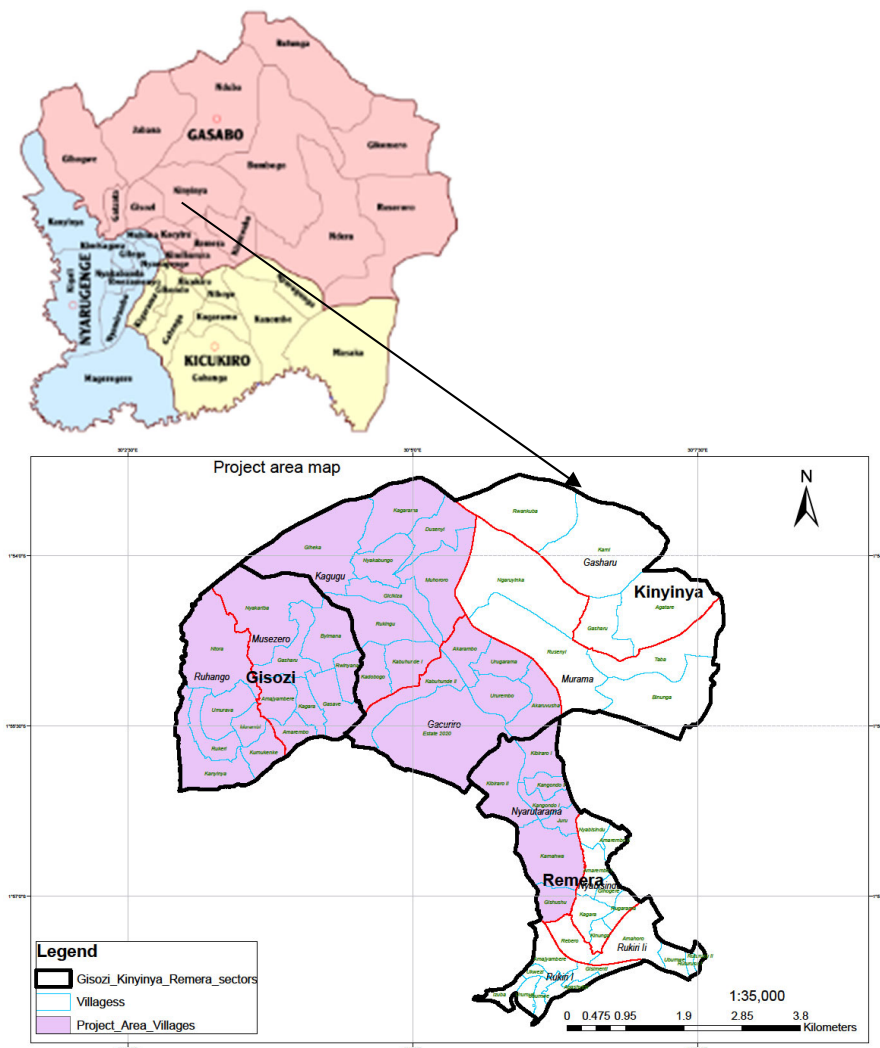


Figure 1: Administrative location of project area
Source: BESST Ltd, 2022

1.4.2. Project description

The proposed project will consist at construction of 5 different water reservoirs and elevated tanks as described in the table below and at the construction of 5 pressures breaking chambers, the construction of water transmission and distribution pipelines of approximately 57 km (dimension varying between ND 160-300); the modification of the existing transmission main from Ntora reservoir (ND 400 and ND 500) and the installation of flow meters, level gauges and monitoring system. There are no access roads that shall be constructed as most efforts have been made to use the buffer zones and walkways for transmission pipes.

Table 1: Summary of the project description

Code	Name	Type and Capacity	Description
N2	Kagugu	Elevated Tank, 500m ³	The elevated tank is to supply water to the entire Kagugu hill including the Kadobogo village. The selected land is located along the main road KG14 opposite the church (Catholic Church_Kagugu Parish).
N3	Gacuriro	Elevated Tank, 500m ³	The elevated tank is to supply water to the top of Gacuriro hill where the water pressure is not enough by the existing reservoir, and currently supplied water by the by-pass from transmission pipeline.
N4	Batsinda	Ground Reservoir, 1,000m ³	The reservoir is to supply water to the new development areas at the Batsinda commercial area and surrounding residential areas with high development (R3). The location is at the top of the village named Muhororo. The land is located near the church (Catholic Church Centrale Batsinda).
N5	Nyarutarama-South	Elevated Tank, 200m ³	The elevated tank is to supply water to the top of the southern part of Nyarutarama sector where the water pressure is not enough by the existing reservoir, and currently supplied water by the by-pass from transmission pipeline.

1.4.3. Project activities

Different activities will be done throughout the project implementation and among them include Construction works of elevated water tanks and water reservoirs, replacement of old water transmission and distribution pipes with new pipes

and the installation of flow meter as well as the installation of level gauges systems. The construction of new water reservoirs and elevated tanks will be done on some land fully owned by the government of Rwanda and these are Gacuriro and Nyarutarama sites, while others will be done at the land where a full guarantee of land use was concluded between WASAC Ltd/ and landowner (Kagugu sites).

The site for Batsinda is privately owned by MPAGAZEHE Augustin a local resident. The water pipes and other project facilities such as pressure breaking chambers, flow meters and level gauges will be constructed and installed within the walkways of the existing buffer zone of the roads. The total length of the pipes both distribution and transmission to be installed is estimated at 57 km. There are no other planned activities that require land such as construction of access roads, construction of camp site for the project (people will return to their respective resident areas after works) or the necessity of land for storage of construction materials as these will be stored at the identified land at Ntora Reservoirs owned by WASAC Ltd. This Abbreviated Resettlement Action Plan (A-RAP) report was prepared as one of the components of the requirements before project activities as it provides the necessary information on project land requirements and involuntary resettlement implication. It includes socio-economic status the affected PAP, an inventory of assets that are likely to be affected and proposes mitigation and compensation measures. This was only developed at Batsinda plot in Kagugu where a grounded water reservoir of 1,000 m³ will be constructed.

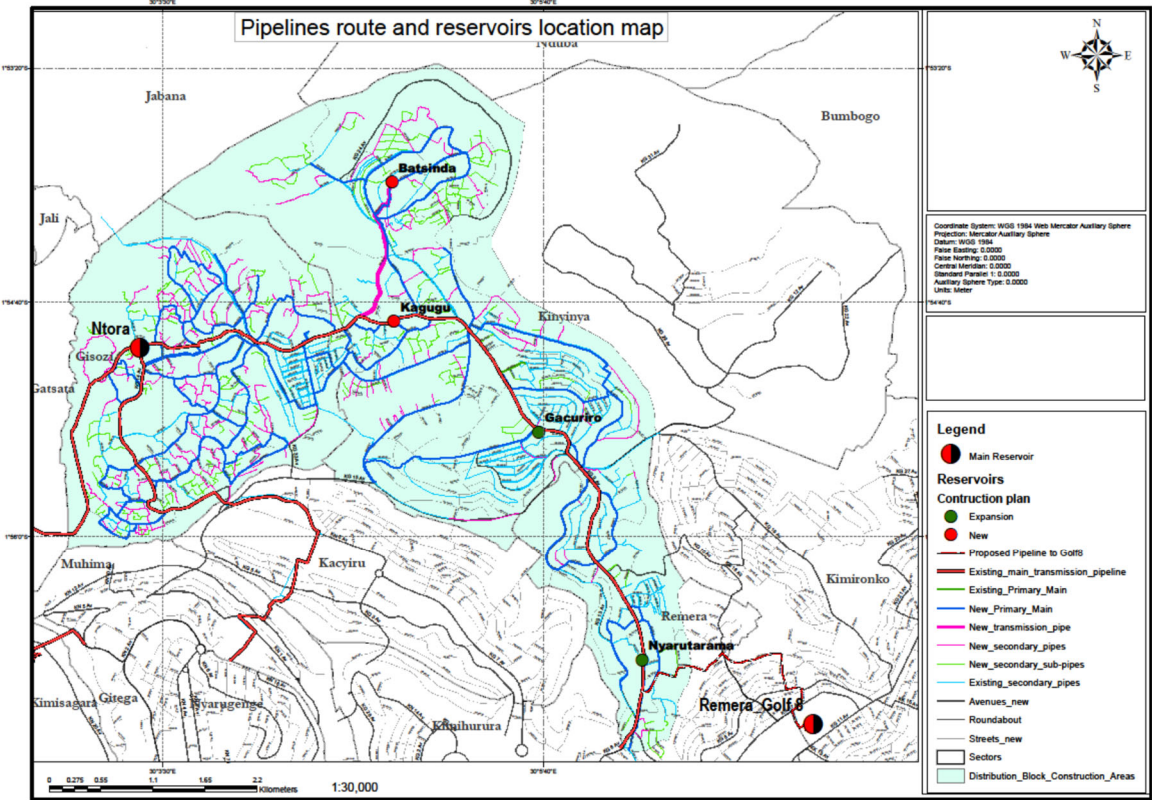


Figure 2: Proposed principal pipeline route and project’s reservoir locations
Source: Preliminary design study, 2022

1.4.4. Project land requirement

As described in the previous paragraphs, installation of all principal and secondary water pipes for the project will follow the existing roads both tarmac and earth roads. The pipes will be located under the walkways and in the buffer zones of the roads and hence no land will be permanently used for such pipe installation. The required land not owned by project developer will be used during the project works in form of easement and returns to the owner after project execution. Compensation of land and affected properties will be made at Batsinda where land will be permanently used. The table below summarized the required land for the project

Table 2: Total land to be affected by the proposed project

Sector	Cell	Village	Reservoir/ tank name	Land required (m2)	Ownership
Kinyinya	Kagugu	Nyakabungo	Batsinda	1000	Privately owned by MPAGAZEHE Augustin
	Kagugu	Kabuhunde	Kagugu	450	Owned by RSSB/ Lease agreement available
	Gacuriro	Estate 2020	Gacuriro	750	Fully owned by GoR
Remera	Nyarutarama	Gishushu	Nyarutarama South	750	Fully owned by GoR

Source: Field survey, BESST Ltd, 2022

The following Plate illustrates the sites targeted for reservoirs construction

2. LEGAL AND INSTITUTIONAL FRAMEWORK

2.1. Introduction

This chapter describes policies, strategies, legal instruments, and institutional framework applicable to the proposed project. This project will not affect structures however; land, crops and trees will be damaged. Much of all trees to be destroyed are owned by the government as are located within road buffers and few are owned by individual. The accessibility to water will enable people to be connected to the water supply system and be able to transform their socio-economic wellbeing. Concerning the ARAP implementation especially inventory and asset valuation, an independent the contractor had the responsibility of conducting inventory and asset valuation and WASAC Ltd via its ordinary budget from MINEFOFIN has the responsibility to compensate the identified PAP.

