



Kigali21/11/2013.....
Réf. RDB/3/EC/AS/..4.4.1../11/12

Ernest RUZINDAZA
Permanent Secretary
MINAGRI

Dear Sir,

Re: Terms of Reference (ToR) For Environmental Impact Assessment (EIA) study


With reference to your letter Ref:1858/11/30 submitting the Project Brief and Terms of Reference that are intended to guide the EIA study for your project of preparatory survey on project for land husbandry, water harvesting and hillside irrigation development on Ngoma 22 site located in Remera and Rurenge Sectors of Ngoma district, Eastern Province;

After review of the document, the site visit and consideration of provisions of laws and regulations governing EIA in Rwanda, we would like to inform you that your project falls under the category of projects for which an environmental impact assessment study is prior to their authorization for implementation;

In this regard, the Terms of Reference that were presented have been examined and were found relevant. They were therefore approved to guide the conduct of EIA study. The certificate of approval will be issued after review and approval of the final EIA study report;

The final EIA report transmitted in one original hard copy with a CD soft copy for review and approval. The transmission letter should bear a reference number.

Sincerely,


Joseph NUNGA
Clare AKAMANZI
Chief Operating Officer
Rwanda Development Board

Cc:

- Governor of Eastern Province
- Director General of REMA
- Mayor of Ngoma District



Application reference: 2076/11-30
Certificate N° RDB/3/EC/AS/20/ 02/2014

CERTIFICATE OF APPROVAL OF ENVIRONMENTAL IMPACT ASSESSMENT

This is to certify that the Environmental Impact Report (EIR) received from the **MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES (MINAGRI)**, was submitted to Rwanda Development Board (RDB) in accordance with Article N° 67 of Environmental Organic Law N° 04/2005 of 8/4/2005 with respect to the project named **“Project for land husbandry and hillside irrigation on Ngoma 22 site”** located in **Remera and Rurenge Sectors, Ngoma District of Eastern Province.**

The Environmental Impact Report (EIR) was reviewed and found to **have no irreversible negative impacts of the project to the environment, and was therefore approved subject to the fulfilment of conditions attached.**

Signed by:



Clare AKAMANZI
Chief Operating Officer
Innocent GASHUGI

Dated this ^{5th}.....day of ^{February}.....2014

* To be issued in Duplicate: original to Developer, copy to RAB, Eastern Province, REMA and Ngoma District

CONDITIONS OF APPROVAL

The developer shall, in addition to dam construction techniques and standard requirements conform to the minimum basic safety, health, operational and environmental protection, and shall present his commitment to RDB undertaking to comply with the following conditions:

- ☞ All construction works should start only when all expropriation and compensations are duly done or mechanisms for their completion are agreed upon between the affected people and project developer with involvement of the District;
- ☞ All construction and exploitation activities will protect and conserve protected flora/fauna species in the project area such as those mentioned in the Ministerial order No 007/2008 of 15/08/2008 establishing the list of protected animal and plant species;
- ☞ Put effort and accomplish all planned and necessary actions intended for protection of the entire catchment about erosion control and protection of the dam against siltation and uncontrolled access;
- ☞ Ensure that no water shortage in the existing water supply system happens due to the construction and filling of the dam;
- ☞ All construction works likely to produce excessive vibrations and noise shall be carried out during day hours in order to avoid noise pollution and disturbance to the community in the vicinity of the project site;
- ☞ Avoid by all means the emission of dust emanating from earth works on site;
- ☞ No construction materials or wastes of any kind will be stored or dumped in the marshland;
- ☞ Deviated roads and walkways should be well and safely reconstructed and take the shortest possible route;
- ☞ Obstructed or inundated drinking water sources should be relocated at the nearest and convenient places, or the developer will find an alternative of drinking water supply to affected people;
- ☞ Ensure the strength and stability of the dam structures is checked before loading, and monitored to prevent any fatal failure of the structures;
- ☞ The contractor will apply and observe construction good practices and provide personal protective equipment to the workers to reduce accidents during the works. A first aid kit should be made available on site, transport means ready for any injury to the nearest clinic;

- ☞ Organize sensitization sessions on the prevention measures for accidents and HIV/AIDS contamination as well as SACCO schemes and mutuelle de santé;
- ☞ Monitor possible change in soil structure and fertility so as to apply measures intended to mitigate effect on irrigation (erosion, flooding) and that of application of chemical fertilizers and pesticides;
- ☞ Carry out campaign to raise awareness on preventing and fighting water borne diseases;
- ☞ An environmental monitoring system/ mechanism should be set up to follow and supervise the regular implementation of the Environmental Management Plan and suggest solutions and mitigation measures for eventual unforeseen situations and events;
- ☞ The EIR is thus approved subject to the fulfillment of the conditions described above together with all mitigation measures proposed in your Environmental Management Plan.

N.B. Note that in case of non-compliance of the conditions described above, RDB reserves the right to withdraw the certificate.

Signed by:


Innocent GASHUGI
Clare AKAMANZI
Chief Operating Officer
Rwanda Development Board (RDB)


Ernest RUZINDAZA
Permanent Secretary
MINAGRI

REPUBLIC OF RWANDA



MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES

&

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

**RESETTLEMENT ACTION PLAN FOR CONSTRUCTION OF IRRIGATION
INFRASTRUCTURE AT NGOMA 22**

June, 2014

LOCATION MAP



EXECUTIVE SUMMARY

The Government of Rwanda has several programs supergrade to this project that are: 1) Rwanda Vision 2020, 2) Economic Development and Poverty Reduction Strategy, 2008-2012: EDPRS 2008-2012, 3) National Agriculture Policy (NAP): 2004, 4) Strategic Plan for Agricultural Transformation in Rwanda 2004: SPAT, and 5) Land-husbandry, Water harvesting and Hillside-irrigation: MINAGRI. In these programs, the main and common targets are the reduction of poverty, the economic development and the food security. This project was formulated and has been reconsidered under the scheme of MINAGRI program, accords with the contents of the mid to long term development programs above, and contributes for these programs to accomplish their purposes. And the Government intends to construct 101 irrigation purpose reservoirs throughout the country.

Ngoma 22, is one of these sites to benefit from hillsides irrigation infrastructure and will be funded by Government of Rwanda and Government of Japan through Japan International Cooperation Agency. The Japan Government made a public commitment in the forth Tokyo International Conference on African Development to support African countries concentrated in the fields of 1) increase of food production and improvement of agricultural productivity, 2) improvement of utilization and management of water resources and lands, 3) development of water-related infrastructures, 4) accommodation of safe water resources. This project aims at the development of water resources through a dam construction and the modernization of agriculture so that it can contribute the achievement of all the items of the commitment above.

The construction of the dam and irrigation system implies a need for land and hence land acquisition that is expected to lead to and loss of access to the land that provides for economic resources. This therefore principally triggers World Bank Operational Policy OP4.12 on involuntary resettlement, Rwanda laws on expropriation and land ownership as well as the JICA Guidelines for Environmental and Social Considerations. The land that will be affected by the construction of irrigation infrastructure at Ngoma 22, is owned by the Government of Rwanda and private individuals.

In accordance with the World Bank Policy OP 4.12, the JICA Guidelines for Environmental and Social Considerations (2004) and National Regulations, a resettlement action plan must be developed and implemented by project developer. The Resettlement Action Plan (RAP) outlines the necessary requirements for compensation and resettlement of affected persons. The main elements of the RAP are: public consultation, documentation of assets, disclosure of entitlement, preparing of alternatives, compensation and resettlement, legal and institutional framework, addressing grievances, monitoring and reporting.

The census and valuation of assets indicate that the construction of Ngoma 22 dam and irrigation network will affect in total 1,220 households in Rurenge and Remera sectors in Ngoma District. The compensation measures is by cash since it is difficult for Ngoma District to allocate alternative lands. Moreover, technical training such as agriculture will be provided to the affected persons. During the implementation of the RAP, the project will provide compensation for crops and lands through the District and ensure provision of capacity building and technical support relating to maintenance of structures. The District will ensure that the eligible PAPs are compensated. MINAGRI will be responsible for monitoring and reporting the implementation of the RAP.

Any aggrieved party may ask for justification of the decisions from the Resettlement and Compensation Committee, but in case the answer is still unsatisfactory, they may appeal to the local leadership starting with the Cell, Sector and District leaders. If the grievances are not

resolved in this way, local courts should be used. If the case is not resolved it will proceed to the Land Commission and then to the Courts of Law. The project will ensure that all the affected people understand the complaints procedure and will ensure each party involved fulfils its duties to the affected persons ensuring just compensation.

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ACRONYMS

HH	:	Household
JICA	:	Japanese International Cooperation Agency
MINAGRI:		Land Husbandry, Water Harvesting and Hillside Irrigation
MINAGRI:		Ministry of Agriculture and Animal Resources
MINIRENA:		Ministry of Natural Resources
OP	:	Operation Policy
PAPs	:	Project Affected Parties/People
RAP	:	Resettlement Action Plan
RDB	:	Rwanda Development Board
REMA	:	Rwanda Environment Management Authority
RNRA:		Rwanda Natural Resources Authority
RPF	:	Resettlement Policy Framework
RSSP	:	Rural Sector Support Project
SPIU	:	Single project Implementation Unit
USD	:	United States Dollars
WB	:	World Bank

DEFINITION USED RAP

Agricultural labourer: means a person primarily resident in the affected area who does not hold any land in the affected area but who earns his livelihood principally by manual labour on agricultural land therein immediately before such declaration and who has been deprived of his livelihood;

Agricultural land includes lands being used for the purpose of

- i) Agriculture or horticulture;
- ii) Dairy farming, poultry farming, pisciculture, breeding of livestock or nursery growing medicinal herbs;
- iii) Raising of crops, grass or garden produce; and land used by an agriculturist for the grazing of cattle, but does not include land used for cutting of wood only

Census: is a data collection technique of completing enumeration of all Project Affected Families 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.

Entitlement Matrix is a table to define different nature of PAPs losses and compensation packages and other relocation assistance.

Family 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

Project Affected Persons (PAPs): indicates any person being as it may an individual, a household, a firm or a private or public who, on account of the execution of the project, or any of its components or sub-projects or parts thereof would have their right, title or interest in any house, land or any other asset acquired or possessed, in full or in part; or business, occupation, work, place of residence or habitat adversely affected; or standard of living adversely affected, including the follows.

Rehabilitation (Income restoration/Livelihood restoration): means the process to restore income earning capacity, production levels and living standards in a longer term.

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, and (iii) to develop social preparation phase for vulnerable groups.

1. INTRODUCTION

1.1 PROJECT AREA AND PROJECT COMPONENTS

The Study Area is located on Remera Sector and Rurenge Sector, Ngoma District of Eastern Province. Their administrative border runs at the bottom of a valley in the Province. The Study Area includes Ndekwe Cell and Bugera Cell in Remera Sector as well Rujambara Cell and Muhurire Cell in Rurenge Sector. Rugese Cell in Remera Sector is not within the Study Area, however, some persons from the Cell have cultivated in the area to be submerged. Any villages are not located in the part of valley where the construction of the reservoir is planned, therefore, no house will be sunk under water of the planned reservoir.

The planned activities consist of:

- Construction of reservoir
- Construction of irrigation canals
- Installation of solar system and pump stations
- Land husbandry works (to be covered by Government of Rwanda)
- Plot construction of the paddy field

The Irrigation project has following key information:

(1) Beneficial Area: 300ha in total

- Gravity Irrigation Area: 165ha
- Pumping Irrigation Area: 100ha
- Paddy field: 35ha

(2) Water Resources Facilities

- Reservoir (Homogeneous embankment dam, height of 14.9m, Crest length : 190m)
- Reservoir capacity: 960,000m³

(3) Irrigation Facilities

- Main canal with wet masonry : 20km
- Pipeline canal: 8km
- Secondary canal
- Pumping station
- Solar system

(4) Plot Construction in the paddy field in the downstream

- Plot construction
- Road construction

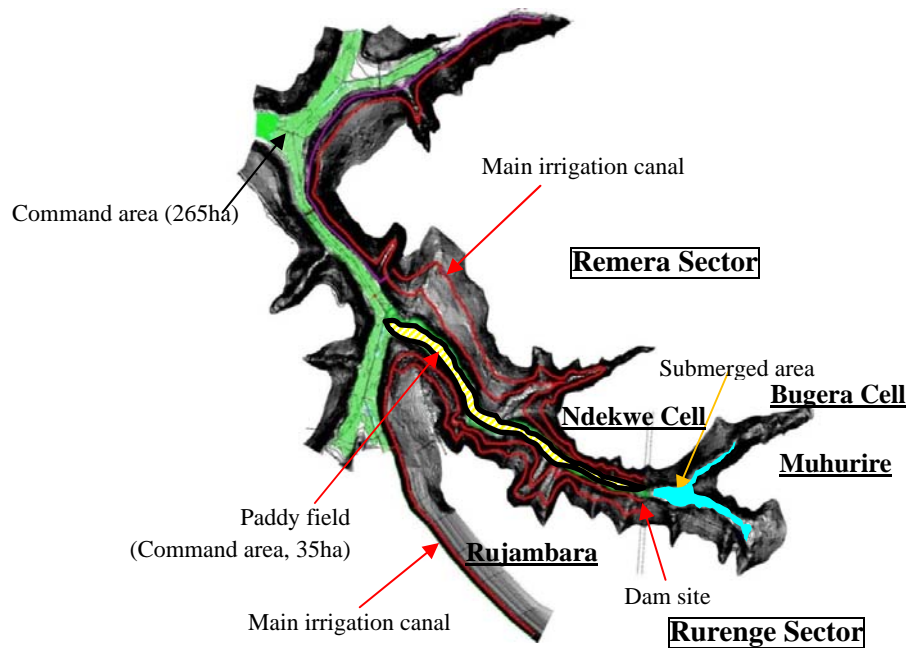


Figure 1 General Irrigation Plan THE RAP

1.2 SCOPE OF THE RAP

The aim of the abbreviated Resettlement Action Plan (RAP) report is to develop an action plan that ensures that the Project Affected Persons (PAPs) livelihoods and standards of living are improved or at least restored to the original level by the project. The RAP for Ngoma 22 is developed in accordance with the WB OP 4.12, "JICA Guidelines for Environmental and Social Considerations" and National Regulations, which is guided by the Resettlement Policy Framework (RPF) developed under the MINAGRI project.

The scope of work undertaken during the RAP preparation included:

- Project description;
- Analysis of the objective of resettlement programs;
- Analysis of the legal framework;
- Analysis of institutional framework covering the identification of agencies responsible for resettlement activities,
- Analysis of potential project impacts through identification of the PAPs, estimating their number and evaluating the impacts of the project on them;
- Conducting social-economic studies including census surveys, land tenure and transfer systems;
- Consultation with PAPs;
- Grievances handling mechanism that ensures affordable and accessible procedures for settlement of disputes arising from the project;
- Organizational responsibilities concerned to the project for the proper RAP implementation and delivery of necessary services;

- RAP Implementation schedule covering all activities from preparation stage to monitoring;
- Cost and financial source; and
- Monitoring and evaluation mechanisms arrangements by the implementing agency.

1.3 METHODOLOGY

The RAP preparation includes desk study and field survey in the affected area. The desk study involved review of previous study documents and analysis of the proposed project maps; and field surveys to establish the location of the proposed reservoir, irrigation canals and related infrastructure. The document consulted include Data Collection Survey on Irrigation Development in Ngoma District of Eastern Province in Rwanda, JICA, 2012, the RPF for MINAGRI and RSSP, the WB OP 4.12, JICA Guideline for Environmental and Social Considerations and National Regulations in regards to expropriation, compensation and land ownership. The field survey consisted on conducting household census of identified PAPs; conducting baseline socio-economic survey as well as measurement of lands and crops which are likely to be affected. Discussions with PAPs and key stakeholders including MINAGRI staffs, district administration, local authorities were also another tools used along the preparation of this RAP.

2. LEGAL AND INSTITUTIONAL FRAMEWORK

Available laws, regulations, policies, which guide the land acquisition and compensation, crop and assets compensation, present mechanisms for conflict resolution and appeals. They also provide applicable legal and administrative procedures including remedies available to displaced persons in the judicial process and the normal time frame. There are several enactments all governing land and transactions of land in the country.

2.1 NATIONAL REGULATIONS RELATED TO RESETTLEMENT

This part describes national institutional, legal and policy framework for resettlement requirements in Rwanda, applicable to the project as well as the international provisions.

The Rwanda Constitution

The constitution is the supreme law of the land. Under Article 29 of the Rwanda constitution, every citizen has a right to private property, whether personal or owned in association with others. Further, it states private property, whether individually or collectively owned, is inviolable. However this right can be interfered with in case of public interest, in circumstances and procedures determined by law, and the citizens are subject to fair and prior compensation.

Article 30 stipulates that private ownership of land and other rights related to land are granted by the State. The constitution provides that a law should be in place to specify modalities of acquisition, transfer and use of land (refer to the Expropriation Law). The constitution also provides with a healthy and satisfactory environment. In the same breath, every person has the duty to protect, safeguard and promote the environment. The State also shall protect the environment.

Law N° 18/2007 of 19/04/2007 relating to Expropriation in the Public Interest

“Law N° 18/2007 of 19/04/2007 relating to Expropriation in the Public Interest” (hereinafter “Expropriation Law”) determines the procedures relating to expropriation of land for the interest of the public. Article 3 of the law stipulates that it is only the government that has authority to carry out expropriation. However all kinds of the projects, at any level, which intend to carry out acts of expropriation for public interest, shall allocate funds for a census survey and asset inventory of the persons to be expropriated and for just compensation by means of implementer’s budget.

According to the law mentioned above, 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 to be implemented on his/her land with an aim of public interest. In case it causes any loss to him or her, he or she shall receive just compensation for it. The law identifies properties to be valued for just compensation to be land and activities that were carried out on the land including different crops, forests, any buildings or any other activity aimed at efficient use of land or its productivity. Here the law is silent on access to economic activities on the land.

N° 08/2005 of 14/07/2005 Organic Law determining the use and management of land in Rwanda

“N° 08/2005 of 14/07/2005 Organic Law determining the use and management of land in Rwanda” determines the use and management of land in Rwanda. It also institutes the principles that are to be respected on land legal rights of any land in the country as well as all other appendages whether natural or artificial.

According to the Law, Land in Rwanda is categorized into two: Individual land and Public land. The latter is subdivided into two categories: the state land in public domain and the state land in private domain. State land in public domain includes national land reserves for environment conservation; land over which administration building are erected, statedam, land containing lakes, rivers, stream and springs. State land in private domain include swamps that may be productive in terms of agriculture, vacant land with no owner, land purchased by the State, donated lands, land acquired through expropriation and land occupied by state owned forests. Land in Rwanda is predominantly individual land in general.

The law gives the owner of land full rights to exploit his or her land in accordance with the existing laws and regulations. The law also provides for expropriation through article 56 which stipulates that land expropriation can be undertaken if it’s for public interest. Article 29 of the law states that swamp land belongs to the state and no person can use the reason that he or she has spent a long time with it to justify the definitive takeover of the land. The definition of the swamp in this case, is not very clear and the law gives the Minister in charge authority to identify and determine these swamps, use structures and boundaries.

N°17/2010 of 12/05/2010 Law Establishing and Organizing the Real Property Valuation Profession in Rwanda

“N°17/2010 of 12/05/2010 Law establishing and Organizing the Real Property Valuation Profession in Rwanda” stipulates conditions for registration of land valuers in Rwanda and. 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.

These articles stipulate that price for the real property shall be close or equal to the market value. The valuation could also compare land values country wide. Where sufficient comparable prices are not available to determine the value of improved land, the replacement cost approach shall be used to determine the value of improvements to land by taking real property as a reference. The law also allows the use of international methods not covered in the law after approval by the Institute of Real Property Valuers in Rwanda. This law is in conflict with the ministerial order on determining land prices in and outside Kigali which sets reference prices of land.

Presidential Order N° 54/01 of 12/10/2006 Determining the Structure, the Responsibilities, the Functioning and the Composition of Land Commissions

“Presidential Order N° 54/01 of 12/10/2006 Determining the Structure, the Responsibilities, states that the Land Commission at the district level shall exercise its authority in the entire district, and is composed of the following five (5) members, whose responsibilities include land administration and land use management (Article 18).

Ministerial Order N°002/2008 of 01/4/2008 Determining Modalities of Land Registration

“Ministerial Order N°002/2008 of 01/4/2008 Determining Modalities of Land Registration” mentions to the responsibilities and function of the District Land Bureau. Their roles are to implement land registration, manage lands, update of land registration data, keep records of land, monitor, approve valuation of land and other immovable property, demarcate lands and approve land cadastral. This Order is not applied to the land specified in articles 12, 14, 15 and 72 of the “Organic Land Law No.8/2005 of 14/07/2005 determining the use and management of Land in Rwanda”.

Ministerial Order No 002/16.01 of 2010 on Determining the Reference Land Price Outside Kigali City

“Ministerial Order No 002/16.01 of 2010 on Determining the Reference Land Price Outside Kigali City” presents reference land prices to be used in areas outside Kigali City. This order aims at protecting land owners from exploitation and to prevent land speculation when the market is not developed. However, the order seems to have been applied often. It is because that the valuation law instructs to apply independent market prices for land valuation.

Ministerial Order 002/2008 Determining Modalities for Land Registration

Annex 3 of the “Ministerial No. 002/2008 of 2008 Determining Modalities of Land Registration” provides for dispute resolutions procedures and some provisions related to the cell adjudication committee. Articles 17, 20, 22, and 23 provide the process for resolving disputes. Article 17 grants parties to a dispute, the right to take that dispute to the mediation committee. That article also provides that where a dispute arose during demarcation and adjudication but, with the assistance of the cell adjudication committee (CAC), the parties were able to resolve the dispute, the parties are bound by that agreement, and may not later attempt to raise the issue. Article 20 provides procedures for the CAC when hearing disputes, including that the hearing is open to the public and announced eight days in advance, among other requirements. The CAC is comprised of all five members of the cell land committee and five members of the particular *Umudugudu* where demarcation and adjudication is taking place. The cell executive secretary acts as the CAC secretary,

although he or she has no voting rights. This order can be used to resolve resettlement conflict at the sub project area.

N° 43/2013 of 16/06/2013 Law governing Land in Rwanda

In Recent years with the principal of Good Governance that the government has made a priority, law determines modalities of allocating, acquisition, transfer, use and management of land in Rwanda as land is being scarce since Land resources are not increasing while the population growth remains high. In this back ground that the government of Rwanda through the Ministry of Natural Resources has found imperative to ensure both rational use and prudent management of land.

To achieve this noble objective, the Government of Rwanda has reviewed the “Organic Law n° 08/2005 of 14/07/2005 determining the use and management of land in Rwanda”. The revision was mainly transform the Organic land Law into ordinary law in order to comply with the provisions of the constitution of the Republic of Rwanda. In addition, various weaknesses in the Organic land Law which made its application difficult, have been addressed. The new Land law is found as a long term solution as it takes into consideration all aspects of the Land policy which has been adopted by the government of Rwanda in 2004.

2.2 CATEGORIES OF LANDS IN RWANDA

The Organic Land Law No 08/2005 of 14/7/2005 amended in 2013 categorizes land via two criteria: (1) Land Use and (2) Land Ownership. Land Use (Article 9) is split into two categories: urban lands and rural lands. Urban lands are defined as lands confined within the legal boundaries of towns and municipalities as well as lands in suburbs and collective settlements of towns and municipalities. Any other land is rural land.

Land ownership is divided into the following categories: individual owned lands and State lands (whether urban or rural). Article 11 provides that individual land is comprised of land acquired through custom, written law, acquisition from competent authorities, purchase, gift, exchange and sharing. State lands are further categorized into two sub-categories: public domains and private State owned lands (Articles 12 and 13). State land for public domain comprises land reserved for public use, for use by organs of state services or for environmental protection. Private state owned land consists of all other state owned land not considered to be part of public domain.

Land Tenure Legal Provisions in Rwanda

The Organic Land Law also provides two types of formal land tenure: full ownership/freehold and long term leasehold. Following the recent privatization 09/04/2007 of State owned lands, very few land users currently hold either type of land tenure. Therefore, the Organic Land Law recognizes existing rights, whether written or unwritten, under both civil lawx and customary practices through new national land tenure arrangements. Efforts are being made under the Law (Article 7) to formalize land ownership, especially those acquired through customary means. For instance, rural populations with customary/indigenous land rights are being encouraged to register their land through decentralized land institutions like the District Land Bureau, Sector Land Committees and Cell Land Committees (Ministerial Order N° 001/2006 of 26/09/2006 determining the structure of Land Registers, the responsibilities and the functioning of the District Land Bureau). All

types of land tenure must be in compliance with the designated land use and environmental protection measures as outlined in the Land Use Master Plan.

Private Lands

According to Article 10 of “N° 43/2013 of 16/06/2013 Law Governing Land in Rwanda”, Private individual land shall comprise land acquired through custom or written law. That land has been granted definitely by competent authorities or acquired by purchase, donation, inheritance, succession, ascending sharing, and exchange or through sharing. This Law offers equal protection to rights over land resulting from all channels stipulated in the preceding paragraph.

Property Laws

Laws on property are found in various legal texts of Rwanda including the Rwandan Constitution which recognizes every person’s right to private property (Article 29). Consequently, private property, whether individually or collectively owned is inviolable. Exceptionally, the right to property may be overruled in the case of public interest. In these cases, circumstances and procedures are determined by the law and subject to fair and prior compensation (Article 29).

In addition, the present Organic Land Law sets a legal framework for property law under articles 5 and 6 which provides for full ownership of land and permits any person that owns land (either through custom or otherwise), to be in conformity with the provisions of this law. It is important to observe however that full ownership of land is only granted upon acquisition of a land title issued by the general land registrar authority. Once the efforts to provide proper land tenure documentation are completed, ownership of land without proper documents such as land title will not be deemed lawful land ownership and thus in event of circumstances like expropriation, one will not be able to benefit from a fair and just compensation package.

Eligibility for Compensation

Eligibility for compensation is enshrined under the Rwandan Constitution (Article 29) 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 (7) of the Expropriation Law to mean any person or legal entity who is to have his or her private property transferred due to public interest, in which case they shall be legally entitled to payment of compensation.

Compensation Measures

In case an individual suffers any loss, Article 3 of the Expropriation Law stipulates that he or she should receive just compensation for it, although it is not clear what comprises fair and just compensation, this being left to the judgment of independent valuers. Through mutual arrangement, both parties can determine the mode of payment. Article 22 (2) of the of the Expropriation Law provides that through an agreement between the person to expropriate and the one to be expropriated, just compensation may either be monetary, alternative land or a building equivalent as long as either option equates to fair and just monetary compensation. In case the determination of ‘just’ compensation exceeds in value the alternative land given to the expropriated person, the difference will be paid to the expropriated person.

Land Assets Classification and Valuation

A land holder whose assets to be expropriated shall be entitled to payment of compensation for land and other assets, plus compensation relating to all activities resulting in any improvement to the land. Land and other assets are classified into two categories: movable and immovable assets, both of which are eligible for compensation. For movable assets, compensation relates to inconveniences and other transition costs caused in the process of relocation. Immovable assets include: crops, forests, any building or other activity aimed at efficient use of the land, the value of land, and the activities thereon that belong to the person expropriated.

The valuation is made considering the size, nature and location of land as well as the prevailing market price. The amount of compensation for property is determined on the basis of the replacement cost of the property. Prior to the 2005 Organic Land Law, as all land was State owned, buying and selling of land was not permitted. Following the recent restructuring of Land legislation, people now have the right to claim ownership and trade in newly-privatized lands. However, the decrees supporting this aspect of the 2005 Organic Land Law are not yet fully implemented, and awareness is currently perceived to be low among the population such that appropriate market prices for land have yet to be established.

2.3 INSTITUTIONAL FRAMEWORK

In Rwanda, there is no specific institutional arrangement regards to resettlement activities. The institutional framework for environmental and Social management is currently enshrined in the Organic Law determining the modalities of protection, conservation and promotion of the environment in Rwanda, published in the Official Gazette RWA N° 9 of the 1st May 2005, particularly in its chapter III relating to the establishment of the institutions, the 2013 land law and 2007 expropriation law.

Ministry of Agriculture and Animal Resources (MINAGRI)

Ministry of Agriculture and Animal Resources (MINAGRI) is the implementation agency and it is also the main agency involved in preparation and implementation of this RAP. While JICA will finance the construction of irrigation infrastructure, the MINAGRI will finance resettlement activities. It will act as the central agency responsible for holding all information relevant to the RAP.

As there is no any new Single Project Implementation Unit (SPIU) to be established for Ngoma 22 project, the MINAGRI may assign one of existing SPIU members for other LWH project members for the RAP implementation of Ngoma 22 project. The role of the designated SPIU will coordinate monitoring activities, maintenance of monitoring information, building the capacity of other stakeholders in collection and analysis of monitoring data. He/she will be the focal person and he/she will liaise with other stakeholders to executive the RAP.

Ministry of Natural Resources (MINIRENA)

MINIRENA governs the implementation and application of the Organic Land Law and the Land Use Master Plan. While the MINIRENA deals with overall land policy and the alignment with these laws at the national level, responsibilities for their implementation locally has been devolved, following decentralization, to Land Commissions and Committees at District, Sector and Cell levels. MINIRENA is also the key ministry governing resettlement arrangements in

Rwanda through the Land Bureaus. The ministry plays a critical role to ensure that appropriate and consistent compensation is provided to all project affected persons.

Rwanda Environment Management Authority (REMA)

Rwanda Environment Management Authority (REMA) was established in 2004 to act as the implementation organ of environment-related policies and laws in Rwanda. REMA coordinates different environmental and social protection activities, to promote the integration of environmental consideration in development policies, projects, plans and programs; to coordinate implementation of Government policies and decisions taken by the Board of Directors; to advise the Government with regard to the legislation and other measures relating to environmental management or implementation of conventions, treaties and international agreements relevant to the field of environmental and social issues as necessary; to make proposals to the Government in the field of environmental policies and strategies; etc.

Rwanda Development Board (RDB)

RDB was created by Organic Law N° 53/2008 of 02/09/2008. It has a mission of improving the well-being of all Rwandans by fast-tracking development, catalyzing sustainable economic growth, and creating prosperity for all. According to the recent restructuring of government institutions, the RIEPA, ORTPN and CAPMER were merged to form RDB. The responsibility of follow-up of environmental and social impact assessment studies is now under RDB.

Rwanda Natural Resources Authority (RNRA)

RNRA 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 RNRA in RAP process is to advise on matters related to land ownership and expropriation. District land bureau in close collaboration with project staff will check and approve surveys, various maps and approve land surveys carried out during the RAP exercise.

Ngoma District

The article 66 of the “N° 04/2005 of 08/04/2005 Organic Law determining the modalities of protection, conservation and promotion of environment in Rwanda” specifies to establish committees which are responsible for conservation and protection of the environment at the Provincial, District, Town, Sector and the Cell levels. The executive committee of the District is responsible to initiate the expropriation and District Council implements the expropriation after considering the decision of the Land Commission (Expropriation law, 2007). Ngoma district manages lands through the District Land Bureau. The bureau will be responsible for activities undertaken comply with the National and District level Land Use Master Plans and will assess the validity of land tenure rights of affected persons. In addition the officer will be responsible for ensuring effective grievance handling in order to reduce disputed or grievances. Their activities will be monitored by the District authority.

2.4 WORLD BANK INVOLUNTARY RESETTLEMENT RELATED POLICIES

The WB involuntary resettlement related policies are also critical in preparation and implementation of this RAP. The main objectives of the WB O.P. 4.12 Involuntary Resettlement to avoiding or minimize 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, to provide 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 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 to guarantee 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.

It is necessary to promote public participation, by evaluating project alternatives to enable minimize involuntary resettlement and developed an entitlement matrix to guide in calculation of resettlement and replacement costs.

2.5 JICA GUIDELINES FOR ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

Ngoma 22 hillside irrigation project 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 RAP. The JICA Guideline (2004) is applied for the project. The key principle of JICA’s policy on involuntary resettlement is summarized below:

- a. Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.
- b. When population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken.
- c. 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.
- d. Appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of involuntary resettlement plans and measures against the loss of their means of livelihood.

Table 1 Gap between Rwandan Laws and JICA Guideline

JICA Guideline (2004)	Rwandan regulation	Remarks
<ul style="list-style-type: none"> ▪ Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (JICA GL) ▪ When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken. (JICA Guideline) 	<ul style="list-style-type: none"> ▪ Resettlement is acceptable for public interest. Affected persons are fully informed of expropriation issues. The law prohibits any opposition to the expropriation (Expropriation Law, Article 3). ▪ Affected person receive fair and just compensation (Expropriation Law). 	<ul style="list-style-type: none"> ▪ No resettlement is planned by the project, however, land expropriation is unavoidable. It is planned to compensate for private land loss in accordance with the law and to provide supports to those who cultivate in national land to minimize the losses.

<ul style="list-style-type: none"> ▪ People to be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by project proponents, etc., in a timely manner. Project proponents must make efforts to enable people affected by projects to improve their standard of living, income opportunities and production levels, or at least to restore them to pre-project levels. 	<ul style="list-style-type: none"> ▪ There is no mention in laws to restore or improve living standard of the affected persons. Just compensation may be monetary or an alternative land and a building equivalent to the determination of just monetary compensation (Article 23 of the Expropriation Law). The persons who cultivate in national lands are not qualified for compensation. 	<ul style="list-style-type: none"> ▪ Monetary compensation will be provided to the persons to be expropriated their private lands. Those who cultivate in national lands are not compensated. It is proposed to provide technical supports and to employ them as labors for construction works with high priority, aiming at minimization of the impact on their livelihood.
<ul style="list-style-type: none"> ▪ Appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of RAPs and measures to prevent the loss of their means of livelihood (JICA Guideline) 	<ul style="list-style-type: none"> ▪ Public consultation is needed to be organized and the result must be included in Environmental Impact Assessment process (General Guidelines and Procedures for Environmental Impact Assessment, 2006). 	<ul style="list-style-type: none"> ▪ A series of consultation meetings to explain negative impacts and mitigation measures to the affected persons has already been organized and the participants agreed on the proposed plan. Representatives of the affected persons will participate in monitoring activities.
<ul style="list-style-type: none"> ▪ Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities, etc. 	<ul style="list-style-type: none"> ▪ It is general to pay consideration to vulnerable group according to the Rwandan context, even though there is no mention in the Expropriation Law. 	<ul style="list-style-type: none"> ▪ Vulnerable and project affected people have high priority to be employed for the construction works.

3. SOCIO- ECONOMIC ANALYSIS IN PROJECT AREA

3.1 ADMINISTRATIVE DIVISION OF THE STUDY AREA

The Study Area is located in Ngoma District of Eastern Province, and the district of Remera Sector and Rurenge Sector belong to this Province. Their administrative border runs at the bottom of a valley in the Province. The Study Area includes Ndekwe Cell and Bugera Cell in Remera Sector as well Rujambara Cell and Muhurire Cell in Rurenge Sector. The valley, where the construction of the reservoir is planned, is governmental land and there is no residential area. Therefore, no house in these villages will be sunk under water of the planned reservoir.

3.2 POPULATION

The Study Area is located in Ngoma District of Eastern Province, the district has 738km² of area which accounts for 2.8 % of whole area of Rwanda and 290,679 population¹. More than 90% of the residences engage in farming and agriculture is dominantly important industry in the district. The irrigation command area is located on Ndekwe Cell and Rujambara Cell. The beneficiaries reside in five cells, namely, Rujambara, Rugese, Ndekwe, Rujambara and Muhurire as shown following figure.

¹ Source: District Development Plan 2008-2012 and Development Study for the Improvement of Rural Water Supply

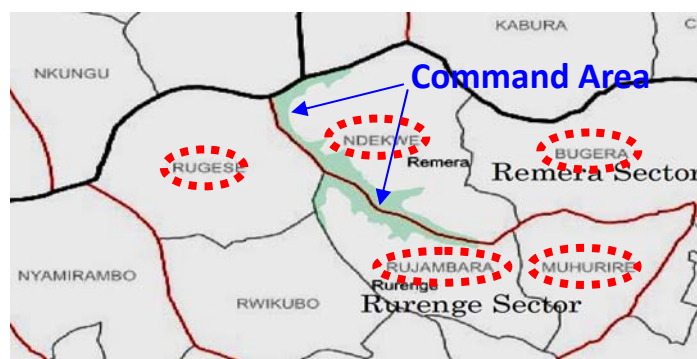


Figure 2 Locations of Command Area and Cells Concerned

Most of these villages are located on hilly area situated at higher elevation than 1,400m. These villages are not located in the part of valley where the construction of the reservoir is planned. Therefore, no house in these villages will be sunk under water of the planned reservoir. Following table shows population of concerned cell by village.