2.2. National land related regulations

✓ **National land policy**

The National Land Policy of Rwanda seeks to establish a land tenure system that guarantees tenure security for all Rwandans and give guidance to the necessary land reforms with a view to good management and rational use of national land resources.

The policy seeks to ensure this through the following objectives:

- To promote good allocation of land to enhance rational use of land resources according to their capacity
- To focus on land management towards more viable and sustainable production by choosing reliable and time-tested methods of land development
- To put in place mechanisms which guarantee land tenure security to land users for the promotion of investments in land
- To establish mechanisms which facilitate giving land its productive value to promote the country's socio-economic development
- To develop actions that protects land resources from the various effects of land degradation.
- To promote the involvement and sensitization of the public at all levels to infuse land use practices that are favorable to environmental protection and good land management

✓ **Law N° 27/2021 of 10/06/2021 governing land in Rwanda, 2021**

The law governing land in Rwanda determines modalities of acquisition, registration, allocation, possession, transfer, management, and use of land in Rwanda. The law defines expropriation as an action based on the powers of the State, public institutions, and decentralized entities with legal personality to remove a person from his or her property due to public interest upon prior payment of fair compensation;

Article 22 related to Consent to transfer land rights says that: “ A transfer of land rights, before it is carried out, is consented by all persons registered on the land title. However, the transfer of land rights jointly detained by spouses is approved by both, even if one of the spouses is not registered on the land title. A person who has been deprived of legal capacity by a competent court or a minor are represented in accordance with relevant laws”.

Article 31: States that lands in public domain consist of all lands intended to be used by the public or all the lands reserved for organs of State services and national lands reserved for environmental protection. Among the state lands include the national roads and their boundaries that will be used for the project activities.

Article 39 related to the rights to use State lands states that “A public institution or decentralized entities have the right to use the State lands required for accomplishing its mission and responsibilities”. Therefore, it is from the land title that it is able to understand category of land use for and also determine who the rightful landowner is, in the process of the asset inventory and compensation.

✓ **Organic law n° 32/2015 of 11/06/2015 law relating to expropriation in the public interest**

This law determines the procedures relating to expropriation in the interest of the public. The law stipulates that the government has the authority to carry out expropriation. However the project, at any level, which intends to carry out acts of expropriation in public interest, shall provide funds for inventory of assets of the person to be expropriated. According to the organic law, no person shall hinder the implementation of the program of expropriation on pretext of self-centered justifications and no land owner shall oppose any underground or surface activity carried out on his or her land with an aim of public interest. In case it causes any loss to him or her, he or she shall receive fair compensation for it.

Eligibility for compensation is enshrined under the Rwandan constitution and the expropriation law. The two laws regulate and give entitlement to those affected, whether or not they have written customary or formal tenure rights. The

person to be expropriated is defined under article 2 (8) of the expropriation law to mean any person who is to be removed from his or her private property due to public interest shall be legally entitled to payment of compensation.

Article 3 of the law states that “Only the Government shall order expropriation in the public interest. Expropriation as provided for under this Law shall be carried out only in the public interest and with prior and fair compensation. No person shall hinder the implementation of the program of expropriation in the public interest on pretext of self-centered interests. No person shall oppose any underground or surface activity carried out on his/her land with an aim of public interest. In case it causes any loss to him/her, he/she shall receive fair compensation for it.

Article 4 states that “Every project, at any level, which intends to carry out acts of expropriation in the public interest, shall budget for valuation of the property of the person to be expropriated and for fair compensation”.

The article 6 states that the price or value of assets affected by the project shall be paid by the initiator of the project before any commencement of activities

Article 35 related to payment of fair compensation states that “Fair compensation can be paid in monetary form in the Rwandan currency or in any other form mutually agreed upon by the expropriator and the person to be expropriated. In order for the expropriation to be authorized, the fair compensation must be paid to the expropriated person before he/she relocates. The article 36 promulgates that approved fair compensation shall be paid within a period not exceeding one hundred and twenty (120) days from the day of its approval by the district.

✓ **Law n^o.17/2010 of 2010 establishing and organizing the real property valuation profession in Rwanda**

According to the requirement of this law, the valuation of properties and land to be affected shall be done by an approved property valuer and registered by the Rwandan institute for property valuers. (IRPV). Article 4 related to the Requirements to exercise the profession says that “Any person wishing to practice as a real property valuer in Rwanda shall have to be a member of the Institute this law”.

Article 26 says that “Only registered valuer members of the Institute shall be authorized to exercise the real property valuation profession in Rwanda. However, Government employees fulfilling requirements of the Council shall also be authorized to conduct valuation when mandated by their government institutions.

The attributed prices to the assets shall be fair and compared to the local market as per the article 28 stating that “The proposed price for the real property shall be close or equal to the market value. The valuer shall compare prices by referring to the prices recently assigned to a real property that is similar or comparable to the real property subject to valuation.

2.3. International regulations

2.3.1. JICA Guidelines for Environmental and Social Considerations

The project of improvement of Water Supply Services in North Central Kigali will be funded by Japan Government through Japan International Cooperation Agency (JICA) and it is very important to consider the JICA guidelines for environmental and social consideration in preparation and implementation of the A-RAP.

The key principle of JICA's policy on involuntary resettlement is summarized below:

- Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.
- When population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken.
- People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.
- Compensation must be based on the full replacement cost as much as possible.
- Compensation and other kinds of assistance must be provided prior to displacement.
- For projects that entail large-scale involuntary resettlement, A-RAPs must be prepared and made available to the public. It is desirable that the A-RAP include elements laid out in the WB, OP 4.12 Annex A.

2.3.2. World Bank O.P. 4.12 on involuntary resettlement policy

The WB involuntary resettlement related policies are also critical in preparation and implementation of this A-RAP. The

main objectives of the WB O.P. 4.12 include: avoiding or minimizing involuntary resettlement where feasible, exploring all viable alternative project design; where it is not feasible to avoid resettlement. Resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to give the persons displaced by the project the opportunity to share in project benefits.

Displaced persons should be meaningfully consulted and have opportunities to participate in planning and implementing resettlement programs. Those displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre- displacement levels or to levels prevailing prior to beginning of project implementation, whichever is higher. Specifically, the production systems of a community are safeguarded to the extent that guarantees their livelihoods and that their skills base remain relevant regardless of the resettlement site. The policy objectives are also designed to minimize kinship group dislocation that might subject the affected persons to unfair competition when mutual help is diminished or lost. The project consultant met the objective of the WB OP 4.12, by conducting public participation in the project area; evaluating project alternatives to enable minimize involuntary resettlement and developed an entitlement matrix to guide in calculation of resettlement and replacement costs.

Table 4: Gap between Rwandan laws and JICA guidelines for environmental and social considerations

JICA Guidelines	Rwandan regulation	Gaps	Comment
[Avoidance of involuntary resettlement] Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.	<ul style="list-style-type: none"> The national laws on environment and EIA guidelines require the developer to examine project alternatives but not mention avoidance or minimization of involuntary resettlement. 	The national laws and regulations only require the provision of compensation.	JICA guidelines shall apply
[Mitigation measures for displacement] When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken.	<ul style="list-style-type: none"> Resettlement is only acceptable for public interest. Affected persons are fully informed of expropriation issues. Laws relating to expropriation define valuation of land and assets for the fair compensation, but loss of income is not covered. 	Loss of means of livelihoods is not captured in the expropriation law	JICA guidelines shall apply
[Securing livelihood and assistance] People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.	<ul style="list-style-type: none"> Laws relating to expropriation define valuation of land and assets for the fair compensation 	The laws relating to expropriation do not mention loss of income and compensation for illegal occupants.	Priority for job of construction work will be considered for those who will lose a part of income sources
[Valuation based on replacement cost] Compensation must be based on the full replacement cost as much as possible.	<ul style="list-style-type: none"> Compensation shall be calculated based on their size, nature and location and the prevailing market rates. The compensation for disruption caused by expropriation to be paid to the expropriated person shall be equivalent to five percent (5%) of the total value of his/her property expropriated. 	The Rwanda Expropriation law does not mention the full replacement cost. The valuation law recognizes replacement cost as valuation methods. what is not covered is full replacement cost (this includes administrative cost, additional cost due to relocation etc)	Compensation based on the market value such as materials and labor cost without depreciation, and disturbance allowances as 5% of market value were used. The proposed price for the real property will be made close or equal to replacement value, referring to the recent data of the transaction in land. Transaction tax and commission fee shall be added as compensation.
[Compensation prior to displacement] Compensation and other kinds of assistance must be provided prior to displacement.	<ul style="list-style-type: none"> The Article 36 of the Expropriation law (2015) states that approved fair compensation shall be paid within a period not exceeding one hundred and twenty (120) days from the day of its approval. 	JICA Guideline does not specify the period of payment and assistance.	Compensation and other kinds of assistance must be provided prior to displacement
Development and disclosure of RAP: For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public.	<ul style="list-style-type: none"> Article 10 of expropriation law requires the project developer to submit documents, which contain such information as the outline, environmental and socio-economic impact, and concerned people's understanding of the project, along with the application 	The Rwandan laws do not stipulate the RAP. Only expropriation report is required. However, donor agencies in general recommend preparing for RAP.	This ARAP was prepared in this regard.