Table 2 Population of Concerned Cells

Sector	Cell	Village	No. of households	No. of population
Rurenge	MUHURIRE	NYAMATA	304	1,369
		GITOBÉ	168	784
		GISUNZU	169	696
		GASHINYA	77	353
		AGATONERIO	88	422
	Sub Total		806	3,624
Rurenge	RUGESE	KAJEVUBA	188	547
		KAMWIRU	310	1,225
		KUMUNINI	92	412
		NYAMIGENDE	198	585
		RUGARIKA	185	813
		RWAKANUMA	176	714
		KIYANJA	443	1,726
	Sub Total		1,592	6,022
Rurenge	RUJAMBARA	AKARAMBARAYE	142	620
		MASHYOZA	196	803
		KABEZA	119	497
		MBONWA	139	610
		NYABANGA	119	517
	URUSAGARA	315	1,326	
Sub Total		1,030	4,373	
Remera	NDEKWE	RUKORE	322	1,216
		GIKOMERO	163	661
		RUGANDO	285	1,154
		RWAMUTABAZI	335	1,425
		RUHUHA	237	979
	ICYAKABIRI	296	1,194	
Sub Total		1,638	6,629	
Remera	BUGERA	GASEBEYA	130	580
		KABEZA	134	672
		MUNINI I	134	502
		NKENKE	87	377
		RWESERO	114	540
		KUMUKIZA	156	657
		RUBUMBA	187	748
		GATARE	178	770

Sector	Cell	Village	No. of households	No. of population
		GISUNZU	157	743
		MUNINII	126	540
		KIYOVU	195	863
	Sub Total		1,598	6,992

Source: Remera Sector Office, 2012

3.3 EDUCATION

Four primary schools have been established and maintained in the Study Area, namely: Nyabaganza, Urusagara, Gitobe and Gikomero. Also, a middle school is distributed in each Cell in Ndekwe and Bugera Cells but no middle school has been established in two other cells, namely Rujambara and Muhurire Cells. After graduating from primary schools, students in Rujambara Cell commute to middle school of Rugese Cell that is situated about 20km away from their homes, and in the case of Muhurire Cell, they commute to that of Kabuya Cell, 10 km distant from their residences. Numbers of children by gender and enrollment rates in 3 primary schools are estimated.

3.4 HEALTH CENTER

The nearest available clinic facility for villagers in rural villages in Rwanda is Health Post. Two nurses work in a Health Post with 2-shift working hours of daytime and night services. Simple examination and treatments for malaria etc. and practices of infantry vaccination program are implemented. Besides, a system has been operated by which patients are transported to Health center in each Cell in emergency cases. Health Centers have been established in each of Cells including Ndekwe, Muhurire and Bugera, however, it has not yet been created in Rujambara Cell. In emergency cases, transport network system connecting to district hospitals has also been available.

3.5 ELECTRICITY

According to field survey 37% of household in project area has benefited the rural electrification program and have access to electricity, since electricity has been promoted in rural area by the Government recently.

3.6 ROADS / TRAFFIC

The trunk road passing from Kigali City to the project is unpaved section within Remera Sector and there is no paved road in and around the project site. As for traffic means for the people, regular transport services like public buses have not been available. Traffic/ transport by motor bikes can be observed, but bicycles are most popularly diffused and they are used as means of transporting/ marketing local agricultural products.

3.7 DOMESTIC WATER SUPPLY

While tap water has been supplied only a limited part of the Study Area, the people depend on manual fetching of fountain water from fountains in the valley. Most of the people utilize rain water and public piped water in rainy season, while they use public tube wells or shallow wells in dry season. Water fetching labor depends on the living environment, usually women carry water in polyethylene tanks of the content 20 liters on their heads 3 to 4 times a day. At the same time, children also fetch water in polyethylene tanks of the content of 5 to 10 liters.

3.8 MAIN INCOME

The beneficiary area is farmland, where sorghum, beans, cassava, cabbage, tomato, rice and so on are cultivated. Most of the people in the area make living by farming. The farmers harvest their farming products two times per year both in marshland and hillside. There is no irrigation system such as irrigation canal for farming, therefore, the productivity and income can be fluctuated depending on amount of rainfall. Some of them get income from livestock, labor work, carpenter's works and so on, however, such income sources account for small portion in their total income.

4. ASSESMENT OF PROJECT AFFECTED PERSONS AND RESETTLEMENT IMPLICATIONS

4.1 ELIGIBILITY

Due to construction of reservoir and irrigation canals by the project, parts of farmland will be submerged or expropriated and some standing crops, especially, perennial crops will be damaged. On the other hand, there are no houses, offices, shops to be relocated by the project, there is no case of resettlement. It is essential to define eligibility criteria for the compensation package preparation. At first, PAPs were identified by the field survey and confirmed on the map. After that, a census survey including asset survey targeting the PAPs who cultivate in the submerged area was implemented in November 2013. PAPs considered to be eligible for compensation are as follows:

- Persons those who may lose trees and crops located on required land for the construction of irrigation infrastructures;
- Farmers that are currently using the hillside to be expropriated, including those who don't have land titles, will be requested to present any recognized evidence that testify their ownership of the land; and
- Farmers that are currently using the marshland to be submerged.

4.2 ENTITLEMENT MATRIX

Taking consideration into the JICA guideline and Rwandan regulations, entitlement matrix of the project is prepared as illustrated in following table, which indicates compensation measures to restore livelihoods impacted by the loss of land and crops. The area to be affected was calculated on the map and number of trees to be damaged was counted by means of an asset survey.

Table 3 Entitlement Matrix

Type of Loss	No of PAPs	Qty	Eligibility Criteria	Entitlement
Loss of private lands in the proposed reservoir site	53HH	6.56ha	Owners of land where the reservoir will be constructed	Cash compensation for loss of land
Loss of private lands along canals	719HH (=389 for main canal and 330 for secondary canal)	13.98 ha	Owners of land where the reservoir will be constructed	Cash compensation for loss of land
Loss of Government land	160HH	15.17ha	Current users of affected marshlands	Support e.g. training implementation of

Type of Loss	No of PAPs	Qty	Eligibility Criteria	Entitlement
in marshlands				agriculture, employment during construction
Loss of Government land in the paddy field	332HH	Around 1.6ha of the paddy field	Current users of affected paddy field	Employment as labors during construction and implementation of technical training
Loss of perennial trees and food crops	Not identified	-	Various rights and interest holders Share croppers and Lessees	Cash compensation for loss of perennial crops
Vulnerable people	Not identified	-	Older, handicapped, marginal and others	Employment during construction and technical training
Total	1,220HH	35.71ha		

Source: JICA Study Team

Following figures show location of farmlands to be affected covering whole study (upper) area and submerged area (down).

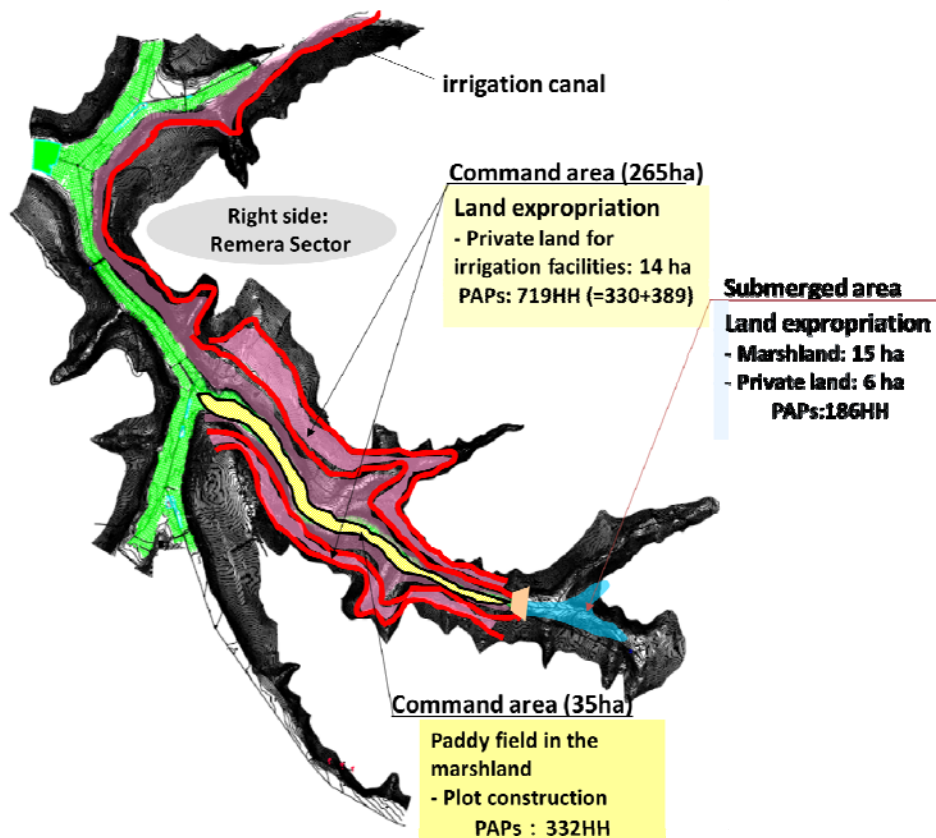


Figure 3 Project Affected Areas and Persons

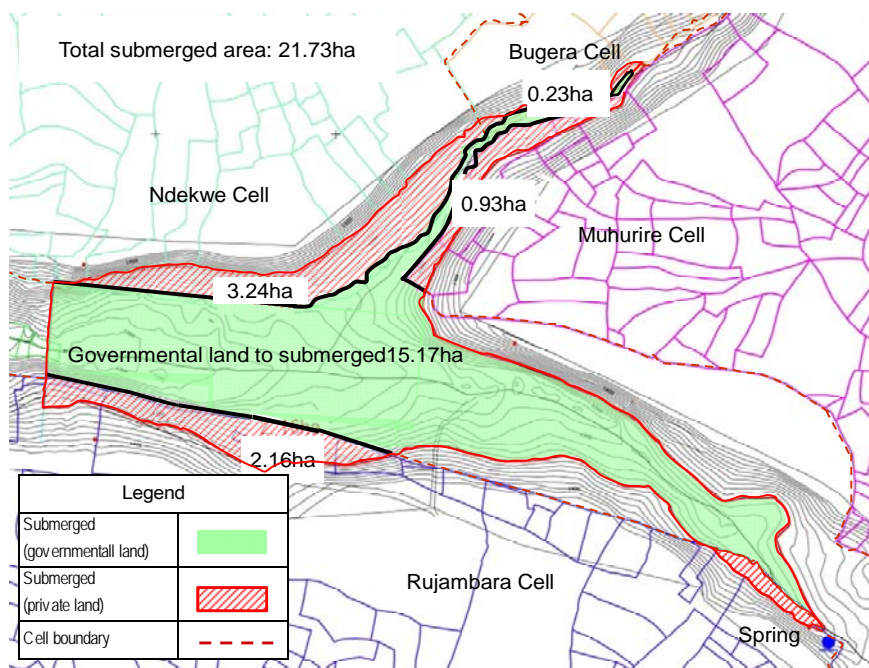


Figure 4 Location of the Submerged Area

4.3 CUT-OFF DATE

Census survey including socio-economic survey targeting 186 households of PAPs and standing tree inventory survey were implemented from October to November 2013. However, those results will be expired before compensation, since the project of Ngoma 22 will be implemented more than one year later. Before land expropriation, the final census will be conducted to identify all PAPs and their assets to be impacted by the project.

The date that the final census begins is regarded as the cut-off date for eligibility for compensation. It is important that this date is fully communicated to all potential PAPs in the project affected area through the Sub-project Resettlement and Compensation Committees. The community leaders and representatives concerned are requested to notice to their members about the established cut-off date and its significance. The potential PAPs will be informed through both formal notification in writing and by verbal notification.

After the census is undertaken, the lists will be verified and validated by the Sector/ Cell and community leaders. If there are unclear owners/users of land or assets, the Cell/ Sector and District Land Bureaus will notify the community leaders and representatives to assist them for identification of the land owners/users. Once land users are identified, their details and eligibility will be submitted to the Resettlement and Compensation Committee. Once they are verified, they are regarded eligible for compensation. The establishment of a cut-off date is to prevent from invasions/rush migration into the chosen land areas. Persons who encroach on the area after the cut-off date are not entitled to compensation. The format of final census is attached in Annex 1.

4.4 METHODS OF ASSETS VALUATION

The proposed reservoir site and the alignment of irrigation canals will give impact on mostly farm lands and crops since no houses will be resettled. A provisional census survey targeting the 186 households (15% of total PAPs) who cultivate in the submerged area was conducted.

They live in mainly five Cells, namely, in Ndekwe, Muhurire, Rujambara, Rugese and Bugera¹. Most of villages in Remera Sector and Rurenge Sector have 500 - 1,000 populations and the people earn their living by farming. The affected farmlands are located on along the Rwabishanyi River which flows between Remera Sector and Rurenge Sector, which means that meteorological and geological conditions are very similar. Moreover, agricultural conditions are almost same due to no irrigation system in the area. Therefore, it can be judged that bias will not be caused even if only the 186 households are targeted as the census survey.

The affected private farmland area is estimated on the survey map and considering length of canal. Moreover, the number of standing perennial crops such as fruit trees to be affected was counted at the site. After the final census survey, the affected lands and assets will be valued and compensated based on the laws and the RAP.

4.5 RESULT OF HOUSEHOLD SURVEY

A household survey targeting PAPs who cultivated in the submerged area was conducted as mentioned before. The affected 186 households is composed of 489 men and 500 women (in total 989 persons) and average number of family member is 5.3 per household. It can be estimated that the total population of all PAPs (1,220 households) is 6,466, if the mean value of number of family member mentioned above is applied.

Annual household cash income of the surveyed families is around Rwf 400,000 on average. The amounts vary widely, from around Rwf 10,000 to more than Rwf 1,000,000. Major income source of them is farming, while some households earn incomes from livestock, carpentry, labor works and so on. Average annual cash income of the affected persons is as shown below:

Table 4 Annual Cash Income of PAPs due to Dam Construction

(Unit: Rwf/year/HH)

Item	PAPs who cultivate in the marshland (160HH)	PAPs who cultivated in the hillside (53 HH)**	Average (186HH)
Farm income	345,963	442,516	366,173
Other income	38,325	49,471	37,484
Total	384,288	491,587	403,657
Mean farmland area (ha/HH)	0.79	1.27	0.90

* There is a big scale farmer who owns 7.9ha land and the household was excluded from the average calculation.

** It includes overlapped households who cultivate in marshland and hillside to be submerged.

Source: JICA Study Team, 2013

The mean land holding area of the PAPs is 0.9ha and major crops in the hillside are maize, sweet potato, cabbage, carrot, tomato, coffee, soy bean, cassava and so on. On the other hand, sweet potato is mainly cultivated in the marshland. In general, the farmers harvest twice per year in both marshland and hillside. The affected persons have stayed in the area for many years, only 10 households out of 186 have stayed less than 20 years. Most of the people utilize rain water and public piped water in rainy season, while they use public tube wells or shallow wells in dry season. Most of heads of families could not have education opportunities, 76 households out of 186 answered that they have never been to school.

¹ Only one household who lives in Musha Cell will be affected by the project.

In the marshland to be submerged, 11.3ha out of 15.17ha is cultivated actually, average cultivation area per household is 0.07ha. Degrees of reliance on the farming in the marshland vary depending on the families, and the farming areas in the marshland accounts for less than 10% of total farmlands for most of the PAPs (refer to following table). The area of farmlands in the marshland accounts for 12% of their total farmlands on average. In other words, the extent of damage due to the farmlands loss in the marshland is relatively small for most of the affected households, however, some families who depend on farming in the marshland will be influenced significantly by the project. Therefore, it is needed to provide some support to such households.

Table 5 Ratio of Farmlands in the Marshland to All the Farmland and its Distribution

Ratio of farmlands in the Marshland to All the Farmland	No. of HH
0 - 10%	106
10 - 20%	26
20 - 30%	11
30 - 40%	10
40 - 50%	1
50 - 60%	4
60 - 70%	1
70 - 80%	0
80 - 90%	1
Total	160

4.6 COMPENSATION

4.6.1 Calculating Compensation for Assets

a) Compensation for Land

Land for land compensation is desirable according to laws in Rwanda, however, it is difficult for Ngoma District to arrange new alternative lands for the affected persons to be expropriated due to shortage of available lands in the district. Therefore, cash compensation based on the law (Ministerial order on land prices outside Kigali city, MINIRENA, 2010) is recommended. According to the district office, there are some unused farmlands in the district, and it is possible for the district officers to facilitate the PAPs to purchase the farmlands after the cash payment as compensation.

b) Compensation for Crops and Trees

PAPs will be encouraged to harvest their produce before the land expropriation. In order to ensure that this is possible, there needs to be sufficient consultation beforehand so that harvesting can be properly planned. In the event that crops cannot be harvested, compensation for standing crops including trees will be provided. In general, Ngoma District applies previous Law on Expropriation for the compensation for crops and trees. It is possible to refer the same regulation for the Ngoma 22 project.

c) Support for PAPs who Cultivate in the Marshland to be Submerged

Compensation for marshland expropriation is not needed in Rwanda, however, some farmers, those who depend on the marshland mainly, will be damaged due to the project. Therefore, it is planned to provide agricultural technical support through the soft component not only for the private land owners but also farmers in the marshland. It is expected to mitigate their loss

by improvement of their farming techniques and benefit increase¹ in their remaining farmlands.

It is planned to employ from 6,000 to 7,000 persons as labors for construction works. It is proposed to give high priority to such persons in addition to some vulnerable people to be affected. Daily wage per person is from RWF1,000 to RWF2,000, if they are employed for 20 days per month, they will gain RWF240,000 to 480,000 for the construction period. It means that such job opportunity can alleviate the impact due to land loss on the PAPs to some extent.

In addition to supports mentioned above, it is needed to re-distribute the downstream paddy field to some households those who are to be influenced significantly. It shall be examined through consultation meeting with such significantly affected persons, farmers those who cultivate in the paddy field and MINAGRI.

d) Support for PAPs who Cultivate in the Paddy Field in the Downstream

Plot construction in the paddy field, which is located on the downstream, is planned. Due to the work, the area of paddy field will be reduced by around 1.6ha. However, it is expected that the yield is expected to be increased from 4tons/ha to 6tons/ha by the technical support mentioned above. Therefore, the paddy production will not be decreased even if the paddy field area is reduced to 95% of current one. When “Data Collection Survey on Irrigation Development in Ngoma District of Eastern Province in Rwanda” (JICA, 2012) was conducted, the farmers of the paddy field requested to the JICA Team to implement plot construction for even water distribution. The proposed plot construction could contribute to proper water management and production increase.

During the plot construction works, the farmers will not be able to harvest paddy at least one season, which will result in loss of around Rwf 360,000/ha (Rwf 10,890,000 in total for all cultivated area: 30.25ha). Therefore, it is proposed to employ the affected farmers as labors of terracing works of the 265ha beneficiary area, to be shouldered by the Government of Rwanda. Considering there is a case that Rwf 1,000 was paid for 10m² terracing works (10 to 20 m²/ day/person) in other LWH sub-projects and the beneficiary area, it means that 265,000 labors in total will be needed for the works. Therefore, it is possible to offset the loss due to farming suspension for one season in the paddy area, if the affected persons are hired as labors.

5. PUBLIC CONSULTATION

5.1 PUBLIC CONSULTATIONS AND PARTICIPATION

Project stakeholder consultation is a vital component of the RAP process. The consultation process focuses on providing information on the proposed project in a manner that can be understood and interpreted by the relevant audience, seeking comment on key issues and concerns, sourcing accurate information, identifying potential impacts and offering the opportunity for alternatives or objections to be raised by the potentially affected parties, members of the public and other stakeholders.

Consultation has also been found to develop a sense of stakeholder ownership of the project and the realization that their concerns are taken seriously, and that the issues they raise, if relevant, will be addressed in the RAP process and will be considered during project design

¹ According to the output by “Project for Increasing Crop Production with Quality Extension Services in the Eastern Province” (PiCROPP), which was implemented from 2010 to 2013, net income of crop per ha was increased by 43%.

refinement. This participatory process helped in reducing the public resistance to change and enabled the participation of the local people in the decision making process. Initial public consultation has been carried out in the project areas with the objectives of minimizing probable adverse impacts of the project and to achieve speedy implementation of the project through bringing in awareness among the community on the benefits of the project.

5.2 FIRST PUBLIC CONSULTATION MEETING

The first consultation meeting was organized on September 2, 2013 and the project stake holders were invited in this meeting. The participants of the meeting were MINAGRI staff, JICA Headquarter Officers, JICA Rwanda Office staff, MINAGRI irrigation advisor, JICA team members, District officers, local authorities such as Sector and Cell official personnel, village heads concerned and some farmers.

In the opening remarks, the Vice-Mayor in charge of Economic affairs of Ngoma District presented his recognition that the proposed irrigation project was very important considering that the farmers concerned would receive benefits for farming without depending on rainfall. He called on the farmers for sufficient cooperation during the project implementation and the good maintenance of facilities in the operation stage. The representative of MINAGRI also requested the farmers and local authorities to understand the importance of the project and to collaborate for the project implementation.

On behalf of JICA, Mr. Suzuki, Head of JICA HQs Mission, explained the purpose of the project and informed the participants what was going on and discussed on the project. He talked about feasibility of the project had been already clarified. He informed participant that environmental and social matters to be caused by the project would be discussed later. He introduced the JICA Study Team members and asked for their cooperation for smooth study. After the presentation, the participants were given opportunity to ask questions and clarification was provided by MINAGRI and the JICA mission.

Table 6 Outcome of the First Consultative Meeting

Speaker	Issues/Comments by Participants	Explanation by MINAGRI and JICA
Mr. Safari, the District Agronomist	Appreciated the project that would irrigate both marshland and hillside and said that in Ngoma District, it was the first time to have such kind of project. He continued that normally marshland area was a government property and asked if the land that would be used for canals or other project activities would be compensated or not.	About the land that would be affected by the project, Mr. Jean Claude said that it was very clear in the land law. He explained that for public activities, they made expropriation for the land and compensation depending on the conditions such as standing crops.
Mr. Erick, a farmer from Muhurire cell	Welcomed the project that would allow them to make cultivation in two seasons, but said that it was taking so long time to start implementation.	Mr. Suzuki said that so many preparatory actions are required in general prior to project implement.
Mr. Justin, a farmer but also farmer mobilizer from Ndekwe cell	He expressed the need of giving notice before the construction so that they could avoid any damage of their crops. He wished to be notified 1 or 2 seasons before the commencement of construction works.	A notice will be given to users of the project area once the cut-off date is fixed
Mr. Habimana Anastase, a farmer from	He welcomed the project that would allow them to cultivate all through the year and asked if stored water was only for	Mr. Suzuki replied that the purpose of the reservoir was to store water for irrigation not for domestic use. The quality standard of

Speaker	Issues/Comments by Participants	Explanation by MINAGRI and JICA
Bugera,	irrigation or if it could also serve for domestic use.	irrigation water and the one of domestic water are different and the stored water was not suitable for domestic use. He added that the project would not affect the existing spring.
Mr. Jean Marie Vianey, a farmer from Bugera	He asked if farms in the command area will be moved to other place of kept in the same place	Mr. Jean Claude replied that it was too early to comment on question in terms of farms in command area but added that if the area was for cattle, it would be taken into consideration. He said that there was a policy on land use and the RAP would clarify the real situation of the field.



Speech by the Ngoma Vice-Mayor



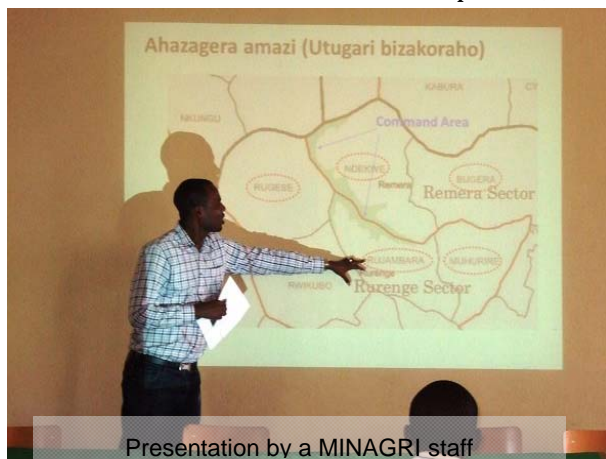
Participants listening to project introduction

As a whole, the participants welcomed the project since they can access to irrigation water which leads to crop production increase, some of them presented their concerns about compensation and timing they have to stop cultivation, though.

5.3 SECOND PUBLIC CONSULTATIVE MEETING

The second public consultation meeting was organized on November 14, 2013, at Ngoma district and village heads, official personnel of Cells and Sector, District Agronomist, the Mayor of Ngoma District, MINAGRI staff, private environmental consultants, and the JICA Study Team members. The meeting was supported by Green and Clean Solution Ltd. Consultants, and the consultants provided comments and clarifications. MINAGRI staff also participated in the meeting. The specific objectives of the meeting were:

- Create awareness of the project for the people
- To explain social and environmental impacts and proposed mitigation measures
- To obtain stakeholders' responses, feedback and concerns on the project;



Presentation by a MINAGRI staff



Participants listening to the presentation

negative impacts of the project on the environment would be caused, they would be air pollution, dust, traffic, land expropriation due to reservoir and irrigation canal construction. After the presentations, the community was given opportunity to give their views, comments and questions. They are as shown below:

Table 7 Outcome of the Second Consultative Meeting

Speaker	Issues/Comments by Participants	Explanation by MINAGRI and CGS Ltd Representatives
The Mayor of Ngoma District	He requested Local Authorities to assist all donors who join them in any development program. Specifically for this Project for reservoir construction the Local leader must very well understand the Project and sensitized again famers to own the project	Village leaders and PAPs representative are willing to support the project
Mr. Gaspard NZAHABWANAYO, The Social, Economic and Development Officer at RUJAMBARA Cell	He asked whether private land that the proposed irrigation canal will cross will be compensated in consideration of all plot size or the area to be affected	The compensation will cover only the affected area not all plot size. Other remaining land will be also part of beneficiaries' of the irrigation scheme
Mr. Jean Claude SINGIRANKABO, The Executive Secretary at NDEKWE Cell	He welcomed the Project because after installation of irrigation canal, the farmers will cultivate 3 times per year. He also asked more explanation about fish farming in order to understand how to combine with irrigation in paddy.	There will be no conflict of interest between irrigation process and fish farming, since it is not planned to use all water in reservoir for irrigation. Fish farming will be done by using cage in the reservoir. Water Users Organization will be established to manage and handle all issues related to proper use of water resources.
Mr. RURANGIRWA SHABANI. The RMERA Acting Executive Secretary at Sector level	How is the Budget of this Project? He needed to know if in the Project package they are a budget for monitoring of activities in Project period and also after phase out project.	The facilitator explained the purpose of today's meeting is to get comments and additional input focused on environmental and social impacts. All concerns will be included in final project studies and budget.
Mr. UWIMANA JMV, The RURENGE Acting Executive Secretary at Sector level	Do you consider the affected people who will be compensated? If yes, please also make attention about the proper time of compensation period because it's must be done before all construction activities.	Compensation will be done based on the law before starting reservoir construction activities.
Emmanuel, Consultants from Green and clean Solution ltd	He wants to know if the local leader are ready to assist MINAGRI in this project and what would be their Roles.	Local leaders are willing to attend usually in evaluation practice of asset for each affected people. They will also sensitize farmers.
Ms. UFITIKIREZI Colletta, The Executive Secretary of BUGERA Cell	She emphasized on considering the rights of all beneficiaries by law on cash compensation while making payment by transfer on account, because sometimes men do not give accountability to their wives.	All beneficiaries must approve the cost of their asset and the allocation account by mutual consent. During compensation, all family members will be present to avoid family conflict.

Speaker	Issues/Comments by Participants	Explanation by MINAGRI and CGS Ltd Representatives
Mr. NZABIRINDA Damien, Rurenge Sector Agronomist	Will the existing water collection point e damaged during construction? There is a possibility that the people will collect water from the reservoir for domestic water consumption and it is dangerous for them. If it possible, please put a hand pump for them to prevent from accident.	The people can use other water sources such as water canal. MINAGRI agrees with his idea and it will be considered for design.
Ditto	It is needed to protect reservoir from soil erosion.	It is recommended to plant trees to protect reservoir from erosion in the area within 50m from the dam lake limitation.

The participants appreciated the proposed project in general, since it is expected that the project will boost local economy due to productivity increase while they presented concerns regarding compensation method and timing. Some of village heads committed to collaborate with MINAGRI for the project implementation.

5.4 Third Public Consultative Meeting

The third public consultation meeting to present outline of the project and activities to be done by the beneficiaries was organized on March 21st, 2014, at Ngoma district. Village heads concerned, official personnel of Cells and Sector concerned, Ngoma District Agronomist, the staff of Ngoma District, MINAGRI staff, JICA Rwanda office staff and the JICA Survey Team member participated in the meeting. Official personnel of Ngoma District requested to the participants to share the information with general farmers. The specific discussions of the meeting are as follows:

Table 8 Key Outcome of the Third Consultative Meeting

Speaker	Issues/Comments by Participants	Explanation by MINAGRI and Japanese
Executive Secretary of Ndekwe Cell	Are there any constraints with the project of terraces construction, which has been already started at hillside? Where is coordination?	No negative impact with terrace project is expected. There is coordination between the terracing work and the project.
Mr. Arcade MURAGIJEMUNGU, Executive Secretary of Rurenge Sector	Before implementation, the Local Government Authority needs at least three months for population mobilization. Please inform them the schedule when the project plan is approved.	The Local Government Authorities will be informed around six months before of activities, when the final census will be implemented.
Mr. Arcade MURAGIJEMUNGU, Executive Secretary of Rurenge Sector	The project team and the Local Government Authorities are recommended to go on field together and to explain to the beneficiaries (not their representatives) about the project activities, compensation, implementation schedule, etc.	The farmers knows where are placed the pegs. The Local Government Authorities have to start the mobilization in order to prevent some losses like the construction in affected area or cultivation of perennial crops.
Executive Secretary of Ndekwe Cell	It is difficult to regroup farmers for different activities. It is better to form different cooperatives and to let WUO manage irrigation water.	It is better to get advices from RCA's experts. Usually, when farmers share the resources, they have to form one cooperative. According to the experience of MINAGRI, the coordination is not a problem. An integrated cooperative is important in terms of organization.

Speaker	Issues/Comments by Participants	Explanation by MINAGRI and Japanese
Executive Secretary of Ndekwe Cell	The management of agriculture cooperatives is not limited on the water resource but also on objectives, activities, needs, inputs, issues. It is better to create different cooperatives. Farmers who have same activities and problems have to form one cooperative. We have to debate with farmers and we will decide this issue taking account of profit of the farmers.	The WUO will manage water issues. According to the experience, it is difficult to manage many cooperatives. For instance, one farmer may be member of many cooperatives because some farmers cultivate in marshland and at hillside. Therefore, it is recommended to form an integrated cooperative. (It was concluded that the stakeholders will consult RCA experts) .
Social and Economic Development Officer, Rujambara Cell	The project will provide irrigation equipment like hoses/pipes to WUO and eventually to cooperatives. What about their storage facilities?	These facilities are not provided by the project. But, the project will construct a boathouse to store the boats for the WUO, where farmers can keep some equipment. We hope to create a strong cooperative(s) which are able to construct their own office by members' contribution or loan from banks. MINAGRI and Local Government Authorities are ready to support them.
Social and Economic Development Officer, Rujambara Cell	It is better to include study tours in project activities to enhance farmers' understanding.	Yes, this kind of activities will be included in the soft component.
Mr. Eric NSABIYUMVA, Village Head, and Executive Secretary of Ndekwe Cell	Farmers are already informed that the marshland is the government property which means that the farmers will lose the cultivation plots in marshland. Population is ready to resign. We have to inform them before and give them enough time for harvesting.	It is recommendable to take time to discuss within community on this point because some farmers who are not satisfied with compensation strategies may exist. The success will depend on a good communication and cooperation between Local Government Authorities and the people.

The participant lists of the series of public consultation meeting are attached in Annex 2.

5.5 Fourth Public Consultative Meeting

The fourth public consultation meeting to present outline of the project and activities, targeting general farmers, was organized on May 14th, 2014, at the field of Ngoma District. Around 200 farmers participated in the meeting. Two Executive Secretaries of Rurenge and Remera Sector, JICA project team, JICA Rwanda office and MINAGRI staff assisted the meeting. In general, the farmers welcomed the project and promised a good collaboration.

5.6 OTHER MEETINGS AND CONSULTATIONS

After the official decision of the project implementation, there will be other meetings and consultations among Ngoma District, MINAGRI and PAPs to discuss how to proceed with the compensation will be organized after the official project approval. Signing on the agreement and contract documents shall be done.

a) Verification and disclosure of entitlements

Upon identification of the households that would be affected by the project is completed, MINAGRI, Ngoma District and Local authorities will organize some meetings with PAPs to discuss compensation requirements and concerns. After the completion of the valuation of

assets, there will be two meetings for disclosure, one to display the results of census and asset survey, and another is to display valuation for compensation.

b) Agreement on compensation and preparation of contracts

The District of Ngoma is the recognized institution to deal with compensation. Once the agreement on compensation measures is reached between the project and PAPs, District of Ngoma and MINAGRI will prepare an agreement for compensation and for payments of PAPs. Then PAPs who will get financial compensation will provide bank account where their money will be deposited.

6. RAP IMPLEMENTATION ARRANGEMENTS, MONITORING AND GRIEVANCE HANDLING MECHANISM

The overall coordination of the RAP Implementation will be provided by the MINAGRI, while Ngoma district is the responsible institution at local level. Ngoma 22 RAP will be implemented by various stakeholders from national level to the site level. This can ensure that laws and regulations are respected, and livelihoods of affected persons are improved or restored compared with the previous status.

6.1 NATIONAL LEVEL IMPLEMENTING INSTITUTIONS

a) MINAGRI

MINAGRI is the main agency for RAP implementation for Ngoma 22 project. The ministry will have overall responsibility for all activities and will provide necessary funds and skills, and also it will allocate one of the SPIU members of LWH project for the Ngoma 22 RAP implementation.

b) MINIRENA

MINIRENA is responsible for policy formulation and guidance as well as monitoring and evaluation. It ensures that the RAP is consistent with national land use plan and international legislation such as OP 4.12.

c) Designated SPIU for the implementation of Ngoma 22 RAP

For better implementation of Ngoma 22 RAP, it is recommended that MINAGRI to assign one of its SPIU to coordinate the RAP implementation. The roles of the designated SPIU member are implementation of the proposed RAP, coordination of monitoring activities, keeping monitoring results, analysis of monitoring data and capacity building of other stakeholders. Monitoring activities will be done during and post implementation. The SPIU will be the focal point for RAPs implementation and will liaise with other stakeholders. The SPIU will ensure that the procedures and requirements of the Rwandan laws, JICA guideline for Environmental and Social consideration as well as the OP 4.12.

d) RNRA

RNRA is responsible for overall management and coordination of all activities related to land administration, land use planning and management in Rwanda. The role of RNRA in RAP implementation process will advise on matters related to land ownership and expropriation. District Land Bureau will check and approve surveys, various maps and approve land surveys during the RAP exercise in collaboration with RNRA.

e) REMA

REMA will give some advices to MINAGRI for the RAP implementation to ensure that all policies and regulations related to resettlement in the better manner, especially provide some support for monitoring.

6.2 DISTRICT LEVEL IMPLEMENTING INSTITUTIONS

a) Ngoma District

The District plays a key role such as assessment of the land tenure rights of PAPs, grievance handling and so on. There are enough farmlands to be allocated to all the PAPs in the Ngoma District, however, there are some unused farmland according to the District Office. Therefore, it is possible for the District Officer to facilitate purchase of unused farmlands for the PAPs. In general, their major roles in RAP implementation are as follows:

- To issue construction permits and monitor compliance with construction plans
- To monitor and approve valuation of land, assets and other immovable property;
- To demarcate and approve land cadastral;
- Establishing project level Resettlement and Compensation Committees at Sector/Cell level;
- Clarifying the policies and operational guidelines of Resettlement and Compensation Committees;
- Establishing standards for unit rates of affected assets and compensation estimates, according to the standard units, adjusted for local conditions where necessary; and
- Coordinating and supervising implementation by Resettlement and Compensation Committees as stipulated in the RAP and national/district guidelines.

The District Land Bureau will play a key role in the activities mentioned above, and the District office will monitor the activities done by the District Land Bureau.

b) District Resettlement and Compensation Committee

The Ngoma district will work closely with the designated SPIU in the implementation of this RAP. A team that includes District Community Development Officer, a civil Engineer, District Land Bureau officer, the assigned SPIU, and executive secretaries of affected sectors and PAPs representatives will be responsible for resettlement and ensure that the RAP is properly applied across all relevant subprojects. Its initial role will be to undertake screening and assessment of potential subprojects.

c) Resettlement and Compensation Committees at Site Level

It is recommended to establish site level resettlement and compensation committee. It is expected that the Ngoma District Land Bureau will be responsible for electing members of the site level Resettlement and Compensation Committee. It is proposed to be coordinated by the District Land Bureau. This committee will plan for, coordinate and monitor compensation activities, as well as supervise compensation payments to the recipient PAPs. A large part of their responsibility will be consultation with potential PAPs. The committee members would comprise the following:

- Representative from two Sectors (Remera and Rurenge)

- Representative of four Cells concerned to the project
- Representative from the District Development Committee;
- Representative from any other key sector office involved in the project;
- Key stakeholder’s representative from the implementing organization;
- Two representatives of PAP by cells (equal gender representation); and

The Resettlement and Compensation Committee would have responsibility for:

- Verifying PAPs
- Validate inventories of PAPs and affected assets;
- Allocate land, where required, to permanently PAPs;
- Monitor the disbursement of funds;
- Facilitate conflict resolution and addressing grievances; and
- Provide support and assistance to vulnerable groups including widows, orphans, and the old persons among others).

This committee should meet on a regular basis (as determined by the needs of the project) to ensure that compensation activities are appropriately designed and executed. It is recommended that a representative be elected to act as the District Project Coordination officer who would act as the key contact with PAPs and therefore facilitate implementation of consultation, public participation and grievance mechanisms.

d) Mediators/Abunzi

At the Cell, there are in place mediators (*Abunzi*) whose work is to hear disputes, especially land disputes. The *Abunzi*, or mediation committees, have mandatory jurisdiction over land disputes involving amounts less than three million Rwanda Frans, which means over most land disputes. The *Abunzi* also have mandatory jurisdiction over succession and boundary disputes involving less than three million Rwanda Francs. The *Abunzi* will be used in the Ngoma 22 sub project as the first stop for resolving disputes and grievances following land acquisition. They will be involved in the compensation process from the beginning to the end. They will also be used in the design of the RAPs as much as possible in order to reduce disputes or grievances.

e) Project Affected Persons

The PAPs will also help implementation of final census survey and asset survey after the official project approval. It is requested PAPs to participate a series of consultation meeting for giving their opinions, views and concerns related to project implementation.

Table 9 Summary of Institutional Responsibilities RAP implementation

Institutions	Responsibilities
MINAGRI	<ul style="list-style-type: none"> • Collation of information regarding Ngoma 22 sub-projects, including RAP documentation • Review and approval of related documentation from all subprojects (screening forms, RAP reports etc.) to ensure consistency and compliance with Resettlement Policy Framework; • Overall monitoring and evaluation of expropriation (i.e., annual audits and review of sub-project level monitoring undertaken by District authorities),

Institutions	Responsibilities
	ensuring that RAPs are implemented in accordance with Rwandan laws and OP 4.12
Designated SPIU	<ul style="list-style-type: none"> • To initiate the expropriation process and compensation requirements • Preparation and signature of Compensation Grant agreement with the District • To establish Resettlement and Compensation Committee in consultation with District Land Bureau • To have a representation in sub-project Resettlement and Compensation Committee • Provision of capacity building and technical support relating to expropriation and compensation activities; • To ensure funds allocated appropriately, according to RAP
MINIRENA	<ul style="list-style-type: none"> • To ensure that the expropriation sites has sustainable programs including environmental protection measures, national land use plan and international guidelines such as OP 4.12 • To describe the boundaries of the relocation area; • Assessment of the environmental impacts of the proposed expropriation and measures to mitigate and manage these impacts
RNRA	<ul style="list-style-type: none"> • To advise on matters related to land ownership and expropriation activities; • To support verification of land ownership and land titles
Ngoma District	<ul style="list-style-type: none"> • To verify land owners from records of land register • To issue construction permits and monitor compliance with construction plans • To monitor valuation of land and other immovable property • To approve results of asset survey • Work in collaboration with the Resettlement and Compensation Committees to ensure that 'fair and just' compensation is reached in accordance with the law and the requirements of this RAP • To facilitate the PAPs who will lose their farmlands to purchase new lands which are not cultivated well in the district
District Resettlement and Compensation Committee	<ul style="list-style-type: none"> • Verification of the PAPs • To validate inventories of PAPs and affected assets; • To facilitate the PAPs who will lose their farmlands to purchase new lands which are not cultivated well in the district • To facilitate conflict resolution and addressing grievances
Site resettlement and Compensation Committee	<ul style="list-style-type: none"> • To help in creating awareness on expropriation process • Monitoring of the expropriation closely with environment protection committees to monitor the use of marshlands and reserved areas; • Conflicts and grievance resolution • To help identification of land, • To serve as witnesses in compensation
Mediators/ Abunzi	<ul style="list-style-type: none"> • Resolving disputes • Provide grievances mechanism following land acquisition. • Help in designing RAP at the community level to ensure community buy in
Project Affected Persons	<ul style="list-style-type: none"> • To be present when the land survey and inventory is being carried out • Provision of all required information in regards to expropriation • Participate in expropriation activities

Proposed RAP implementation structure is as shown below:

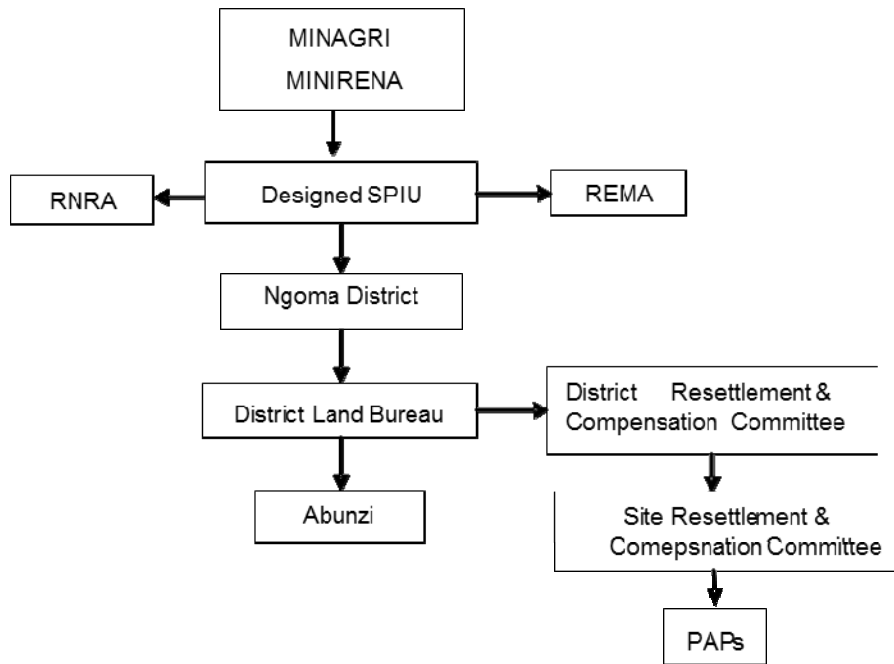


Figure 5 Proposed RAP Implementation Structure

7. GRIEVANCE REDRESS MECHANISM

The District of Ngoma is an acknowledged institution for which the PAPs have been made aware of as avenues for expressing discontent and disapproval to the resettlement and compensation process. Article 26 of the Expropriation Law No. 18/2007 of 19/04/2007 provides complaints procedures for individuals dissatisfied with the value of their compensation. The Law stipulates that dissatisfied persons 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 are able to lodge complaints or concerns, without cost, and with the assurance of a timely and satisfactory resolution of the issue. The procedures also ensure that the entitlements are effectively transferred to the intended beneficiaries. Stakeholders will be informed of the intention to implement the grievance mechanism, and the procedure will be communicated at the time that the RAPs are finalized. Grievances may arise from members of communities who are dissatisfied with eligibility criteria use, community planning and actual implementation or compensation.

7.1 PROCESS OF GREIVANCE HANDLING

The overall process of grievance is as follows:

1. During the initial stages of the valuation process, the affected persons will be given copies of grievance procedures as a guide on how to handle the grievances.
2. The process of grievance redress will start with registration of the grievances to be addressed for reference, and to enable progress updates of the cases.
3. The project will use a local mechanism, which includes resettlement committees, peers and local leaders of the affected people. These will ensure equity across cases, eliminate nuisance claims and satisfy legitimate claimants at low cost.
4. The response time will depend on the issue to be addressed but it should be addressed with efficiency.

5. Compensation will be paid to individual PAPs only after a written consent of the PAPs, including both husband and wife.

7.2 PROCEDURE OF GREIVANCE HANDLING

The aggrieved person should file his/her grievance, relating to any issue associated with the resettlement process or compensation, in writing to the subproject Resettlement and Compensation Committee. The grievance note should be signed and dated by the aggrieved person. Sample Grievance Redress Form is attached in Annex 3.

The designated MINAGRI officer and the Resettlement and Compensation Committee will consult to determine the validity of claims. If valid, the Committee will notify the complainant and he/she will be assisted. The Resettlement and Compensation Committee will respond within 14 days through meetings and discussions with the aggrieved person. If the grievance relates to valuation of assets, a second or even a third valuation will be undertaken, until it is accepted by both parties. These should be undertaken by separate independent valuers than the person who carried out the initial valuation. If the aggrieved person does not receive a response or is not satisfied with the outcome within the agreed time, he/she may lodge his/her grievance to the relevant Municipal Administration such as the District Land Bureau.

The relevant Local Administration will attempt to resolve the problem (through dialogue and negotiation) within 30 days of the complaint being lodged. If no agreement is reached at this stage, the complaint is dealt with through the local courts (Abunzi) where possible. Based on the nature of complaints, the process will start from Abunzi who resolve any disputes below 3 million Rwandan francs and if the value is more than three million, the process will be started from intermediate courts, high court and to Supreme Court. The Resettlement and Compensation Committee will provide assistance at all stages to the aggrieved person to facilitate resolution of their complaints and ensure that the matter is settled in the optimal way as much as possible. The proposed grievance redress system is as illustrated follows:

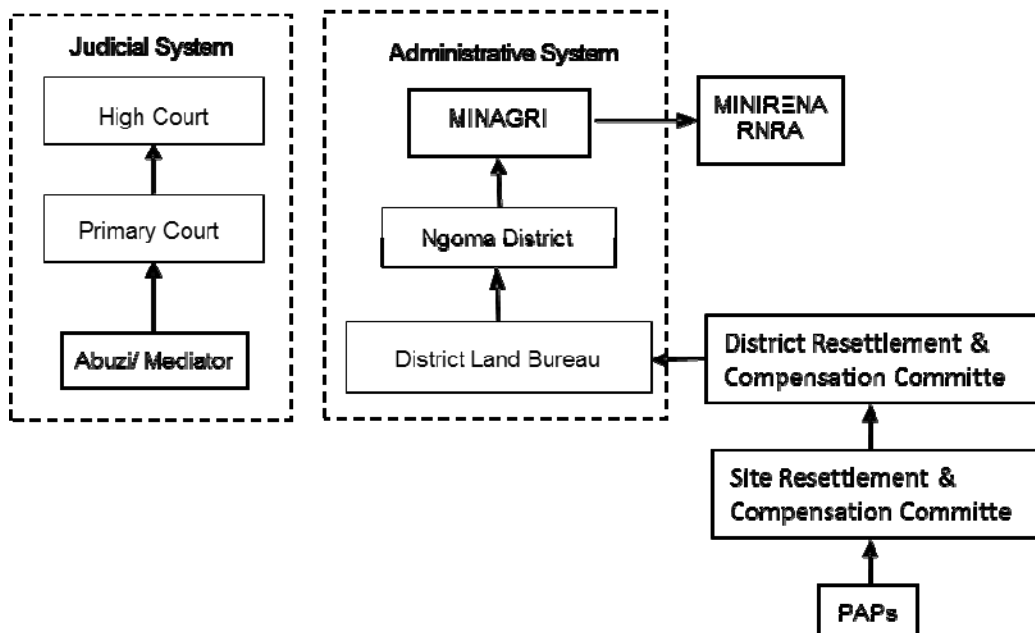


Figure 6 Proposed Grievance Redress Mechanism

7.3 GRIEVANCE LOG

The District Land Bureau will ensure that each complaint has an individual reference number, and the complaints resolution should be appropriately tracked and recorded. The log will contain record of the person responsible for an individual complaint, and records dates for the following events:

- Date the complaint is reported;
- Date when the complaint report is recorded on the database;
- Date information on proposed corrective action sent to complainant (if appropriate);
- Date when the complaint is closed out; and
- Date when the response is sent to complainant.

The District Project Coordination officer will be responsible for:

- Providing the Resettlement and Compensation Committee with a weekly report detailing the number and status of complaints;
- Any outstanding issues to be addressed; and
- Monthly reports, including analysis of the type of complaints, levels of complaints, actions to reduce complaints and initiator of such action.

8. IMPLEMENTATION SCHEDULE

Implementation schedule has been fixed based on discussion between Rwandan Government and Japanese Government in May 2014. It is planned the project will be approved officially in August 2014 and there will be several steps to be followed during the preparation. The proposed implementation RAP after the project approval is as shown in the following table.

Table 10 Implementation Schedule

Item	2014					2015									
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10
Official approval of the Project	x	x													
D/D, Tender			X	x	X	X	x	x	x						
Establish of Resettlement & Compensation Committee				x											
Cut-off date				x											
Final census					X	X									
Disclosure of final census result						X									
Compensation agreement						X	x								
Compensation							x	x							
Land expropriation								x	x						
Project implementation										x	x	x	x	x	x
Monitoring and grievance redress (bi-annual for 2							x	x	x	x	x	x	x	x	x

Item	2014					2015										
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	
years in the operation phase)																

9. MONITORING

The objective of the monitoring is to determine whether the PAPs have been paid in full and before implementation of the subproject, and they live in a higher standard than before, living at the same standard as before, or they are they are actually poorer than before. The arrangements for monitoring will fall under the overall responsibility of the MINAGRI. The monitoring results will be reported to JICA from MINAGRI.

9.1 MONITORING INDICATORS

Some indicators would be used in order to judge the status of affected people such as change of living standard compared with that before the project implementation. The following indicators could be used in the process of RAP implementation:

- The number of contentious cases as a percentage of the total cases;
- The number of grievances and time and quality of resolution;
- Number of impacted locals employed by the civil works contractors; and
- General relations between the project and the local communities.

These will be determined through the following activities:

- Questionnaire data will be entered into a database for comparative analysis at all levels of local government;
- Each individual will have a compensation dossier recording his or her initial situation, all subsequent project use of assets/improvements, and compensation agreed upon and received.

The District authorities will maintain a complete database on every individual impacted by the sub-project land use requirements and compensation, land impacts or damages. The assigned SPIU should prepare a Resettlement Completion Reports in addition to other regular monitoring reports.

The subproject Resettlement and Compensation Committee will facilitate coordination of information collection activities (such as surveys, supervising documentation) in accordance with procedures put in place. The MINAGRI will provide training, technical support and funds to ensure that this happens. In order to assess whether these goals are met, the RAP will indicate parameters to be monitored, institute monitoring milestones and provide resources necessary to carry out the monitoring activities.

9.2 MONITORING OF RAP IMPLEMENTATION

District office will assist in monitoring result compiling and convey this information to the SPIU, on a quarterly basis. They will compile the following statistics:

- Number of households and individuals expropriated by the project;
- Period from sub-project identification to payment of compensation to PAPs;

- Timing of compensation in relation to expropriation;
- Amount of compensation paid to each PAP household (if in cash), or the nature of compensation (if in kind);
- Number of people raising grievances in relation to project; and
- Number of unresolved grievances.

Table 11 Sample Format for Monitoring

Responsible organization: MINAGRI

Work	Planned in total	Progress in quantity	Progress in percentage
Announcement to the affected people			
Identification of final PAPs			
Consultation meeting			
Revise of the RAP and signing based on the feedback at the consultation meeting			
Compensation			
Social supports such as job training			
Grievance resolution			

Announcement to the affected people		
Date:	Sector:	Cell
Date:	Sector:	Cell
Date:	Sector:	Cell
Consultation meeting with the affected people		
Date:	Sector:	Cell
Date:	Sector:	Cell
Date:	Sector:	Cell
Date:	Sector:	Cell

MINAGRI will scrutinize the monitoring results in order to assess whether the compensation arrangement is done as planned in the RAP. If there appears to be any discrepancies, MINAGRI will take countermeasures to resolve the situations.

9.3 STORAGE OF PAPS DETAILS

Each PAP household will be provided with a signed report recording his or her initial situation, assets to be impacted and compensation agreed upon and received. At the same time, before compensation all household heads representing the PAPs will be required to provide passport size photographs. The Ngoma District will maintain the complete database of the PAPs including compensation, land impacts or damages. On the other hand, each recipient of compensation will have a record containing individual bio-data, number of household dependents and amount of land available to the individual or household when the report is opened.

9.4 SOCIO-ECONOMIC MONITORING

The purpose of socio-economic monitoring is to ensure that PAPs are compensated properly and they recover their living standard to the original level on time. During implementation of each subproject RAP, an assessment will be undertaken on payment of compensation,

restoration of income delivery. Monitoring of living standards will be continued after the compensation.

10. COST ESTIMATION

This chapter presents the budget estimates based on the valuation methodologies and unit value rates mentioned above. The cost estimate of the compensation for land and crop expropriation is summarized in following table. The compensation cost shall be shouldered by Government of Rwanda, while soft component cost such as technical training regarding agriculture for PAPs will be covered by Government of Japan.

Table 12 Overall Cost Estimation for Compensation

Impact Description	Qty	Unit Cost (Rwf)	Total Cost (Rwf)
Loss of Land (Bugera Cell)	0.23ha	122/m ²	280,600
Loss of Land (other cells)	20.31ha	107/m ²	21,731,700
Loss of Trees	1 set	(see Table 13)	11,102,208
Sub-total of compensation			33,114,508

Source: 1) Unit price of land: Ministerial Order No 002/16.01 of 2010 on Determining the Reference Land Price Outside Kigali City
2) Area to be affected: JICA Study Team, 2013

Table 13 Estimated Compensation Cost for Tree

Tree species	Age of trees	Qty	Unit Price (Rwf)	Total Price
Avocado	0-1 Year	32	4,005	128,160
	1-3 Years	63	13,020	820,260
	More than 3 Years	39	24,060	938,340
Grevillea	5-10 Years	237	1,716	406,692
	Under 5 Years	266	715	190,190
Eucalyptus/Inturusu		726	5,005	3,633,630
Acacia/Umunyinya		52	2,145	111,540
Erythrina Abyssinica/Umuko		93	715	66,495
Umusave (Timber Tree)		587	5,005	2,937,935
Acassia/Imisebeya		78	2,145	167,310
Dracaenas/Imihati		851	575	489,325
Spurge		98	920	90,160
Cyprus		7	858	6,006
Pinus		16	4,290	68,640
Medical trees		13	2,800	36,400
Mango		41	9,000	369,000
Ficus/Umuwumu		32	3,575	114,400
Other trees		27	450	12,150
Ricin/Ikibonobono		143	715	102,245
Sisal		26	250	6,500
Ornamental tree/Jakaranda		22	5,720	110,110
Euphorbes/Imiyenzi		166	920	152,720
Guava		16	9,000	144,000
Total				11,102,208

Source: 1) Unit price of trees: Previous Expropriation Law (the unit prices of trees are applied in Ngoma District for compensation)
2) Quantity of trees: JICA Study Team, 2013

Table 14 Estimated Monitoring Cost

Activity	Indicator	Qty	Unit Cost (Rwf)*	Total Cost (Rwf)
Meeting for set up resettlement committees	Established committee	1	120,000	120,000
Meeting for displaying PAPs asset	Meeting	2	120,000	240,000
Follow up compensation process	Meeting	2	120,000	240,000
Meetings for grievance redress	Meetings/grievance resolved	16	120,000	1,920,000
Total				2,520,000

* Unit cost Rwf120,000 consists of Rwf 80,000 for vehicle and Rwf 5,000 mission allowances times 8 staffs (allowances guidelines for Government officers)

Table 15 Total Cost

Activity	Total Cost (Rwf)
1. Compensation for crops and lands	33,114,508
2. Final census survey (5% of sub-total of compensation for loss)*	1,655,725
3. Training of local level officers for grievance settlement**	856,000
4. Monitoring	2,520,000
5. Sub-total (1.+2.+3.+4.)	38,146,233
6. Contingency (10% of sub-total)	3,814,623
Grand total (5.+6.)	41,960,856

* Cost and percentage of other LWH project is applied.

** Training will be organized for two days targeting 12 official personnel.

11. RAP DISCLOSURE

The MINAGRI will disclose this RAP by making copies available at its head office and in District coordination offices in Ngoma Districts. It will also make copies available to the local government's agencies and other stakeholders of the Ngoma 22 project. The RAP will be disclosed at the Ministry websites. In addition, a completion report of the entire resettlement/compensation process for this project will be prepared and will include verification, e.g., when the compensation and assistance were undertaken and to whom these services were provided.

This report will be prepared and submitted to JICA and MINAGRI six months after the end of compensation payment. The RAP implementation report should include (but not be limited to) the following information:

- Background of the RAP preparation including a description of the project activities, scope of impacts, number of affected persons, and estimate budget;
- Update of its implementation with actual numbers of compensated persons, issues/complaints raised and solutions provided;
- Complaints status;

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

Suggested annexes are as follows:

- List of PAPs; and
- List of people compensated during the RAP implementation.

Annex 1

Proposed Socio Economic and Land Asset Inventory Forms

1. Socio-economic Household Datasheet of PAPs

Name of interviewer ID Code		Signature
Name of supervisor ID Code		(after verification of interview)

Cell Name		Number of Concession in Village (GPS Coordinates)	
-----------	--	---	--

Date:

Day Month Year

Name of Head of Extended Family	
Number of Nuclear Families in Extended Residential Group (including household of head of extended family)	

Name	Relationship to head of family	Sex		Place of birth	Age	Marital Status	Residence Tenure	Religion	Education Level	Income Earner		Economic activities	
		M	F							Yes	No	Primary	secondary
1.													
2.													
3.													
4.													

Relation to Head of Family

1 HOH; 2 Spouse of Hoh; 3 Child of HoH; 4 Spouse of child of HoH; 5 Grandchild of HoH; 6 Parent of HoH; 9 Others (specify); 0 No answer

Marital Status 1 Married 2 Widowed; 3 Divorced; 4 Unmarried; 0 No answer

Residential status 1PRP (Permanent Resident) 2 RA (Resident Absent) 3 Member of non-resident HH; 4 Visitor; 9 other (specify); 0 No answer

Occupations

Principle Occupation

1 Farmer 2 Shepherd; 3 household; 4 Merchant; 5 Religious leader; 6 Artisan; 7 Transport; 8 Unem DPCO yed; 9 Other (specify); 0 No answer

Secondary Occupations

Educational Level 1 Illiterate; 2 Three years or less; 3 Primary School; 4 Secondary school ; 5 Technical School; 6 Religious School; 0 No Answer

Religion 1 Christian (Specify denomination); 2 Muslim; 9 Other (specify); 0 No Answer

2. Land asset inventory for Project Affected People

Village;

Date;

Cell;

Survey No.	Name of HH Head	No of persons in Household	Total land holding of Household(m²)	Land to be acquired(m²)	Land use Type*	Loss of % total	Loss of assets	Loss of crops	Loss of other assets	Other losses
							Structures permanent (m ²); Structures temporary	Fruit trees lost type and number; Agricultural land lost(m ²) Other(specify)	e.g. graveyards, wells etc (type & no)	Residence rented; Business lost; Income loss

*Land types are as follows (please fill in the types of land for Rwanda)

3. Entitlements of Project Affected People

Sector

date

Cell

Survey No.	Name of Head of Household	Compensation for Land	Compensation for Structures	Compensation for crops and trees	Compensation for other assets and losses(e.g. graveyards, wells, businesses, etc.)	Total (USD)
		<ul style="list-style-type: none"> - Quantity(m²) Unit Price (USD) per m² - Entitlement (USD) 	<ul style="list-style-type: none"> - Quantity(m²) Unit Price (USD) per m² - Entitlement (USD) 	<ul style="list-style-type: none"> - Quantity Unit Unit Price (USD) - Entitlement (USD) 	<ul style="list-style-type: none"> - Quantity Unit Unit Price(USD) - Entitlement (USD) 	

Annex 2 Participants List of Consultative Meetings

(1): Participants List of the 1st Public Consultation Meeting

No	Names	Organization	Position	Contact
1.	HABIMANA Anastase	Bugera	Farmer	0788591827
2.	TURATSINZE Siste	Ndekwe	Farmer	0786973171
3.	SINGIRANKABO J. Claude	Ndekwe	Executive Secretary of the Cell.	0787157813
4.	UFITIKIREZI Colette (Fe)	Bugera	Executive Secretary of the Cell.	0787157810
5.	MUNYURANGABO Félicien	Bugera	Farmer	0784281474
6.	NIYIGENA J.M V	Bugera	Farmer	0784393007
7.	NSABIYUMVA Eric	Muhurire	Farmer	0784919635
8.	NDAGIJIMANA Wellars	Muhurire	Farmer	0784350035
9.	NTEZIMANA Emmanuel	Muhurire	Farmer	0783872296
10.	MANIRAGENA J. Damascène	Ndekwe	Farmer	0785127477
11.	UBONYEBENSHI Joseph	Ndekwe	Farmer	0725334050 0731076695
12.	MUKAGIRUKWAYO Everusi (Fe)	Rujambarara	Farmer	0787685803
13.	MUKANKURANGA Ernestina (Fe)	Rujambarara	Farmer	-----
14.	MUTABAZI	Rujambarara	Farmer	-----
15.	NIYITEGEKA Philemon	Bugera	Farmer	0728096007
16.	NTAWIRINGIRA Elie	Ndekwe	Farmer	0783672297
17.	MURAGIJEMWABO Arcade	Rurenge	Executive Secretary of Rurenge Sector	0787236665
18.	NZAHABWANAYO Gaspard	Rujambara	Executive Secretary of Rujambara Cell	0784190535
19.	MANAGUSA African	Muhurire	S.E.D of Cell	0788650593
20.	NTAKAVURO Emmanuel	Rurenge	Farmer	0788770385
21.	MUKARUKUNDO Victoire	Remera Sector	Executive Secretary of Remera Sector	0783696013

(2) Participants List of the 2nd Public Consultation Meeting

	Name	Institution	Position	Mobile Number
1	Mr. NZABIRINDA Damien	Rurenge Sector	Agronomist	0788656113
2	Mr. NZABONIMPA Eraste	Remera Sector	Agronomist	0788500754
3	Mr. RURANGIRWA Shabani	Remera Sector	Acting Executive Secretary	0788568785
4	Mr. UWIMANA J.M.V	Rurenge Sector	Acting Executive Secretary	0783468668
5	Mr. NZAHABWANAYO Gaspard	Rujambara Cell	SEDO	0784190535
6	Mr. KARIKUMUTIMA J Paul	Mbonwa Village	Village Head	0783747921
7	Mr. BASHIR Amur	Nyamata Village	Village Head	0725112503
8	Mr. SINGIRANKABO Jean Claude	Ndekwe Cell	Executive Secretary	0787157813
9	Mr. KAYITANA Eric	Rukore Village	Village Head	0785573038
10	Mr. NDAYISABYE Jean Bosco	Ndekwe Village	Village Head	0783587643
11	Mr. HABIMANA Anastase	Gasebeya Village	Village Head	0788591827
12	Mr. MVUYEKURE Faustin	Ruhuha Village	Village Head	0786966766
13	Mr. MUTSINZI Jean Pierre	Cyakabiri Village	Village Head	0783774216
14	Mr. NYATANYI Benjamin	Rugando Village	Village Head	0784902998
15	Mr. MAKERERA Alexandre	Rwikubo Cell	Executive Secretary	0787236663
16	Mr. TUMUSHIME Joseph	Rugera Cell	SEDO	0788806106
17	Ms. NFITIMANA Regina	Muhurire Cell	Executive Secretary	0787236668
18	Mr. NSABIYUMVA Eric	Gitobe Village	Village Head	0784919635
19	Mr. RWABARINDA Jean de Dieu	Gisunzu Village	Village Head	0786966849
20	Ms. MUKAMUREGO Philomene	Kiyanja Village	Village Head	0785975689

	Name	Institution	Position	Mobile Number
21	Mr. RUTAGUNGIRA Theogene	Mashyoza Village	Village Head	0737820599
22	Mr. HABINEZA Theoneste	Urusagara Village	Village Head	0783162688
23	Mr. HABİYAKARE Jean Baptist	Nyabaganza Village	Village Head	0786966873
24	Ms. MUKAYUHI Beatrice	Akarambaraye Village	Village Head	0782926966
25	Mr. NIZEYIMANA Emmanuel	Kabeza Village	Village Head	0786966875
26	MANIRAGENA Damascene	Gikomero Village	Village Head	0785127477
27	Mr. MAJYAMBERE Silas	Nkenke Village	Village Head	0722412030
28	Ms. UFITIKIREZI Colleta	Bugera Cell	Executive Secretary	0787157810
29	Mr. UWUHOREYE Venuste	Kivugangoma Village	Village Head	0786966883
30	Mr. MANIRAFASHA Emmanuel	GCS Ltd	Technical Assistant	0788889545
31	Mr. BIGAGAZA Jean	GCS Ltd	Team Leader	0788306659
32	Mr. HABAKUBAHO Theogene	LWH/RSSP	Safeguard Specialist	0788643282
33	Mr. NGARUKIYE Blaise	IM T/F	Irrigation Engineer	0788600560
34	Mr. NIYONGABIRE Janvier	Ngoma District	Agronomist	0788277622
35	Mr. TATSUYA Ieizumi	JICA Study Team	Team Leader	0782857832
36	Mr. NTEZIREMBO Valens	JICA Study Team	Administrative Assistant	0788358759
37	Ms RIE Kitao	JICA Study Team	Environmental and Social Consideration	0782859375
38	Mr. IMPETA Fred	JICA Study Team	Field Manager	0788598136

(3) Participants List of the 3rd Public Consultation Meeting

Jica Representatives:

Name	Institution
1. Mr. MATSUMOTO	Senior advisor, JICA headquarters
2. Mr. Tatsuki NODA	Program Manager, JICA Rwanda
3. Mr. Pascal FURAHA	Program coordinator, JICA Rwanda
4. Mr. Jules NZABONIMAA	Assistant to Irrigation advisor
5. Mr. Tatsuya IEIZUMI	Team Leader of the Consultant Team

The Rwandan Government Officers and Representatives of Beneficiaries:

Name	Institution
1. Blaise NGARUKIYE MINAGRI,	GFI Contract Manager in Mechanization and Irrigation Task Force
2. Mr. Janvier NIYONGABIRE	Ngoma district, District agronomist
3. Mr. Africa MANAGUSA	Rurenge sector, SEDO of cell
4. Mr. Gaspard NZAHABWANAYO	Rurenge sector, SEDO of cell
5. Mr. Jean Claude SINGIRANKABO	Remera Sector, Executive secretary of cell
6. Ms. Collette UFITIKIREZI	Remera Sector, Executive secretary of cell
7. Mr. Anastase HABIMANA	Remera Sector, Head of village
8. Mr. Justin TURATSINZE	Remera Sector, Farmers mobilize
9. Mr. Etienne MUTABAZI	Remera Sector, Member of sector council
10. Mr. Arcade MURAGIJEMUNGU	Rurenge sector, Executive Secretary
11. Mr. Emmanuel NTEZIMANA	Rurenge sector, Representative of farmers
12. Mr. Emmanuel NTAKAVURO	Rurenge sector, Representative of farmers
13. Mr. Eric NSABIYUMVA	Rurenge Sector, Head of village
14. Mr. Wellars NDAGIJIMANA	Rurenge sector, Representative of farmers
15. Ms. Ernestine MUKANKURANGA	Rurenge sector, Representative of farmers
16. Ms. Eveus MUKAGIRUKWAYO	Rurenge sector, Representative of farmers

Annex 3 Sample Grievance Redress Form

Grievance Form		
Grievance Number		Copies to forward to:
Name of the recorder		(Original) Receiver Party
District/ Sector/Cell		(Copy)- Responsible Party
Date		
INFORMATION ABOUT GRIEVANCE		
Define The Grievance		
INFORMATION ABOUT THE COMPLAINANT		Forms of Receive
Name-Surname		Phone line Community/Information meetings Mail Informal Other
Address		
Village/ Cell		
Sector/ District		
Signature of Complainant		

Details of Grievance

6.Incidents Regarding Expropriation and Compensation (Specify)	7.Resettlement Process (specify)	8.EmDPCoy ment and recruitment (Specify)	9.Construction Camp and Community Relations <ul style="list-style-type: none"> • Nuisance from dust • Nuisance from noise • Vibrations due to explosions • Misconduct of the project personal/worker • Complaint follow up Other 	10.Other (specify)

Grievances Close Out Form

Grievance Number:.....

Define immediate action required:.....

Define long term action required (if necessary).....

Verification of corrective action and sign off

Corrective action taken	Due date

Responsible Party

Notes: This part will be filled in and signed by the complainant when he/she receives the compensation or file is closed out

Complainant:.....
 Name and Signature.....
 Date
 Representative of Responsible Party
 Title, Name and Signature.....
 Date:.....

Appendix 6.4 (1) センサス調査質問票 (湿地帯)
Questionnaire for Household Survey (Marshland)

Interviewee's Profile

Name: Mr./Ms. _____ Age: _____ Mobile No.: _____

Sector: _____

Cell: _____ Village (Umudugudu): _____

Number of family member who live with you (including you) : [Male: _____ Female: _____]

Q1. Number of person older than 65 years old: _____

Q2. Sex of head of family: _____ Male _____ Female

Q3. Educational status of head of family: _____

None _____ Primary _____ Secondary (up to grade 9) _____
 Secondary (up to grade 12) _____ College _____

Q4: Are there handicaps in your family? Yes _____ No _____ How many? [_____]

Domestic Finance

Q5. What is main income source?: _____

Farming _____ Labor _____ Others (please specify: _____)

Q6. How many bags do you sell every year after harvesting for each crop in all farming plots you have in marshland and at hillside (=not only submerged area but also hillside too)?

Crop _____	Bags/ year _____	Price/bag _____
Crop _____	Bags/ year _____	Price/bag _____
Crop _____	Bags/ year _____	Price/bag _____
Crop _____	Bags/ year _____	Price/bag _____

Q7: How much do you spend for farm inputs annually?

Seed: _____ (Rwf/year)

Fertilizer _____ (Rwf/year)

Pesticide _____ (Rwf/year)

Q8. What are other income sources apart from farming?: _____

Q9. How much annual gross cash income apart from farming you get?: _____ (Rwf/year)

Q10. How many seasons do you cultivate per year in the marshland in the affected (submerged) area?

Q11: How many bags of crop do you produce annually in the affected (submerged) area?

Crop: _____, Bags: _____, Nos. of Plot: _____

Size of Plots: _____ m x _____ m

Size of Plots: _____ m x _____ m

Size of Plots: _____ m x _____ m

Crop: _____, Bags: _____, Nos. of Plot: _____

Size of Plots: _____ m x _____ m

Size of Plots: _____ m x _____ m

Size of Plots: _____ m x _____ m

Crop: _____, Bags: _____, Nos. of Plot: _____

Size of Plots: _____ m x _____ m

Size of Plots: _____ m x _____ m

Size of Plots: _____ m x _____ m

Q12. How many farming plots do you have anywhere outside of affected (submerged) area?-size and crops/year?

Plot A: _____ m x _____ m, crops/year

Plot B: _____ m x _____ m, crops/year

Plot C: _____ m x _____ m, crops/year

Q13. How many seasons do you grow anywhere outside of submerged area (around 60m from limitation of marshland)?

Q14. How many seasons do you grow outside of submerged area (around 60m from limitation of marshland)?

Living Conditions

Q15. How many years have you lived in this area: _____ (years)

Q16. What is water source of domestic use in rainy season:

Tap water Well River/lake Rain water Spring Shallow well

Q17. What is water source of domestic use in dry season:

Tap water Well River/lake Rain water Spring Shallow well

Q18 : Availability of electricity: Yes No

Others

Q19. Do you cultivate in the marshland (submerged area)? Yes No

Q20. Do you have an official land use certificate for cultivation (usufruct) in the marshland in the affected area?

Yes No Others (please specify _____)

Q21. Do you have Land title of land located in limitation on submerged area (hillside)? And size of plot

Yes _____ m x _____ m; _____ m x _____ m

No

Q22. Do you want to continue farming activity when the project comes? Yes No

Appendix 6.4 (2) センサス調査質問票 (丘陵地)
Questionnaire for Household Survey (Hillside)

Interviewee's Profile

Name: Mr./Ms. _____ Age: _____ Mobile No.: _____

Sector:

Cell: _____ Umdugudu:

Number of family member who live with you (including you) : [Male: ____ Female: ____]

Q1. Number of person older than 65 years old:

Q2. Sex of head of family: [_____]

Q3. Educational status of head of family:

None	Primary	Secondary (up to grade 9)
Secondary (up to grade 12)	College	

Q4: Are there handicaps in your family?

Yes

No

If yes, how many? [_____]

Domestic Finance

Q5. What is main income source?

Farming

Labor

Others (please specify: _____)

Q6. How many bags do you sell every year after harvesting for each crop in all farming plots you have (=in all of your farmlands)?

Crop _____ Bag _____ Price/bag _____

Crop _____ Bag _____ Price/bag _____

Crop _____ Bag _____ Price/bag _____

Crop _____ Bag _____ Price/bag _____

Q7: How much do you spend for farm inputs annually?

Seed: _____(Rwf/year)
Fertilizer _____(Rwf/year)
Pesticide _____(Rwf/year)
Labor _____(Rwf/year)

Q8. What are other income sources apart from farming?

Q9. How much annual gross cash income apart from farming you get? _____(Rwf/year)

Q10. How many seasons do you cultivate per year in the hillside in the affected (submerged) area?

Q11: How many bags of crop do you produce annually in the affected (submerged) area?