JICA Guidelines	Rwandan regulation	Gaps	Comment
<p>Holding public consultation meetings: In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance.</p> <p>Use of local language: When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people.</p>	<ul style="list-style-type: none"> The Law 48/2018 of 13/08/2018 on environment requires public hearings and consultation during Environmental studies. The article 11 of the expropriation law requires that the relevant committee in charge of monitoring projects of expropriation in the public interest shall consider the relevance of the project within a period not exceeding thirty (30) days after receiving the request for expropriation and shall conduct a consultative meeting with the population living where the land is located concerning the relevance of the project of expropriation in the public interest. The committee shall inform them about the date, time and venue of that meeting. 	Both JICA and Rwandan law require consultation with affected people with enough information	For the preparation of the EIA report and ARAP, consultation meetings were organized and sufficient information was provided in the local language
<p>Promoting public involvement: Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans.</p>	<ul style="list-style-type: none"> Under the expropriation law, the relevant committee in charge of monitoring projects of expropriation shall conduct a consultative meeting with the affected population. 	Under the expropriation law, consultative meeting shall be conducted; however, not promoted in the beginning stage.	Consultation meetings were organized in the planning process for EIA and A-RAP preparation.
<p>Establishing grievance redress mechanism: Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.</p>	<ul style="list-style-type: none"> The expropriation law provides for rights of persons to be expropriated and stipulates the process for redress of problems with expropriation decision by the affected persons (Article 18, 19, 20 of Section 3) Article 18 also guarantees the right for appeal and provides for the mechanism for appeal for any person affected by the decision on expropriation in the public interest. Any person to be expropriated who is not satisfied with the assessed land and property value shall indicate in writing grounds for his/her dissatisfaction with the valuation report. (Article 33 and 34) 	No gap	For this case no grievance committees are required. Amicable settlement in case of grievance shall be applied and local authorities shall be mediators for both parties.
<p>[Identifying eligibility] Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advantage of such benefits. (WB OP 4.12 Para. 6)</p>	<ul style="list-style-type: none"> The Rwandan expropriation law requires the census and asset inventory survey. The District or City of Kigali administration or the relevant Ministry must inform the persons to be expropriated in the public interest of the expected start date of measurement of land and inventory of property 	The social assessment is part of Environmental Impact assessment, but the expropriation law does not require social assessment.	Census survey was done upon identification of the necessity of resettlement and/or land acquisition under the preparatory survey, and to be updated by final valuation stage. Socio-economic survey was also conducted under the preparatory survey, and to be updated by final valuation stage.
<p>[Eligibility requirements] Eligibility of benefits includes, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying. (WB OP 4.12 Para. 15)</p>	<ul style="list-style-type: none"> Under the Rwanda Expropriation law compensation is limited only those with land titles and documentary evidence that he/she is the owner of property incorporated on land. He/she shall also provide a civil status certificate and a document evidencing his/her chosen matrimonial regime in case of a married person. 	The World Bank OP4.12 policy is much broader and includes both legal and illegal occupants of the land.	There would be no PAPs without formal legal right in this project.
<p>[Land-to-land Compensation] Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. (WB OP 4.12 Para. 11)</p>	<ul style="list-style-type: none"> Under the expropriation law, fair compensation can be paid in monetary form in the Rwandan currency or in any other form mutually agreed upon by the expropriator and the person to be expropriated. (Article 	The Rwanda Expropriation law confirms Land for land compensation.	In Kigali, where land is a limited resource, it is very difficult to implement land for land compensation; therefore, compensation will be paid in cash.

JICA Guidelines	Rwandan regulation	Gaps	Comment
	35 of Section 2)		
[Assistance during transition] Provide support for the transition period (between displacement and livelihood restoration). (WB OP 4. 12, para.6)	<ul style="list-style-type: none"> ▪ There are no explicit support for transition period and livelihood restoration 	There are no explicit supports for transition period and livelihood restoration.	No transition period is required as per PAP is not residing at the affected land.

Source: WB OP 4. 12, JICA guidelines and National regulations on expropriation and lands

2.4. Institutional arrangement for A-RAP preparation and implementation

In Rwanda, there is no specific institution governing resettlement activities and social impact are assessed and managed through EIA process and different institutions shares responsibilities in terms of land acquisition and land transfer. In any case the project implementing agency is the responsible institution and should work with other stakeholders and affected people to ensure that land is acquired in compliance with existing regulations. For this project, WASAC Ltd is the lead institution in implementing this ARAP but will be supported by other institutions. WASAC Ltd is the implementing entity for the construction of pipelines but also is responsible for land acquisition. For this reason, WASAC Ltd is responsible for the preparation and implementation of this A-RAP and will be responsible for securing funds from Central Government (MINECOFIN) to meet compensation and ensuring that the PAP receives adequate compensation before project implementation. The summary of institutions responsibilities is provided in the table below:

Table 5: Institution arrangement for A-RAP implementation

Organization	Responsibility
WASAC Ltd	<ul style="list-style-type: none"> ✓ Designate a social safeguard specialist who will be the focal point for A-RAPs implementation and will liaise with other stakeholders. ✓ Initiate the expropriation process and compensation requirements; ✓ Preparation and signature of compensation grant agreement with the district; ✓ Ensure funds are allocated appropriately, according to A-RAP; ✓ Prepare the A-RAP closure report and file all documentation related to A-RAP implementation; ✓ Hire independent assets valuer upon the completion of final detailed design study.
Rwanda Land Management and Use Authority	<ul style="list-style-type: none"> ✓ RLMUA through its department of land administration and mapping is the organ responsible for overall management and coordination of all activities related to land administration, land use planning and management in Rwanda. The role of RLMUA role in RAP process is to advise on matters related to land ownership and expropriation. ✓ RLMUA will be also responsible for land transfer and registration after compensation is fairly done and conclude
Gasabo District	<ul style="list-style-type: none"> ✓ Ensure that all procedures related to property valuation and fair compensation have been adhered to and that there is consistency in approach used ✓ Review and approve by signing all documentation related to compensation such as valuation form. ✓ Responsible for monitoring of valuation and fair compensation to the PAP ✓ Monitoring and follow up of the RAP implementation; ✓ Resolution of grievance if any is raised
Local authorities (Village, cell, and Sector)	<ul style="list-style-type: none"> ✓ Review and sign off of all documentation (e.g. completed expropriation form); related to the compensation and that indicates their affected assets for payment ✓ Participation in the different consultation meetings ✓ Participate in the valuation activities for affected assets; ✓ Sign and approve the individual PAPs list; ✓ Following up and participate in resolving issues that may be raised
Rwanda Institute of Property Valuers	<ul style="list-style-type: none"> ✓ Set up reference prices ✓ Approval of independent valuers ✓ Supervise assets valuation activities
Project Affected Person (PAP)	<ul style="list-style-type: none"> ✓ The primary role of the PAP during the process of property census/measuring land and assessing property thereon is to be physically present and ascertain that indeed the measurements are correct and to his satisfaction. Upon being adequately satisfied with the measurements, his signature will be given as proof of approval. ✓ Be present when the land survey and inventory is being carried out ✓ Provides all required necessary information in regard to compensation activities.

3. SOCIO-ECONOMIC STATUS OF THE AFFECTED PERSON AND CONSULTATION

3.1. Introduction

This section describes the current situation of the PAP to be affected by the project and provides the baseline socio-economic status that will be used to measure the project impact on him. The information presented has been collected through socio-economic survey conducted to the person owning the land for the site for construction of Batsinda grounded water reservoirs.

Considering the project nature and extent whereby installation of all principal and secondary water pipes will follow the existing roads both tarmac and earth roads and where the pipes will be located under the walkways and in the buffer zones of the roads, no land for the pipelines will be permanently used for by the project. The affected properties in those buffer zones are also the government trees and these do not require the compensation. However, they will be re-planted after project activities. The required land not owned by project developer will be used during the project works in form of easement and returns to the owner after project execution. Compensation of land and affected properties will be made at Batsinda where land will be permanently used. Hence only one (1) PAP has been identified as project affected person.

3.2. Data collection and analysis

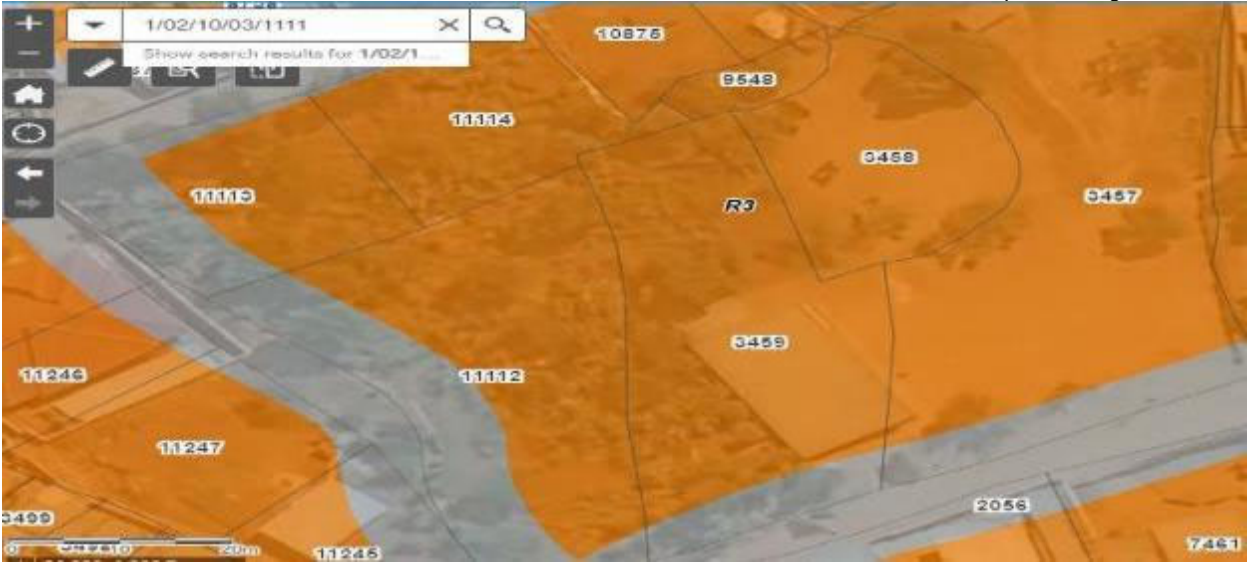
Data collection on the PAP was done using a predefined of questionnaire that was filled at the project site together with the PAP and two of his two (2) sons. Responses obtained from field survey were interpreted and used in this A-RAP.

3.2.1. Characteristics of PAP

The affected person is MPAGAZEHE Augustin, born in 1950(72 years). He is a widow and head of the family. He resides in Nyakabungo Village, Kagugu Cell, Kinyinya Sector, Gasabo district with ID number 1195080001367182. Due to his his age, Augustin has no temporarily or permanent job. He lives for daily substances form agricultural activities and from support of his children. He has no permanent disability. According to him on monthly basis, he gains almost 50,000 Frw from his agricultural activities outside the project area.

3.2.2. Characteristics of the affected plot

The affected plot is register under UPI: 1/02/10/03/11112 and is in Nyakabungo Village, Kagugu Cell, Kinyinya Sector, Gasabo district. The total area of the plot is 1308 sqm while the required land for the project activities is approximately 1000m2. The land has the land tiles and is designed for residential by Kigali city land use master plan. However, there is not any house within the plot. The expiration date of the freehold title is 8-03-2040. It worth to not that during site visits and review of ownership documents, inconsistencies were observed in terms of plot area as well as the shape of the plot. This has to be well checked during the final valuation. As it can be seen on the following map there a portion of surveyed area which is not part of the plot. According to the owner the error is being rectified and for the moment we considered the area included on the land title with 1308m2. This should be rectified before purchasing the land.