Crop: _____,	Bags: _____,	Plot UPI No.: _____
Size of Plots: _____ m x _____ m		
Crop: _____,	Bags: _____,	Plot UPI No.: _____
Size of Plots: _____ m x _____ m		
Crop: _____,	Bags: _____,	Plot UPI No.: _____
Size of Plots: _____ m x _____ m		
Crop: _____,	Bags: _____,	Plot UPI No.: _____
Size of Plots: _____ m x _____ m		
Crop: _____,	Bags: _____,	Plot UPI No.: _____
Size of Plots: _____ m x _____ m		
Crop: _____,	Bags: _____,	Plot UPI No.: _____
Size of Plots: _____ m x _____ m		

Q12. How large farmland do you have outside of the affected (submerged) area?

Size of Plots: _____ m x _____ m
Size of Plots: _____ m x _____ m
Size of Plots: _____ m x _____ m
Size of Plots: _____ m x _____ m
Size of Plots: _____ m x _____ m
Size of Plots: _____ m x _____ m
Size of Plots: _____ m x _____ m

Living Conditions

Q13. How many years have you lived in this area: _____(years)

Q14. What is water source of domestic use in rainy season?

- Tap water
- Well
- River/lake
- Rain water
- Spring

Q15. What is water source of domestic use in dry season:

- Tap water
- Well
- River/lake
- Rain water
- Spring

Q16: Availability of electricity:

- Yes
- No

Others

Q 17 Do you have official authorization by the government to use the land at hillside?

- Yes
- No

Q18 Do you cultivate in the marshland (submerged area)?

- Yes
- No

Q19 Do you cultivate in the area (marshland) which will be submerged in the reservoir?

Q 20 Do you have official authorization by the government to cultivate in the marshland? (Do you have authorization to use government land)?

- Yes
- No

Others (Please specify: _____)

Q21 Do you have official authorization by the government to cultivate in the command area? (Do you have authorization to use government land)?

Yes

No

Others (Please specify: _____)

Q22 Would you like to continue cultivation in the marshland if project starts?

Yes

No

Q23 Apart from agricultural technical assistance, what other technical assistance would you like to get from the government? _____

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 st crop bags for sale	Q6.1 st crop price/bag (Rwf)	income from 1st crop	Q6. 2nd crop name	Q6.2nd crop bags for sale
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*	44	0783736410	2	1	0	Male	Secondary Low level	0	Carpentry	Sorghum	5	20,000	100,000	Beans	0.5
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille	42	0786536250	3	3	0	Female	Primary	0	Agriculture	Eggplant	10	7,000	70,000	Carrot	7
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph	32	0784819425	2	1	0	Male	Primary	0	Agriculture	Eggplant	3	12,000	36,000	Carrot	12
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean	64	N/A	4	2	0	Male	None	0	Agriculture	Sorghum	2	22,000	44,000	Beans	1
5	Rurenge	Rujambara	Nyabaganza	GATEETE James*	37	0788481571	3	4	0	Male	Primary	0	Agriculture	Beans	4	30,000	120,000	Sorghum	10
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette	54	0782926965	2	7	0	Female	Primary	2	Agriculture	Sorghum	3	20,000	60,000	Beans	2
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	84	0725383436	2	1	1	Female	None	0	Agriculture	Sorghum	10	30,000	300,000	Cabbage	14
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*	50	0782453960	4	3	0	Male	Primary	1	Agriculture	Cabbage	8	5,000	40,000	Sorghum	7
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin	54	0784537669	3	2	0	Male	Primary	0	Agriculture	Maize	10	30,000	300,000	Beans	6
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA	59	0727293436	3	4	0	Female	None	1	Agriculture	Sorghum	8	24,500	196,000	Cassava	6
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic	46	0783046129	3	4	0	Male	Primary	0	Agriculture	Cabbage	15	7,000	105,000	Sorghum	7
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	33	N/A	2	3	0	Female	None	0	Agriculture	Sorghum	3	25,000	75,000	Maize	1
13	Rurenge	Rujambara	Nyabaganza	MURANDEGEYA Safina	65	0788624319	1	4	0	Female	None	1	Agriculture	Beans	9	25,000	225,000	Sorghum	10
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel	45	0788227524	5	1	0	Male	Primary	0	Agriculture	Beans	4	25,000	100,000	Sweet potatoes	3
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien	37	0788957794	4	1	0	Male	Primary	0	Agriculture	Beans	3	30,000	90,000	Sorghum	7
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias	25	N/A	2	1	0	Male	Primary	0	Agriculture	Sorghum	5	20,000	100,000	Beans	3
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel	48	0783872296	6	2	0	Male	None	0	Agriculture	Cabbage	8	10,000	80,000	Sorghum	3
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel	29	N/A	1	3	0	Male	None	0	Agriculture	Sorghum	3	15,000	45,000	Beans	0.5
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David	62	N/A	3	4	0	Male	None	0	Agriculture	Coffee	7	15,000	105,000	Sorghum	7
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle	42	N/A	4	2	0	Male	None	0	Agriculture	Sorghum	3	20,000	60,000	Maize	1
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	37	0788957794	3	2	0	Male	Primary	0	Agriculture	Cabbage	10	15,000	150,000	Sorghum	3
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	57	0782493784	4	2	1	Female	Primary	0	Agriculture	Sorghum	3	25,000	75,000	Maize	4
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	67	0783370085	4	2	2	Male	Primary	0	Agriculture	Tomato	12.5	8,000	100,000	Sorghum	4
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	31	0783385727	2	2	0	Male	Primary	0	Agriculture	Sorghum	3	20,000	60,000	Beans	1
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph	44	0783370526	5	3	0	Male	Primary	0	Agriculture	Cabbage	20	6,000	120,000	Carrot	10
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	40	0784184501	3	2	0	Female	Secondary Low level	0	Agriculture	Beans	5	40,000	200,000	Sweet potatoes	3
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	43	0788770385/ 0722770285	7	10	0	Male	Secondary Low level	0	Agriculture	Cabbage	20	6,500	130,000	Sweet potatoes	10
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	27	0788957794	2	2	0	Male	Primary	0	Agriculture	Sorghum	5	20,000	100,000	Beans	1
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZZWA Theogene	34	0786735219	3	2	0	Male	Primary	0	Agriculture	Eggplant	20	15,000	300,000	Cabbage	5
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal	44	N/A	3	5	0	Male	None	0	Agriculture	Sorghum	8	20,000	160,000	Eggplant	5
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie	70	N/A	2	3	1	Female	None	1	Agriculture	Sorghum	2	21,000	42,000	Beans	0.5
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas	53	N/A	2	6	1	Male	Primary	0	Agriculture	Maize	4	35,000	140,000	Sorghum	12
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar	21	078697344	2	1	0	Male	Primary	0	Agriculture	Sorghum	6	20,000	120,000	Beans	1
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise	40	N/A	2	3	0	Female	Primary	0	Agriculture	weet potato	1	6,000	6,000	Cassava	2
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse	32	N/A	2	2	0	Male	None	0	Agriculture	Sorghum	10	20,000	200,000	Beans	2

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 st crop bags for sale	Q6.1 st crop price/bag (Rwf)	income from 1st crop	Q6. 2nd crop name	Q6.2nd crop bags for sale
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*	65	N/A	0	1	0	Female	None	0	Agriculture	Sorghum	3	25,000	75,000	Beans	2
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	50	0726480059	0	3	1	Female	None	0	Agriculture	Onion	2	15,000	30,000	Sorghum	1
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	60	N/A	1	1	2	Male	None	0	Agriculture	Cabbage	2	23,000	46,000	Sweet potatoes	1
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*	61	N/A	2	3	0	Male	None	1	Agriculture	Sorghum	1	18,000	18,000	Beans	1
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*	46	N/A	4	3	1	Male	None	0	Agriculture	weet potato	2	10,000	20,000	Sorghum	3
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien	53	N/A	4	1	0	Male	None	0	Agriculture	Cabbage	15	10,000	150,000	Eggplant	20
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*	73	N/A	2	2	2	Male	None	0	Agriculture	Coffee	4	48,000	192,000	Sweet potatoes	3
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia	61	N/A	1	2	0	Female	None	0	Agriculture	weet potato	5	7,000	35,000	Cabbage	10
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU	60	N/A	0	1	0	Female	None	0	Agriculture	Sorghum	2	20,000	40,000	Sweet potatoes	3
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	50	N/A	3	2	0	Female	Primary	1	Agriculture	Sorghum	4	30,000	120,000	Beans	1
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine	61	N/A	0	4	0	Female	Primary	0	Agriculture	Coffee	5	10,000	50,000	Sorghum	3
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	53	N/A	4	2	0	Female	Primary	1	Agriculture	Carrot	8	5,000	40,000	Eggplant	10
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	31	N/A	2	3	0	Male	Primary	0	Agriculture	Cabbage	10	10,000	100,000	Sweet potatoes	6
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette	54	N/A	0	1	0	Female	Primary	0	Agriculture	Sorghum	1	20,000	20,000	Potatoes	1
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	29	N/A	3	2	0	Male	None	0	Agriculture	weet potato	3	10,000	30,000	Beans	3
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel	45	N/A	2	2	0	Male	None	0	Agriculture	Cabbage	7	7,000	49,000	Eggplant	15
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	50	0782927032	3	5	0	Male	Primary	1	Agriculture	Cabbage	10	5,000	50,000	Sorghum	6
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel	34	N/A	6	2	0	Male	None	0	Agriculture	Sorghum	1	20,000	20,000	Cassava	0.5
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina	34	0787158756	0	2	0	Female	None	0	Agriculture	Sorghum	0.5	10,000	5,000	Cabbage	18
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene	34	0784820770	2	2	0	Male	Primary	0	Agriculture	Rice	6	25,000	150,000	Sorghum	2
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	47	N/A	5	5	0	Female	Primary	1	Agriculture	Potatoes	2	8,000	16,000	Eggplant	7
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	36	N/A	3	3	0	Male	Primary	0	Agriculture	weet potato	2	12,000	24,000	Eggplant	2
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO	31	N/A	3	6	0	Male	Primary	0	Agriculture	Sorghum	3	20,000	60,000	Cabbage	8
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert	35	N/A	2	3	0	Male	Primary	0	Agriculture	Cabbage	7	3,000	21,000	Beans	3
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	38	0782887956	4	2	0	Male	Primary	0	Agriculture	Eggplant	7	10,000	70,000	Sorghum	5
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette	28	N/A	1	2	0	Female	None	0	Agriculture	Sorghum	3	20000	60,000	Cassava	2
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens	26	0725178001	2	2	0	Male	Primary	0	Agriculture	Sorghum	6	25,000	150,000	Cabbage	9
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	35	0784258494	3	3	0	Male	None	0	Agriculture	Eggplant	5	6,000	30,000	Cabbage	5
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine	29	0785432223	1	4	0	Female	Primary	0	Agriculture	weet Potato	4	7,500	30,000	Eggplant	5
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens	26	727250709	3	3	0	Male	Primary	0	Agriculture	Sorghum	15	25,000	375,000	Beans	5
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu	43	N/A	2	3	0	Male	Primary	0	Agriculture	Sorghum	2	20,000	40,000	Eggplant	5
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique	59	0787183545	1	1	0	Female	None	0	Agriculture	weet Pepper	30	8,000	240,000	Celery	15
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*	54	N/A	3	6	1	Female	Primary	1	Agriculture	Sorghum	5	21,000	105,000	Sweet potatoes	1
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel	30	0784821074	2	4	0	Male	None	0	Agriculture	Cabbage	9	7,000	63,000	Eggplant	4
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	35	0786651510	3	3	0	Male	Primary	0	Agriculture	Tomato	10	4,000	40,000	Eggplant	15
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard	34	N/A	3	6	0	Male	Primary	1	Agriculture	Cabbage	2	14,200	28,400	Sweet Papper	30
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin	21	0722629464	3	1	1	Male	Primary	0	Agriculture	Sorghum	6	20,000	120,000	Beans	1
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.	20	0784919607	1	1	0	Male	None	0	Agriculture	Cabbage	2	5,400	10,800	Sweet potatoes	2

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 st crop bags for sale	Q6.1 st crop price/bag (Rwf)	income from 1st crop	Q6. 2nd crop name	Q6.2nd crop bags for sale
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu	28	N/A	1	0	0	Male	None	0	Agriculture	Sorghum	10	20,000	200,000	Cabbage	50
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	74	N/A	3	2	1	Male	None	0	Agriculture	Sorghum	30	20,000	600,000	Maize	2
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*	57	N/A	0	4	0	Female	None	0	Agriculture	Sorghum	1	20,000	20,000	Beans	0.5
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	31	0785500072	3	1	0	Male	None	0	Agriculture	Sorghum	4	25,000	100,000	Sweet potatoes	1
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne	31	0784394096	4	3	0	Male	Primary	0	Agriculture	Beans	1	30,000	30,000	Sorghum	2
79	Rurenge	Muhurire	Gitobe	BARAME Silas	50	N/A	4	2	0	Male	None	0	Agriculture	Maize	0.5	20,000	10,000	Sorghum	3
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*	55	0726139419	3	1	0	Female	Secondary Low level	0	Agriculture	Beans	1	25,000	25,000	Sorghum	15
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*	36	0783085391	2	1	0	Male	Primary	0	Agriculture	Sorghum	3	25,000	75,000	Sweet potatoes	1
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars	47	0784350035	2	2	0	Male	Primary	0	Agriculture	Maize	2	30,000	60,000	Sweet potatoes	7
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita	38	0787030269	5	5	0	Male	Primary	0	Agriculture	Cabbage	7	5,000	35,000	Sorghum	3
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert	33	N/A	2	1	0	Male	Primary	0	Agriculture	Beans	1	30,000	30,000	Sorghum	8
85	Rurenge	Muhurire	Gitobe	NABAHIRE	56	N/A	1	3	0	Male	None	0	Agriculture	Tomato	30	5,000	150,000	Sweet potatoes	3
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	50	0722885910	2	3	2	Male	Secondary Low level	0	Agriculture	Tomato	25	12,000	300,000	Sorghum	5
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie	25	0726621379	2	3	0	Male	None	0	Agriculture	Sorghum	1	18,000	18,000	Beans	1
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI	25	072252990	3	1	0	Male	None	0	Agriculture	Sorghum	1	18,000	18,000	Beans	1
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas	36	N/A	1	5	0	Male	None	0	Agriculture	Sorghum	4	18,000	72,000	Beans	2
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	34	0786402161	4	2	0	Male	Primary	0	Agriculture	Beans	3	30,000	90,000	Maize	3
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	49	0727354218	1	5	0	Female	Secondary Low level	0	Agriculture	Beans	1	30,000	30,000	Maize	0.5
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent	59	N/A	1	3	0	Male	None	0	Agriculture	Sorghum	5	20,000	100,000	Beans	2
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne	77	N/A	0	4	1	Female	None	0	Agriculture	Beans	0.5	15,000	7,500	Sorghum	1
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI	31	N/A	3	1	0	Male	None	0	Agriculture	Beans	0.5	6,000	3,000	Sweet potatoes	10
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	29	0789316103	3	1	0	Male	Primary	0	Agriculture	Sorghum	15	22,000	330,000	Beans	4
96	Rurenge	Muhurire	Gitobe	VUNUHAWA	59	N/A	3	3	0	Male	Primary	0	Agriculture	Sorghum	6	20,000	120,000	Beans	2
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	38	0784919635	3	5	0	Male	Primary	0	Agriculture	Sorghum	1	20,000	20,000	Cabbage	4
98	Rurenge	Muhurire	Gitobe	MUHASHYI	59	N/A	2	6	0	Male	Primary	0	Agriculture	Carrot	5	5,000	25,000	Sorghum	1
99	Rurenge	Muhurire	Gitobe	KAWERA	23	N/A	2	2	0	Female	Primary	0	Agriculture	Carrot	2	20,000	40,000	Sorghum	2
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	25	N/A	1	3	0	Male	None	0	Agriculture	Coffee	2	15,600	31,200	Sorghum	1
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa	41	0783427275	4	5	0	Male	Primary	0	Agriculture	Sorghum	4	20,000	80,000	Beans	1
102	Rurenge	Muhurire	Gitobe	RWAGATERA	50	0786011853	1	1	0	Male	None	0	Agriculture	Sorghum	1	25,000	25,000	Sweet potatoes	1
103	Rurenge	Muhurire	Gitobe	BAZIRA	38	0786859378	2	4	0	Male	Primary	0	Agriculture	Sorghum	3	20,000	60,000	Cabbage	2
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	85	0784350149	3	2	1	Male	Primary	0	Agriculture	Carrot	1	10,000	10,000	Maize	3
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien	51	0782675713	4	4	0	Male	Primary	1	Agriculture	Sorghum	3	18,000	54,000	Maize	1
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	48	N/A	4	5	0	Male	None	0	Agriculture	Maize	5	20,000	100,000	Sorghum	5
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*	46	0787360616	4	3	0	Male	Secondary Up	0	Education	Sorghum	6	20,000	120,000	Beans	1
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent	29	N/A	2	1	0	Male	Primary	0	Agriculture	Sorghum	6	20,000	120,000	Beans	2
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne	43	0783602117	2	2	0	Male	Primary	0	Agriculture	Sorghum	9	22,000	198,000	Beans	4
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin	37	N/A	4	2	0	Male	Primary	1	Agriculture	Sorghum	3	20,000	60,000	Maize	1
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique	30	N/A	2	1	0	Male	Primary	0	Agriculture	Sorghum	2	26,000	52,000	Beans	1

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 st crop bags for sale	Q6.1 st crop price/bag (Rwf)	income from 1st crop	Q6. 2nd crop name	Q6.2nd crop bags for sale
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	35	N/A	2	4	0	Male	Primary	0	Agriculture	Sorghum	2	35,000	70,000	Beans	1
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*	35	0786743495	3	5	0	Male	Secondary Up	0	Agriculture	Sorghum	8	20,000	160,000	Beans	2
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*	34	0728330383	3	3	0	Male	Primary	0	Agriculture	Sorghum	3	19,000	57,000	Beans	1
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde	50	N/A	1	2	0	Female	None	0	Agriculture	Sorghum	1	25,000	25,000	Coffee	2
116	Rurenge	Muhurire	Gitobe	NYIRINKINDI Tharcisse	50	N/A	4	4	0	Male	None	0	Agriculture	Eggplant	4	5,000	20,000	Sorghum	1
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA	45	N/A	3	4	0	Male	None	1	Agriculture	Sorghum	1	20,000	20,000	Tomato	5
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain	34	0783898500	3	3	0	Male	Primary	0	Agriculture	Sorghum	24	20,000	480,000	Beans	8
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste	31	N/A	2	1	0	Male	None	0	Agriculture	Coffee	1.5	15,000	22,500	Beans	2
120	Rurenge	Muhurire	Gitobe	NIBATETE	35	N/A	4	2	0	Male	None	1	Agriculture	Cassava	1	25,000	25,000	Beans	1
121	Rurenge	Muhurire	Gitobe	BUCYANA Celestin	58	N/A	4	2	0	Male	Primary	0	Agriculture	Beans	7	32,000	224,000	Sorghum	18
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel	64	N/A	3	1	0	Male	None	0	Agriculture	Beans	2	30,000	60,000	Sorghum	3
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angeliq	21	0782508002	0	2	1	Female	None	0	Agriculture	Beans	2	18,000	36,000	Sorghum	1
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul	32	0782926978	3	5	0	Male	Primary	0	Agriculture	Sorghum	5	22,000	110,000	Maize	2
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	43	0782058300	3	3	0	Male	Primary	0	Agriculture	Beans	5	45,000	225,000	Sorghum	3
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre	40	0782184602	3	3	0	Male	None	0	Agriculture	Beans	1	6,000	6,000	Sorghum	1
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred	50	0783358684	2	5	0	Male	Primary	0	Agriculture	Sorghum	2	20,000	40,000	Beans	0.5
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin	42	0726318640	4	2	0	Male	Primary	0	Agriculture	Beans	1	30,000	30,000	Sorghum	5
129	Rurenge	Muhurire	Gitobe	MUSABYEYEZU Annonciata	34	N/A	2	3	0	Female	None	0	Agriculture	Beans	1	30,000	30,000	Sorghum	4
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien	49	0783356358	4	2	0	Male	Primary	0	Agriculture	Beans	2	30,000	60,000	Maize	3
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais	46	N/A	5	3	0	Male	Primary	0	Agriculture	Maize	5	25,000	125,000	Cabbage	8
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène	33	0786301465	3	1	0	Male	Primary	0	Agriculture	Beans	1	30,000	30,000	Sorghum	4
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felcien	30	0783689188	2	2	0	Male	Primary	0	Agriculture	Beans	2	20,000	40,000	Maize	3
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie	63	N/A	0	1	0	Female	None	0	Agriculture	Beans	1	15,000	15,000	Sorghum	1.5
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*	26	0784282343	2	1	0	Male	Primary	0	Agriculture	Rice	5	25,000	125,000	Sorghum	2
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph	54	N/A	7	4	0	Male	Primary	0	Agriculture	Coffee	3	20,000	60,000	Sorghum	5
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	37	0788868805	4	2	0	Male	Primary	0	Agriculture	Beans	5	35,000	175,000	Maize	4
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele	31	N/A	3	3	0	Male	None	1	Agriculture	Sorghum	6	20,000	120,000	Beans	1
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	55	N/A	0	2	0	Female	Primary	0	Agriculture	Beans	2	35,000	70,000	Sorghum	7
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	34	0733979725	4	2	0	Male	Secondary Low level	0	Agriculture	Cassava	6	-	-	Cabbage	5
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse	29	0727319360	1	3	0	Male	Primary	0	Agriculture	Beans	2	30,000	60,000	Maize	4
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi	58	N/A	1	3	1	Male	None	0	Agriculture	Beans	1	-	-	Sorghum	4
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric	26	0787668513	3	2	0	Male	None	0	Agriculture	Tree tomato	3	40,000	120,000	Sorghum	1
144	Rurenge	Rujambara	Mashyoza	GISAGARA	41	N/A	1	0	0	Male	Primary	0	Agriculture	Sorghum	4	20,000	80,000	Beans	1

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 2nd crop price/bag (Rwf)	income from 2nd crop	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	income from 3rd crop	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	income from 4th crop	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	income from 5th crop
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*	30,000	15,000	Cabbage	20	5,000	100,000			-				-	
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille	12,000	84,000			-				-				-	
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph	17,000	204,000	Celery	4	12,000	48,000	Tomatoes	100	6,000	600,000			-	
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean	30,000	30,000	Cassava	4	18,000	72,000	Coffee	12	12,600	151,200	Cabbage	8	10,000	80,000
5	Rurenge	Rujambara	Nyabaganza	GATETE James*	20,000	200,000	Sweet potatoes	4	10,000	40,000	Sweet Pepper	5	10,000	50,000	Cassava	10	20,000	200,000
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette	30,000	60,000	Cabbage	30	6,000	180,000	Sweet potatoes	20	20,000	400,000				-
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	7,500	105,000	Beans	2	60,000	120,000					Eggplant	10	3,000	30,000
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*	20,000	140,000			-		Beans	1	30,000	30,000				-
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin	60,000	360,000	Sorghum	20	30,000	600,000	Cabbage	60	10,000	600,000	Sweet potatoes	5	6,000	30,000
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA	18,000	108,000	Pili- Pili	13	22,000	286,000	Beans	4	36,000	144,000				-
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic	22,500	157,500	Beans	3	30,000	90,000	Sweet potatoes	3	4,000	12,000	Potatoes	6	9,000	54,000
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	30,000	30,000	Cassava	0.5	20,000	10,000	Sweet potatoes	1	10,000	10,000	Potatoes	1	10,000	10,000
13	Rurenge	Rujambara	Nyabaganza	MUGEMANA Safina	19,500	195,000	Eggplant	5	12,000	60,000	Cabbage	40	10,000	400,000				-
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel	16,000	48,000	Sorghum	6	21,000	126,000	Cabbage	30	6,000	180,000	Coffee	3	15,000	45,000
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien	20,000	140,000	Potatoes	4	10,000	40,000	Maize	1	25,000	25,000	Cabbage	3	2,000	6,000
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias	30,000	90,000	Potatoes	4	15,000	60,000	Tomatoes	20	10,000	200,000	Sweet potatoes	8	10,000	80,000
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel	20,000	60,000	Beans	2	30,000	60,000	Sweet potatoes	4	10,000	40,000	Coffee	3	12,600	37,800
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel	9,000	4,500	Cabbage	6	6,000	36,000	Sweet potatoes	7	6,000	42,000	Coffee	3	1,500	4,500
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David	21,000	147,000	Cassava	4	7,000	28,000	Beans	6	24,000	144,000	Cabbage	29	4,500	130,500
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle	20,000	20,000	Cabbage	10	7,000	70,000	Beans	1	30,000	30,000				-
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	60,000	180,000	Beans	1	30,000	30,000	Peanut	1	20,000	20,000	Sweet potatoes	3	10,000	30,000
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	40,000	160,000	Tomatoes	5	12,000	60,000	Beans	4	30,000	120,000	Sweet potatoes	2	6,000	12,000
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	20,000	80,000	Maize	5	15,000	75,000	Beans	2	30,000	60,000	Cassava	6	8,500	51,000
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	30,000	30,000	Maize	1	7,500	7,500	Cabbage	25	5,000	125,000	Eggplant	10	10,000	100,000
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph	5,000	50,000	Sorghum	3	20,000	60,000			-				-	
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	10,000	30,000	Sorghum	12	30,000	360,000	Cassava	4	15,000	60,000	Cabbage	10	7,000	70,000
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	10,000	100,000	Sorghum	2	25,000	50,000	Beans	0.5	30,000	15,000	Eggplant	5	12,000	60,000
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	30,000	30,000	Cabbage	5	7,500	37,500	Eggplant	8	7,000	56,000	Sweet potatoes	3	8,000	24,000
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZWA Theogene	12,000	60,000	Sweet potatoes	2	5,000	10,000	Banana	12.5	8,000	100,000				-
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal	20,000	100,000	Beans	4	30,000	120,000	Carrot	3	30,000	90,000	Sweet potatoes	4	10,000	40,000
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie	30,000	15,000	Sweet potatoes	1	8,000	8,000	Cabbage	1	4,000	4,000				-
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas	20,000	240,000	Sweet potatoes	5	12,000	60,000	Cabbage	3	5,000	15,000	Eggplant	25	4,000	100,000
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar	30,000	30,000	Sweet potatoes	1	8,000	8,000	Cassava	1	15,000	15,000	Cabbage	1	8,000	8,000
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise	30,000	60,000	Maize	1.5	36,000	54,000	Coffee	1	48,000	48,000				-
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse	30,000	60,000	Sweet potatoes	1	8,000	8,000	Cabbage	5	20,000	100,000				-

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 2nd crop price/bag (Rwf)	income from 2nd crop	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	income from 3rd crop	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	income from 4th crop	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	income from 5th crop
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*	30,000	60,000	Coffee	4	20,000	80,000	Cabbage	4	6,000	24,000	Sweet potatoes	1	10,000	10,000
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	20,000	20,000	Beans	1	30,000	30,000	Cassava	1.5	10,000	15,000	Carrot	10	4,000	40,000
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	5,000	5,000	Eggplant	6	12,500	75,000				-				-
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*	30,000	30,000	Coffee	7	13,000	91,000	Sweet potatoes	2	10,000	20,000				-
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*	20,000	60,000	Maize	1.5	36,000	54,000	Cabbage	30	5,000	150,000				-
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien	12,000	240,000	Sorghum	2	20,000	40,000	Banana	100	4,000	400,000				-
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*	24,000	72,000	Sorghum	6	120,000	720,000	Cabbage	8	5,000	40,000				-
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia	6,000	60,000	Celery	1	12,000	12,000	Carrot	5	9,000	45,000				-
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU	5000	15,000	Tomato	5	9,000	45,000	Eggplant	4	6,000	24,000				-
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	30,000	30,000	Carrot	7	4,000	28,000	Cabbage	8	7,500	60,000				-
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine	20,000	60,000	Beans	1	30,000	30,000	Cassava	2	7,000	14,000	Sweet potatoes	4	9,000	36,000
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	4,000	40,000	Sorghum	4	20,000	80,000	Beans	2	30,000	60,000	Sweet potatoes	10	6,000	60,000
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	10,000	60,000				-				-	Carrot	2	5,000	10,000
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette	10,000	10,000	Sweet potatoes	1	10,000	10,000	Eggplant	3	15,000	45,000				-
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	30,000	90,000	Tomato	20	13,000	260,000	Sorghum	5	20,000	100,000	Cassava	3	15,000	45,000
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel	10,000	150,000	Sorghum	4	20,000	80,000	Cassava	2	25,000	50,000	Sweet potatoes	6	6,000	36,000
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	25,000	150,000	Beans	3	40,000	120,000	Cassava	5	25,000	125,000	Eggplant	8	10,000	80,000
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel	20,000	10,000	Cabbage	4	7,500	30,000	Tomato	5	8,000	40,000				-
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina	8,000	144,000	Eggplant	5	15,000	75,000	Sweet potatoes	3	10,000	30,000				-
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene	23,000	46,000	Sweet potatoes	3	7,000	21,000	Cabbage	10	4,000	40,000	Maize	1.5	28,000	42,000
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	10,000	70,000	Sorghum	6	20,000	120,000	Beans	1	30,000	30,000	Tomato	5	8,000	40,000
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	18,000	36,000	Pili Pili	1	80,000	80,000	Banana	10	3,000	30,000				-
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO	5,000	40,000	Eggplant	4	4,800	19,200	Rice	6	30,000	180,000				-
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert	30,000	90,000	Maize	2	20,000	40,000	Sweet potatoes	2	10,000	20,000				-
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	20,000	100,000	Beans	2	30,000	60,000	Cassava	4	20,000	80,000	Potatoes	6	7,000	42,000
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette	15,000	30,000	Potatoes	2	25,000	50,000	Sweet Potatoes	4	5,000	20,000	Eggplant	7	15,000	105,000
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens	12,000	108,000	Sweet potatoes	12	10,000	120,000	Beans	6	50,000	300,000	Eggplant	4	12,000	48,000
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	4,000	20,000	Sorghum	4	20,000	80,000	Maize	2	30,000	60,000				-
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine	8,000	40,000	Sorghum	3	15,000	45,000	Beans	1	20,000	20,000	Maize	1	17,000	17,000
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens	3,000	15,000	Eggplant	10	5,000	50,000	Sweet potatoes	3	5,000	15,000	Cabbage	10	10,000	100,000
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu	2,500	12,500	Cabbage	2	7,500	15,000	Maize	1	15,000	7,500	Sweet potatoes	6	8,000	48,000
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique	10,000	150,000	Eggplant	20	5,000	100,000	Maize	2	25,000	50,000				-
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*	6,000	6,000	Beans	1	25,000	25,000	Potatoes	2	10,000	20,000				-
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel	12,000	48,000	Sorghum	5	25,000	125,000	Beans	2	50,000	100,000				-
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	12,000	180,000	Carrot	6	7,000	42,000	Cabbage	30	9,000	270,000				-
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard	7,000	210,000	Eggplant	40	12,500	500,000	Sorghum	2	23,000	46,000	Tomato	25	10,000	250,000
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin	30,000	30,000	Eggplant	3	15,000	45,000	Sweet potatoes	4	9,000	36,000	Carrot	3	12,000	36,000
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.	13,500	27,000	Sorghum	5	24,000	120,000	Cassava	2	20,000	40,000				-

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 2nd crop price/bag (Rwf)	income from 2nd crop	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	income from 3rd crop	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	income from 4th crop	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	income from 5th crop
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu	10,000	500,000	Maize	3	30,000	90,000	Sweet potatoes	5	10,000	50,000	Carrot	2	2,000	4,000
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	35,000	70,000	Beans	3	30,000	90,000	Cabbage	10	6,000	60,000	Carrot	5	5,000	25,000
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*	30,000	15,000	Maize	1.5	20,000	30,000	Sweet potatoes	1	11,000	11,000				-
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	14,000	14,000	Banana	10	10,000	100,000	Eggplant	20	6,000	120,000	Sweet Pepper	20	6,000	120,000
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne	20,000	40,000	Sweet potatoes	2	10,000	20,000	Cabbage	4	5,000	20,000	Carrot	2	15,000	30,000
79	Rurenge	Muhurire	Gitobe	BARAME Silas	18,000	54,000			-				-					-
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*	20,000	300,000	Sweet potatoes	1	5,000	5,000	Cabbage	5	6,000	30,000				-
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*	12,000	12,000	Maize	1	21,000	21,000				-				-
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars	10,000	70,000	Eggplant	4	5,000	20,000	Potatoes	3	7,000	21,000				-
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita	20,000	60,000	Beans	2	30,000	60,000	Cassava	4	10,000	40,000	Sweet potatoes	3	10,000	30,000
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert	20,000	160,000	Cabbage	20	2,000	40,000	Eggplant	10	5,000	50,000	Sweet potatoes	15	6,000	90,000
85	Rurenge	Muhurire	Gitobe	NABAHIRE	5,000	15,000	Maize	1	30,000	30,000	Beans	1	30,000	30,000	Sorghum	6	20,000	120,000
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	18,000	90,000	Beans	2	25,000	50,000	Maize	1	20,000	20,000	Carrot	1	30,000	15,000
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie	35,000	35,000	Cassava	2	30,000	60,000	Carrot	1	15,000	15,000	Cabbage	2	15,000	30,000
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI	35,000	35,000	Sweet potatoes	1	15,000	15,000	Cabbage	60	6,000	360,000	Carrot	4	8,000	32,000
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas	35,000	70,000	Carrot	2	18,000	36,000	Sweet Pepper	2	25,000	50,000	Cabbage	9	9,000	81,000
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	20,000	60,000	Sorghum	8	30,000	240,000	Cabbage	3	15,000	45,000	Eggplant	10	40,000	400,000
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	10,000	5,000	Potatoes	1	10,000	10,000	Sorghum	3	25,000	75,000	Eggplant	3	16,000	48,000
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent	30,000	60,000	Sweet potatoes	3	12,000	36,000	Cabbage	20	6,000	120,000	Coffee	2	12,000	24,000
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne	20,000	20,000	Cabbage	2	6,000	12,000	Eggplant	2	7,000	14,000	Coffee	2	10,000	20,000
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI	12,000	120,000	Cabbage	20	30,000	600,000				-				-
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	35,000	140,000	Sweet potatoes	10	8,000	80,000	Eggplant	8	15,000	120,000				-
96	Rurenge	Muhurire	Gitobe	VUNUHAWA	30,000	60,000	Sweet potatoes	5	12,000	60,000	Cabbage	24	4,000	96,000				-
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	5,000	20,000	Carrot	2	6,000	12,000	Beans	1	30,000	30,000				-
98	Rurenge	Muhurire	Gitobe	MUHASHYI	30,000	30,000	Beans	1	35,000	35,000	Coffee	6	12,600	75,600	Sweet potatoes	3	10,000	30,000
99	Rurenge	Muhurire	Gitobe	KAWERA	20,000	40,000	Beans	1.0	30,000	30,000	Coffee	2	15,600	31,200	Cabbage	2	3,000	6,000
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	20,000	20,000	Maize	0.5	30,000	15,000	Cabbage	3	7,000	21,000	Carrot	4	4,000	16,000
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa	30,000	30,000	Cabbage	5	5,000	25,000	Carrot	3	6,000	18,000				-
102	Rurenge	Muhurire	Gitobe	RWAGATERA	10,000	10,000				-				-				-
103	Rurenge	Muhurire	Gitobe	BAZIRA	6,000	12,000	Tomato	5	8,000	40,000	Beans	2	30,000	60,000	Maize	1	20,000	20,000
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	30,000	90,000	Beans	2	35,000	70,000	Sorghum	6	20,000	120,000	Cabbage	40	4,000	160,000
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien	15,000	15,000	Cabbage	2	5,000	10,000	Beans	1	30,000	30,000				-
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	20,000	100,000	Cabbage	16	3,000	48,000	Tomato	10	3,000	30,000	Carrot	10	10,000	100,000
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*	30,000	30,000				-				-				-
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent	30,000	60,000	Maize	2	30,000	60,000				-				-
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne	30,000	120,000	Sweet potatoes	3	10,000	30,000	Tomato	12	30,000	360,000				-
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin	18,000	18,000	Beans	1		-	Tomato	5	8,000	40,000	Cabbage	24	5,000	120,000
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique	30,000	30,000	Tomato	3	15,000	45,000	Cabbage	3	15,000	45,000				-