Plot shape



Surveyed area

3.2.3. Affected properties

The affected trees located at the project site as per the date of site survey are summarized in the table below:

The targeted land is planned for residential use but currently is being used for agriculture purposes as it can be seen on these photos.



Key crops properties inventoried are presented in the next table.

Table 6: Affected asset at the project site

No	Names	Local name	Unit	Quantity	Unit price	Estimated cost
1	Land	Ubutaka	sqm	1308	64,246	66,224,777
2	<i>Persea gratissima</i>	Avoka	number	46	20,000	920,000
3	<i>Phaselolus vulgaris</i>	Ibishyimbo	sqm	1000	150	150,000
4	<i>Zea mays</i>	Ibigori	sqm	1000	150	150,000
5	<i>Colocasia esculenta</i>	Amateke	number	45	250	11,250
6	<i>Manihot esculenta</i>	Imyumbati	sqm	1000	400	400,000
7	<i>Musa spp.</i>	Insina	number	102	5,000	510,000

No	Names	Local name	Unit	Quantity	Unit price	Estimated cost
8	<i>Markhamia lutea</i>	Umusave	number	41	10,000	410,000
9	<i>Mangifera indica</i>	Imyembe	number	3	10,000	30,000
10	<i>Eucalyptus sp.</i>	Inturusu	number	33	6,500	214,500
11	<i>Grevillea robusta</i>	Gerevelia	number	1	5,500	5,500
12	<i>Euphorbia candelabrum</i>	Umuduha	number	1	10,000	10,000
13	<i>Tetradenia riparia</i>	Imiravumba	number	3	20,000	60,000
14	<i>Euphorbia tirucalli</i>	Imiyenzi	number	25	1,000	25,000
TOTAL						69,121,027

Source: Field survey, 2022

3.3. Stakeholder engagement and consultation

According to the JICA guidelines for environmental and social consideration and national regulations related to land acquisition, affected persons and host communities are supposed to be meaningfully consulted early in the planning process and encouraged to participate in the planning and implementation of the resettlement program. Hence, the first consultation meeting was held on 26th March 2022 between cells and village authorities to discuss issues related to compensation connected to the project.

3.3.1. Consultation with affected Person

While preparing this A-RAP, another discussion with PAP and his sons was held on site on 16th April 2022. Where present Augustin and his sons Theoneste NGABONZIZA and Vedaste NSANZIMANA. The purpose of the meeting was to inform the affected person were informed about project activities, and requirement and options and rights pertaining to the resettlement. After that, the PAP was fully involved in all the processes of the development of this Abbreviated Resettlement Action plan (ARAP). Compensation requirements were discussed, and provisional assets valuation was conducted to be used as benchmark for the ARAP budgeting. The real asset valuation shall be conducted by the approved property valuer The bale below summarizes issues raised during the consultation meetings with the PAP along with the responses given.

Table 7: Issues of PAP and responses given

Issues	Responses
The project is good as we don't have enough water in our region. Why the project was designed to be carried out in my plot.	The location of the water reservoir was selected based on different technical alternatives. Among them include the best location to allow easy distribution of the supplied water. Your plot has been found being at the best as being on the highest elevated point in Batsinda and taking into consideration that water from the reservoir will be supplied to the rest of the area by gravity. Therefore, the plot has been found to be the best among other reasons it has been selected.
Will the valuation take into consideration of our land as registered on the land document (crops and trees)	It is envisaged that the valuation of land will take into consideration only the affected land and required for the project. The remaining part of the land will be your property and your will get the land document according after land transfer.
Will all crops and trees be valued during the valuation?	The valuation of the crops and trees will be done with reference to current compensation rates applied in Rwanda and the compensation package is based on the age and type of the crop or tree.
How will I know the amount of money to be compensated?	It is your full right to know the exact amount of the compensation you will get. The entire package of the expropriation form will be displayed to you before signing. It is your right to accept the amount of money before signing.
How will I receive my money?	All payment will be made directly to your personal bank accounts or Saving and Credit Cooperatives (SACCOs) with no intermediaries.
I used to get around 300 kg of beans from this land and every season. Will this also be catered for during the valuation?	Valuation will consider assets on site. However, 5% of the total amount calculated will be added as disturbance allowance.
After valuation of the crops, will I allow to harvest them even though compensated?	Normally compensation is done to the affected crops. In case the valuation is done after you harvested your crops, they will be no compensation. In case this is done, and the onsite works delayed to be implemented yet you have been compensated you will be allowed to harvest your crops.

During consultations done through the conduct of this ARAP, it was indicated that all of the local residents around the project area and the PAP himself and his relatives had a positive attitude towards the proposed project. All people reached a conclusion that this is a developmental and feasible project, and it has to be supported by all parties involved. However, the PAP insisted that fair compensation should be conducted taking into consideration the value of land and local market in project area as well to be done in due time without delays in payment process that are mostly observed in such water supply projects.

3.3.2. Consultation with community

Though only one person will be affected, it is critical to inform the larger communities about the project especially those closer to water reservoirs and pipelines. Consultation with larger communities is conducted in tandem with consultation for environmental studies and are mainly held during community work as agreed with local authorities. During the consultations, the restrictions imposed by COVID-19 were respected. In our context, the community works took place on 26th March 2022 and 3 different study teams attended the in 3 different areas Gisozi, Kagugu and Nyabisindu as detailed in table below. Information and comments collected from the public consultations are all summarized in the table below.

Table 8: Questions /Suggestions and responses provided during public consultations

No	Names	Questions/Suggestions	Responses provided by the consultant
Gisozi, Musezero Cell, Gasharu village Saturday, 26th March, 2022			
1	NIBISHAKA Isaac	-Where will the pipelines pass?	-The pipelines will pass where the existing pipes pass especially in the road reserve from Ntora to Gacuriro
2	MMUKANDORLI Chantal	You said that during the project implementation, some of the pipes will be replaced. Will be there water shortages during the period of replacement?	The project is designed in a way that there will be no water shortages during project implementation. In case these happen, people will be informed in advance for them to get prepared.
3	MUKAKABERA Seraphine	We have experienced cases where some of our crops have not been compensated by WASAC. Example is made to my crops affected during the recent constructed Ntora –Gasanze pipe. How can you ensure that this project will be implemented differently while the developer is the same?	Maximum efforts are being done to avoid compensation during the project implementation. In case it happens, compensation will be made before project works. Local people are also required to get all required conditions such as land documents, account numbers etc. to get paid. Details to get paid shall be discussed during the valuation process.
4	BAMPORIKI Jean Baptiste	During the previous projects some of the pipelines that were supplying us water were not re-connected and we are still struggling. Will the project do the same mistakes?	Normally the pipes to be installed are not directly supplying water to locals. These are transmissions pipes while connection is done to distribution pipes. It is expected that this project will not cause such impacts to locals.
5	YANGIRIYENEZA Egide	Will be there any compensation to those who will temporarily close their businesses such as MTN kiosk owner during the project implementation	So far it is expected that compensation will be made at only damaged assets. Those having movable properties shall be requested to move them in order to pave the way project activities. However, those owning such business shall be allocated jobs during project implementation and bring back their kiosks after project works.
Remera sector, Nyabisindu cell			
1	UWINGABIRE Marianna	When is the implementation of the project expected to start for us to get prepared?	Different studies related to the project studies are going on and the kick off is expected as soon as the studies are finished and approved and the funds available. It is expected that the project will start during the next fiscal year and this section to be completed within two years
2	KURADUSENGE David	Will the project give job opportunities to local people or only engineers will be employed by the project	Considering the project nature, local people will be employed and are priorities when allocating jobs. Both local and non-locals will be employed during project implementation
3	SEZIBERA Issa	During the construction works especially where pipes will pass, people are they allowed to continue using their land?	During construction works and pipes laying, landowners will continue to use their land as usual. However no major structures such as fences will be allowed on the pipelines.
4	NDAYISABA Valens	Do we have assets on the land where probably the project will pass. Will the project compensate them?	Affected properties will be compensated according to the existing laws related to the compensation in public interests.
Kinyinya Sector, Kagugu Cell, Nyakabungo Village Saturday, 26th March, 2022			
1.	MUGISHA Jean Claude	We would like to know the exact location of the water tanks in this area. Is only one water tanks or the project will build different tanks in our area?	The water tank in Kagugu will be constructed in the plot located near Batsinda Central Catholic Church. Other tanks will be located nearby the existing tanks in Gacuriro and Nyarutarama except the other new tank to be constructed opposite Kagugu Catholic Parish
2	NIYONZIMA Jean d'Amour	When the maps of the project will be available, it will be better to be displayed at the villages and at open spaces so that different people can have access to the information related to the line route and other project components?	For sure. Maps of the project location will be published to cell/villages information will be made public to all.
3	NIYONSENGA Jean Bosco	It should be better that WASAC also take part in the project implementation	For sure. The project will not be implemented only by JICA. WASAC Ltd is project developer and will definitively be part of the project implementation.