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 2nd crop price/bag (Rwf)	income from 2nd crop	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	income from 3rd crop	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	income from 4th crop	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	income from 5th crop
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	40,000	40,000	Tomato	20	24,000	480,000	Cabbage	3	5,000	15,000	Carrot	2.5	7,000	17,500
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*	30,000	60,000	Cabbage	10	5,000	50,000	Sweet potatoes	15	10,000	150,000				-
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*	30,000	30,000	Sweet potatoes	5	7,500	37,500	Cabbage	40	5,000	200,000				-
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde	15,600	31,200				-				-				-
116	Rurenge	Muhurire	Gitobe	NYRINKINDI Tharcisse	20,000	20,000	Beans	0.5	35,000	17,500	Cassava	2	30,000	60,000	Carrot	3	25,000	75,000
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA	20,000	100,000				-				-				-
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain	30,000	240,000	Maize	12	25,000	300,000	Potatoes	3	15,000	45,000	Cassava	4		-
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste	35,000	70,000	Sorghum	3	20,000	60,000	Eggplant	2	10,000	20,000	Sweet potatoes	2	6,000	12,000
120	Rurenge	Muhurire	Gitobe	NIBATETE	30,000	30,000	Cabbage	30	10,000	300,000	Carrot	15	5,000	75,000				-
121	Rurenge	Muhurire	Gitobe	BUZYANA Celestin	20,000	360,000	Maize	10	30,000	300,000	Coffee	4	17,000	68,000	Banana	10	8,000	80,000
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel	20,000	60,000	Cabbage	2	5,000	10,000	Sweet potatoes	5	7,000	35,000				-
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angeliq	20,000	20,000	Eggplant	1	18,000	18,000				-				-
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul	30,000	60,000	Beans	2	35,000	70,000	Carrot	4	10,000	40,000	Sweet potatoes	2	10,000	20,000
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	35,000	105,000	Eggplant	6	30,000	180,000	Tomato	10	20,000	200,000	Banana	15	8,000	120,000
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre	20,000	20,000	Cabbage	3	10,000	30,000				-				-
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred	35,000	17,500	Maize	1	35,000	35,000	Cassava	3	5,000	15,000	Sweet potatoes	1	12,000	12,000
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin	25,000	125,000	Coffee	2	15,600	31,200	Cabbage	2	8,000	16,000				-
129	Rurenge	Muhurire	Gitobe	MUSABYEYEUZU Annonciata	20,000	80,000	Cabbage	3	5,000	15,000				-				-
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien	24,000	72,000	Sorghum	6	24,000	144,000	Cabbage	4	5,000	20,000	Coffee	10	7,000	70,000
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais	4,000	32,000	Tomato	25	2,000	50,000	Cassava	5	16,000	80,000				-
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène	45,000	180,000	Cabbage	10	15,000	150,000	Tomato	50	1,500	75,000				-
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felcien	15,000	45,000	Tomato	10	3,000	30,000				-				-
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie	22,500	33,750	Soya	0.75	11,500	8,625	Maize	1	20,000	10,000	Sweet potatoes	11.5	10,000	115,000
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*	20,000	40,000	Beans	1	30,000	30,000				-				-
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph	20,000	100,000	Tomato	6	5,000	30,000				-				-
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	27,000	108,000	Sorghum	8	32,000	256,000	Sweet potatoes	10	7,500	75,000	Cabbage	20	10,000	200,000
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele	30,000	30,000	Sweet potatoes	1	10,000	10,000	Cassava	2	25,000	50,000				-
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	25,000	175,000	Coffee	5	12,000	60,000	Cassava	10	7,000	70,000	Sweet potatoes	4	15,000	60,000
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	10,000	50,000	Sweet pepper	10	20,000	200,000	Eggplant	10	20,000	200,000	Carrot	1	10,000	10,000
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse	21,000	84,000	Cabbage	6	10,000	60,000	Carrot	2	30,000	60,000	Sweet potatoes	2	10,000	20,000
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi	20,000	80,000	Coffee	5	60,000	300,000	Sweet potatoes	3	6,000	18,000				-
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric	20,000	20,000				-				-				-
144	Rurenge	Rujambara	Mashyoza	GISAGARA	30,000	30,000	Cassava	1	20,000	20,000	Maize	1	30,000	30,000	Banana	2	8,000	16,000

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 6th crop name	Q6. 6th crop bags for sale	Q6. 6th crop price/bag (Rwf)	income from 6th crop	Q6. 7th crop name	Q6. 7th crop bags for sale	Q6. 7th crop price/bag (Rwf)	income from 7th crop	Total GROSS farm income	Q7. Farminput :seed (Rwf)	Q7. Farminput : fertilizer (Rwf)	Q7 Farminpu t: pesticide (Rwf)	Total farm net income	Q8 Other income source	Q9 Other income (Rwf)
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*				-				-	215,000	17,000	26,000	7,000	165,000	Carpentry	360,000
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille				-				-	154,000	20,000	30,000	10,000	94,000	N/A	0
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph				-				-	888,000	90,000	50,000	24,000	724,000	N/A	0
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean	Sweet Potatoes	5	10,000	50,000				-	427,200	36,000	42,000	13,000	336,200	Livestock	25,000
5	Rurenge	Rujambara	Nyabaganza	GATETE James*	Soya	1	30,000	30,000	Maize	5	20,000	100,000	740,000	64,500	60,000	3,000	612,500	N/A	0
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette				-				-	700,000	15,000	31,250	4,000	649,750	N/A	0
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	Cabbage	8	7,500	60,000				-	615,000	2,000	5,000	5,000	603,000	N/A	0
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*				-				-	210,000	2,000	5,000	5,000	198,000	N/A	0
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin				-				-	1,890,000	2,000	52,000	2,000	1,834,000	N/A	0
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA				-				-	734,000	57,000	26,000	8,000	643,000	N/A	0
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic				-				-	418,500	8,000	6,000	0	404,500	N/A	0
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	Beans	2	35,000	70,000	Yams	1.5	5,250	7,875	212,875	29,000	28,000	0	155,875	N/A	0
13	Rurenge	Rujambara	Nyabaganza	NYIRANDEGEYA Safina				-				-	880,000	60,000	90,000	40,000	690,000	N/A	0
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel				-				-	499,000	2,800	21,000	10,000	465,200	Livestock	60,000
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien				-				-	301,000	30,000	25,000	3,000	243,000	N/A	0
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias				-				-	530,000	10,000	60,000	40,000	420,000	N/A	0
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel				-				-	277,800	20,000	7,200	5,000	245,600	Livestock	100,000
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel				-				-	132,000	10,900	21,000	10,000	90,100	N/A	0
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David	Sweet Potatoes	40	7,000	280,000				-	834,500	11,400	21,000	2,000	800,100	Livestock	80,000
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle				-				-	180,000	4,000	13,000	1,000	162,000	N/A	0
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	Maize	5	20,000	100,000				-	510,000	30,000	25,000	20,000	435,000	Trading	50,000
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne				-				-	427,000	10,000	60,000	23,000	334,000	N/A	0
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	Sweet potatoes	3	10,000	30,000				-	396,000	25,000	26,000	51,000	294,000	N/A	0
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	Tomato	20	6,000	120,000				-	442,500	20,000	15,000	50,000	357,500	Livestock	50,000
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph				-				-	230,000	18,000	30,000	1,400	180,600	N/A	0
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	Maize	1	30,000	30,000	Potatoes	1	10,000	10,000	760,000	38,000	21,000	30,000	671,000	N/A	0
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*				-				-	355,000	8,000	20,000	10,000	317,000	Livestock	250,000
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène				-				-	247,500	40,000	25,000	3,000	179,500	N/A	0
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZWA Theogene				-				-	470,000	2,000	10,000	4,000	454,000	N/A	0
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal				-				-	510,000	40,000	30,000	3,000	437,000	N/A	0
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie				-				-	69,000	8,000	25,000	2,000	34,000	Livestock	100,000
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas				-				-	555,000	27,000	26,000	11,000	491,000	N/A	0
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar				-				-	181,000	15,000	26,000	500	139,500	N/A	0
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise				-				-	168,000	500	2,500	300	164,700	N/A	0
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse				-				-	368,000	20,000	26,625	4,000	317,375	Livestock	50,000

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 6th crop name	Q6. 6th crop bags for sale	Q6. 6th crop price/bag (Rwf)	income from 6th crop	Q6. 7th crop name	Q6. 7th crop bags for sale	Q6. 7th crop price/bag (Rwf)	income from 7th crop	Total GROSS farm income	Q7. Farminput :seed (Rwf)	Q7. Farminput : fertilizer (Rwf)	Q7 Farminpu t: pesticide (Rwf)	Total farm net income	Q8 Other income source	Q9 Other income (Rwf)
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*				-				-	249,000	4,000	20,000	2,000	223,000	N/A	0
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	Cabbage	8	10,000	80,000	Eggplant	3	20,000	60,000	275,000	40,000	21,000	8,000	206,000	N/A	0
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*				-				-	126,000	1,000	20,000	3,000	102,000	N/A	0
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*				-				-	159,000	2,000	15,000	3,000	139,000	Livestock	60,000
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*				-				-	284,000	800	1,000	500	281,700	N/A	0
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien				-				-	830,000	30,000	25,000	3,000	772,000	N/A	0
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*				-				-	1,024,000	500	600	350	1,022,550	N/A	0
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia				-				-	152,000	15,000	25,000	29,000	83,000	N/A	0
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU				-				-	124,000	1,000	6,000	1,500	115,500	N/A	0
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne				-				-	238,000	500	16,400	1,000	220,100	N/A	0
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine				-				-	190,000	4,000	0	30,000	156,000	N/A	0
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	Maize	1	30,000	30,000				-	310,000	30,000	26,000	3,000	251,000	N/A	0
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	Coffee	1	12,000	12,000				-	182,000	4,000	5,000	4,000	169,000	Livestock	50,000
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette				-				-	85,000	14,000	0	5,000	66,000	N/A	0
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	Eggplant	6	15,000	90,000				-	615,000	20,000	15,000	35,000	545,000	Livestock	80,000
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel				-				-	365,000	30,000	40,000	5,000	290,000	N/A	0
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie				-				-	525,000	10,000	26,000	10,000	479,000	Livestock	50,000
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel				-				-	100,000	20,000	5,000	20,000	55,000	N/A	0
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina				-				-	254,000	2,500	25,000	12,000	214,500	Trading	200,000
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene				-				-	299,000	5,000	52,850	2,800	238,350	Instruction	60,000
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	Sweet Potatoes	2	6,000	12,000	Cabbage	5	6,000	30,000	318,000	800	26,000	2,000	289,200	Livestock	100,000
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse				-				-	170,000	6,000	5,000	2,000	157,000	N/A	0
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO				-				-	299,200	30,000	60,000	3,000	206,200	Livestock	30,000
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert				-				-	171,000	15,000	25,000	4,000	127,000	N/A	0
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	Sweet pepper	30	10,000	300,000	Carrot	20	8,000	160,000	812,000	20,000	25,000	10,000	757,000	Livestock	80,000
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette				-				-	265,000	0	0	0	265,000	0	0
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens				-				-	726,000	20,000	50,000	10,000	646,000	Livestock	80,000
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste				-				-	190,000	20,000	15,000	3,000	152,000	N/A	0
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine				-				-	152,000	0	20,000	10,000	122,000	N/A	0
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens				-				-	555,000	2,000	30,000	4,000	519,000	Livestock	150,000
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu				-				-	123,000	5,000	5,000	3,000	110,000	N/A	0
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique				-				-	540,000	15,000	26,000	600	498,400	N/A	0
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*				-				-	156,000	0	0	0	156,000	N/A	0
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel				-				-	336,000	30,000	25,000	16,000	265,000	N/A	0
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph				-				-	532,000	13,000	25,000	30,000	464,000	N/A	0
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard				-				-	1,034,400	12,000	50,000	15,000	957,400	N/A	0
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin				-				-	267,000	20,000	26,675	5,000	215,325	Livestock	20,000
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.				-				-	197,800	1,000	1,000	3,000	192,800	N/A	0

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 6th crop name	Q6. 6th crop bags for sale	Q6. 6th crop price/bag (Rwf)	income from 6th crop	Q6. 7th crop name	Q6. 7th crop bags for sale	Q6. 7th crop price/bag (Rwf)	income from 7th crop	Total GROSS farm income	Q7. Farminput :seed (Rwf)	Q7. Farminput : fertilizer (Rwf)	Q7 Farminpu t: pesticide (Rwf)	Total farm net income	Q8 Other income source	Q9 Other income (Rwf)
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu				-				-	844,000	20,000	6,000	4,000	814,000	Livestock	40,000
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	Sweet Potatoes	4	7,000	28,000				-	873,000	6,000	26,625	6,000	834,375	Livestock	15,000
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*				-				-	76,000				76,000	N/A	0
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	Celery	5	2,500	12,500	auliflower	5	3,000	15,000	481,500	19,000	40,000	5,200	417,300	N/A	0
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne				-				-	140,000	10,000	8,000	5,000	117,000	Trading	50,000
79	Rurenge	Muhurire	Gitobe	BARAME Silas				-				-	64,000	5,000	21,000	0	38,000	N/A	0
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*				-				-	360,000	20,000		20,000	320,000	N/A	0
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*				-				-	108,000	10,000	21,000	3,000	74,000	N/A	0
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars				-				-	171,000	30,000	25,000	3,000	113,000	N/A	0
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita	Eggplant	7	10,000	70,000				-	295,000	15,000	25,000	10,000	245,000	Livestock	30,000
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert				-				-	370,000	20,000	30,000	3,000	317,000	N/A	0
85	Rurenge	Muhurire	Gitobe	NABAHIRE				-				-	345,000	5,000	30,000	3,000.0	307,000	N/A	0
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	Cabbage	4	5,000	20,000	Eggplant	1	4,000	4,000	499,000	13,000	26,500	6,000	453,500	Livestock	70,000
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie				-				-	158,000	10,500	2,000	1,000	144,500	Livestock	15,000
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI				-				-	460,000	13,500	2,500	1,000.0	443,000	Taxi bike	200,000
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas				-				-	309,000	19,500	2,400	2,000	285,100	Livestock	300,000
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	Sweet Potatoes	2	10,000	20,000				-	855,000	13,600	26,500	1,000	813,900	N/A	0
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	Sweet pepper	6	7,000	42,000	Coffee	1	12,600	12,600	222,600	13,000	26,500	2,000	181,100	N/A	0
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent				-				-	340,000	10,000	10,000	5,000	315,000	N/A	0
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne				-				-	73,500	2,000	5,000	1,500	65,000	N/A	0
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI				-				-	723,000	1,200	2,400	1,200	718,200	N/A	0
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*				-				-	670,000	30,000	70,000	20,000	550,000	N/A	0
96	Rurenge	Muhurire	Gitobe	VUNUHAWE				-				-	336,000	1,000	6,000	3,000	326,000	Livestock	200,000
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric				-				-	82,000	30,000	25,000	5,000	22,000	N/A	0
98	Rurenge	Muhurire	Gitobe	MUHASHYI	Cabbage	10	3,500	35,000				-	230,600	4,000	5,000	15,000	206,600	N/A	0
99	Rurenge	Muhurire	Gitobe	KAWERA				-				-	147,200	10,000	3,000	3,500	130,700	N/A	0
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	Fresh Beans	3	2,500	7,500				-	110,700	11,000	15,000	2,000	82,700	N/A	0
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa				-				-	153,000	15,000	25,000	5,000	108,000	N/A	0
102	Rurenge	Muhurire	Gitobe	RWAGATERA				-				-	35,000				35,000	N/A	0
103	Rurenge	Muhurire	Gitobe	BAZIRA				-				-	192,000	40,000	42,000	15,000	95,000	N/A	0
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	Sweet Potatoes	1	12,000	12,000				-	462,000	12,800	26,530	1,800	420,870	Livestock	20,000
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien				-				-	109,000	1,800	42,000	2,000	63,200	N/A	0
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	Sweet Potatoes	20	12,000	240,000				-	618,000	6,900	8,000	1,500	601,600	Livestock	220,000
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*				-				-	150,000	4,000	26,650		119,350	Education	648,000
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent				-				-	240,000	15,000			225,000	N/A	0
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne				-				-	708,000	4,000	3,000	6,800	694,200	N/A	0
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin				-				-	238,000	9,000	25,000	1,000	203,000	N/A	0
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique				-				-	172,000	5,400	3,000	11,000	152,600	Instruction	20,000

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 6th crop name	Q6. 6th crop bags for sale	Q6. 6th crop price/bag (Rwf)	income from 6th crop	Q6. 7th crop name	Q6. 7th crop bags for sale	Q6. 7th crop price/bag (Rwf)	income from 7th crop	Total GROSS farm income	Q7. Farminput :seed (Rwf)	Q7. Farminput : fertilizer (Rwf)	Q7 Farminpu t: pesticide (Rwf)	Total farm net income	Q8 Other income source	Q9 Other income (Rwf)
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	Eggplant	8	6,000	48,000	Cassava	5	17,000	85,000	755,500	10,000	30,000	30,000	685,500	N/A	0
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*				-				-	420,000	30,000	25,000	5,000	360,000	N/A	0
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*				-				-	324,500	1,000	3,000	1,000	319,500	N/A	0
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde				-				-	56,200			1,000	55,200	N/A	0
116	Rurenge	Muhurire	Gitobe	NYIRINKINDI Tharcisse	Cabbage	32	5,000	160,000				-	352,500	1,500	50,000	26,000	275,000	Livestock	10,000
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA				-				-	120,000	4,000	1,200	17,000	97,800	N/A	0
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain	Sweet Potatoes	4	10,000	40,000	Tomato	25	3,000	75,000	1,180,000	50,000	52,000	30,000	1,048,000	Livestock	150,000
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste				-				-	184,500			300	184,200	N/A	0
120	Rurenge	Muhurire	Gitobe	NIBATETE				-				-	430,000	20,000	25,000	3,000	382,000	N/A	0
121	Rurenge	Muhurire	Gitobe	BUCYANA Celestin	Tomato	10	5,000	50,000				-	1,082,000	10,000	12,000	6,000	1,054,000	Livestock	200,000
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel				-				-	165,000	20,000	15,000	3,000	127,000	Livestock	200,000
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angelique				-				-	74,000	6,000	25,500	2,000	40,500	Trading	40,000
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul				-				-	300,000	1,500	2,400	6,000	290,100	Livestock	120,000
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	Cassava	3	15,000	45,000	Potatoes	2	15,000	30,000	905,000	0	40,000	100,000	765,000	N/A	0
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre				-				-	56,000	2,000	6,000	1,000	47,000	N/A	20,000
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred				-				-	119,500				119,500	N/A	0
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin				-				-	202,200	10,000	30,000	3,000	159,200	N/A	0
129	Rurenge	Muhurire	Gitobe	MUSABYEYEZU Annonciata				-				-	125,000	20,000	25,000	3,000	77,000	N/A	0
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien				-				-	366,000	3,600	21,500	9,000	331,850	N/A	0
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais				-				-	287,000	3,000	10,000	6,000	268,000	N/A	0
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène				-				-	435,000	17,500	7,500	3,000	407,000	Livestock	15,000
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felcien				-				-	115,000	20,000	21,000	5,000	69,000	N/A	0
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphasie	Cofee	2	50,000	100,000				-	282,375	0	0	0	282,375	N/A	0
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*				-				-	195,000	30,000	20,000	3,000	142,000	Livestock	50,000
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph				-				-	190,000	30,000	25,000	3,000	132,000	Livestock	50,000
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	Tomato	30	15,000	450,000				-	1,264,000	800	12,000	3,000	1,248,200	Livestock	180,000
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele				-				-	210,000	20,000	15,000	3,000	172,000	N/A	0
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	Cabbage	20	5,000	100,000				-	535,000	800	6,000	800	527,400	N/A	0
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	Sweet Potatoes	2	10,000	20,000				-	480,000	1,400	3,000	2,400	473,200	Livestock	99,000
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse				-				-	284,000	1,000	6,000	1,000	276,000	N/A	0
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi				-				-	398,000	0	0	0	398,000	N/A	0
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric				-				-	140,000	10,000	7,000	3,000	120,000	N/A	0
144	Rurenge	Rujambara	Mashyoza	GISAGARA				-				-	176,000	10,000	30,000	2,000	134,000	Instruction	100,000

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Total household net income	Q10. Times of cultivation in the marshland to be submerged	Q11. Crop (1) cultivated in the marshland	Q11. Crop (1) number of bags produced in the marshland	Q11. Nos of plot for Crop (1) cultivated in the marshland	Q11. Size of plot of crop (1) (m2)	income of crop (1)	Q11. Crop (2) cultivated in the marshland	Q11. Crop (2) number of bags produced in the marshland	Q11. Nos of plot for Crop (2) cultivated in the marshland	Q11. Size of plot of crop (2) (m2)	income of crop (2)	
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*	525,000	2	Cabbage	20.5	1	3 * 75 225	102,500				* 0		
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille	94,000	2	Eggplant	12	1	38 * 7 266	84,000	Carrot		7	Rotation	* 0	
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph	724,000	2	Eggplant		3	5 40 * 5 180	36,000						
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean	361,200	2	Sweet potatoes		5	3 12 * 60 720	110,000	Cabbage		8	2	5 * 30 150	80,000
5	Rurenge	Rujambara	Nyabaganza	GATETE James*	612,500	2	Sweet potatoes		6	1 10 * 40 400	60,000	Sorghum		6	1	20 * 100 2,000	120,000
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette	649,750	2	Sweet potatoes		20	2 8 * 47 376	400,000	Cabbage		30		5 * 35 175	180,000
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	603,000	2	Sweet potatoes		10	3 7 * 28 196	100,000					5 * 17 85	
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*	198,000	2	Sweet potatoes		10	2 24 * 4 96	100,000					26 * 6 156	
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin	1,834,000	2	Sweet potatoes		5	1 9 * 50 450	30,000	Cabbage		20	1	* 0	200,000
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA	643,000	2	Pili - Pili		13	2 42 * 16 672	286,000					80 * 25 2,000	
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic	404,500	2	Sweet potatoes		7	3 5 * 40 200	28,000					10 * 30 300	
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	155,875	2	Sweet potatoes		2	1 20 * 10 200	20,000	Maize		2		20 * 66 1,320	60,000
13	Rurenge	Rujambara	Nyabaganza	NYIRANDEGEYA Safina	690,000	3	Sweet potatoes		6	6 5 * 16 80	60,000	Eggplant		6		* 0	72,000
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel	525,200	2	Sweet potatoes		4	4 3 * 15 45	64,000					2 * 20 40	
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien	243,000	2	Sweet potatoes		17	2 6 * 15 90	170,000	Cabbage		3	2	6 * 15 90	6,000
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias	420,000	2	Sweet potatoes		10	1 30 * 7 210	100,000	Eggplant		20	1	30 * 7 210	140,000
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel	345,600	2	Sweet potatoes		12	1 4 * 25 100	120,000	Cabbage		9	1	23 * 4 92	90,000
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel	90,100	2	Sweet potatoes		20	1 10 * 60 600	120,000					* 0	
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David	880,100	2	Sweet potatoes		50	5 3 * 7 21	350,000					8 * 20 160	
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle	162,000	2	Sweet potatoes		5	2 16 * 20 320	30,000					12 * 7 84	
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	485,000	2	Sweet potatoes		17	3 2 * 10 20	170,000					20 * 30 600	
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	334,000	2	Sweet potatoes		3	2 30 * 5 150	18,000					30 * 8 240	
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	294,000	2	Sweet potatoes		2	3 5 * 22 110	20,000					5 * 22 110	
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	407,500	2	Cabbage		25	6 6 * 25 150	125,000					3 * 25 75	
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph	180,600	2	Cabbage		24	3 5 * 27 135	144,000					4 * 34 136	
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	671,000	2	Sweet potatoes		6	4 7 * 25 175	60,000	Cabbage		12	4	7 * 20 140	84,000
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	567,000	2	Sweet potatoes		10	3 15 * 70 1,050	100,000					4 * 60 240	
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	179,500	2	Sweet potatoes		3	2 4 * 10 40	24,000					4 * 15 60	
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZZWA Theogene	454,000	2	Sweet potatoes		6	3 8 * 14 112	30,000					7 * 20 140	
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal	437,000	2	Sweet potatoes		10	3 20 * 5 100	100,000	Eggplant		9	2	5 * 20 100	180,000
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie	134,000	2	Sweet potatoes		1	1 3 * 7 21	8,000	Cabbage		2	1	3 * 7 21	8,000
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas	491,000	2	Sweet potatoes		9	3 6 * 23 138	108,000					6 * 23 138	
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar	139,500	2	Sweet potatoes		2	2 5 * 30 150	16,000					6 * 30 180	
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise	164,700	2	Sweet potatoes		1	3 4 * 17 68	6,000					4 * 17 68	
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse	367,375	3	Sweet potatoes		1	4 30 * 6 180	8,000					37 * 6 222	

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Total household net income	Q10. Times of cultivation in the marshland to be submerged	Q11. Crop (1) cultivated in the marshland	Q11. Crop (1) number of bags produced in the marshland	Q11. Nos of plot for Crop (1) cultivated in the marshland	Q11. Size of plot of crop (1) (m2)	income of crop (1)	Q11. Crop (2) cultivated in the marshland	Q11. Crop (2) number of bags produced in the marshland	Q11. Nos of plot for Crop (2) cultivated in the marshland	Q11. Size of plot of crop (2) (m2)	income of crop (2)
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*	223,000	2	Sweet potatoes	3	3	6 * 40 240	30,000				15 * 7 105	
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	206,000	2	Carrot	10	3	9 * 4 36	40,000				6 * 12 72	
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	102,000	2	Sweet potatoes	5	4	40 * 6 240	25,000				7 * 25 175	
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*	199,000	2	Sweet potatoes	2	3	13 * 4 52	20,000				9 * 9 81	
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*	281,700	2	Sweet potatoes	2	2	5 * 30 150	20,000				4 * 70 280	
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien	772,000	2	Sweet potatoes	23	3	7 * 26 182	115,000				5 * 26 130	
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*	1,022,550		Sweet potatoes	3	1	4 * 14 56	72,000				* 0	
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia	83,000	2	Carrot	5	2	4 * 10 40	54,000				6 * 12 72	
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU	115,500	2	Sweet potatoes	3	1	20 * 10 200	45,000	Tomato	5	1	5 * 15 75	45,000
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	220,100	2	Sweet potatoes	6	2	6 * 40 240	24,000				6 * 40 240	
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine	156,000	2	Sweet potatoes	5	3	7 * 26 182	45,000				3 * 60 180	
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	251,000	2	Sweet potatoes	10	3	5 * 40 200	60,000				5 * 40 200	
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	219,000	2	Cabbage	10	2	10 * 5 50	100,000				7 * 12 84	
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette	66,000	2	Sweet potatoes	3	2	8 * 30 240	30,000				3 * 22 66	
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	625,000	2	Eggplant	6	3	12 * 5 60	90,000				14 * 3 42	
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel	290,000	2	Sweet potatoes	6	1	5 * 25 125	36,000	Cabbage	7	rotation	* 0	49,000
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	529,000	2	Sweet potatoes	5	2	6 * 20 120	30,000				5 * 25 125	
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel	55,000	2	Sweet potatoes	4	1	15 * 30 450	24,000	Cabbage	5	1	7 * 30 210	37,500
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina	414,500	2	Sweet potatoes	6	3	5 * 12 60	60,000				4 * 15 60	
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene	298,350	2	Sweet potatoes	3	2	5 * 25 125	21,000				5 * 20 100	
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	389,200	2	Sweet potatoes	2	2	7 * 35 245	12,000				10 * 67 670	
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	157,000	2	Sweet potatoes	2	2	4 * 30 120	24,000				4 * 25 100	
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO	236,200	2	Sweet potatoes	3	1	3 * 24 72	22,500	Eggplant	5	1	40 * 50 2,000	24,000
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert	127,000	2	Sweet potatoes	2	1	4 * 35 140	14,000	Cabbage	9	Rotation	* 0	27,000
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	837,000	2	Sweet potatoes	10	3	5 * 28 140	100,000				4 * 40 160	
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette	265,000	2	Sweet potatoes	8	3	8 * 4 32	40,000				8 * 4 32	
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens	726,000	2	Sweet potatoes	12	3	6 * 4 24	120,000				6 * 4 24	
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	152,000		Sweet potatoes	3	2	6 * 54 324	30,000				4 * 36 144	
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine	122,000		Sweet potatoes	10	3	3 * 105 315	75,000				5 * 70 350	
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens	669,000	2	Sweet potatoes	5	3	2 * 30 60	25,000				3 * 20 60	
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu	110,000	2	Sweet potatoes	4	4	5 * 25 125	32,000				5 * 25 125	
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique	498,400	2	Sweet potatoes	10	4	8 * 35 280	80,000				6 * 30 180	
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*	156,000	2	Sweet potatoes	2	1	7 * 60 420	12,000				* 0	
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel	265,000	2	Eggplant	4	1	4 * 29 116	24,000	Cabbage	4	29	* 0	28,000
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	464,000	2	Tomato	20	2	5 * 8 40	80,000	Cabbage	35	Rotation	* 0	315,000
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard	957,400	2	Sweet potatoes	8	7	11 * 27 297	48,000				9 * 65 585	
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin	235,325	3	Sweet potatoes	3	4	7 * 18 126	27,000				7 * 18 126	
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.	192,800	2	Sweet potatoes	11	2	3 * 20 60	148,500				2 * 10 20	

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Total household net income	Q10. Times of cultivation in the marshland to be submerged	Q11. Crop (1) cultivated in the marshland	Q11. Crop (1) number of bags produced in the marshland	Q11. Nos of plot for Crop (1) cultivated in the marshland	Q11. Size of plot of crop (1) (m2)	income of crop (1)	Q11. Crop (2) cultivated in the marshland	Q11. Crop (2) number of bags produced in the marshland	Q11. Nos of plot for Crop (2) cultivated in the marshland	Q11. Size of plot of crop (2) (m2)	income of crop (2)
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu	854,000	2	Sweet potatoes	15	4	10 * 5 50	150,000				8 * 6 48	
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	849,375	2	Sweet potatoes	10	1	6 * 37 222	70,000	Cabbage	10	1	6 * 37 222	60,000
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*	76,000	2	Sweet potatoes	2	1	35 * 17 595	22,000				* 0	
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	417,300	2	Sweet potatoes	6	3	2 * 32 64	36,000				4 * 26 104	
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne	167,000	2	Cabbage	4	1	3 * 15 45	20,000	Carrot	2	1	5 * 20 100	30,000
79	Rurenge	Muhurire	Gitobe	BARAME Silas	38,000		Sweet potatoes	4	2	7 * 3 21	20,000				7 * 3 21	
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*	320,000		Sweet potatoes	5	1	25 * 100 2,500	25,000	Cabbage	7	Rotation	* 0	42,000
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*	74,000	2	Sweet potatoes	4	1	60 * 90 5,400	48,000				* 0	
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars	113,000	2	Sweet potatoes	20	2	6 * 55 330	200,000				6 * 25 150	
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita	275,000	2	Cabbage	8	1	5 * 40 200	40,000	Eggplant	7	1	6 * 40 240	70,000
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert	317,000	2	Sweet potatoes	40	1	20 * 19 380	240,000	Cassava	4	3	40 * 30 1,200	100,000
85	Rurenge	Muhurire	Gitobe	NABAHIRE	307,000	2	Sweet potatoes	3	2	6 * 30 180	15,000				80 * 60 4,800	
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	523,500	2	Sweet potatoes	5	4	5 * 18 90	25,000				5 * 18 90	
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie	159,500	2	Sweet potatoes	1	1	5 * 10 50	5,000	Carrot	1	Rotation	* 0	15,000
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI	643,000	2	Sweet potatoes	2	1	3 * 7 21	30,000	Carrot	1	Rotation	* 0	8,000
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas	585,100	2	Sweet potatoes	3	4	5 * 6 30	15,000				5 * 6 30	
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	813,900	2	Sweet potatoes	5	5	3 * 18 54	25,000				4 * 18 72	
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	181,100	2	Sweet potatoes	4	2	3 * 7 21	14,000				3 * 6 18	
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent	315,000	2	Sweet potatoes	8	1	3 * 50 150	96,000	Cabbage	25	Rotation	* 0	150,000
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne	65,000		Sorghum	3	2	12 * 50 600	60,000				4 * 20 80	
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI	718,200	2	Sweet potatoes	16	4	7 * 8 56	192,000				3 * 15 45	
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	550,000	2	Sweet potatoes	10	2	20 * 30 600	80,000				6 * 20 120	
96	Rurenge	Muhurire	Gitobe	VUNUHAWA	526,000	2	Sweet potatoes	6	3	3 * 15 45	72,000				3 * 15 45	
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	22,000	2	Sweet potatoes	8	2	4 * 35 140	64,000				9 * 20 180	
98	Rurenge	Muhurire	Gitobe	MUHASHYI	206,600	2	Cabbage	10	3	5 * 15 75	35,000				5 * 15 75	
99	Rurenge	Muhurire	Gitobe	KAWERA	130,700	2	Sweet potatoes	1	1	3 * 10 30	6,000	Carrot	2	1	3 * 10 30	40,000
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	82,700	2	Sweet potatoes	2	2	5 * 15 75	12,000				4 * 10 40	
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa	108,000	2	Sweet potatoes	10	4	3 * 40 120	90,000				3 * 20 60	
102	Rurenge	Muhurire	Gitobe	RWAGATERA	35,000	2	Sweet potatoes	2	1	7 * 15 105	20,000				* 0	
103	Rurenge	Muhurire	Gitobe	BAZIRA	95,000	2	Sweet potatoes	10	1	15 * 50 750	75,000	Tomato	3	Rotation	* 0	24,000
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	440,870	2	Sweet potatoes	3	2	4 * 10 40	36,000				4 * 10 40	
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien	63,200	2	Sorghum	5	3	2 * 10 20	90,000				2 * 10 20	
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	821,600	2	Sweet potatoes	30	3	25 * 30 750	360,000				5 * 10 50	
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*	767,350	2	Beans	10	1	75 * 25 1,875	300,000	Sorghum	6	Rotation	* 0	120,000
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent	225,000		Sweet potatoes	0	1	21 * 24 504	not yet				* 0	
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne	694,200	2	Sweet potatoes	5	1	4 * 20 80	50,000	Tomato		1	4 * 20 80	
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin	203,000	2	Sweet potatoes	13	1	10 * 53 530	130,000	Cabbage	26	Rotation	* 0	130,000
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique	172,600	2	Sweet potatoes	4	1	6 * 98 588	28,000	Cabbage	4	Rotation	* 0	60,000

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Total household net income	Q10. Times of cultivation in the marshland to be submerged	Q11. Crop (1) cultivated in the marshland	Q11. Crop (1) number of bags produced in the marshland	Q11. Nos of plot for Crop (1) cultivated in the marshland	Q11. Size of plot of crop (1) (m2)	income of crop (1)	Q11. Crop (2) cultivated in the marshland	Q11. Crop (2) number of bags produced in the marshland	Q11. Nos of plot for Crop (2) cultivated in the marshland	Q11. Size of plot of crop (2) (m2)	income of crop (2)
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	685,500	2	Sweet potatoes	5	1	6 * 35 210	40,000	Cabbage	4	1	6 * 35 210	20,000
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*	360,000	2	Sweet potatoes	40	2	15 * 70 1,050	400,000				5 * 50 250	
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*	319,500	2	Sweet potatoes	5	2	10 * 20 200	37,500				5 * 30 150	
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde	55,200	2	Sweet potatoes	8	4	4 * 23 92	80,000				3 * 15 45	
116	Rurenge	Muhurire	Gitobe	NYRINKINDI Tharcisse	285,000	2	Sweet potatoes	10	2	15 * 5 75	80,000				8 * 6 48	
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA	97,800	2	Sweet potatoes	3	1	10 * 20 200	30,000	Tomato	6	1	10 * 20 200	120,000
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain	1,198,000	2	Sweet potatoes	8	4	6 * 6 36	60,000				6 * 15 90	
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste	184,200	2	Sweet potatoes	3	1	5 * 15 75	18,000	Eggplant	2.5	1	5 * 15 75	25,000
120	Rurenge	Muhurire	Gitobe	NIBATETE	382,000	2	Sweet potatoes	15	2	5 * 32 160	112,500				6 * 32 192	
121	Rurenge	Muhurire	Gitobe	BUCYANA Celestin	1,254,000	2	Sweet potatoes	3	2	4 * 7 28	30,000				4 * 7 28	
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel	327,000	2	Sweet potatoes	16	2	5 * 25 125	112,000				5 * 20 100	
123	Rurenge	Muhurire	Gitobe	MUKAFASHIMPAKA Angeliq	80,500	2	Sweet potatoes	1	1	5 * 20 100	10,000	Eggplant	1	1	5 * 20 100	18,000
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul	410,100	2	Sweet potatoes	4	1	5 * 50 250	40,000	Carrot		1	50 * 5 250	20,000
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	765,000	2	Sweet potatoes	2	2	10 * 30 300	20,000				10 * 30 300	
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre	67,000	2	Sweet potatoes	1	1	5 * 15 75	10,000	Cabbage	3	1	5 * 15 75	30,000
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred	119,500	2	Sweet potatoes	1	5	3 * 31 93	12,000				4 * 28 112	
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin	159,200	2	Sweet potatoes	3	4	4 * 35 140	30,000				4 * 25 100	
129	Rurenge	Muhurire	Gitobe	MUSABYEYEUZU Annonciata	77,000	2	Sweet potatoes	10	3	6 * 32 192	100,000				4 * 40 160	
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien	331,850		Cabbage	6	3	5 * 25 125	48,000				3 * 30 90	
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protai	268,000	2	Sweet potatoes	20	1	12 * 20 240	100,000	Tomato	13	1	20 * 12 240	25,000
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène	422,000	2	Sweet potatoes	6	1	5 * 30 150	60,000	Tomato	25		* 0	37,500
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felicien	69,000	2	Tomato	10	1	5 * 15 75	30,000				* 0	
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHU Euphrasie	282,375	2	Sweet potatoes	6	1	7 * 35 245	60,000	Soya	0.75	1	7 * 35 245	8,625
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*	192,000	2	Sweet potatoes	10	1	5 * 8 40	80,000				* 0	
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph	182,000	2	Sweet potatoes	20	2	8 * 26 208	200,000				8 * 25 200	
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	1,428,200	2	Sweet potatoes	10	3	3 * 26 65	75,000				2.5 * 12 30	
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele	172,000	2	Sweet potatoes	15	1	4 * 8 32	150,000				* 0	
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	527,400		Sweet potatoes	4	2	4 * 14 56	60,000				5 * 16 80	
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	572,200	2	Sweet potatoes	2	3	4 * 32 128	20,000				7 * 14 98	
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse	276,000	2	Sweet potatoes	2	1	5 * 20 100	20,000	Carrot	2	1	5 * 20 100	
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi	398,000	2	Sweet potatoes	3	1	8 * 25 200	18,000				* 0	
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric	120,000	2	Tree tomato	3	3	120 * 20 2,400	120,000				40 * 30 1,200	
144	Rurenge	Rujambara	Mashyoza	GISAGARA	234,000	2	Sorghum	3	1	20 * 40 800	60,000				* 0	