No	Names	Questions/Suggestions	Responses provided by the consultant
4	NDABARORA Eliezer	Water is currently expensive and is becoming more expensive. WASAC in charge should look on these issues and act accordingly.	The message is taken into consideration and will be forwarded to WASAC for consideration.
5	NYIRABUHORO M. Aimee	When do you think the project should start?	The project has started with detailed design and onsite works are expected to start next fiscal year that will start in June 2022.
6	MURATABIGWI Fidele	Regarding the work to be available for the project will JICA fully own the payment of manpower? How about the compensation of damaged properties?	Payment of local manpower will be done by the contractor who will be doing the implementation. While compensation of damaged properties will be done through Government budget via WASAC Ltd.
7	MASUMBUKO Oscar	Is it possible for WSAC to think about het prepaid system as this was done for electricity?	Message is taken and will be forwarded to WASAC for consideration

Source: Field survey, BESST Ltd, 2022

3.3.3. Consultation with regulatory agencies and local community

In addition to the Project Affected Person and local community, efforts were made to consult and inform regulatory agencies and local authorities about the project, its implications in terms of land acquisition but also roles and responsibilities in resettlement process. Consultation at central and district level consisted at explaining the proposed project, project environmental concern, legal and regulatory requirements as well as roles and responsibilities of different stakeholders for the abbreviated Resettlement Action Plan. The consultation at central and district level took place during the period of 6th and 18th January 2022 and consulted institutions at central level are summarized and issues discussed are summarized in next table:

Table 9: Outcome consultation at central and local level

Stakeholder	Summary of discussion	Key outcomes
RLMUA	<ul style="list-style-type: none"> - Land rights and land use for the buffer zone of the roads - Land transfer ad registration after project implementation especially for Batsinda water tank area - Zoning Plan of the project areas 	<ul style="list-style-type: none"> - Land located within the buffer zone of the road is under public land. Therefore, the project will be implemented in consideration with the existing laws related to land use and rights. - It is mandatory that after compensation the expropriated land be register under government properties via WASAC. All procedures required must be fulfilled in order to get the land register. RLMUA will facilitate in this regard by its staff located at Gasabo District. - This project is not compromising the land use plan of the City of Kigali
REMA	<ul style="list-style-type: none"> - Project activities and environmental pollution. - Potential source of pollution within project area - Impacts of the project implementation on the surrounding environment. - REMA's responsibilities in the project life span 	<ul style="list-style-type: none"> - REMA will play key role in the EMP during all phases of the project. - Impacts compensation measures of the identified impacts would be clearly developed and implemented. However, efforts have to be made to refuse and avoid those identified impacts. - Various impacts connected to this project implementation were discussed and are incorporated in this report. - Monitoring is recommended to be undertaken on regular basis to avoid potential environmental pollution.
WASAC Ltd	<ul style="list-style-type: none"> - Land requirements and land issues - Compensation and expropriation issues - Project's waste generation and management plan 	<ul style="list-style-type: none"> - This project implementation is a necessity to meet the fixed target and existing policies and programs objectives to supply 100% of clan water to all Rwandans by 2024. - The land for the project will be acquired via the existing laws related to the expropriation/ compensation in public interests. Fair compensation will be made when necessary, - And independent valuer should be hired to conduct final valuation
MoE	<ul style="list-style-type: none"> - Environmental concerns related to the project implementation - Laws and regulation related to land acquisition 	<ul style="list-style-type: none"> - Mitigation measure to the identified impacts have to be implemented as well as the regular reporting is required. - Project impacts were discussed and are incorporated in this report.
District, Sector and Cell officials	<ul style="list-style-type: none"> - Land ownership and land issues. - Land required for the project. - Challenges and impacts associated to the project implementation - Compensation of affected properties 	<ul style="list-style-type: none"> - All households in the project areas should be connected and for the residents to benefit from the project implementation. - Other affected properties that land shall be also fairly compensated as required. - Different project positive and negative impacts were discussed and incorporated in this report. - Mitigation measures for the identified impacts were also discussed.

4. PROJECT RESETTLEMENT IMPACT AND COMPENSATION PROCESS

The project of Improvement of Water Supply Services in Kigali City was designed in a way that avoids or minimizes resettlement impacts. Some components of the project such as the installation of pipes and associated infrastructures

require land. It is good enough that the required land belongs to the government (road buffer zones) and others belonging to private owners will be temporarily used as easement and will return to the owners after project construction works. This section assesses the likely impact to occur to the PAP and propose mitigation measures.

4.1. Asset inventory and valuation

Asset valuation was at the project site for the project land requirement. Final valuation will be conducted by a certified valuer and other parties including local authorities and PAP. Through consultation with PAP and its relatives, it was explained the way the valuation would be done. The following are key activities explained, discussed, and agreed on:

- It was suggested by the PAP to measure by tape measure the size of the plot however, as the land has land title with exact surface area, it was agreed that this provided surface of the plot be considered. Considering that the hall plot will not be affected by project activities, it was agreed that tape measure will be used while conducting final evaluation and determining the required area for the project. This was done in the presence of the PAP and his two sons who follow-up the asset inventory and valuation.
- Crops valuation was done based on the area of coverage, their type in other cases number of standing crops and age.
- Regarding crops, an agreed estimation was done for annual crops since the seasonal crops shall be harvested by the time of project commencement.
- Trees valuation criteria was based on the number of trees, age and type of tree.

The valuation form shall be well completed and signed off by the village, Cell and Sector authorities before they are sent to the district land commission for endorsement and for payment processing by WASAC ltd.

4.2. Expected resettlement impacts

The project activities showed that there they will be no loss of shelter (household) during the project implementation. However, some of the public infrastructures will be affected such as road, electrical poles and water pipes. Some of the private land will be temporarily used for the project activities and return to the owners on conditional use. There will be also loss of perennial crops and trees.

4.2.1. Loss of private land

The installation of pipeline will involve land clearance and the excavation area has been reduced to 2m to avoid private structures such as wall and fences. The land will be lost temporary or use under conditions where water pipe will be installed and during maintenance works. The remaining land will be taken only during construction.

4.2.2. Loss of government land

Article 31 of the land law **states the lands in public domain as** lands consisting of all lands intended to be used by the public or all the lands reserved for organs of State services and national lands reserved for environmental protection. These lands include the also the national roads and their boundaries. The article 39 states that "A public institution or decentralized entities have the right to use the State lands required for accomplishing its mission and responsibilities" most of the land to be used for pipelines and associated facilities belongs to the government of Rwanda and hence no local implications or impacts are associated to their use.

4.2.3. Loss of crops and trees

The installation of water pipe Construction works entail clearing of the vegetation inherent in the project site. Some of the trees are within the road boundaries and belongs to the City of Kigali while others may belong to the locals. According to both national regulations and international policies on environmental and social considerations requires the compensation of affected assets including trees and perennial crops. Trees located on the private land at Batsinda site has been counted and included in this report.

4.3. Eligibility for compensation and Entitlement Matrix

4.3.1. Eligibility criteria

In this ARAP, eligibility for compensation was established by comparing what is stipulated in the Rwandan Constitution (Article 29), the Expropriation Law of Rwanda (N° 32/2015 of 11/06/2015) and the Bank's operational policy, WB OP 4.12. These documents regulate and give entitlement to the affected persons. The WB OP 4.12 goes further and recognizes the affected persons as that one using the land at the time, whether they have written customary or formal tenure rights. However, in the Rwandan Expropriation Law, the person to be expropriated is defined as "any person

or a legally accepted association operating in the country that is to have his or her private property transferred due to public interest as well as legally accepted local administrative entities.

JICA guidelines for environmental and social considerations request the recipient country to consider international eligibility criteria including those provided by World Bank Policy OP 4.12 on involuntarily resettlement. The WB OP 4.12 also provides eligibility of benefits including the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets, and the PAPs who have no recognizable legal rights to the land they are occupying. The eligibility criteria used in this assessment are based on the three criteria given in clause 15 of the World Bank's Operational Policy 4.12: involuntary resettlement:

- ✓ Those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);
- ✓ Those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets – provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan;

JICA requires recipient country to comply with JICA guidelines on environmental and social consideration and World Bank OP 4.12. Therefore, the eligibility was determined in compliance with those guidelines together with national expropriation regulations as far as this project is concerned, the Rwandan expropriation law will take precedence.

4.3.2. Entitlement matrix

Entitlement matrix proposes eligibility and payments for the losses triggered by the project such as land, trees and crops, Therefore, based on the analysis of the impact of the project and the criteria for eligibility, the following entitlement matrix was developed for the affected people found in the project

Table 10: Entitlement Matrix

Type of loss	Entitled Person	Type of Impact	Eligibility criteria	Entitlement
Permanent loss of land	Land title holder	Displacement	Land owner where the water tank will be constructed	Cash compensation plus 5% disturbance allowances as per the expropriation law If the remaining part of the land is too small to be viable or usable, the whole plot will be expropriated.
Temporarily loss of private land at the pipeline construction	Land owner	Disturbance	Land owners where the proposed pipeline will be temporarily constructed	People will be notified on time and the shortened
Loss of government land	GoR	Loss of land	Current users of affected land	No compensation required because as in the government land and only small portion will be affected. Affected people should be allowed to use the land outside the pipeline area
Loss of trees on government land	City of Kigali	Loss of trees	Not applicable	No compensation is required.

4.4. Assets inventory and valuation methods

This section describes the methods to be used in valuing assets that will be eligible for compensation consistent with either Rwandan laws or JICA guidelines for environmental and social consideration. Law No.17/2010 of 2010 establishes and organizes the Real Property Valuation Profession in Rwanda. It provides the registration of land valuers in Rwanda and conditions for registration. The law also allows the Government to conduct valuation when mandated by their government institutions. Articles 27, 29, 30 and 31 of the law deal with valuation methods and stipulate that the price for the real property shall be close or equal to the market value. Land values could also be compared country wide. Where 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 by the law after approval of the Institute of Valuers.

4.4.1. Valuation methods

The valuation law recognizes different valuation methods and those include:

- **Use of Standard Valuation Tables**

This method is based on reference prices published by Rwanda Institute of valuers every year. Under this method, the compensation rates / valuation tables would be developed using legally acceptable valuation procedures accepted by both the Government of Rwanda and funding agency for purposes of fairness and consistency. The approach considers replacement costs and types and levels of compensation under the Rwanda law. Valuation of lost assets will be made at their replacement cost.

- **Comparison of Land/Property Values Countrywide**

In case there are no compensation rates, the Valuer shall compare prices by referring to the prices recently assigned to a real property that is similar or comparable to the real property subject to valuation. Where comparable prices are not available for land in a particular area, the Valuer may use comparable prices of similarly classified land from other areas of the country

- **Replacement Cost Approach**

The replacement cost approach is based on the premise that the costs of replacing productive assets is based on damages caused by project operations. These costs are taken as a minimum estimate of the value of measures that will reduce the damage or improve on on-site management practices and thereby prevent damage. The approach involves direct replacement of expropriated assets and covers an amount that is sufficient for asset replacement, moving expenses and other transaction costs.

- **Gross Current Replacement Cost**

Gross Current Replacement Cost (GCRC) is defined as the estimated cost of erecting a new building having the same gross external area as that of the existing one, with the same site works and services and on a similar piece of land.

- **Other methods**

Rates from Contractors: When rate schedules do not exist or are out of date, recent quotations by contractors for similar types of construction in the vicinity of the project can be used for calculating replacement costs. In projects offering the options of cash compensation or alternative accommodation, the construction cost estimates for alternative accommodation could be used for calculating cash compensation payable.

It is recommended that the replacement Cost is used as valuation methods. This is because the Replacement cost valuation methods is recommended by funding agency and recognized by valuation law in Rwanda.

4.4.2. Calculation of compensation by assets

The following methods of calculation should be adopted for the preparation of the standardized asset valuation tables and/or the application of specific case by case valuations in the case of projects that have significant impacts.

- **Compensation for Land**

Compensation for land is aimed at providing a farmer whose land is acquired and used for project purposes, with compensation for land labour and crop loss. For this reason, and for transparency, land is defined as an area or homestead (i) in cultivation, (ii) being prepared for cultivation, or (iii) cultivated during the last agricultural season. This definition recognizes the farmer's labour as the biggest investment he/she makes in producing a crop which is higher than all other inputs such as seed and fertilizer. As a result, compensation relating to land will cover the market price of labour invested as well as the market price of the crop lost.

- **Land Measurement**

For purposes of measuring land, the unit of measurement would be that which is used and understood by the affected farmers and if a traditional unit of measure exists in the rural areas, that unit should be used. If a traditional unit of measurement does not exist in a particular area, then it is recommended that land should be measured in meters or any other internationally accepted unit of measurement. However, in such an event, the unit that is being used must be explained to the affected farmers/users and must somehow be related to easily recognizable land features that the communities are familiar with, such as using location of trees, stumps, etc as immovable pegs. The most important concern of this exercise is to ensure that the affected person is able to verify using his/her own standards/units of

measurement, the size of land that is being lost. This will ensure transparency in the system and will thus avoid subsequent accusations of wrong measurements or miscalculation of areas. A farmer should know how much land he/she is losing, in terms of size and the replacement land must be at least of that same size and comparable value as land lost.

- **Calculation of Crops Compensation Rate**

The current prices for cash crops will be determined and all crops will be valued using a single rate considering the crop at mature age. This rate incorporates the value of crops and the value of the labour invested in preparing new land. Determining compensation using a single rate creates transparency because anyone can measure the area of land for which compensation is due and multiply that by a single rate known to all. This approach also allows assignment of values to previous year's land (land in which a farmer has already invested labour) and land that have been planted but crops have not germinated. Further, it avoids contention over crop density and quality of mixed cropping.

The value of the labour invested in preparing agricultural land will be compensated at the average wage in the community for the same period. The rate used for land compensation should be updated to reflect values at the time compensation is paid. Table below, derives a total value for a one-hectare land from the value of the crops on the land and the value of labour invested in preparing a replacement land.

Table 11: Example of method to be used to determine a monetary compensation rate for land*

Item Compensated	Basis of Value	Rwandese Francs/ha
	Average of the highest 2021 official and market survey land prices per ha of staple food crops (maize, rice etc.), plus cash crops (e.g. sugar cane, corn).	
	Labour costs of preparing a replacement land.	
Total	Replacement value of crops plus labour.	

(Rwandan Francs payments will be revised to reflect crop values and labour rates in effect at the time of compensation). This example assumes a one-hectare land. Crop values will be determined on:

- A combination of staple foods and cash crops. The 80/20 ratio of land that a farmer typically has in food crops and cash crops is used to determine the chances s/he would lose food crop rather than a cash crop income.
- The value of stable crops to be taken as the highest market price (over 3 years) reached during the year, in recognition of the following factors:
 - Although most farmers grow staple crops mainly for home consumption, they always have the option of selling these crops to take advantage of the market.
 - Farmers most often purchase cereals when they have run out, during drought when prices are high. Compensating at a lower value might put the individual or household at risk.
 - On average, the highest price of stable food yields a high per hectare value reimburses for the vegetables and other foods that are commonly inter-cropped with staples but are almost impossible to measure for compensation.
- The labour cost for preparing replacement land is calculated on what it would cost a farmer to create a replacement land. This value is found by adding together the average costs of clearing, ploughing, sowing, weeding twice, and harvesting the crop.

- **Compensation for fruit trees**

Banana and Mango trees are featured here below as two examples of the set of primary fruit trees that are likely to be found in project targeted area and are estimated to account for a significant amount of all fruit bearing trees. They are primarily important as a source of:

- Subsistence food for families
- Cash produce that contributes to the export economy
- Petty market income in some areas, and
- Shade (in the case of mango trees).

For banana trees, they have a relatively much shorter productive life, normally, than mango trees. For species, banana trees will not bear fruit more than once. Therefore, compensation for banana trees would be compensated at the full market rates for bananas harvested in that year and for another year. The second-year payment is for the replacement cost of planting a new tree, looking after it and harvesting it which could all be done in one year. Therefore, the farmer should have restored his pre-project position by the end of the second year. This example of bananas is an example

for trees/plants that have a relatively short life.

As defined in this policy, individuals will be compensated for wild trees which are in their land. Wild productive trees belong to the community when they occur in the bush as opposed to fallow land. These trees will be compensated for under the umbrella of the community compensation.

4.4.3. Preparation of asset inventory and PAPs identification

To prepare for compensation and other resettlement benefits, it is imperative that a comprehensive asset and affected persons inventory in the designated areas for the different project components is done. The inventory will specify the different assets, properties affected in each plot of land and their owners. The Land Valuation Bureau which is the entity responsible for undertaking valuation of assets will be responsible for the valuation exercise and will therefore provide independent valuation experts. The valuation document will indicate when the affected person will be notified, and that the inventory will not be official until a second signed copy, verified by project supervisory staff, is returned to the affected person. At this time, a copy of the grievance procedure will also be given to the affected person as stated in the grievance redress mechanism. The valuation experts will work hand in hand with the local leaders of the area. So far, one PAP has been identified and initial assets inventory conducted. Final assets inventory and valuation will be conducted by independent valuer.

4.4.4. Forms of Compensation

Individual and household compensation will be made in cash, in kind, and/or through assistance. The type of compensation will be an individual choice although every effort will be made to instill the importance and preference of accepting in kind compensation if the loss amounts to more than 20% of the total loss of subsistence assets. Compensation payments raises issues regarding inflation, security and timing that must be considered. One purpose of providing in-kind compensation is to reduce inflationary pressure on the cost of goods and services. Local inflation may still occur and thus market prices will be monitored within the time that compensation is being made to allow for adjustments in compensation values. The issue of security, especially for people who will be receiving cash compensation payments should be addressed by the local administration. The ARAP has provided an entitlement matrix that shows type of compensation for each category.

4.4.5. Procedures for delivery of compensation

It is recommended that compensation be made through reputable local banks. This will ensure security of the PAPs money especially for those receiving large sums. Forms acknowledging receipt of the compensation packages shall be signed by each PAP.

4.4.6. Verification and Disclosure of entitlements

PAP will be fully involved in the process of valuation of his land, trees and crops and the property valuation form shall be presented to him for verification and in return, the form will sign or thumb press in ink as a sign of agreement. The form will be approved by village, Cell and Sector authorities who countersign as a sign of approval and authorization of legal process. Thereafter the form will be forwarded to WASAC for approval and payment process by MINECOFIN.

4.4.7. Cut - off date

Under World Bank OP 4.12, cut-off date is defined as the date of completion of the census and assets inventory of persons affected by the project. Any people occupying the project area after the cut-off date are not eligible for compensation and/or resettlement assistance. The cut-off date in this ARAP refers to the timeframe to be advertised by WASAC in close collaboration by Gasabo District and local authorities beyond which no more claims could be made at which point any assessment of new persons and their property would be undertaken. The establishment of a cut-off date is required to prevent opportunistic invasions/rush migration into the chosen land areas. Persons who encroach on the area after the cut-off date are not entitled to compensation. It should be noted that the cut-off date should be determined before the census is conducted and agreed by all the stakeholders.

The cut of date in our case is not yet fixed and communicated officially. This is planned after all project designs and approvals are in place. WASAC will write officially to all sectors and the communication will be handed to all village leaders of the project area and communicated to local communities during monthly community work.

4.5. A-RAP implementation arrangements

The overall coordination of this A-RAP implementation will be provided Water and Sanitation Corporation (WASAC Ltd). Other stakeholders that will be involved in its implementation are described in detail below. The implementation arrangement buildson responsibilities already in place to ensure that the requirements of this A-RAP are met. At local

level, Gasabo district is responsible institution of A-RAP implementation while Kigali City ensures that the proposed project is in line with the city development plans and do not compromise the requirements of the Kigali City Master Plan.

4.5.1. A-RAP implementing Institutions

✓ Ministry of Infrastructures

Government of Rwanda represented by Ministry of Infrastructure via WASAC Ltd is responsible for land acquisition and hence responsible for A-RAP implementation. The A-RAP implementation will be done through Water and Sanitation Corporation (WASAC Ltd which is the main agency involved in implementation of the project. Ministry of Infrastructure will work together with Ministry of Finance to ensure that compensations funds are secured on time and compensation is made in due time.

✓ Water and Sanitation Corporation Limited

WASAC Ltd is the technical institution responsible for the project on government side. Therefore, WASAC Ltd will be the leading institution in the implementation of this A-RAP. The role of WASAC Ltd will be but not limited to recruitment of independent assets valuer, responsible for coordination and monitoring activities related to asset valuation, and WASAC will appoint an environmental and social safeguard specialist who he will be the focal point for A-RAP implementation and will liaise with other stakeholders in this regard.

The designated staff will ensure that procedures and requirements of the Rwandan laws and JICA consideration on environment and social consideration are complied with. A key role will be to implement the A-RAP and other resettlement-related activities and to ensure that all procedures have been adhered to and that there is consistency in approach between sub-projects activities. He/ She will also undertake the main monitoring and evaluation role of resettlement activities during and post implementation.

✓ Rwanda Land Management and Use Authority/ RLMUA

RLMUA is the organ responsible for overall management and coordination of all activities related to land administration, land use planning and management in Rwanda. The role of RLMUA in A-RAP process will be to advise on matters related to land ownership and expropriation. District land office in close collaboration with project staff will check and approve valuation forms, and after compensation RLMUA will also play a key role in in the process of transferring and registering land titles as appropriate.

✓ Gasabo district

Gasabo District through its land office will be responsible for ensuring that activities undertaken comply with the national laws and regulations. The district will assess the validity of land tenure rights of affected persons and will be responsible for ensuring that effective grievance mechanisms are in place. Gasabo district will also be used in the implementation of A-RAP as much as possible to reduce the dispute that may occur during the A-RAP implementation Gasabo district will be supported with land office at sector level and community development officer at cell level.

✓ Project Affected Person

The project affect person will also participate in the A-RAP implementation and is required to be present during final valuation and participate in complaints resolutions.

4.5.2. Grievance Redress Mechanism (GRM)

The district is an acknowledged institution for which the PAP has been made aware of as avenue for expressing discontent and disapprovals related to compensation process. Article 26 of the expropriation law NO 18/2015 of 19/04/2015 provides complaints procedures for individuals dissatisfied with the value of their compensation. The law stipulates that dissatisfied person have a period of 30 days after project approval decision has been taken to appeal (Article 19). Grievance procedures are required to ensure that PAPs can lodge complaints or concerns, without cost, and with the assurance of a timely and satisfactory resolution of the issue. Grievances may arise from members of communities who are dissatisfied with eligibility criteria use, community planning and actual implementation or compensation. Considering the number of PAP during this project implementation, the grievance shall be addressed directly to WASAC Ltd and whom will in return receives the complaint and thereafter together with the local leaders from village to district level will ensure the case is amicably solved with satisfaction to both parties during a complains resolution meeting that will include the PAP and his relatives.