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (3) cultivated in the marshland	Q11. Crop (3) number of bags produced in the marshland	Q11. Nos of plot for Crop (3) cultivated in the marshland	Q11. Size of plot of crop (3) (m2)	income of crop (3)
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*				* 0	
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille				* 0	
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph				9 * 8 72	
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean				5 * 11 55	
5	Rurenge	Rujambara	Nyabaganza	GATETE James*	Maize	3	rotation	* 0	60,000
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette				* 0	
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*				7 * 28 196	
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*	Cabbage	9	rotation	* 0	45,000
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin				* 0	
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA	Cabbage	2	2	44 * 6 264	12,000
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic				12 * 8 96	
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	Sorghum	3	rotation	* 0	75,000
13	Rurenge	Rujambara	Nyabaganza	NYIRANDEGEYA Safina	Cabbage	10	rotation	* 0	100,000
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel				3 * 10 30	
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien				* 0	
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias	Carrot	30	1	30 * 7 210	360,000
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel				* 0	
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel				* 0	
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David				* 0	
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle	Cabbage	12	2	6 * 20 120	84,000
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*				10 * 20 200	
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	Eggplant	4	rotation	* 0	40,000
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore				5 * 22 110	
24	Rurenge	Rujambara	Akarambaraye	RIZINDE				4 * 12 48	
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph				5 * 35 175	
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*				7 * 15 105	
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*				5 * 90 450	
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	Cabbage	8	1	4 * 10 40	60,000
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZWA Theogene				6 * 16 96	
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal				3 * 10 30	
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie				* 0	
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas				4 * 11 44	
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar				8 * 25 200	
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise				4 * 17 68	
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse				30 * 6 180	

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (3) cultivated in the marshland	Q11. Crop (3) number of bags produced in the marshland	Q11. Nos of plot for Crop (3) cultivated in the marshland	Q11. Size of plot of crop (3) (m2)	income of crop (3)
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*				32 * 6 192	
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya				5 * 10 50	
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	Eggplant	6	Rotation	* 0	75,000
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*				9 * 9 81	
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*	Cabbage	34	Rotation	* 0	170,000
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien				6 * 26 156	
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*	Cabbage	9	Rotation	* 0	45,000
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia	Sweet potatoes	5	Rotation	* 0	
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU	Eggplant	4	rotation	* 0	24,000
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	Carrot	8	1	6 * 40 240	32,000
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine				3 * 20 60	
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE				5 * 40 200	
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	Sweet potatoes	6	Rotation	* 0	60,000
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette	Eggplant	4	Rotation	* 0	60,000
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO				8 * 5 40	
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel	Eggplant	15		* 0	150,000
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	Cabbage	10	Rotation	* 0	50,000
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel	Tomato	5.5	0.5	8 * 30 240	44,000
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina				7 * 18 126	
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene				* 0	
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	Eggplant	7	Rotation	* 0	70,000
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	Eggplant	2	Rotation	* 0	36,000
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO	Cabbage	9	1	15 * 30 450	45,000
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert				* 0	
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*				3 * 8 24	
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette				6 * 5 30	
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens				9 * 4 36	
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	Eggplant	5	Rotation	* 0	30,000
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine				3 * 50 150	
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens				8 * 20 160	
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu				5 * 25 125	
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique				7 * 25 175	
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*				* 0	
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel				* 0	
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	Eggplant	17	Rotation	* 0	204,000
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard				16 * 65 1,040	
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin				7 * 18 126	
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.	Cabbage	3	Rotation	* 0	16,200

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (3) cultivated in the marshland	Q11. Crop (3) number of bags produced in the marshland	Q11. Nos of plot for Crop (3) cultivated in the marshland	Q11. Size of plot of crop (3) (m2)	income of crop (3)
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu				6 * 5 30	
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	Carrot	5	1	6 * 37 222	25,000
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*				* 0	
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO				4 * 36 144	
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne				* 0	
79	Rurenge	Muhurire	Gitobe	BARAME Silas				* 0	
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*				* 0	
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*				* 0	
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars	Eggplant	5	Rotation	* 0	25,000
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita				* 0	
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert				20 * 17 340	
85	Rurenge	Muhurire	Gitobe	NABAHIRE	Tomato	30	1	6 * 30 180	150,000
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis				6 * 21 126	
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie	Cabbage	2	Rotation	* 0	30,000
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI	Cabbage	65	Rotation	* 0	390,000
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas				5 * 6 30	
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude				2 * 18 36	
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	Eggplant	7	1	3 * 7 21	112,000
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent				* 0	
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne				* 0	
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI				7 * 12 84	
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	Eggplant	8	3	30 * 20 600	120,000
96	Rurenge	Muhurire	Gitobe	VUNUHAWE				3 * 15 45	
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	Carrot	2	Rotation	* 0	12,000
98	Rurenge	Muhurire	Gitobe	MUHASHYI				5 * 15 75	
99	Rurenge	Muhurire	Gitobe	KAWERA	Cabbage	2	Rotation	* 0	6,000
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	Cabbage	5	3	4 * 12 48	35,000
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa				4 * 15 60	
102	Rurenge	Muhurire	Gitobe	RWAGATERA				* 0	
103	Rurenge	Muhurire	Gitobe	BAZIRA	Cabbage	6	Rotation	* 0	36,000
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	Cabbage	46	Rotation	* 0	184,000
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien				2 * 10 20	
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*				10 * 20 200	
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*				* 0	
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent				* 0	
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne				* 0	
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin	Tomato	5	Rotation	* 0	40,000
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique	Tomato	3	Rotation	* 0	45,000

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (3) cultivated in the marshland	Q11. Crop (3) number of bags produced in the marshland	Q11. Nos of plot for Crop (3) cultivated in the marshland	Q11. Size of plot of crop (3) (m2)	income of crop (3)
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	Carrot	4	1	6 * 35 210	28,000
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*	Cabbage	12	Rotation	* 0	60,000
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*	Cabbage	42		10 * 20 200	210,000
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde				5 * 16 80	
116	Rurenge	Muhurire	Gitobe	NYRINKINDI Tharcisse	Carrot	3	Rotation	* 0	75,000
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA				* 0	
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain				6 * 6 36	
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste				* 0	
120	Rurenge	Muhurire	Gitobe	NIBATETE	Carrot	15		* 0	75,000
121	Rurenge	Muhurire	Gitobe	BUCYANA Celestin	Tomato	10		* 0	50,000
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel	Cabbage	3		* 0	15,000
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angeliq				* 0	
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul				* 0	
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	Eggplant	8	1	10 * 30 300	64,000
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre				* 0	
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred				4 * 26 104	
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin				4 * 25 100	
129	Rurenge	Muhurire	Gitobe	MUSABYEYEZU Annonciata				5 * 20 100	
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien				3 * 20 60	
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais				* 0	
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène				* 0	
133	Rurenge	Muhurire	Gashinya	NIYTEGEKA Felcien				* 0	
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie	Maize	0.5	1	7 * 35 245	10,000
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*				* 0	
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph	Eggplant	2	2	* 0	20,000
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO				2 * 8 16	
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele				* 0	
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	Cabbage	20	2	4 * 14 56	100,000
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel				7 * 18 126	
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse	Cabbage	6	1	* 0	60,000
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi				* 0	
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric				35 * 20 700	
144	Rurenge	Rujambara	Mashyoza	GISAGARA				* 0	

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (4) cultivated in the marshland	Q11. Crop (4) number of bags produced in the marshland	Q11. Nos of plot for Crop (4) cultivated in the marshland	Q11. Size of plot of crop (4) (m2)	income of crop (4)	Q11. Crop (5) cultivated in the marshland	Q11. Crop (5) number of bags produced in the marshland	Q11. Nos of plot for Crop (5) cultivated in the marshland	Q11. Size of plot of crop (5) (m2)	income of crop (5)
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*				* 0					* 0	
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille				* 0					* 0	
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph				5 * 4 20					4 * 6 24	
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean				* 0					* 0	
5	Rurenge	Rujambara	Nyabaganza	GATETE James*	Sweet pepper	6	1	10 * 40 400	60,000	Tomatoes	10	rotation	* 0	80,000
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette				* 0					* 0	
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	Eggplant	15	3	* 0	45,000				* 0	
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*				* 0					* 0	
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin				* 0					* 0	
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA				18 * 8 144					* 0	
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic	Cabbage	18	rotation	* 0	126,000				* 0	
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*				* 0					* 0	
13	Rurenge	Rujambara	Nyabaganza	NYIRANDEGEYA Safina				* 0					* 0	
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel	Cabbage	35	1	3 * 30 90	210,000				* 0	
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien				* 0					* 0	
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias				* 0					* 0	
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel				* 0					* 0	
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel				* 0					* 0	
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David				* 0					* 0	
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle				12 * 7 84					* 0	
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	Cabbage	12	3	* 0	180,000				* 0	
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	Tomato	5	rotation	* 0	60,000				* 0	
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	Tomato	25	2	11 * 5 55	200,000				5 * 22 110	
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	Tomato	40	2	12 * 4 48	240,000				25 * 5 125	
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph	Carrot	11	3	5 * 27 135	55,000				4 * 34 136	
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	Cabbage	12	4	7 * 25 175	84,000				7 * 20 140	
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	Eggplant	3	2	5 * 30 150	36,000				4 * 30 120	
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	Eggplant	10	1	4 * 15 60	70,000				* 0	
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZWA Theogene	Eggplant	20	rotation	* 0	300,000	Cabbage	5	rotation	* 0	60,000
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal				15 * 20 300					* 0	
31	Rurenge	Rujambara	Akarambaraye	NUBUHORU Anastasie				* 0					* 0	
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas	Eggplant	30	Rotation	* 0	120,000				* 0	
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar	Cabbage	1	Rotation	* 0	8,000				* 0	
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise				* 0					* 0	
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse				37 * 6 222		Cabbage	7	Rotation	* 0	140,000

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (4) cultivated in the marshland	Q11. Crop (4) number of bags produced in the marshland	Q11. Nos of plot for Crop (4) cultivated in the marshland	Q11. Size of plot of crop (4) (m2)	income of crop (4)	Q11. Crop (5) cultivated in the marshland	Q11. Crop (5) number of bags produced in the marshland	Q11. Nos of plot for Crop (5) cultivated in the marshland	Q11. Size of plot of crop (5) (m2)	income of crop (5)
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*				* 0					* 0	
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	Cabbage	8		5 * 15 75	40,000	Eggplant	4		7 * 16 112	80,000
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	Cabbage	2	Rotation	* 0	46,000				* 0	
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*				* 0					* 0	
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*				* 0					* 0	
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien	Cabbage	15	Rotation	* 0	150,000	Eggplant	20	rotation	* 0	240,000
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*				* 0					* 0	
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia				* 0					* 0	
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU				* 0					* 0	
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	Cabbage	9	2	6 * 40 240	67,500				6 * 40 240	
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine				* 0					* 0	
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	Carrot	8	Rotation	* 0	40,000	Eggplant	6	Rotation	* 0	
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	Carrot	2	Rotation	* 0	10,000				* 0	
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette				* 0					* 0	
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	Sweet potatoes	3	Rotation	* 0	30,000				* 0	
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel				* 0					* 0	
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	Eggplant	8	Rotation	* 0	80,000				* 0	
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel				* 0					* 0	
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina	Cabbage	20	Rotation	* 0	160,000	Eggplant	6	Rotation	* 0	90,000
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene				* 0					* 0	
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	Cabbage	5	Rotation	* 0	30,000				* 0	
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	Pili - Pili	1	Rotation	* 0	80,000				* 0	
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO				* 0					* 0	
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert				* 0					* 0	
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	Carrot	20	3	4 * 26 104	160,000	Eggplant	10	Rotation	* 0	100,000
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette	Eggplant	8	Rotation	* 0	120,000				* 0	
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens	Cabbage	9	Rotation	* 0	108,000	Eggplant	6	Rotation	* 0	72,000
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	Cabbage	5	Rotation	* 0	20,000				* 0	
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine	Eggplant	6	Rotation	* 0	48,000				* 0	
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens	Eggplant	12	Rotation	* 0	60,000				* 0	
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu				5 * 25 125		Eggplant	6	Rotation	* 0	15,000
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique				8 * 35 280		Eggplant	20	Rotation	* 0	100,000
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*				* 0					* 0	
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel				* 0					* 0	
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	Carrot	9	Rotation	* 0	63,000				* 0	
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard	Beans	2	Rotation	* 0	60,000				* 0	
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin				7 * 18 126		Carrot	9	Rotation	* 0	108,000
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.				* 0					* 0	

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (4) cultivated in the marshland	Q11. Crop (4) number of bags produced in the marshland	Q11. Nos of plot for Crop (4) cultivated in the marshland	Q11. Size of plot of crop (4) (m2)	income of crop (4)	Q11. Crop (5) cultivated in the marshland	Q11. Crop (5) number of bags produced in the marshland	Q11. Nos of plot for Crop (5) cultivated in the marshland	Q11. Size of plot of crop (5) (m2)	income of crop (5)
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu				40 * 7 280		Cabbage	5	Rotation	* 0	50,000
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA				* 0					* 0	
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*				* 0					* 0	
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	Cabbage	8	2	20 * 3 60	64,000				4 * 33 132	
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne				* 0					* 0	
79	Rurenge	Muhurire	Gitobe	BARAME Silas				* 0					* 0	
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*				* 0					* 0	
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*				* 0					* 0	
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars				* 0					* 0	
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita				* 0					* 0	
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert				5 * 30 150					* 0	
85	Rurenge	Muhurire	Gitobe	NABAHIRE				* 0					* 0	
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis				3 * 7 21		Cabbage	6	Rotation	* 0	30,000
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie				* 0					* 0	
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI				* 0					* 0	
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas				5 * 6 30		Cabbage	9	Rotation	* 0	81,000
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude				2 * 18 36		Cabbage	4	Rotation	* 0	60,000
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	Sweet pepper	7	1	3 * 6 18	49,000	Potatoes	3	1	20 * 100 2,000	30,000
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent				* 0					* 0	
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne				* 0					* 0	
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI				3 * 5 15		Cabbage	20	Rotation	* 0	600,000
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*				10 * 5 50					30 * 5 150	
96	Rurenge	Muhurire	Gitobe	VUNUHAWA	Cabbage	24	3	3 * 15 45	96,000				3 * 15 45	
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	Cabbage	5	Rotation	* 0	25,000				* 0	
98	Rurenge	Muhurire	Gitobe	MUHASHYI	Carrot	5	1	5 * 20 100	25,000	sweet potatoe	2	1	5 * 20 100	20,000
99	Rurenge	Muhurire	Gitobe	KAWERA				* 0					* 0	
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura				4 * 7 28					3 * 15 45	
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa				5 * 20 100		Carrot	3	Rotation	* 0	18,000
102	Rurenge	Muhurire	Gitobe	RWAGATERA				* 0					* 0	
103	Rurenge	Muhurire	Gitobe	BAZIRA				* 0					* 0	
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	Carrot	1	Rotation	* 0	10,000				* 0	
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien	Maize	2	Rotation	* 0	30,000	Cabbage	6	Rotation	* 0	30,000
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	Cabbage	7	3	15 * 9 135	21,000				5 * 15 75	
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*				* 0					* 0	
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent				* 0					* 0	
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne				* 0					* 0	
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin				* 0					* 0	
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique				* 0					* 0	

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (4) cultivated in the marshland	Q11. Crop (4) number of bags produced in the marshland	Q11. Nos of plot for Crop (4) cultivated in the marshland	Q11. Size of plot of crop (4) (m2)	income of crop (4)	Q11. Crop (5) cultivated in the marshland	Q11. Crop (5) number of bags produced in the marshland	Q11. Nos of plot for Crop (5) cultivated in the marshland	Q11. Size of plot of crop (5) (m2)	income of crop (5)
112	Rurenge	Musya	Karama	NIZEYIMANA Valens				* 0					* 0	
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*				* 0					* 0	
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*				5 * 30 150					* 0	
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde				5 * 18 90					* 0	
116	Rurenge	Muhurire	Gitobe	NYRINKINDI Tharcisse	Cabbage	3.5	Rotation	* 0	17,500				* 0	
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA				* 0					* 0	
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain				6 * 6 36		Cabbage	18	2	6 * 6 36	90,000
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste				* 0					* 0	
120	Rurenge	Muhurire	Gitobe	NIBATETE	Cabbage	30	Rotation	* 0	300,000				* 0	
121	Rurenge	Muhurire	Gitobe	BUZYANA Celestin				* 0					* 0	
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel				* 0					* 0	
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angeliq				* 0					* 0	
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul				* 0					* 0	
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	Cabbage	6	1	10 * 30 300	30,000				* 0	
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre				* 0					* 0	
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred				4 * 26 104					3 * 14 42	
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin				4 * 25 100		Cabbage	3	Rotation	* 0	24,000
129	Rurenge	Muhurire	Gitobe	MUSABYEYEUZU Annonciata	Cabbage	2	Rotation	* 0	10,000				* 0	
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien	Sweet potatoes	8	1	3 * 20 60	80,000				* 0	
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais				* 0					* 0	
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène				* 0					* 0	
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felicien				* 0					* 0	
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie				* 0					* 0	
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*				* 0					* 0	
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph				* 0					* 0	
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	Cabbage	20	Rotation	* 0	200,000	Tomatoes	30	Rotation	* 0	450,000
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele				* 0					* 0	
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*				5 * 16 80					* 0	
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	Cabbage	15	Rotation	* 0	150,000	Eggplant	10	Rotation	* 0	200,000
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse				* 0					* 0	
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi				* 0					* 0	
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric				* 0					* 0	
144	Rurenge	Rujambara	Mashyoza	GISAGARA				* 0					* 0	

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (6) cultivated in the marshland	Q11. Crop (6) number of bags produced in the marshland	Q11. Nos of plot for Crop (6) cultivated in the marshland	Q11. Size of plot of crop (6) (m2)	income of crop (6)	Total income of crop in Marshland	Total plot in Marshland	Q12. Size of plot A outside of marshland	Q12. Size of plot B outside of marshland	Q12. Size of plot C outside of marshland
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*				* 0		102,500	225	270 * 75 20,250	20 * 30 600	* 0
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille				* 0		84,000	266	100 * 50 5,000	30 * 15 450	* 0
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph				* 0		36,000	296	30 * 40 1,200	50 * 70 3,500	50 * 120 6,000
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean				* 0		190,000	925	30 * 90 2,700	20 * 60 1,200	20 * 50 1,000
5	Rurenge	Rujambara	Nyabaganza	GATETE James*				* 0		380,000	2,800	30 * 60 1,800	50 * 60 3,000	50 * 40 2,000
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette				* 0		580,000	551	20 * 30 600	28 * 24 672	50 * 100 5,000
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*				* 0		145,000	477	80 * 70 5,600	25 * 80 2,000	100 * 120 12,000
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*				* 0		145,000	252	40 * 70 2,800	20 * 30 600	16 * 15 240
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin				* 0		230,000	450	40 * 50 2,000	30 * 60 1,800	50 * 70 3,500
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA				* 0		298,000	3,080	164 * 80 13,120	* 0	* 0
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic				* 0		154,000	596	30 * 40 1,200	50 * 80 4,000	40 * 30 1,200
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*				* 0		155,000	1,520	40 * 66 2,640	30 * 20 600	20 * 30 600
13	Rurenge	Rujambara	Nyabaganza	NYIRANDEGEYA Safina				* 0		232,000	80	87 * 90 7,830	* 0	* 0
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel				* 0		274,000	205	40 * 70 2,800	50 * 90 4,500	30 * 50 1,500
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien				* 0		176,000	180	30 * 40 1,200	15 * 60 900	25 * 40 1,000
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias				* 0		600,000	630	60 * 40 2,400	10 * 25 250	* 0
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel				* 0		210,000	192	20 * 60 1,200	20 * 50 1,000	20 * 50 1,000
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel				* 0		120,000	600	20 * 30 600	60 * 50 3,000	20 * 15 300
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David				* 0		350,000	181	100 * 200 20,000	30 * 70 2,100	20 * 30 600
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle				* 0		114,000	608	80 * 70 5,600	60 * 50 3,000	20 * 30 600
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*				* 0		350,000	820	75 * 10 750	80 * 50 4,000	75 * 10 750
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne				* 0		118,000	390	120 * 80 9,600	100 * 85 8,500	50 * 30 1,500
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore				* 0		220,000	495	30 * 60 1,800	10 * 30 300	15 * 35 525
24	Rurenge	Rujambara	Akarambaraye	RIZINDE				* 0		365,000	446	40 * 30 1,200	10 * 20 200	15 * 40 600
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph				5 * 35 175		199,000	892	50 * 100 5,000	60 * 40 2,400	15 * 20 300
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*				7 * 15 105		228,000	840	30 * 75 2,250	20 * 30 600	10 * 12 120
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	Cabbage	10	1	24 * 5 120	65,000	201,000	2,130	20 * 100 2,000	40 * 60 2,400	50 * 50 2,500
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène				* 0		154,000	200	40 * 80 3,200	* 0	* 0
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZWA Theogene				* 0		390,000	348	20 * 40 800	20 * 30 600	32 * 55 1,760
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal				* 0		280,000	530	70 * 40 2,800	30 * 40 1,200	20 * 60 1,200
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie				* 0		16,000	42	20 * 30 600	30 * 50 1,500	* 0
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas				* 0		228,000	320	100 * 100 10,000	100 * 100 10,000	20 * 30 600
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar				* 0		24,000	530	15 * 30 450	20 * 10 200	10 * 15 150
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise				* 0		6,000	204	40 * 100 4,000	30 * 70 2,100	20 * 30 600
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse				* 0		148,000	804	100 * 100 10,000	* 0	* 0

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (6) cultivated in the marshland	Q11. Crop (6) number of bags produced in the marshland	Q11. Nos of plot for Crop (6) cultivated in the marshland	Q11. Size of plot of crop (6) (m2)	income of crop (6)	Total income of crop in Marshland	Total plot in Marshland	Q12. Size of plot A outside of marshland	Q12. Size of plot B outside of marshland	Q12. Size of plot C outside of marshland
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*				* 0		30,000	537	60 * 120 7,200	60 * 100 6,000	50 * 80 4,000
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	Onion	3	1	6 * 20 120	45,000	205,000	465	50 * 50 2,500	10 * 30 300	* 0
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*				* 0		146,000	415	100 * 50 5,000	20 * 30 600	30 * 45 1,350
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*				* 0		20,000	214	30 * 50 1,500	40 * 60 2,400	* 0
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*				* 0		190,000	430	27 * 40 1,080	25 * 30 750	15 * 40 600
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien				* 0		505,000	468	100 * 40 4,000	* 0	* 0
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*				* 0		117,000	56	20 * 30 600	100 * 150 15,000	20 * 40 800
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia				* 0		54,000	112	100 * 300 30,000	* 0	* 0
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU				* 0		114,000	275	70 * 100 7,000	40 * 70 2,800	60 * 70 4,200
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne				* 0		123,500	1,200	10 * 70 700	30 * 35 1,050	25 * 40 1,000
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine				* 0		45,000	422	80 * 120 9,600	30 * 70 2,100	50 * 200 10,000
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE				* 0		100,000	600	80 * 1,000 80,000	* 0	* 0
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude				* 0		170,000	134	30 * 7 210	30 * 40 1,200	15 * 50 750
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette				* 0		90,000	306	20 * 30 600	20 * 40 800	20 * 60 1,200
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO				* 0		120,000	142	20 * 45 900	60 * 35 2,100	20 * 30 600
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel				* 0		235,000	125	100 * 50 5,000	30 * 70 2,100	40 * 50 2,000
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie				* 0		160,000	245	100 * 100 10,000	20 * 50 1,000	50 * 150 7,500
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel				* 0		105,500	900	60 * 90 5,400	* 0	* 0
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina				* 0		310,000	246	35 * 50 1,750	* 0	* 0
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene				* 0		21,000	225	80 * 50 4,000	5 * 4 20	* 0
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette				* 0		112,000	915	30 * 70 2,100	20 * 50 1,000	20 * 40 800
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse				* 0		140,000	220	50 * 100 5,000	50 * 100 5,000	30 * 40 1,200
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO				* 0		91,500	2,522	40 * 50 2,000	15 * 30 450	* 0
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert				* 0		41,000	140	30 * 40 1,200	40 * 50 2,000	* 0
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*				3 * 7 21		360,000	449	30 * 40 1,200	30 * 50 1,500	20 * 70 1,400
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette				* 0		160,000	94	100 * 80 8,000	100 * 80 8,000	* 0
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens				* 0		300,000	84	80 * 20 1,600	60 * 15 900	30 * 12 360
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste				* 0		80,000	468	100 * 50 5,000	100 * 40 4,000	* 0
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine				* 0		123,000	815	30 * 60 1,800	* 0	* 0
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens				* 0		85,000	280	100 * 100 10,000	50 * 50 2,500	25 * 32 800
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu	Cabbage	3	Rotation	* 0	22,500	69,500	500	40 * 50 2,000	30 * 70 2,100	25 * 40 1,000
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique				* 0		180,000	915	20 * 60 1,200	30 * 50 1,500	25 * 70 1,750
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*				* 0		12,000	420	100 * 100 10,000	* 0	* 0
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel				* 0		52,000	116	100 * 100 10,000	* 0	* 0
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph				* 0		662,000	40	30 * 50 1,500	15 * 10 150	* 0
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard				* 0		108,000	1,922	25 * 50 1,250	15 * 70 1,050	50 * 30 1,500
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin	Cabbage	7	Rotation	* 0	70,000	205,000	504	60 * 30 1,800	40 * 25 1,000	* 0
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.				* 0		164,700	80	20 * 4 80	10 * 30 300	40 * 45 1,800

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (6) cultivated in the marshland	Q11. Crop (6) number of bags produced in the marshland	Q11. Nos of plot for Crop (6) cultivated in the marshland	Q11. Size of plot of crop (6) (m2)	income of crop (6)	Total income of crop in Marshland	Total plot in Marshland	Q12. Size of plot A outside of marshland	Q12. Size of plot B outside of marshland	Q12. Size of plot C outside of marshland
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu	Carrot	2	* 0	4,000	204,000	408	50 * 100 5,000	30 * 40 1,200	* 0	
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA			* 0		155,000	666	100 * 50 5,000	9 * 30 270	* 0	
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*			* 0		22,000	595	124 * 32 3,968	30 * 50 1,500	30 * 50 1,500	
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	Eggplant	22	2	3 * 20 60	132,000	232,000	564	20 * 40 800	20 * 30 600	20 * 30 600
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne			* 0		50,000	145	15 * 25 375	25 * 40 1,000	* 0	
79	Rurenge	Muhurire	Gitobe	BARAME Silas			* 0		20,000	42	50 * 100 5,000	20 * 30 600	* 0	
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*			* 0		67,000	2,500	50 * 50 2,500	50 * 50 2,500	* 0	
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*			* 0		48,000	5,400	25 * 30 750	15 * 20 300	* 0	
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars			* 0		225,000	480	20 * 15 300	30 * 40 1,200	10 * 30 300	
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita			* 0		110,000	440	50 * 100 5,000	40 * 80 3,200	* 0	
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert			* 0		340,000	2,070	40 * 30 1,200	20 * 17 340	5 * 30 150	
85	Rurenge	Muhurire	Gitobe	NABAHIRE			* 0		165,000	5,160	80 * 60 4,800	60 * 100 6,000	* 0	
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	Tomato	25	Rotation	* 0	300,000	355,000	327	110 * 80 8,800	* 0	* 0
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie			* 0		50,000	50	17 * 30 510	20 * 15 300	* 0	
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI			* 0		428,000	21	30 * 50 1,500	20 * 40 800	* 0	
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas	Sweet pepper	2	Rotation	* 0	50,000	146,000	120	20 * 40 800	20 * 30 600	18 * 16 288
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	Eggplant	12	Rotation	* 0	480,000	565,000	198	20 * 40 800	40 * 50 2,000	30 * 50 1,500
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	Sorghum	2	1	20 * 100 2,000	50,000	255,000	4,078	80 * 100 8,000	15 * 10 150	4 * 10 40
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent			* 0		246,000	150	50 * 100 5,000	50 * 100 5,000	* 0	
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne			* 0		60,000	680	50 * 50 2,500	30 * 40 1,200	20 * 30 600	
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI			* 0		792,000	200	20 * 30 600	* 0	* 0	
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	Vegetables	4.5	3	4 * 25 100	90,000	290,000	1,620	10 * 85 850	10 * 90 900	26 * 17 442
96	Rurenge	Muhurire	Gitobe	VUNUHAWA			3 * 15 45		168,000	270	20 * 40 800	30 * 60 1,800	20 * 30 600	
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric			* 0		101,000	320	32 * 13 416	20 * 40 800	* 0	
98	Rurenge	Muhurire	Gitobe	MUHASHYI			* 0		80,000	425	50 * 70 3,500	30 * 70 2,100	* 0	
99	Rurenge	Muhurire	Gitobe	KAWERA			* 0		52,000	60	20 * 40 800	15 * 20 300	* 0	
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	Carrot	9	2	3 * 7 21	36,000	83,000	257	12 * 30 360	40 * 12 480	20 * 30 600
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa	Cabbage	7	Rotation	* 0	35,000	143,000	340	20 * 30 600	20 * 30 600	21 * 30 630
102	Rurenge	Muhurire	Gitobe	RWAGATERA			* 0		20,000	105	30 * 50 1,500	* 0	* 0	
103	Rurenge	Muhurire	Gitobe	BAZIRA			* 0		135,000	750	50 * 70 3,500	50 * 70 3,500	* 0	
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard			* 0		230,000	80	50 * 100 5,000	30 * 50 1,500	30 * 20 600	
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien			* 0		150,000	60	50 * 100 5,000	30 * 100 3,000	20 * 100 2,000	
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*			4 * 17 68		381,000	1,278	70 * 20 1,400	30 * 10 300	30 * 50 1,500	
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*			* 0		420,000	1,875	75 * 230 17,250	25 * 30 750	* 0	
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent			* 0		0	504	20 * 30 600	20 * 30 600	20 * 30 600	
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne			* 0		50,000	160	20 * 40 800	30 * 40 1,200	30 * 40 1,200	
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin			* 0		300,000	530	30 * 60 1,800	50 * 30 1,500	* 0	
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique			* 0		133,000	588	20 * 30 600	50 * 100 5,000	6 * 98 588	

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (6) cultivated in the marshland	Q11. Crop (6) number of bags produced in the marshland	Q11. Nos of plot for Crop (6) cultivated in the marshland	Q11. Size of plot of crop (6) (m2)	income of crop (6)	Total income of crop in Marshland	Total plot in Marshland	Q12. Size of plot A outside of marshland	Q12. Size of plot B outside of marshland	Q12. Size of plot C outside of marshland
112	Rurenge	Musya	Karama	NIZEYIMANA Valens				* 0		88,000	630	45 * 30 1,350	35 * 120 4,200	20 * 70 1,400
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*				* 0		460,000	1,300	20 * 30 600	* 0	* 0
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*				* 0		247,500	700	50 * 80 4,000	40 * 50 2,000	* 0
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde				* 0		80,000	307	46 * 50 2,300	28 * 17 476	27 * 65 1,755
116	Rurenge	Muhurire	Gitobe	NYIRINKINDI Tharcisse				* 0		172,500	123	74 * 32 2,368	40 * 20 800	* 0
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA				* 0		150,000	400	50 * 50 2,500	30 * 40 1,200	* 0
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain				7 * 10 70		150,000	304	30 * 70 2,100	40 * 30 1,200	40 * 10 400
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste				* 0		43,000	150	20 * 40 800	20 * 30 600	* 0
120	Rurenge	Muhurire	Gitobe	NIBATETE				* 0		487,500	352	40 * 80 3,200	5 * 10 50	* 0
121	Rurenge	Muhurire	Gitobe	BUZYANA Celestin				* 0		80,000	56	60 * 50 3,000	40 * 80 3,200	40 * 40 1,600
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel				* 0		127,000	225	25 * 40 1,000	10 * 50 500	50 * 100 5,000
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angélique				* 0		28,000	200	30 * 50 1,500	40 * 60 2,400	* 0
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul				* 0		60,000	500	50 * 70 3,500	20 * 100 2,000	* 0
125	Rurenge	Muhurire	Gitobe	BITWAYIKI				* 0		114,000	1,200	80 * 50 4,000	30 * 20 600	20 * 30 600
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre				* 0		40,000	150	15 * 25 375	* 0	* 0
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred				* 0		12,000	455	40 * 30 1,200	30 * 60 1,800	20 * 50 1,000
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin				* 0		54,000	440	70 * 82 5,740	70 * 90 6,300	5 * 40 200
129	Rurenge	Muhurire	Gitobe	MUSABYEYEZU Annonciata				* 0		110,000	452	50 * 20 1,000	20 * 30 600	* 0
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien				* 0		128,000	335	40 * 100 4,000	40 * 70 2,800	60 * 60 3,600
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais				* 0		125,000	480	20 * 30 600	100 * 40 4,000	30 * 40 1,200
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène				* 0		97,500	150	50 * 10 500	* 0	* 0
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felicien				* 0		30,000	75	20 * 50 1,000	15 * 30 450	20 * 40 800
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie				* 0		78,625	735	20 * 30 600	30 * 15 450	25 * 40 1,000
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*				* 0		80,000	40	40 * 20 800	50 * 30 1,500	* 0
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph				* 0		220,000	408	20 * 40 800	20 * 50 1,000	* 0
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO				* 0		725,000	111	100 * 50 5,000	100 * 50 5,000	100 * 100 10,000
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele				* 0		150,000	32	10 * 40 400	20 * 50 1,000	* 0
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*				* 0		160,000	272	50 * 100 5,000	50 * 100 5,000	30 * 60 1,800
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel				* 0		370,000	352	30 * 60 1,800	20 * 36 720	20 * 30 600
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse				* 0		80,000	200	20 * 50 1,000	20 * 70 1,400	* 0
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi				* 0		18,000	200	20 * 30 600	40 * 60 2,400	35 * 75 2,625
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric				* 0		120,000	4,300	120 * 30 3,600	* 0	* 0
144	Rurenge	Rujambara	Mashyoza	GISAGARA				* 0		60,000	800	80 * 40 3,200	20 * 50 1,000	12 * 20 240