4.5.3. A-RAP Monitoring

The objective of the monitoring and evaluation process will be to determine whether PAP has been paid in full and before implementation of the project the affected person is now living a higher standard than before, living at the same standard as before, or is poorer than before. This will be done regarding the income generated before from the project site comparatively to the income generated after the project is implemented. The arrangements for monitoring the compensation activities will fit into the overall monitoring program of the entire project which will fall under the overall responsibility of the JICA and WASAC.

✓ Monitoring indicators

Different indicators would be used to determine the status of affected people (land being used compared to before, level of living conditions compared to before, health standards and soon). The affected personnel is able to maintain his pre-project standard of living, and even improve on it; and the local communities remain supportive of the project.

✓ Monitoring of livelihood restoration

The affected land is allocated to residential but there is no house constructed on the land. Therefore, there is no loss of income or means of livelihoods. However, WASAC will ensure that the affected person is compensated and monitor the status of affected compensation plans performance.

Table 12: ARAP Implementation Cost

No	Item description	HHS	Unit	Quantity	Total Cost(frw) ¹
1	Permanent loss of land	1	Sqm	1000	66,224,777
2	Loss of trees and crops	1	Pces Sqm	569 4408	2,896,250
3	Final valuation	1	Ls		225,000
	TOTAL				69,346,027

Table 13 : Monitoring Cost

Activity	Indicator	Qty	Unit cost (FRW)	Total Cost (FRW)
Follow up valuation and compensation process	Field report	1	70,000	70,000
Meetings for grievance redress	Meetings/grievance resolved	8	70,000	560,000
PAPs Livelihoods assessment	Assessment report	2	70,000	140,000
Total				770,000

4.5.4. A-RAP disclosure

JICA and other international policies on environmental and social safeguards require the implementing agency to disclose publicly the A-RAP. Therefore, WASAC will disclose this A-RAP by making copies available at its head office and at District and sector offices. The A-RAP will be disclosed to the WASAC Website, and the Government of Rwanda will also authorize JICA to disclose this A-RAP electronically.

A completion report of the entire compensation 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. This report will be prepared and submitted to JICA after the end of compensation payment by WASAC. The A-RAP implementation report should include (but not be limited to) the following information:

- Background of the A-RAP preparation including a description of the project activities, scope of impacts, number of affected persons, and estimate budget;
- Update of ARAP implementation including compensation paid, issues/complaints raised and solutions provided;
- Early assessment of the impacts of resettlement and compensation on affected categories at the time of the report production;
- Lessons learned from the A-RAP implementation;

¹ 1USD=1035 Rwandan Francs

ANNEXES

Annex 1:List of consulted people at central and local institutions

No	Names	Contact	Institution	Function
1	ABIMANA Eric	0787812829	Bibare Cell	CEDO
2	Alain SEZIBERA	0788521930	RDB	EIA Analyst
3	BUGINGO Davis	0788230018	Flood Management and Water Storage Development Division Manager	RWB
4	BYUKUSENGE Jean d'Amour	0788984400	Musezero Cell	CEDO
5	DUFATANYE Israel	0788481541	REMA	Environmental Inspector
6	DUSABIMANA Annuaritte	0788452328	Gisozi Sector	Health and Sanitation Officer
7	Eng. MUHORAKEYE Jeanne	0788875101	Kimironko sector	Act land management & Notary team leader
8	Enode NIYONSABA	0787958813	Nyabisindu	ES
9	GASANA Donatien	0785984429	Gasharu Cell	SEDO
10	HABINSHUTI Jean Pierre	0788881465	Gasabo District	Water District Engineer
11	HAVUGUZIGA NTABWIKO Charles	0788300397	Kanyinya sector	Executive secretary
12	Jean Pacifique TUYISHIMIRE	0783393820	Murama cell	CEDO
13	Jeannine MUKARUKUNDO	0783441942	Kibagabaga cell	CEDO
14	KALISA Hamza Fidel	0788876579	Gisozi Sector	Land manager support Officer
15	KARAMUZI Godfrey	0788861810	Remera sector	Executive secretary
16	KARURANGA Dismas	0788779208	Rwanda Water and Forest Authority	In charge of Water Quality
17	KAYITESI Redempta	0783877212	Gacuriro cell	Executive Secretary
18	MBONAMPEKA Claudine	0788492092	Rukiri II	Executive Secretary
19	MUKAMANA Phoebe	0788583832	Gasabo District	Environmental Officer
20	MUKAMANA Phoebe	0788583832	Gasabo District	District Environmental Officer
21	MUKAMURENZI Antoinette	0788683611	Gisozi Sector	Health and good governance
22	MUKANTWARI Sandrine	0787433065	Gasharu Cell	ES of the cell
23	MUSASANGOHE Providence	0788451827	Gisozi Sector	Executive Secretary
24	NDAMYIMANA Elysée	0788414332	Remera sector	Land bureau
25	NIYONSABA Pascal	0738583283	Rukiri I	Executive Secretary
26	NSENGIMANA Janvier	0788668943	Remera sector	Community Health and Sanitation Officer
27	RUGAMBIRWA Deo	0788815450	Bumbogo Sector	Executive Secretary
28	RUKUNDO Augustin	0782756565	Gasabo District	District Sanitation Officer
29	RUSINE Alphonse	0788440290	Gasabo District	Land Survey & GIS
30	RUTARINDWA Alphonse	0784902626	Gasabo District	Director of Health and Socio-economic development
31	SHUMBUSHO Faustin	0789198930	Bumbogo Sector	Ngara Cell Executive Secretary
32	TUYISHIMIRE Evelyne	0784388649	Nyagatovu cell	CEDO
33	UMUHOZA MBATEYE Aimee Francine	0788486203	Water and Sanitation Corporation	In Charge of Planning
34	UMUHOZA RWABUKUMBA	0788304546	Kimironko sector	Executive secretary
35	UMURERWA Josiane	0788627922	Bumbogo Sector	Social affairs
36	UWAMAHOLO Chantal	0788946525	Kimironko sector	Community health and sanitation officer
37	UWAMAHOLO Jeanne d'Arc	0788315593	Nyarutarama cell	CEDO
38	UWAMAHOLO Jeanne d'Arc	0788649667	Kimironko sector	Social affairs
39	UWERA Jeanne d'Arc	0787959858	Bumbogo Sector	Customer care

UMURENGE WA GISOZI

AKAGARI KA MUSEZERO

UMUDUGUDU WA GASHARU

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20.	MURUGI MURUGI	MURUGI		[Signature]

UMURENGE WA GISOZI

AKAGARI KA MUSEZERO

UMUDUGUDU WA GASHARU

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5.	Mulwani Felix	Intambwe	0777548643	
6.	Rubuhira Alexis	Tanganyika	0788805192	
7.	Mutete Jeanidas	Mwenda Umunyana	0788524650	
8.	Mwiringira Obedy	Akadakagana	0788616403	
9.	ba kuri maza	ba kuri maza	0780352459	
10.	Mwiringira	Mwiringira	078655444	
11.	Mwiringira	Mwiringira	078879534	
12.	SKUBWA Kwa Taatu	Kwamba	0787938238	
13.	Mwiringira		0788689508	
14.	Mwiringira		078776562	
15.	Mwiringira	Intambwe	0788613413	
16.	Mwiringira	Mwiringira	0788689508	
17.	Mwiringira	Mwiringira	0788689508	
18.	Mwiringira	Mwiringira	0788689508	
19.	Mwiringira	Mwiringira	0788689508	
20.			0722722175	

MURENGE WA GISOZI

KAGARI KA MUSEZERO

MUDUGUDU WA GASHARU

ABITABIRIYE UMUGANDA USOZA UKWEZI KWA WERURWE 2022

N	AMAZINA YOMBI	ISIBO ABARIZWAMO	TELEFONE	UMUKONO
1.	NGOGA OLIVIER	Kidashikira	0784451120	
2.	MUKIZIMANA Dominique	ABADASEJUMU	0785699602	
3.	Daniel MAMUZI GUYE	AMAZIYI	078891432	
4.	NSIKAHABIRIMANA Jean	IBYI	0784300011	
5.	KARIMUNA Jean	N'PESHA (Inyizi)	0787964253	
6.				
7.	Umukubajije Jeanne Abizema		0783350987	
8.	MUKIZIMANA Jalise Intambwe		0786879445	
9.	nyirakomumuntu, mukis (19)		0782554455	
10.	MUKIMBARUKANYEMU		0789483576	
11.	MUKIMBARUKANYEMU	UMUKAYA	078256215	
12.	nyirakomumuntu, Jalise Intambwe		0781365503	
13.				
14.	MUKIMBARUKANYEMU		0785305575	
15.	MUKIMBARUKANYEMU		0786543115	
16.	MUKIMBARUKANYEMU		0782217525	
17.	MUKIMBARUKANYEMU	UMUKAYA	0780549958	
18.	MUKIMBARUKANYEMU	SIARIHO	0783693549	
19.	MUKIMBARUKANYEMU		0787859005	
20.	MUKIMBARUKANYEMU		0788434261	
			078267961	

MURENGE WA GISOZI

KAGARI KA MUSEZERO

MUDUGUDU WA GASHARU

ABITABIRIYE UMUGANDA USOZA UKWEZI KWA WERURWE 2022

N	AMAZINA YOMBI	ISIBO ABARIZWAMO	TELEFONE	UMUKONO
1.	NGOGA Olivier	Indashyamba	0784451126	
2.	Makumbano Dominique	ARADAKO	0785694601	
3.	Amiel Nshamba	ARADAKO	0788914371	
4.	Nshamba Rimona	ARADAKO	0784320011	
5.	KARUMUNA Jean	NPL (English)	0787964253	
6.				
7.	Uwambaye Jeanne	Abizera	0783550987	
8.	Mukambana Charles	Intambwe	0786879445	
9.	Nyirumuntu Nani (14)		0782554455	
10.	Mukambana Nshamba		0789483576	
11.	Nshamba Pascal	UMUKOZA	0782656211	
12.	Nyirumuntu Claude	Intambwe	0781365543	
13.				
14.	Nyirumuntu Jean	(7)	0785206795	
15.	Mukambana Nshamba	(7)	0786503111	
16.	Mukambana Nshamba	UMUKOZA	0788217125	
17.	Nshamba Nshamba	SIARIHO	0780249958	
18.	BUGIYERU PASIKARI		0783693549	
19.	Nshamba Vincent		0787859005	
20.	Nyirumuntu Nshamba		0788439261	