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q12. Size of plot D outside of marshland	Q12. Size of plot E outside of marshland	Total plot size outside of marshland	Total farmland	Percentage rate of plot in marshland	Q13. Times to cultivate outside of marshland	Q14. Times to cultivate outside of marshland (within 60m from the marshland)	Q15. Years to stay in the area	Q16. Kind of domestic water, rainy season	Q17. Kind of domestic water, dry season	Q18. Availability of Electricity, (Yes or No)	Q19. Cultivate or not in the affected area
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*	* 0	* 0	20,850	21,075	1%	2	2	44	1;5	5	Yes	Yes
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille	* 0	* 0	5,450	5,716	5%	2	N/A	42	1;5	5	No	Yes
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph	* 0	* 0	10,700	10,996	3%	2	N/A	32	1;5	5	No	Yes
4	Rurenge	Rujambara	Nyabaganza	SIMBURIBYAGO Jean	12 * 60 720	* 0	5,620	6,545	14%	2	N/A	64	1;2	2	No	Yes
5	Rurenge	Rujambara	Nyabaganza	GATEETE James*	* 0	* 0	6,800	9,600	29%	2	2	37	1;5	5	Yes	Yes
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette	* 0	* 0	6,272	6,823	8%	2	2	54	1;5;7	5;7	Yes	Yes
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	* 0	* 0	19,600	20,077	2%	2	2	50	1;5	5	No	Yes
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*	* 0	* 0	3,640	3,892	6%	2	N/A	50	1;5	5	No	Yes
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin	* 0	* 0	7,300	7,750	6%	2	N/A	54	1;5	5	Yes	Yes
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA	* 0	* 0	13,120	16,200	19%	2	N/A	59	7	7	No	Yes
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic	* 0	* 0	6,400	6,996	9%	2	N/A	46	1;5	5	Yes	Yes
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	* 0	* 0	3,840	5,360	28%	2	2	33	1;5	5	No	Yes
13	Rurenge	Rujambara	Nyabaganza	MUGEMANA Safina	* 0	* 0	7,830	7,910	1%	2	N/A	65	1;5	5	No	Yes
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel	* 0	* 0	8,800	9,005	2%	2	N/A	45	1;5	5	No	Yes
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien	* 0	* 0	3,100	3,280	5%	2	2	37	1;4	4	No	Yes
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias	* 0	* 0	2,650	3,280	19%	2	2	25	1;5	5	No	Yes
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel	40 * 50 2,000	4 * 25 100	5,300	5,492	3%	2	N/A	48	1;5	5	No	Yes
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel	* 0	* 0	3,900	4,500	13%	2	2	29	1;7	7	No	Yes
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David	* 0	* 0	22,700	22,881	1%	2	N/A	62	1;5	5	No	Yes
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle	* 0	* 0	9,200	9,808	6%	2	N/A	42	1;5	5	No	Yes
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	* 0	* 0	5,500	6,320	13%	2	N/A	37	1;4	4	Yes	Yes
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	* 0	* 0	19,600	19,990	2%	2	2	57	1;7	7	No	Yes
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	4 * 25 100	* 0	2,725	3,220	15%	2	N/A	18	4	5	No	Yes
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	6 * 25 150	3 * 25 75	2,225	2,671	17%	2	N/A	31	1;5	5	Yes	Yes
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph	* 0	* 0	7,700	8,592	10%	2	2	44	1;4	4	No	Yes
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	* 0	* 0	2,970	3,810	22%	2	2	22	1;5	5	No	Yes
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	* 0	* 0	6,900	9,030	24%	2	2	43	1;5	5	Yes	Yes
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	* 0	* 0	3,200	3,400	6%	2	N/A	27	1;4	4	Yes	Yes
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZWA Theogene	* 0	* 0	3,160	3,508	10%	2	N/A	34	1;5	5	Yes	Yes
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal	* 0	* 0	5,200	5,730	9%	2	2	44	1;5	5	No	Yes
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie	* 0	* 0	2,100	2,142	2%	2	N/A	70	1	5	No	Yes
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas	100 * 100 10,000	* 0	30,600	30,920	1%	2	N/A	20	4;5	4;5	Yes	Yes
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar	* 0	* 0	800	1,330	40%	N/A	N/A	20	5	5	No	Yes
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise	* 0	* 0	6,700	6,904	3%	2	N/A	21	1;5	5	No	Yes
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse	* 0	* 0	10,000	10,804	7%	2	N/A	32	1;5	5	No	No

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q12. Size of plot D outside of marshland	Q12. Size of plot E outside of marshland	Total plot size outside of marshland	Total farmland	Percentage rate of plot in marshland	Q13. Times to cultivate outside of marshland	Q14. Times to cultivate outside of marshland (within 60m from the marshland)	Q15. Years to stay in the area	Q16. Kind of domestic water, rainy season	Q17. Kind of domestic water, dry season	Q18. Availability of Electricity, (Yes or No)	Q19. Cultivate or not in the affected area
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*	* 0	* 0	17,200	17,737	3%	2	2	65	4	1	Yes	Yes
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	* 0	* 0	2,800	3,265	14%	2	N/A	50	1;5	5	No	Yes
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	* 0	* 0	6,950	7,365	6%	2	2	53	1;5	5	No	Yes
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*	* 0	* 0	3,900	4,114	5%	2	N/A	61	1;5	5	No	No
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*	* 0	* 0	2,430	2,860	15%	2	2	31	1;5	5	No	Yes
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien	* 0	* 0	4,000	4,468	10%	2	2	53	1;5	5	No	Yes
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*	* 0	* 0	16,400	16,456	0.3%	2	2	73	1;5	5	No	Yes
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia	* 0	* 0	30,000	30,112	0.4%	2	N/A	61	1	5	No	Yes
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU	* 0	* 0	14,000	14,275	2%	2	N/A	60	1;5	5	Yes	Yes
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	50 * 80 4,000	* 0	6,750	7,950	15%	2	N/A	50	1;5	5	No	Yes
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine	* 0	* 0	21,700	22,122	2%	2	N/A	61	1;5	5	No	No
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	* 0	* 0	80,000	80,600	1%	2	2	53	1;4	4;5	No	Yes
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	* 0	* 0	2,160	2,294	6%	2	N/A	31	1;5	5	Yes	Yes
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette	18 * 50 900	* 0	3,500	3,806	8%	2	N/A	54	1;4	4	Yes	Yes
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	* 0	* 0	3,600	3,742	4%	2	N/A	29	1;5	5	No	Yes
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel	* 0	* 0	9,100	9,225	1%	2	2	45	1;5	5	No	Yes
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	20 * 60 1,200	* 0	19,700	19,945	1%	2	N/A	50	5	5	No	Yes
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel	* 0	* 0	5,400	6,300	14%	2	N/A	34	1;4	4	Yes	Yes
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina	* 0	* 0	1,750	1,996	12%	2	N/A	34	1;5	5	Yes	Yes
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene	* 0	* 0	4,020	4,245	5%	2	N/A	34	1;4	4;2	No	Yes
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	* 0	* 0	3,900	4,815	19%	2	2	18	1;5	5	No	Yes
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	* 0	* 0	11,200	11,420	2%	2	2	36	1;5	5	Yes	Yes
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO	* 0	* 0	2,450	4,972	51%	2	2	12	1;4	4	No	Yes
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert	* 0	* 0	3,200	3,340	4%	2	N/A	35	1;5	5	No	Yes
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	* 0	* 0	4,100	4,549	10%	N/A	N/A	38	5	5	No	Yes
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette	* 0	* 0	16,000	16,094	1%	2	N/A	28	1;5	5	No	Yes
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens	* 0	* 0	2,860	2,944	3%	2	2	26	1;5	5	No	Yes
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	* 0	* 0	9,000	9,468	5%	2	N/A	35	5	1;5	No	Yes
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine	* 0	* 0	1,800	2,615	31%	2	N/A	29	1;5	5	No	Yes
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens	* 0	* 0	13,300	13,580	2%	2	N/A	26	1;5	5	No	Yes
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu	* 0	* 0	5,100	5,600	9%	2	N/A	43	1;5	5	Yes	Yes
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique	* 0	* 0	4,450	5,365	17%			44	4	4	No	Yes
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*	* 0	* 0	10,000	10,420	4%	2	2	54	1;5	5	No	Yes
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel	* 0	* 0	10,000	10,116	1%	2	N/A	30	1	5	Yes	Yes
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	* 0	* 0	1,650	1,690	2%	2	N/A	35	1;5	5	No	Yes
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard	* 0	* 0	3,800	5,722	34%	2	2	34	2;5	2;5	No	Yes
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin	* 0	* 0	2,800	3,304	15%	2	2	21	1	5	No	Yes
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.	* 0	* 0	2,180	2,260	4%	2	2	20	1	1;4	No	Yes

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q12. Size of plot D outside of marshland	Q12. Size of plot E outside of marshland	Total plot size outside of marshland	Total farmland	Percentage rate of plot in marshland	Q13. Times to cultivate outside of marshland	Q14. Times to cultivate outside of marshland (within 60m from the marshland)	Q15. Years to stay in the area	Q16. Kind of domestic water, rainy season	Q17. Kind of domestic water, dry season	Q18. Availability of Electricity, (Yes or No)	Q19. Cultivate or not in the affected area
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu	* 0	* 0	6,200	6,608	6%	2	2	28	1;4	4	Yes	Yes
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	* 0	* 0	5,270	5,936	11%	2	3	54	1	5	No	Yes
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*	* 0	* 0	6,968	7,563	8%	2	2	57	1;4	4	Yes	Yes
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	* 0	* 0	2,000	2,564	22%	2	N/A	31	1;5	5	Yes	Yes
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne	* 0	* 0	1,375	1,520	10%	2	N/A	31	1;5	5	Yes	Yes
79	Rurenge	Muhurire	Gitobe	BARAME Silas	* 0	* 0	5,600	5,642	1%	2	2	50	1;4	4	Yes	Yes
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*	* 0	* 0	5,000	7,500	33%	2	2	18	1;5	1;5	No	Yes
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*	* 0	* 0	1,050	6,450	84%	2	2	36	1;4	4	Yes	Yes
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars	* 0	* 0	1,800	2,280	21%	2	2	47	1;4	4	Yes	Yes
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita	* 0	* 0	8,200	8,640	5%	2	N/A	38	1;5	5	Yes	Yes
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert	* 0	* 0	1,690	3,760	55%	2	2	33	1;7	7	No	Yes
85	Rurenge	Muhurire	Gitobe	NABAHIRE	* 0	* 0	10,800	15,960	32%	2	2	56	1;4	4	Yes	Yes
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	* 0	* 0	8,800	9,127	4%	N/A	N/A	50	1;5	5	No	Yes
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie	* 0	* 0	810	860	6%	2	2	25	1	5	Yes	Yes
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI	* 0	* 0	2,300	2,321	1%	2	2	25	1	4	Yes	Yes
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas	* 0	* 0	1,688	1,808	7%	2	2	35	1;4	4	Yes	Yes
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	15 * 40 600	20 * 50 1,000	5,900	6,098	3%	2	N/A	34	1;4	4	Yes	Yes
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	12 * 20 240	31 * 18 558	8,988	13,066	31%	2	2	29	1;4	4	Yes	Yes
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent	* 0	* 0	10,000	10,150	1%	2	2	59	1	7	No	Yes
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne	* 0	* 0	4,300	4,980	14%	2	N/A	77	1;4	4	Yes	Yes
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI	* 0	* 0	600	800	25%	2	N/A	31	1;4;5	4;5	No	Yes
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	* 0	* 0	2,192	3,812	42%	2	2	29	1;5	5	Yes	Yes
96	Rurenge	Muhurire	Gitobe	VUNUHAWA	* 0	* 0	3,200	3,470	8%	2	2	59	1;4;5	4;5	Yes	Yes
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	* 0	* 0	1,216	1,536	21%	2	2	38	1;4	4	Yes	Yes
98	Rurenge	Muhurire	Gitobe	MUHASHYI	* 0	* 0	5,600	6,025	7%	2	N/A	59	1;4	5	Yes	Yes
99	Rurenge	Muhurire	Gitobe	KAWERA	* 0	* 0	1,100	1,160	5%	2	N/A	23	1;4	4	Yes	Yes
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	* 0	* 0	1,440	1,697	15%	2	N/A	25	1;4	4;5	Yes	Yes
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa	40 * 70 2,800	30 * 20 600	5,230	5,570	6%	2	2	41	1;4	4	Yes	Yes
102	Rurenge	Muhurire	Gitobe	RWAGATERA	* 0	* 0	1,500	1,605	7%	2	N/A	20	1;4	4;5	No	Yes
103	Rurenge	Muhurire	Gitobe	BAZIRA	* 0	* 0	7,000	7,750	10%	2	N/A	38	1;4	4	Yes	Yes
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	* 0	* 0	7,100	7,180	1%	2	2	85	1	4	Yes	Yes
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien	* 0	* 0	10,000	10,060	1%	2	N/A	51	1;4	4	Yes	Yes
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	50 * 60 3,000	30 * 40 1,200	7,400	8,678	15%	2	2	48	1;4;5	4;5	Yes	Yes
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*	* 0	* 0	18,000	19,875	9%	2	2	46	1;5	5	No	No
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent	20 * 30 600	* 0	2,400	2,904	17%	2	N/A	29	1;4	4;5	Yes	Yes
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne	10 * 15 150	20 * 30 600	3,950	4,110	4%	2	N/A	43	1;4;5	4;5	Yes	Yes
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin	* 0	* 0	3,300	3,830	14%	2	2	37	1	4	Yes	Yes
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique	* 0	* 0	6,188	6,776	9%	N/A	2	30	1;5	5	No	Yes

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q12. Size of plot D outside of marshland	Q12. Size of plot E outside of marshland	Total plot size outside of marshland	Total farmland	Percentage rate of plot in marshland	Q13. Times to cultivate outside of marshland	Q14. Times to cultivate outside of marshland (within 60m from the marshland)	Q15. Years to stay in the area	Q16. Kind of domestic water, rainy season	Q17. Kind of domestic water, dry season	Q18. Availability of Electricity, (Yes or No)	Q19. Cultivate or not in the affected area
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	20 * 60 1,200	50 * 35 1,750	9,900	10,530	6%	2	N/A	35	1;2	2	No	Yes
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*	* 0	* 0	600	1,900	68%	2	2	20	1;5;7	5;7	No	Yes
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*	* 0	* 0	6,000	6,700	10%	2	N/A	34	1;5	5	No	Yes
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde	20 * 15 300	* 0	4,831	5,138	6%	2	N/A	34	1;2	2	No	Yes
116	Rurenge	Muhurire	Gitobe	NYIRINKINDI Tharcisse	* 0	* 0	3,168	3,291	4%	2	2	21	1	4	Yes	Yes
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA	* 0	* 0	3,700	4,100	10%	2	N/A	45	1;4;5	4;5	Yes	Yes
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain	50 * 30 1,500	20 * 117 2,340	7,540	7,844	4%	2	N/A	34	1;4	4;5	Yes	Yes
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste	* 0	* 0	1,400	1,550	10%	2	N/A	31	1;5	5	No	Yes
120	Rurenge	Muhurire	Gitobe	NIBATETE	* 0	* 0	3,250	3,602	10%	2	2	35	1;4	4	Yes	Yes
121	Rurenge	Muhurire	Gitobe	BUCYANA Celestin	100 * 100 10,000	* 0	17,800	17,856	0.3%	2	N/A	58	1;4	4	Yes	Yes
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel	60 * 100 6,000	* 0	12,500	12,725	2%	2	2	64	1;4	4	Yes	Yes
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angeliq	* 0	* 0	3,900	4,100	5%	2	N/A	4	1;4	4;5	No	Yes
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul	* 0	* 0	5,500	6,000	8%	2	N/A	32	1;4;5	4;5	Yes	Yes
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	* 0	* 0	5,200	6,400	19%	2	N/A	43	1;4;5	4;5	No	Yes
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre	* 0	* 0	375	525	29%	2	N/A	40	1;4	4;5	No	Yes
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred	* 0	* 0	4,000	4,455	10%	2	N/A	50	1;5	5	No	Yes
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin	20 * 30 600	* 0	12,840	13,280	3%	2	N/A	42	1;5	5	No	Yes
129	Rurenge	Muhurire	Gitobe	MUSABYEYEZU Annonciata	* 0	* 0	1,600	2,052	22%	2	N/A	20	1;4	4	No	Yes
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien	* 0	* 0	10,400	10,735	3%	2	2	49	1;5	5	No	Yes
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais	20 * 12 240	* 0	6,040	6,520	7%	N/A	0	46	1;4	4	Yes	Yes
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène	* 0	* 0	500	650	23%	2	2	33	1	5	Yes	Yes
133	Rurenge	Muhurire	Gashinya	NIYTEGEKA Felicien	* 0	* 0	2,250	2,325	3%	2	2	30	4;1	5	No	Yes
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie	30 * 50 1,500	* 0	3,550	4,285	17%	2	N/A	63	1;5	5	No	Yes
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*	* 0	* 0	2,300	2,340	2%	2	1	26	1;5	5	No	Yes
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph	* 0	* 0	1,800	2,208	18%	2	N/A	54	1;4	4	Yes	Yes
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	* 0	* 0	20,000	20,111	1%	2	N/A	37	1;4;5	4;5	No	Yes
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele	* 0	* 0	1,400	1,432	2%	2	N/A	31	1;5	5	No	Yes
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	* 0	* 0	11,800	12,072	2%	2	2	55	1;5	5	No	Yes
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	* 0	* 0	3,120	3,472	10%	2	N/A	34	1;5	5	No	Yes
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse	* 0	* 0	2,400	2,600	8%	2	2	29	1;4;5	4;5	Yes	Yes
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi	* 0	* 0	5,625	5,825	3%	2	N/A	58	1;5	5	No	Yes
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric	* 0	* 0	3,600	7,900	54%	2	N/A	25	5;7	5	No	Yes
144	Rurenge	Rujambara	Mashyoza	GISAGARA	* 0	* 0	4,440	5,240	15%	2	2	41	1;5	5	No	Yes

* The persons have hillside farmlands to be submerged.

Q16 & Q17*: 1. Rain water 2. Canal water 3. River water 4. Piped water (public water) 5. Tubewell (deep), public 6. Tubewell (deep), private 7. Shallow well

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q20. Official Land ownership certificate in the affected area in the marshland	Q21. Official land tile of your private land near marshland	Q21. Plot size near marshland	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q22. Want to continue farming after the project (Yes or No)
1	Rurenge	Rujambara	Akarambaraye	NSHIMYUMUREMYI Richard*	No	Yes	270 * 75 20,250	* 0	* 0	* 0	Yes
2	Rurenge	Rujambara	Kabeza	MUKAMWAMBUTSA Bellancille	No	No	* 0	* 0	* 0	* 0	Yes
3	Rurenge	Muhurire	Gitobe	MURENZI Joseph	No	No	* 0	* 0	* 0	* 0	Yes
4	Rurenge	Rujambara	Nyabaganza	SIMBURIYAGO Jean	No	No	* 0	* 0	* 0	* 0	Yes
5	Rurenge	Rujambara	Nyabaganza	GATETE James*	No	No	* 0	* 0	* 0	* 0	Yes
6	Rurenge	Rujambara	Akarambaraye	NYIRANTWARI Violette	No	No	* 0	* 0	* 0	* 0	Yes
7	Rurenge	Rujambara	Nyabaganza	MUKAKABARE Genifa*	No	Yes	25 * 80 2,000	* 0	* 0	* 0	Yes
8	Rurenge	Rujambara	Nyabaganza	KAREGA Cyprien*	No	No	100 * 50 5,000	* 0	* 0	* 0	Yes
9	Rurenge	Rujambara	Nyabaganza	MUDAHERANWA Augustin	No	No	* 0	* 0	* 0	* 0	Yes
10	Rurenge	Rujambara	Akarambaraye	NYIRABUNEGERWA	No	No	164 * 20 3,280	* 0	* 0	* 0	Yes
11	Rurenge	Rujambara	Nyabaganza	NUMVIYUMUKUZA Frederic	No	No	* 0	* 0	* 0	* 0	Yes
12	Rurenge	Rujambara	Akarambaraye	UWIRINGIYE Clementine*	No	No	* 0	* 0	* 0	* 0	Yes
13	Rurenge	Rujambara	Nyabaganza	NYIRANDEGEYA Safina	No	No	* 0	* 0	* 0	* 0	Yes
14	Rurenge	Muhurire	Gitobe	NSHIMYUMWUNGERI Oziel	No	No	* 0	* 0	* 0	* 0	Yes
15	Rurenge	Muhurire	Gitobe	MUNYENGABE Fabien	No	No	* 0	* 0	* 0	* 0	Yes
16	Rurenge	Rujambara	Akarambaraye	NDAYISENGA Papias	No	Yes	60 * 40 2,400	* 0	* 0	* 0	Yes
17	Rurenge	Muhurire	Gitobe	NTEZIMANA Emmanuel	No	No	* 0	* 0	* 0	* 0	Yes
18	Rurenge	Rujambara	Mashyoza	HANAMBINTWALI Emmanuel	No	No	* 0	* 0	* 0	* 0	Yes
19	Rurenge	Rujambara	Nyabaganza	BUGINGO David	No	No	* 0	* 0	* 0	* 0	Yes
20	Rurenge	Rujambara	Nyabaganza	KABERA Fidèle	No	No	* 0	* 0	* 0	* 0	Yes
21	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Alexis*	No	Yes	75 * 50 3,750	80 * 50 4,000	* 0	* 0	Yes
22	Rurenge	Rujambara	Akarambaraye	MUKAKALISA Joselyne	No	No	* 0	* 0	* 0	* 0	Yes
23	Rurenge	Muhurire	Gitobe	MUGEMANA Telesphore	No	No	* 0	* 0	* 0	* 0	Yes
24	Rurenge	Rujambara	Akarambaraye	RIZINDE	No	No	* 0	* 0	* 0	* 0	Yes
25	Rurenge	Rujambara	Nyabaganza	SEMANA Joseph	No	Yes	40 * 60 2,400	* 0	* 0	* 0	Yes
26	Rurenge	Rujambara	Nyabaganza	NYIRANSABIMANA Denyse*	Yes	Yes	30 * 75 2,250	* 0	* 0	* 0	Yes
27	Rurenge	Rujambara	Nyabaganza	NTAKAVURO Emmanuel*	No	Yes	50 * 50 2,500	40 * 60 2,400	* 0	* 0	Yes
28	Rurenge	Rujambara	Akarambaraye	MUNYESHYAKA Théogène	No	No	* 0	* 0	* 0	* 0	Yes
29	Rurenge	Rujambara	Akarambaraye	NTIVUGURUZZWA Theogene	No	No	* 0	* 0	* 0	* 0	Yes
30	Rurenge	Rujambara	Nyabaganza	MUNYABUGINGO Pascal	No	No	* 0	* 0	* 0	* 0	Yes
31	Rurenge	Rujambara	Akarambaraye	NUBUHORO Anastasie	No	No	* 0	* 0	* 0	* 0	No
32	Rurenge	Muhurire	Gitobe	RUKERATABARO Stanislas	No	Yes	100 * 100 10,000	100 * 100 10,000	20 * 30 600	100 * 100 10,000	Yes
33	Rurenge	Rujambara	Akarambaraye	NIYONIZERA Oscar	No	No	* 0	* 0	* 0	* 0	Yes
34	Rurenge	Rujambara	Nyabaganza	MUJAWAMARIYA Francoise	No	No	* 0	* 0	* 0	* 0	Yes
35	Rurenge	Rujambara	Nyabaganza	RENZAHO Tharcisse	No	No	* 0	* 0	* 0	* 0	Yes

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q20. Official Land ownership certificate in the affected area in the marshland	Q21. Official land tile of your private land near marshland	Q21. Plot size near marshland	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q22. Want to continue farming after the project (Yes or No)
36	Rurenge	Muhurire	Gitobe	NTASONI Felecia*	No	Yes	100 * 60 6,000	* 0	* 0	* 0	Yes
37	Rurenge	Rujambara	Nyabaganza	MUKATURATSINZE Felesiya	No	Yes	50 * 30 1,500	* 0	* 0	* 0	Yes
38	Rurenge	Rujambara	Nyabaganza	NYIRAMARABA Philomene*	No	No	30 * 45 1,350	* 0	* 0	* 0	Yes
39	Rurenge	Rujambara	Nyabaganza	MUNYAKAZI Moise*	No	No	* 0	* 0	* 0	* 0	Yes
40	Rurenge	Rujambara	Nyabaganza	NIKUZE Christine*	No	Yes	15 * 40 600	* 0	* 0	* 0	Yes
41	Rurenge	Rujambara	Nyabaganza	NTAMBARA Felicien	No	No	* 0	* 0	* 0	* 0	Yes
42	Rurenge	Rujambara	Nyabaganza	KIBERWA Evariste*	No	Yes	100 * 150 15,000	* 0	* 0	* 0	Yes
43	Rurenge	Rujambara	Nyabaganza	NYIRAMAFARANGA Flavia	No	No	* 0	* 0	* 0	* 0	Yes
44	Rurenge	Muhurire	Gitobe	MUKARUTAMU	No	No	* 0	* 0	* 0	* 0	Yes
45	Rurenge	Rujambara	Nyabaganza	MUKAMWEZI Jeanne	No	No	* 0	* 0	* 0	* 0	Yes
46	Rurenge	Rujambara	Nyabaganza	MUKAGAFURAMA Claudine	No	Yes	80 * 120 9,600	30 * 70 2,100	50 * 200 10,000	* 0	Yes
47	Rurenge	Rujambara	Nyabaganza	MUKANGARAMBE	No	Yes	80 * 1,000 80,000	* 0	* 0	* 0	Yes
48	Rurenge	Muhurire	Gitobe	UWIRINGIYIMANA J. Claude	No	No	* 0	* 0	* 0	* 0	Yes
49	Rurenge	Muhurire	Gitobe	MUKAKARANGWA Juliette	No	No	* 0	* 0	* 0	* 0	Yes
50	Rurenge	Rujambara	Akarambaraye	RUKESHAMIHIGO	No	No	* 0	* 0	* 0	* 0	Yes
51	Rurenge	Rujambara	Akarambaraye	RURANGIRWA Usiel	No	Yes	100 * 50 5,000	* 0	* 0	* 0	Yes
52	Rurenge	Rujambara	Nyabaganza	MURENGEZI Appolinarie	No	No	* 0	* 0	* 0	* 0	Yes
53	Rurenge	Muhurire	Gitobe	MUNYANEZA Usiel	No	No	* 0	* 0	* 0	* 0	Yes
54	Rurenge	Rujambara	Nyabaganza	UWERA Xaverina	No	No	* 0	* 0	* 0	* 0	Yes
55	Rurenge	Rujambara	Nyabaganza	NAHIMANA Theogene	No	Yes	5 * 20 100	50 * 80 4,000	* 0	* 0	Yes
56	Rurenge	Rujambara	Nyabaganza	UMUHIRE Theodette	No	No	* 0	* 0	* 0	* 0	Yes
57	Rurenge	Rujambara	Akarambaraye	NTIRENGANA Alphonse	No	Yes	50 * 100 5,000	* 0	* 0	* 0	Yes
58	Rurenge	Rujambara	Nyabaganza	MUKANYUZAHAYO	No	No	* 0	* 0	* 0	* 0	Yes
59	Rurenge	Rujambara	Nyabaganza	MUGIRANEZA Gilbert	No	No	* 0	* 0	* 0	* 0	Yes
60	Rurenge	Rujambara	Akarambaraye	BICAMUMPAKA Claude*	No	Yes	30 * 40 1,200	30 * 50 1,500	20 * 70 1,400	* 0	Yes
61	Rurenge	Rujambara	Nyabaganza	MUKANDOLI Jeanette	No	No	* 0	* 0	* 0	* 0	Yes
62	Rurenge	Rujambara	Akarambaraye	NTEZIYAREMYE Valens	No	Yes	80 * 20 1,600	60 * 15 900	* 0	* 0	Yes
63	Rurenge	Rujambara	Akarambaraye	HABINEZA Evariste	No	No			* 0	* 0	Yes
64	Rurenge	Rujambara	Nyabaganza	MUKAGATARE Clementine	No	Yes	30 * 60 1,800	* 0	* 0	* 0	Yes
65	Rurenge	Rujambara	Nyabaganza	IRAFASHA Valens	No	No	100 * 100 10,000	50 * 50 2,500	25 * 35 875	* 0	Yes
66	Rurenge	Muhurire	Gitobe	BUTATI Jean de Dieu	No	No	* 0	* 0	* 0	* 0	Yes
67	Rurenge	Rujambara	Nyabaganza	MUKARUZIGA Angelique	No	No	* 0	* 0	* 0	* 0	Yes
68	Rurenge	Rujambara	Nyabaganza	MUKANKUSI Juliette*	No	Yes	100 * 100 10,000	* 0	* 0	* 0	No
69	Rurenge	Rujambara	Nyabaganza	BARIGIRA Emmanuel	No	No	* 0	* 0	* 0	* 0	Yes
70	Rurenge	Rujambara	Nyabaganza	NSANZINEZA Joseph	No	No	* 0	* 0	* 0	* 0	Yes
71	Rurenge	Rujambara	Nyabaganza	MPAGAZEHE Gerrard	No	Yes	50 * 70 3,500	* 0	* 0	* 0	Yes
72	Rurenge	Rujambara	Nyabaganza	NIKOYAGENYE Constatin	No	Yes	60 * 32 1,920	40 * 25 1,000	* 0	* 0	Yes
73	Rurenge	Rujambara	Nyabaganza	MURWANASHYAKA J.D.	No	No	* 0	* 0	* 0	* 0	Yes

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q20.Official Land ownership certificate in the affected area in the marshland	Q21. Official land tile of your private land near marshland	Q21. Plot size near marshland	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q22. Want to continue farming after the project (Yes or No)
74	Rurenge	Rujambara	Nyabaganza	MUNYEHIRWE J. de Dieu	No	No	* 0	* 0	* 0	* 0	Yes
75	Rurenge	Rujambara	Nyabaganza	ZIMURINDA	No	Yes	50 * 100 5,000	* 0	* 0	* 0	Yes
76	Rurenge	Muhurire	Gitobe	MUKAGATERA Alphonsine*	No	Yes	124 * 32 3,968	* 0	* 0	* 0	No
77	Rurenge	Rujambara	Nyabaganza	NTIRUSHWAMABOKO	No	No	* 0	* 0	* 0	* 0	Yes
78	Rurenge	Rujambara	Akarambaraye	MURWANASHYAKA Etienne	No	No	* 0	* 0	* 0	* 0	Yes
79	Rurenge	Muhurire	Gitobe	BARAME Silas	No	Yes	50 * 100 5,000	* 0	* 0	* 0	Yes
80	Rurenge	Rujambara	Kabeza	MUKANKUSI Esperance*	No	Yes	50 * 50 2,500	50 * 50 2,500	* 0	* 0	Yes
81	Rurenge	Muhurire	Gitobe	HABUMUREMYI Abel*	No	Yes	25 * 30 750	15 * 20 300	* 0	* 0	Yes
82	Rurenge	Muhurire	Gitobe	NDAGIJIMANA Wellars	No	Yes	30 * 40 1,200	10 * 30 300	20 * 15 300	* 0	Yes
83	Rurenge	Rujambara	Nyabaganza	MUKANDENZI Emerita	No	No	* 0	* 0	* 0	* 0	Yes
84	Rurenge	Rujambara	Nyabaganza	NDENGEREHE Philbert	No	Yes	40 * 30 1,200	20 * 17 340	5 * 30 150	* 0	Yes
85	Rurenge	Muhurire	Gitobe	NABAHIRE	No	Yes	60 * 100 6,000	80 * 60 4,800	* 0	* 0	Yes
86	Rurenge	Rujambara	Nyabaganza	MUKANDANGA Evanis	No	Yes	110 * 80 8,800	* 0	* 0	* 0	Yes
87	Rurenge	Muhurire	Gitobe	NIYONSABA Elie	No	No	* 0	* 0	* 0	* 0	Yes
88	Rurenge	Muhurire	Gitobe	NKUNDABAGENZI	No	No	* 0	* 0	* 0	* 0	Yes
89	Rurenge	Muhurire	Gitobe	NIYONZIZA Didas	No	No	* 0	* 0	* 0	* 0	Yes
90	Rurenge	Muhurire	Gitobe	UWINGABIYE J. Claude	No	No	* 0	* 0	* 0	* 0	Yes
91	Rurenge	Muhurire	Gitobe	NYIRAMANA Anastasie	No	Yes	80 * 100 8,000	15 * 10 150	* 0	* 0	Yes
92	Rurenge	Rujambara	Nyabaganza	KAMASORO Vincent	No	No	* 0	* 0	* 0	* 0	Yes
93	Rurenge	Muhurire	Gitobe	MUHIMPUNDU Everyne	No	Yes	25 * 60 1,500	* 0	* 0	* 0	Yes
94	Rurenge	Muhurire	Gitobe	NTAMFURAYISHYARI	No	No	* 0	* 0	* 0	* 0	Yes
95	Rurenge	Rujambara	Akarambaraye	UWIRAGIYE Pierre*	No	Yes	20 * 17 340	* 0	* 0	* 0	Yes
96	Rurenge	Muhurire	Gitobe	VUNUHAWE	No	Yes	20 * 30 600	* 0	* 0	* 0	Yes
97	Rurenge	Muhurire	Gitobe	NSABIYUMVA Eric	No	Yes	32 * 13 416	20 * 40 800	* 0	* 0	Yes
98	Rurenge	Muhurire	Gitobe	MUHASHYI	No	No	* 0	* 0	* 0	* 0	Yes
99	Rurenge	Muhurire	Gitobe	KAWERA	No	No	* 0	* 0	* 0	* 0	Yes
100	Rurenge	Muhurire	Gitobe	MUKABAKUNZI Shefura	No	No	* 0	* 0	* 0	* 0	Yes
101	Rurenge	Muhurire	Gitobe	NIZEYIMANA Costa	No	Yes	20 * 30 600	20 * 30 600	21 * 30 630	40 * 70 2,800	Yes
102	Rurenge	Muhurire	Gitobe	RWAGATERA	No	No	* 0	* 0	* 0	* 0	Yes
103	Rurenge	Muhurire	Gitobe	BAZIRA	No	Yes	50 * 70 3,500	* 0	* 0	* 0	Yes
104	Rurenge	Muhurire	Gitobe	KARANGANWA Leonard	No	No	* 0	* 0	* 0	* 0	Yes
105	Rurenge	Muhurire	Gitobe	BAMAZIKI Fabien	No	No	* 0	* 0	* 0	* 0	Yes
106	Rurenge	Muhurire	Gitobe	NZEYIMANA Eugène*	No	Yes	70 * 20 1,400	* 0	* 0	* 0	Yes
107	Rurenge	Rujambara	Nyabaganza	RUSAGARA Isdor*	No	Yes	75 * 250 18,750	* 0	* 0	* 0	Yes
108	Rurenge	Muhurire	Nyamata	NSABIMANA Innocent	No	No	* 0	* 0	* 0	* 0	Yes
109	Rurenge	Muhurire	Gitobe	KIMONYO Etienne	No	No	* 0	* 0	* 0	* 0	Yes
110	Rurenge	Muhurire	Gitobe	MUNYEMANA Faustin	No	No	* 0	* 0	* 0	* 0	Yes
111	Rurenge	Rujambara	Akarambaraye	MUTONI Angelique	No	Yes	6 * 98 588	* 0	* 0	* 0	No

資料 6.5 (1) センサス調査結果 (湿地帯) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q20.Official Land ownership certificate in the affected area in the marshland	Q21. Official land tile of your private land near marshland	Q21. Plot size near marshland	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q21. Plot size near marshland (m2)	Q22. Want to continue farming after the project (Yes or No)
112	Rurenge	Musya	Karama	NIZEYIMANA Valens	No	No	* 0	* 0	* 0	* 0	Yes
113	Rurenge	Rujambara	Kabeza	MUKAGAJU Annonciata*	No	Yes	20 * 30 600	* 0	* 0	* 0	Yes
114	Rurenge	Rujambara	Akarambaraye	NDARIKE Pierre*	No	No	* 0	* 0	* 0	* 0	Yes
115	Rurenge	Rujambara	Nyabaganza	MUKANKWIRO Berthilde	No	No	* 0	* 0	* 0	* 0	Yes
116	Rurenge	Muhurire	Gitobe	NYRINKINDI Tharcisse	No	No	* 0	* 0	* 0	* 0	Yes
117	Rurenge	Muhurire	Gitobe	SINDAMUHEBA	No	No	* 0	* 0	* 0	* 0	Yes
118	Rurenge	Muhurire	Gitobe	NIZEYIMANA Sylvain	No	No	* 0	* 0	* 0	* 0	Yes
119	Rurenge	Rujambara	Nyabaganza	HABINEZA Vedaste	No	No	* 0	* 0	* 0	* 0	Yes
120	Rurenge	Muhurire	Gitobe	NIBATETE	No	Yes	40 * 80 3,200	5 * 10 50	* 0	* 0	Yes
121	Rurenge	Muhurire	Gitobe	BUCYANA Celestin	No	No	* 0	* 0	* 0	* 0	Yes
122	Rurenge	Muhurire	Gitobe	FATUKUBONYE Daniel	No	Yes	25 * 40 1,000	50 * 100 5,000	10 * 50 500	* 0	Yes
123	Rurenge	Muhurire	Gitobe	MUKAMAZIMPAKA Angélique	No	Yes	30 * 40 1,200	* 0	* 0	* 0	Yes
124	Rurenge	Muhurire	Gitobe	NSHUTI Ange Marie Paul	No	No	* 0	* 0	* 0	* 0	Yes
125	Rurenge	Muhurire	Gitobe	BITWAYIKI	No	No	* 0	* 0	* 0	* 0	Yes
126	Rurenge	Muhurire	Agatonero	MURANGIRA Pierre	No	Yes	15 * 25 375	* 0	* 0	* 0	Yes
127	Rurenge	Muhurire	Gashinya	MUNYABUGINGO Alfred	No	No	* 0	* 0	* 0	* 0	Yes
128	Rurenge	Muhurire	Gashinya	NTORE Pierre Celestin	No	No	* 0	* 0	* 0	* 0	Yes
129	Rurenge	Muhurire	Gitobe	MUSABYEYEZU Annonciata	No	Yes	50 * 20 1,000	30 * 20 600	* 0	* 0	Yes
130	Rurenge	Muhurire	Gashinya	HABIMANA Felicien	No	No	* 0	* 0	* 0	* 0	Yes
131	Rurenge	Muhurire	Gitobe	RUCYAHANA Protais	No	No	* 0	* 0	* 0	* 0	Yes
132	Rurenge	Muhurire	Gashinya	UWIZEYE Eugène	No	No	* 0	* 0	* 0	* 0	Yes
133	Rurenge	Muhurire	Gashinya	NIYITEGEKA Felicien	No	Yes	15 * 30 450	* 0	* 0	* 0	Yes
134	Rurenge	Rujambara	Akarambaraye	MUKAFASHAHO Euphrasie	No	No	* 0	* 0	* 0	* 0	Yes
135	Rurenge	Rujambara	Nyabaganza	NYAMURIMA Valens*	No	Yes	40 * 20 800	50 * 20 1,000	* 0	* 0	Yes
136	Rurenge	Muhurire	Gitobe	NSABIMANA Joseph	No	Yes	20 * 40 800	20 * 50 1,000	* 0	* 0	Yes
137	Rurenge	Muhurire	Nyamata	NGENDAHAYO	No	No	* 0	* 0	* 0	* 0	Yes
138	Rurenge	Rujambara	Nyabaganza	KAGABO Fidele	No	Yes	10 * 40 400	20 * 50 1,000	* 0	* 0	Yes
139	Rurenge	Rujambara	Nyabaganza	MUKANKURANA Ernestine*	No	Yes	50 * 100 5,000	* 0	* 0	* 0	Yes
140	Rurenge	Rujambara	Akarambaraye	INGABIRE Marie Michel	No	No	* 0	* 0	* 0	* 0	Yes
141	Rurenge	Muhurire	Gitobe	UWIZEYIMANA Alphonse	No	Yes	20 * 70 1,400	* 0	* 0	* 0	Yes
142	Rurenge	Rujambara	Akarambaraye	MUKABATABAZI Evanisi	No	No	* 0	* 0	* 0	* 0	Yes
143	Rurenge	Rujambara	Nyabaganza	IYAKAREMYE Eric	No	No	* 0	* 0	* 0	* 0	Yes
144	Rurenge	Rujambara	Mashyoza	GISAGARA	No	Yes	40 * 80 3,200	* 0	* 0	* 0	Yes