UMURENGE WA GISOZI

AKAGARI KA MUSEZERO

UMUDUGUDU WA GASHARU

ABITABIRIYE UMUGANDA USOZA UKWEZI KWA WERURWE 2022

N	AMAZINA YOMBI	ISIBO ABARIZWAMO	TELEFONE	UMUKONO
1.	<i>M. Nyongizira Emmanuel</i>			
2.	<i>MURASHA Aroba</i>	<i>Ababizi 12</i>	<i>078747298</i>	<i>[Signature]</i>
3.	<i>Bampasiri jesus Baptiste Gasharu</i>		<i>0788356290</i>	<i>[Signature]</i>
4.	<i>HABYUANI MURAZA Juvénal</i>	<i>Ababizi</i>	<i>0781009710</i>	<i>[Signature]</i>
5.	<i>SEAHUACUUCI Evarista</i>	<i>Ababizi</i>	<i>0781302286</i>	<i>[Signature]</i>
6.	<i>WIKENZA W. Pauline</i>	<i>Ababizi</i>	<i>0788230066</i>	<i>[Signature]</i>
7.	<i>KAMUKA FRANCIS</i>	<i>Ababizi</i>	<i>0783608510</i>	<i>[Signature]</i>
8.	<i>KYAKWITA JENNIFER</i>	<i>Ababizi</i>	<i>0788186662</i>	<i>[Signature]</i>
9.	<i>MUKOMUTESI</i>	<i>Ababizi</i>		
10.	<i>MUKOMUTESI</i>	<i>19 Ababizi</i>	<i>0784441265</i>	<i>[Signature]</i>
11.	<i>MUKOMUTESI</i>	<i>7</i>	<i>0787455267</i>	<i>[Signature]</i>
12.	<i>MUKOMUTESI</i>	<i>8 Mukeli</i>	<i>0788465922</i>	<i>[Signature]</i>
13.	<i>MUTEZIMANA Epiph</i>		<i>0783480477</i>	<i>[Signature]</i>
14.	<i>MUKOMUTESI</i>		<i>0788271686</i>	<i>[Signature]</i>
15.	<i>MUKOMUTESI</i>		<i>078856214</i>	<i>[Signature]</i>
16.	<i>MUKOMUTESI</i>	<i>7</i>	<i>078862157</i>	<i>[Signature]</i>
17.	<i>AGANZE JONAS</i>	<i>Ababizi</i>	<i>078198632</i>	<i>[Signature]</i>
18.				
19.				

CROPS REFERENCE PRICES (IBICIRO NGENDERWAHO BY'IBIHINGWA/IBITI)
IBITI BIBAZWA /BOIS D' OEUVRE

Minimum rate is meant for trees fresh from nursery and Maximum price is for trees ready for production. It is important to note that after optimum age of production, this type of trees may depreciate when they can no longer serve the core purpose because of age.

Commonly known as	Unit	Minimum rate (FRW)	Maximum rate (FRW)
Gereveliya	piece	1000	5,500
Umusave	pces	1000	10,000
Inturusu	pces	1000	6,500
Umuko	pces	1000	8000
Sipure	pces	1000	5300
Pinusi	pces	1000	5500
Sakaranda	pces	1000	6500
Acacia	pces	1000	6500
Lilas	pces	1000	5200
Araucaria	pces	1000	6500
Filawo	pces	1000	4500

CULTURES /IMYAKA

Minimum rate is for crops comparable to nursery level and maximum rate is for pick production stage. Other factors may be the type of seeds, the nature of soil and normal production from it in the area; guidance by an agronomist may be useful if necessary.

Commonly known as	Unit	Minimum rate (FRW)	Maximum rate (FRW)
Ibishyimbo/beans	sqm	80	150
Amashaza/Petit poids	sqm	80	150
Ubunyobwa/Arachides	sqm	100	220
Ingano/Orge	sqm	60	100
Amasaka/Sorgho	sqm	60	100
Mais/Ibigoli	sqm	80	150
Uburo/Eleusine	sqm	300	500
Ibirayi/Pomme de terre	sqm	250	400
Amateke/Colocases	sqm	150	250
Ibikoro/Ignames	sqm	50	100
Ibijumba/Patates douces	sqm	150	250
Imyumbati/Manioc	sqm	250	400
Isombe/Manioc-legumes	sqm	800	1,500
Soya/Soja	sqm	100	250
Amashu/ Choux	sqm	500	900
Ibitunguru/Oignons	sqm	250	400

Inyanya/Tomates	sqm	500	800
Intoryi/Abergines	sqm	600	1,000
Karoti/Carottes	sqm	200	300
Saladi/Salades	sqm	150	250
Sereli/Celery	sqm	200	300
Inzuzi/Courges	sqm	3,000	4,000
Izindi mboga/Autres legumes	sqm	50	300
Ananasi/Ananas	sqm	1,350	2,000
Ipamba/Coton	sqm	720	1,500
Umuceli /Riz paddy	sqm	360	700
Itabi/Tabac	sqm	1,000	1,200
Ibisheke/Canne a sucre	sqm	400	1,000

**IBITI BYERA IMBUTO ZIRIBWA N'IBITI BIVAMO IMITI/ PLANTES FRUITIERES ET
MEDICINALES/ FRUIT AND MEDICINAL PLANTS**

Minimum rate is meant for trees fresh from nursery and Maximum price is for trees ready for production. It is important to note that after optimum age of production, this type of trees may depreciate when they can no longer serve the core purpose because of age. Other factors may be the state of care and appearance and visible level of production for items in that age.

Commonly known as	Unit	Minimum rate (FRW)	Maximum rate (FRW)
Maracouja	pce	1,000	3,000
Ibinyomoro/Prunier du Japon	pce	1,000	3,000
Umutima w'imfizi /Coeur de boeuf	pces	2,000	10,000
Umwembe/Manguier	pces	2,000	10,000
Ipera/Goyavier	pces	2,000	10,000
Ipapayi/Papayer	pces	2,000	10,000
Les Agrumes	pces	3,000	12,000
Macadamia	pces	2,000	30,000
Igiti cy'avoka/Avocatier	pces	3,000	20,000
Vanilla	pces	2,000	10,000
Igiti cya Moringa	pces	3,000	12,000
Ibobere/Murier	pces	1,500	8,000
Ibindi biti byera imbuto ziribwa Bitavuzwe/Autres arbres fruitiers	pces	2,000	10,000
Ibiti bitanga imiti ya Kinyarwanda/Plantes medicinales	pces	5,000	20,000

**IBIHINGWA N'IBITI NKONDABUTAKA/ CULTURES PLURIANNUELES ET
PERENNES/ MULTI-ANNUAL AND PERENNIAL CROPS**

Minimum rate is meant for trees fresh from nursery and Maximum price is for trees ready for production. It is important to note that after optimum age of production, this type of trees may depreciate when they can no longer serve the core purpose because of age. Other factors may be the state of care and appearance and visible level of production for items in that age.

Commonly known as	Unit	Minimum rate (FRW)	Maximum rate (FRW)
Ikawa/Cafeier	pces	1,500	10,000
Ibireti/Pyrethre	pces	50	200
Icyayi/Theiers	pces	500	3,000
Ikinini/Quinquina	pces	300	1,000
Urutoki/Bananeraic	pces	1,500	5,000
Urusenda/Pili pili	pces	200	500
Ikibingo/Pennisetum	sqm	350	2,000
Tiribusakumu/Tripsacum	sqm	350	1,000
Vetiveri/Vetivers	sqm	350	1,000
Setariya/Setaria	sqm	350	1,000
Kikuyu grass	sqm	3,000	8,000
Macyayicyayi/Citronnelle	sqm	350	500
Desmodium	sqm	5,000	12,000
Luzeme	sqm	7,000	15,000
Trefle	sqm	7,000	15,000
Mucuna	sqm	7,000	15,000
Umugwegwe/Sisal	pces	350	1,500
Umugano/Bambou	pces	300	2,000
Imiyenzi/Euphorbes	pces	500	1,000
Urugo rw'imiyenzi	sqm	500	3,000
Imihati	pces	500	1,500
Urugo rw'imihati	sqm	500	2,500
Urugo rw'imbingo cyangwa imiseke	sqm	1,600	3,000
Urugo rwa sipure	sqm	1,500	5,000
Imivumu	pces	6,000	20,000
Umuko	pces	1,000	10,000
Utundi duti tutavuzwe ariko twatewe	pces	600	1,000
Ikinobonobo/Ricin	pces	400	1,000

Annex 3: Land reference prices 2021 in the project area

INSTITUTE OF REAL PROPERTY
VALUERS IN RWANDA



ORDRE DES EVALUATEURS DES
BIENS IMMOBILIERS AU RWANDA

Sector	Cell	Village	Land Use	Minimum Value Per Sqm	Weighted Average Value Per Sqm	Maximum Value Per Sqm
			Farm Land (General)	16,782	24,210	65,720
			Low Rise Residential	14,198	22,646	58,797
			Plantation	15,160	21,870	68,614
			Vacant Land	13,961	25,162	29,330
		Kabuhunde ii		11,547	15,340	34,281
			Farm Land (General)	11,547	15,340	34,281
		Kadobogo		13,242	22,635	73,691
			Farm Land (General)	18,515	23,069	73,691
			Health Facilities	15,558	25,305	28,342
			Low Rise Residential	13,242	22,342	44,287
			Vacant Land	17,368	19,824	36,746
		Kagarama		13,759	22,992	98,449
			Existing Forest	18,479	34,128	41,821
			Farm Land (General)	13,759	18,788	98,449
			Low Rise Residential	18,847	19,309	46,932
			Plantation	14,457	19,742	83,752
		Muhororo		9,646	14,386	71,865
			Farm Land (General)	9,887	13,661	71,865
			Low Rise Residential	11,244	16,168	37,571
			Plantation	9,646	13,328	70,398
		Nyakabungo		13,261	23,963	64,246
			Commercial General	19,749	33,883	38,200
			Farm Land (General)	13,261	19,995	64,246
			Low Rise Residential	13,545	23,272	47,110
			Plantation	15,377	23,186	51,192
			Religious Facilities	17,368	21,287	36,746
			Wetland	17,368	22,154	36,746
		Rukingu		11,853	21,349	82,348
			Commercial General	21,729	26,276	60,908