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 st crop bags for sale	Q6.1 st crop price/bag (Rwf)	income from 1st crop	Q6. 2nd crop name
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste	36	0783731511	3	3	0	Male	None	0	Labor	Sorghum	3	20,000	60,000	Sweet Potatoes
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas	31	0787197459	3	2	0	Male	Primary	0	Agriculture	Maize	1	30,000	30,000	Beans
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien	52	N/A	2	2	0	Male	None	0	Agriculture	Sorghum	2	30,000	60,000	Maize
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant	44	0783812682	2	2	0	Male	None	0	Agriculture	Sorghum	4	20,000	80,000	Beans
5	Remera	Ndekwe	Gikomero	MUJY AMBERE	54	0788987158	3	2	0	Male	Primary	0	Agriculture	Sorghum	15	20,000	300,000	Maize
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	37	0783496107	4	3	0	Male	Primary	0	Agriculture	Beans	1	30,000	30,000	Sorghum
7	Remera	Bugera	Nkenke	MUREKATETE Felicita	54	0782927525	4	2	0	Female	Primary	0	Agriculture	Sugarcane	3	50,000	150,000	Sweet Potatoes
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin	20	0787824751	1	0	0	Male	Primary	0	Agriculture	Sorghum	1	25,000	25,000	Beans
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison	36	N/A	3	3	0	Male	Primary	0	Agriculture	Sorghum	5	30,000	150,000	Maize
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene	31	0785127477	3	3	0	Male	Primary	0	Agriculture	Sorghum	20	20,000	400,000	Beans
11	Remera	Bugera	Gasebeya	HABINEZA Samuel	65	0783231511	3	5	0	Male	Primary	0	Agriculture	Sorghum	8	20,000	160,000	Beans
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*	37	0788657252	5	2	0	Male	Primary	0	Agriculture	Sorghum	12	30,000	360,000	Beans
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*	45	0788987158	1	2	0	Female	Primary	0	Agriculture	Tomato	15	10,000	150,000	Sorghum
14	Remera	Ndekwe	Gikomero	ZIMURINDA	74	0786973171	3	2	1	Male	None	1	Agriculture	Cabbage	15	5,000	75,000	Sweet Potatoes
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu	30	0784065070	1	3	0	Male	Primary	0	Agriculture	Sorghum	14	20,000	280,000	Beans
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE	22	N/A	2	1	1	Female	Primary	0	Agriculture	Sorghum	6	25,000	150,000	Beans

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Q6.2nd crop bags for sale	Q6. 2nd crop price/bag (Rwf)	income from 2nd crop	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	income from 3rd crop	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	income from 4th crop	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	income from 5th crop
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste	2	5,000	10,000	Beans	2	30,000	60,000	Cassava	2	25,000	50,000				-
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas	1	30,000	30,000	Cassava	2	10,000	20,000	Sorghum	3	20,000	60,000				-
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien	1	30,000	30,000	Sweet potatoes	4	20,000	80,000	Coffee	1	30,000	30,000	Beans	0.8	35,000	28,000
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant	1	30,000	30,000	Maize	0.5	15,000	7,500	Coffee	6	15,600	93,600	Cassava	3	20,000	60,000
5	Remera	Ndekwe	Gikomero	MUJYAMBERE	9	15,000	135,000	Beans	10	30,000	300,000	Cabbage	40	7,500	300,000				-
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	3	20,000	60,000	Maize	2	30,000	60,000	Cassava	1	10,000	10,000	Sweet potatoes	15	10,000	150,000
7	Remera	Bugera	Nkenke	MUREKATETE Felicita	11	12,000	132,000	Cabbage	80	5,000	400,000	Banana	10	5,000	50,000				-
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin	1	20,000	20,000	Maize	1	15,000	15,000	Coffee	1	12,600	12,600				-
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison	2	30,000	60,000	Beans	1	30,000	30,000	Sweet potatoes	3	10,000	30,000				-
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene	5	30,000	150,000	Maize	3	30,000	90,000	Coffee	4	15,600	62,400	Sweet potatoes	4	10,000	40,000
11	Remera	Bugera	Gasebeya	HABINEZA Samuel	1	30,000	30,000	Coffee	4	12,600	50,400	Banana	10	8,000	80,000	Cabbage	30	3,000	90,000
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*	6	35,000	210,000	Cassava	3	15,000	45,000	Maize	4	30,000	120,000	Sweet potatoes	11	10,000	110,000
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*	20	20,000	400,000	Beans	5	30,000	150,000	Maize	2	30,000	60,000	Cassava	5	15,000	75,000
14	Remera	Ndekwe	Gikomero	ZIMURINDA	8	6,000	48,000	Maize	1	30,000	30,000	Beans	3	30,000	90,000				-
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu	3	30,000	90,000	Cassava	5	20,000	100,000	Coffee	2	12,600	25,200	Sweet potatoes	4	10,000	40,000
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE	2	40,000	80,000	Cassava	2	30,000	60,000	Sweet potatoes	1	10,000	10,000				-

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (混地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Q6. 6th crop name	Q6. 6th crop bags for sale	Q6. 6th crop price/bag (Rwf)	income from 6th crop	Q6. 7th crop name	Q6. 7th crop bags for sale	Q6. 7th crop price/bag (Rwf)	income from 7th crop	Total GROSS farm income	Q7. Farm input :seed (Rwf)	Q7. Farm input: fertilizer (Rwf)	Q7 Farm input: pesticide (Rwf)	Net farm income	Q8 Other income source	Q9 Other income (Rwf)
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste				-				-	180,000	60,000	30,000	0	90,000	Labor	100,000
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas				-				-	140,000	10,000	21,000	30,000	79,000	Livestock	30,000
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien	Banana	10	8,000	80,000				-	308,000	10	0	0	307,990	Livestock	30,000
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant	Potatoes	1	12,500	12,500	Banana	12	8,000	96,000	379,600	7,500	30,000	2,000	340,100	Livestock	70,000
5	Remera	Ndekwe	Gikomero	MUJYAMBERE				-				-	1,035,000	25,000	60,000	15,000	935,000	N/A	0
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	Cabbage	40	3,000	120,000	Eggplant	70	6,000	420,000	850,000	4,000	10,000	3,000	833,000	Livestock	50,000
7	Remera	Bugera	Nkenke	MUREKATETE Felicita				-				-	732,000	30,000	150,000	12,000	540,000	N/A	0
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin				-				-	72,600	30,000	10,000	8,000	24,600	Livestock	45,000
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison				-				-	270,000	34,000	42,000	30,000	164,000	N/A	0
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene				-				-	742,400	50,000	40,000	15,000	637,400	Livestock	60,000
11	Remera	Bugera	Gasebeya	HABINEZA Samuel	Sweet potatoes	3	10,000	30,000	Cassava	4	20,000	80,000	520,400	7,000	30,000	6,000	477,400	Livestock	100,000
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*				-				-	845,000	21,000	51,000	0	773,000	N/A	0
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*	Sweet potatoes	6	10,000	60,000				-	895,000	20,000	20,000	10,000	845,000	Livestock	40,000
14	Remera	Ndekwe	Gikomero	ZIMURINDA				-				-	243,000	10,000	25,000	3,000	205,000	Livestock	100,000
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu	Banana	7.5	8,000	60,000	Maize	2	30,000	60,000	655,200	31,000	51,000	6,000	567,200	Livestock	200,000
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE				-				-	300,000	30,000	0	0	270,000	Livestock	160,000

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Total household net income	Q10. Times of cultivation in the marshland to be submerged	Q11. Crop (1) cultivated in the marshland	Q11. Crop (1) number of bags produced in the marshland	Q11. Nos of plot for Crop (1) cultivated in the marshland	Q11. Size of plot of crop (1) (m2)	income of crop (1)	Q11. Crop (2) cultivated in the marshland	Q11. Crop (2) number of bags produced in the marshland	Q11. Nos of plot for Crop (2) cultivated in the marshland	Q11. Size of plot of crop (2) (m2)
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste	190,000	2	Sweet potatoes	20	3	4 * 30 120	100,000				4 * 30 120
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas	109,000	2	Sweet potatoes	2	1	24 * 4 96	20,000	Eggplant	2	1.0	25 * 4 100
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien	337,990	2	Sweet potatoes	3	3	10 * 5 50	60,000				10 * 5 50
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant	410,100	2	Sweet potatoes	12	3	4 * 15 60	120,000				4 * 15 60
5	Remera	Ndekwe	Gikomero	MUJYAMBERE	935,000	2	Cabbage	48	6	7 * 34 238	360,000	Sweet potatoes	13	Rotation	5 * 25 125
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	883,000	2	Sweet potatoes	15	3	30 * 3 90	150,000				70 * 4 280
7	Remera	Bugera	Nkenke	MUREKATETE Felicita	540,000	2	Sweet potatoes	11	4	14 * 45 630	132,000				5 * 39 195
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin	69,600	2	Sweet potatoes	7	1	5 * 30 150	70,000				* 0
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison	164,000	2	Sweet potatoes	5	1	6 * 20 120	50,000	Sunflower	1	1.0	65 * 85 5,525
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene	697,400	2	Sweet potatoes	6	3	3 * 12 36	60,000				4 * 28 112
11	Remera	Bugera	Gasebeya	HABINEZA Samuel	577,400	2	Sweet potatoes	10	5	5 * 15 75	100,000				5 * 15 75
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*	773,000		Sweet potatoes	11		* 0	110,000	Sorghum	5	1.0	180 * 20 3,600
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*	885,000	2	Sweet potatoes	10	3	10 * 45 450	100,000				10 * 30 300
14	Remera	Ndekwe	Gikomero	ZIMURINDA	305,000	2	Sweet potatoes	8	3	6 * 35 210	48,000				4 * 40 160
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu	767,200	2	Sorghum	2	1	20 * 24 480	40,000				* 0
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE	430,000	2	Sweet potatoes	2	1	12 * 15 180	20,000				* 0

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	income of crop (2)	Q11. Crop (3) cultivated in the marshland	Q11. Crop (3) number of bags produced in the marshland	Q11. Nos of plot for Crop (3) cultivated in the marshland	Q11. Size of plot of crop (3) (m2)	income of crop (3)	Q11. Crop (4) cultivated in the marshland	Q11. Crop (4) number of bags produced in the marshland	Q11. Nos of plot for Crop (4) cultivated in the marshland	Q11. Size of plot of crop (4) (m2)	income of crop (4)	Q11. Crop (5) cultivated in the marshland
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste					4 * 30 120		Cabbage	15.0	Rotation	* 0	150,000	Carrot
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas	12,000	Cabbage	3.0	1.0	25 * 4 100	15,000				* 0		
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien					10 * 2 20					* 0		
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant					4 * 15 60					* 0		
5	Remera	Ndekwe	Gikomero	MUJYAMBERE	130,000	Eggplant	15	Rotation	* 0	90,000	Tomato	45.5	Rotation	* 0	455,000	
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien					60 * 4 240		Cabbage	30.0	Rotation	* 0	90,000	Eggplant
7	Remera	Bugera	Nkenke	MUREKATETE Felicita					6 * 40 240		Sugarcane	3.0		5 * 45 225	150,000	
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin					* 0					* 0		
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison	8,000				* 0					* 0		
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene					* 0					* 0		
11	Remera	Bugera	Gasebeya	HABINEZA Samuel					5 * 15 75		Cabbage	10.0	Rotation	* 0	30,000	
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*	150,000	Beans	2.0	1.0	180 * 20 3,600	70,000				* 0		
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*					5 * 20 100		Tomato	5.0	2.0	5 * 18 90	50,000	
14	Remera	Ndekwe	Gikomero	ZIMURINDA					4 * 45 180		Beans	2.0	2.0	80 * 20 1,600	60,000	
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu					* 0					* 0		
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE					* 0					* 0		

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (5) number of bags produced in the marshland	Q11. Nos of plot for Crop (5) cultivated in the marshland	Q11. Size of plot of crop (5) (m2)	income of crop (5)	Q11. Crop (6) cultivated in the marshland	Q11. Crop (6) number of bags produced in the marshland	Q11. Nos of plot for Crop (6) cultivated in the marshland	Q11. Size of plot of crop (6) (m2)	income of crop (6)	Total income of crop in Marshland	Total plot in Marshland	Q12. Size of plot A outside of marshland (m2)
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste	15.0	Rotation	* 0	105,000				* 0	355,000	360	70 * 40 2,800	
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas			* 0					* 0	47,000	296	80 * 40 3,200	
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien			* 0					* 0	60,000	120	50 * 30 1,500	
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant			* 0					* 0	120,000	180	60 * 80 4,800	
5	Remera	Ndekwe	Gikomero	MUJYAMBERE			8 * 27 216					10 * 35 350	1,035,000	929	60 * 110 6,600	
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	70.0	Rotation	* 0	420,000				* 0	660,000	610	50 * 40 2,000	
7	Remera	Bugera	Nkenke	MUREKATETE Felicita			7 * 48 336					6 * 45 270	282,000	1,896	62 * 49 3,038	
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin			* 0					* 0	70,000	150	10 * 30 300	
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison			* 0					* 0	58,000	5,645	65 * 65 4,225	
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene			* 0					* 0	60,000	148	80 * 100 8,000	
11	Remera	Bugera	Gasebeya	HABINEZA Samuel			* 0					* 0	130,000	225	30 * 50 1,500	
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*			* 0					* 0	330,000	7,200	70 * 180 12,600	
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*			5 * 25 125					* 0	150,000	1,065	70 * 100 7,000	
14	Remera	Ndekwe	Gikomero	ZIMURINDA			30 * 8 240		Eggplant	5	3.0	30 * 4 120	30,000	138,000	2,510	50 * 100 5,000
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu			* 0					* 0	40,000	480	35 * 102 3,570	
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE			* 0					* 0	20,000	180	100 * 100 10,000	

* The persons have hillside farmlands to be submerged.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Q12. Size of plot B outside of marshland (m2)	Q12. Size of plot C outside of marshland (m2)	Q12. Size of plot D outside of marshland (m2)	Q12. Size of plot E outside of marshland (m2)	Total plot size outside of marshland	percentage rate of plot in marshland	Q13. Times to cultivate in hillside	Q14. Times to cultivate outside of marshland (within 50m from the marshland)	Q15. Years to stay in the area
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste	40 * 50 2,000	* 0	* 0	* 0	4,800	7%	2	N/A	36
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas	19 * 20 380	* 0	* 0	* 0	3,580	8%	2	2	27
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien	20 * 50 1,000	* 0	* 0	* 0	2,500	5%	2	N/A	52
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant	50 * 70 3,500	60 * 70 4,200	* 0	* 0	12,500	1%	2	N/A	44
5	Remera	Ndekwe	Gikomero	MUJYAMBERE	* 0	* 0	* 0	* 0	6,600	12%	2	2	54
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	110 * 60 6,600	* 0	* 0	* 0	8,600	7%	2	2	37
7	Remera	Bugera	Nkenke	MUREKATETE Felicita	* 0	* 0	* 0	* 0	3,038	38%	2	N/A	53
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin	* 0	* 0	* 0	* 0	300	33%	2	N/A	20
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison	* 0	* 0	* 0	* 0	4,225	57%	2	2	18
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene	50 * 80 4,000	70 * 100 7,000	20 * 60 1,200	40 * 50 2,000	22,200	1%	2	N/A	31
11	Remera	Bugera	Gasebeya	HABINEZA Samuel	30 * 60 1,800	30 * 50 1,500	* 0	* 0	4,800	4%	2	N/A	65
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*	* 0	* 0	* 0	* 0	12,600	36%	2	2	7
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*	50 * 80 4,000	10 * 20 200	* 0	* 0	11,200	9%	2	N/A	45
14	Remera	Ndekwe	Gikomero	ZIMURINDA	* 0	* 0	* 0	* 0	5,000	33%	2	2	74
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu	35 * 44 1,540	150 * 50 7,500	* 0	* 0	12,610	4%	2	2	30
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE	60 * 40 2,400	* 0	* 0	* 0	12,400	1%	2	N/A	22

* The persons have hillside farmlands to be submered.

資料 6.5 (1) センサス調査結果 (湿地帯) (Remera)

No.	Sector	Cell	Village	Name of householder	Q16. Kind of domestic water, rainy season*	Q17. Kind of domestic water, dry season*	Q18. Availability of Electricity, (Yes or No)	Q19. Cultivate or not in the affected area	Q20. Official Land ownership certificate in the affected area in the marshland	Q21. Official land tile of your private land in hillside	Q21. Plot size in hillside with land title (m2)	Q22. Want to continue farming after the project (Yes or No)
1	Remera	Ndekwe	Gikomero	MBANJINTWARI Théoneste	1;5	5	No	Yes	No	No	* 0	Yes
2	Remera	Bugera	Gasebeya	MANIRAGENA Silas	5	4	No	Yes	No	No	* 0	No
3	Remera	Ndekwe	Gikomero	NGARAMBE Felicien	1;2;7	7	No	Yes	No	No	* 0	Yes
4	Remera	Ndekwe	Gikomero	SINZABAKURANA Qilisant	1;5	5	No	Yes	No	No	* 0	No
5	Remera	Ndekwe	Gikomero	MUJYAMBERE	1;5	5	No	Yes	No	Yes	60 * 110 6,600	No
6	Remera	Ndekwe	Gikomero	KANYARUKIKO Felicien	5	5	No	Yes	No	No	* 0	No
7	Remera	Bugera	Nkenke	MUREKATETE Felicita	2	2	No	Yes	No	No	* 0	No
8	Remera	Ndekwe	Gikomero	NSHIMIYIMANA Faustin	1;7	7	No	Yes	No	No	* 0	Yes
9	Remera	Ndekwe	Gikomero	NIYIGABA Edison	1;7	2	No	Yes	No	Yes	65 * 85 5,525	Yes
10	Remera	Ndekwe	Gikomero	MANIRAGENA Jean Damascene	1;2;4	4;7	No	Yes	No	No	* 0	Yes
11	Remera	Bugera	Gasebeya	HABINEZA Samuel	1;4;5	4;5	No	Yes	No	No	* 0	Yes
12	Remera	Ndekwe	Gikomero	MBONIGABA Jean Baptiste*	1;7	7	No	Yes	No	Yes	180 * 70 12,600	Yes
13	Remera	Ndekwe	Gikomero	MUKASENDAKIZE Agnes*	1;4	4	No	Yes	No	No	* 0	Yes
14	Remera	Ndekwe	Gikomero	ZIMURINDA	7	7	No	Yes	No	No	* 0	Yes
15	Remera	Ndekwe	Gikomero	IRYUMUGABE Swayibu	1;5	5	No	Yes	No	Yes	24 * 80 1,920	Yes
16	Remera	Ndekwe	Gikomero	NIKOYAGENYE	1;4	4	No	Yes	No	No	* 0	Yes

* The persons have hillside farmlands to be submered.

Q16 & Q17: *1. Rain water 2. Canal water 3. River water 4. Piped water (public water) 5. Tubewell (deep), public
6. Tubewell (deep), private 7. Shallow well

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Total number of family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 1st crop bags for sale	Q6. 1st crop price/bag (Rwf)
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)	62	N/A	2	1	3	0	F	None	0	Agriculture	Sorghum	1.5	30,000
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael	22	0782453636	1	2	3	0	M	Primary	0	Agriculture	Sorghum	5	30,000
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel	55	N/A	4	3	7	0	M	None	1	Agriculture	Sorghum	8	22,000
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin	27	0788396861	2	2	4	0	M	Primary	1	Agriculture	Sorghum	6	30,000
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA	21	N/A	1	2	3	0	M	Primary	0	Agriculture	Beans	2	35,000
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel	48	0783872296	6	2	8	0	M	None	0	Agriculture	Sorghum	6	20,000
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald	43	0787516518	3	2	5	0	M	Primary	0	Agriculture	Cabbage	20	12,500
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston	39	0784386454	3	3	6	0	M	Secondary Low level	0	Agriculture	Sorghum	15	22,000
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA	35	0785775258	3	2	5	0	M	Primary	0	Agriculture	Maize	12	36,000
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta	83	N/A	3	6	9	1	F	None	0	Agriculture	Maize	1	20,000
11	RURENGE	MUHURIRE	GITOBE	MUKAMPIGA Beate	63	N/A	2	1	3	0	F	None	0	Agriculture	Sorghum	2	30,000
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve	62	N/A	1	2	3	0	F	None	0	Agriculture	Sorghum	3	20,000
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu	32	0784065070	7	5	12	0	M	None	0	Agriculture	Beans	5	50,000
14	RURENGE	MUHURIRE	GITOBE	MUKAGATARE Selaphine	47	N/A	4	5	9	1	M	None	0	Agriculture	Sorghum	6	30,000
15	RURENGE	RUGESE	KIYANJA	CYZANYE Therese	59	0783933767	1	2	3	0	F	Primary	0	Agriculture	Sorghum	4	20,000

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. Income of 1st crop (Rwf)	Q6. 2nd crop name	Q6. 2nd crop bags for sale	Q6. 2nd crop price/bag (Rwf)	Q6.1 Income of 2nd crop (Rwf)	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	Q6.1 Income of 3rd crop (Rwf)	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	Q6.1 Income of 4th crop (Rwf)
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)	45,000	Cassava	2	25,000	50,000	Maize	1	30,000	30,000	Beans	0.5	40,000	20,000
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael	150,000	Beans	2	40,000	80,000	Tomato	8	12,000	96,000				-
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel	176,000	Beans	2	40,000	80,000	Sweet Potatoes	4	7,000	28,000				-
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin	180,000	Beans	4	50,000	200,000	Cassava	10	20,000	200,000	Maize	8	30,000	240,000
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA	70,000	Sorghum	5	28,000	140,000	Cassava	6	30,000	180,000	Sweet Potatoes	20	10,000	200,000
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel	120,000	Cassava	5	8,000	40,000	Potatoes	3	7,000	21,000	Sweet Potatoes	5	6,000	30,000
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald	250,000	Sorghum	8	30,000	240,000	Beans	2.5	50,000	125,000	Cassava	5	30,000	150,000
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston	330,000	Maize	17	35,000	595,000	Beans	5	50,000	250,000				-
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA	432,000	Sorghum	11	21,000	231,000				-				-
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta	20,000	Beans	1.5	30,000	45,000	Sweet Potatoes	3	10,000	30,000	Cassava	3	15,000	45,000
11	RURENGE	MUHURIRE	GITOBE	MUKAMPIGA Beate	60,000	Beans	1	25,000	25,000	Sweet Potatoes	3	6,000	18,000				-
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve	60,000	Cassava	4	20,000	80,000	Maize	1	30,000	30,000	Beans	1	30,000	30,000
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu	250,000	Sorghum	8	20,000	160,000	Maize	6	35,000	210,000				-
14	RURENGE	MUHURIRE	GITOBE	MUKAGATARE Selaphine	180,000	Beans	3	35,000	105,000	Maize	2	20,000	40,000				-
15	RURENGE	RUGESE	KIYANJA	CYIZANYE Therese	80,000	Beans	1	30,000	30,000	Maize	2	30,000	60,000	Cassava	15	25,000	375,000

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	Q6.1 Income of 5th crop (Rwf)	Q6. 6th crop name	Q6. 6th crop bags for sale	Q6. 6th crop price/bag (Rwf)	Q6.1 Income of 6th crop (Rwf)	Total GROSS farm income	Q7. Farm input: seed (Rwf)	Q7. Farm input: fertilizer (Rwf)	Q7 Farm input: pesticide (Rwf)	Q7 Farm input: labor (Rwf)	Total Net farm income
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)				-				0	145,000	10,000	0	0	0	135,000
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael				-				0	326,000	5,000	15,000	35,000	0	271,000
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel				-				0	284,000	20,000	0	0	10,000	254,000
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin	Sweet potatoes	10	15,000	150,000	Potatoes	10	12,000	120,000	1,090,000	72,000	112,000	10,000	150,000	746,000
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA				-				0	590,000	24,000	21,000	20,000	60,000	465,000
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel				-				0	211,000	4,500	21,000	0	60,000	125,500
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald	Sweet potatoes	2	20,000	40,000	Tomato	30	7,000	210,000	1,015,000	5,000	19,500	30,000	26,000	934,500
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston				-				0	1,175,000	25,200	238,000	27,000	80,000	804,800
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA				-				0	663,000	24,000	150,000	6,000	50,000	433,000
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta				-				0	140,000	0	0	0	0	140,000
11	RURENGE	MUHURIRE	GITOBE	MUKAMPIGA Beate				-				0	103,000	0	0	0	0	103,000
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve				-				0	200,000	12,000	0	0	0	188,000
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu				-				0	620,000	29,300	78,000	0	0	512,700
14	RURENGE	MUHURIRE	GITOBE	MUKAGATARE Selaphine				-				0	325,000	5,000	26,650	0	0	293,350
15	RURENGE	RUGESE	KIYANJA	CYIZANYE Therese				-				0	545,000	20,000	26,000	0	30,000	469,000

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q8 Other income source	Q9 Other income (Rwf)	Q10. Times of cultivation in the hillside to be submerged	Total household net income	Q10. Times of cultivation in the hillside to be submerged	Q11. Crop (1) cultivated in the hillside to be affected	Q11. Crop (1) number of bags produced in hillside	Q11. UPI Plot Number at hillside for crop 1	Q11. Size of plot of crop (1) (m2) or sqm	Q11. Crop (2) cultivated in the hillside to be affected	Q11. Crop (2) number of bags produced in the hillside
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)	N/A	0	2	135,000	2	Cassava	1	2,336	20 * 25 500		
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael	N/A	0	2	271,000	2	Sorghum	2	2,263	15 * 50 750	Tomato	4
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel	N/A	0	2	254,000	2	Sorghum	8	??	200 * 50 10,000	Beans	2
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin	N/A	0	2	746,000	2	Potatoes	15	1,330	50 * 100 5,000		
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA	N/A	0	3	465,000	3	Beans	2	1,330	30 * 60 1,800	Sweet potatoes	20
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel	N/A	0	2	125,500	2	Sorghum	6	3,610	50 * 120 6,000		
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald	Livestock	160,000	3	1,094,500	3	Sorghum	2	1,262	30 * 50 1,500		
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston	Trading	200,000	2	1,004,800	2	Sorghum	15		50 * 200 10,000	Maize	17
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA	N/A	0	2	433,000	2	Maize	12		200 * 50 10,000	Sorghum	11
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta	N/A	0	2	140,000	2	Maize	1	2,494	20 * 30 600	Beans	1
11	RURENGE	MUHURIRE	GITOBE	MUKAMPIGA Beate	N/A	0	2	103,000	2	Sorghum	1	1,393	30 * 40 1,200	Beans	0.5
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve	N/A	0	2	188,000	2	Tomato	5	2,337	20 * 25 500		
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu	Carpentry	250,000	2	762,700	2	Beans	2		42 * 45 1,890	Beans	1
14	RURENGE	MUHURIRE	GITOBE	MUKAGATARE Selaphine	N/A	0	2	293,350	2	Beans	1	2,654	15 * 30 450	Sorghum	1
15	RURENGE	RUGESE	KIYANJA	CYIZANYE Therese	N/A	0	2	469,000	2	Sorghum	2	2112	100 * 100 10,000	Beans	1

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q11. UPI Plot Number at hillside for crop 2	Q11. Size of plot of crop (2) (m2) or sqm	Q11. Crop (3) cultivated in the hillside to be affected	Q11. Crop (3) number of bags produced in the hillside	Q11. UPI Plot Number at hillside for crop 3	Q11. Size of plot of crop (3) (m2) or sqm	Q11. Crop (4) cultivated in the hillside	Q11. Crop (4) number of bags produced in hillside	Q11. UPI Plot Number at hillside for crop 4	Q11. Size of plot of crop (4) (m2) or sqm
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)		* 0				* 0				* 0
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael	2,263	15 * 40 600				* 0				* 0
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel	Rotation	* 0				* 0				* 0
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin		* 0				* 0				* 0
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA	Rotation	0				* 0				* 0
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel		* 0				* 0				* 0
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald		* 0				* 0				* 0
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston	Rotation	0				* 0				* 0
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA	Rotation	0				* 0				* 0
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta	Rotation	* 0	Sweet potatoes	1.5	Rotation	* 0	Cassava	1	Rotation	* 0
11	RURENGE	MUHURIRE	GITOBÉ	MUKAMPIGA Beate	1,393	30 * 40 1,200				* 0				* 0
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve		* 0				* 0				* 0
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu		45 * 40 1,800				* 0				* 0
14	RURENGE	MUHURIRE	GITOBÉ	MUKAGATARE Selaphine	2,654	15 * 30 450	Maize	1	2,654	15 * 30 450				* 0
15	RURENGE	RUGESE	KIYANJA	CYZANYE Therese	2114	100 * 180 18,000				* 0				* 0

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q12. Size of plot A outside of submerged (m2) or sqm	Q12. Size of plot B outside of submerged (m2) or sqm	Q12. Size of plot C outside of submerged (m2) or sqm	Q12. Size of plot D outside of submerged (m2) or sqm	Total farmland	Q13. Years to stay in the area	Q14. Kind of domestic water, rainy season*	Q15. Kind of domestic water, dry season*	Q16. Availability of Electricity, (Yes or No)	Q17. Cultivate in the submerged area
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)	50 * 40 2,000	* 0	* 0	* 0	2,500	42	3	3	Yes	No
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael	* 0	* 0	* 0	* 0	1,350	22	1;5	5	Yes	No
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel	* 0	* 0	* 0	* 0	10,000	3	4	4;5	Yes	No
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin	* 0	* 0	* 0	* 0	5,000	27	1;5	5	Yes	No
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA	40 * 70 2,800	* 0	* 0	* 0	4,600	21	1;5	5	No	No
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel	20 * 20 400	30 * 10 300	* 0	* 0	6,700	48	1;5	5	No	Yes
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald	300 * 200 60,000	* 0	* 0	* 0	61,500	43	7	7	No	Yes
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston	75 * 90 6,750	* 0	* 0	* 0	16,750	6	5	5	Yes	No
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA	* 0	* 0	* 0	* 0	10,000	6	5	5	No	No
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta	20 * 30 600	10 * 100 1,000	21 * 60 1,260	* 0	3,460	83	1;5	5	No	Yes
11	RURENGE	MUHURIRE	GITOBE	MUKAMPIGA Beate	60 * 70 4,200	40 * 50 2,000	* 0	* 0	8,600	63	4	4;5	Yes	Yes
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve	100 * 30 3,000	* 0	* 0	* 0	3,500	62	5	5	Yes	No
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu	145 * 130 18,850	175 * 130 22,750	* 0	* 0	45,290	32	5	5	No	Yes
14	RURENGE	MUHURIRE	GITOBE	MUKAGATARE Selaphine	40 * 60 2,400	30 * 100 3,000	* 0	* 0	6,750	47	1;4	4;5	Yes	Yes
15	RURENGE	RUGESE	KIYANJA	CYIZANYE Therese	100 * 180 18,000	* 0	* 0	* 0	46,000	44	1;2	2	No	Yes

資料 6.5 (2) センサス調査結果 (丘陵地) (Rurenge)

No.	Sector	Cell	Village	Name of householder	Q18 Want to continue farming activity when the Project comes	Q19 cultivate in the area which will be submerged in the reservoir	Q20.Official Land ownership certificate in the affected area in the marshland	Q21. Official land ownership certificate in the affected area in the Hillside	Q22. Want to continue farming after the project (Yes or No)	Q23 Other technical assistant from the Government apart of Technical assastant
1	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAGORE Valerie (Zaninka)	Yes	Yes	N/A	No	Yes	
2	RURENGE	RUJAMBARA	NYABAGAZA	BIZASHIRA Ismael	Yes	Yes	No	Yes	No	Loan for business
3	RURENGE	RUGESE	KIYANJA	MUKURALINDA Emmanuel	Yes	Yes	N/A	No	Yes	
4	RURENGE	RUJAMBARA	NYABAGAZA	MWEMEZI Augustin	Yes	Yes	N/A	N/A	Yes	Business
5	RURENGE	RUJAMBARA	AKARAMBARAYE	MANIRAGUHA	Yes	Yes	N/A	No	Yes	Start a Business (trading)
6	RURENGE	MUHURIRE	GISUNZU	NTEZIMANA Emmanuel	Yes	Yes	No	No	Yes	Livestock
7	RURENGE	RUJAMBARA	NYABAGAZA	KARANGWA Theobald	Yes	Yes	No	N/A	Yes	Access to loan for business
8	RURENGE	RUGESE	KIYANJA	KALISA Gaston	Yes	Yes	N/A	Yes	Yes	Mechanics
9	RURENGE	RUGESE	KIYANJA	RUKIMBIRA Richard SEZIBERA	Yes	Yes	N/A	No	No	Mechanics
10	RURENGE	RUJAMBARA	NYABAGAZA	MUSABENDE Agenesta	Yes	Yes	No	Yes	Yes	
11	RURENGE	MUHURIRE	GITOBE	MUKAMPIGA Beate	Yes	Yes	No	Yes	Yes	
12	RURENGE	RUJAMBARA	AKARAMBARAYE	NYIRAPFAKARAMYE Godeleve	Yes	Yes	Yes	No	Yes	
13	RURENGE	RUJAMBARA	MASHYOZA	RYUMUGABA Swayibu	Yes	Yes	No	Yes	Yes	Carpentry
14	RURENGE	MUHURIRE	GITOBE	MUKAGATARE Selaphine	Yes	Yes	No	Yes	Yes	
15	RURENGE	RUGESE	KIYANJA	CYZANYE Therese	Yes	Yes	No	Yes	Yes	Pesticides

*Q14 & Q15:

1. Rain water 2. Canal water 3. River water 4. Piped water (public water)
5. Tubewell (deep), public 6. Tubewell (deep), private 7. Shallow well

資料 6.5 (2) センサス調査結果 (丘陵地) (Remera)

No.	Sector	Cell	Village	Name of householder	Age	Phone number	Number of male family members	Number of female family member	Total number of family member	Q1. Number of person older than 65 years old	Q2. Sex of head of family	Q3. Educational status of head of family	Q4. No. of handicapped person	Q5. Main income source	Q6. 1st crop name	Q6.1 1st crop bags for sale	Q6.1 1st crop price/bag (Rwf)	Q6.1 Income of 1st crop (Rwf)	Q6. 2nd crop name	Q6. 2nd crop bags for sale
1	REMERA	BUGERA	GASEBEYA	NYIRAMATAMA	53	0783636074	0	3	3	0	F	None	0	Agriculture	Sorghum	10	28,000	280,000	Cassava	2
2	REMERA	BUGERA	GASEBEYA	MUKADEREVU	33	N/A	2	6	8	0	F	None	0	Agriculture	Sorghum	5	20,000	100,000		
3	REMERA	NDEKWE	GIKOMERO	SHYIRAMBERE Evariste	40	N/A	5	3	8	0	M	None	1	Agriculture	Beans	2	25,000	50,000	Cassava	5
4	REMERA	NDEKWE	GIKOMERO	NZIMURINDA	74	0787030530	3	2	5	1	M	None	0	Agriculture	Sorghum	12	20,000	240,000	Beans	3
5	REMERA	BUGERA	NKENKE	SEROMBA	72	N/A	1	3	4	1	M	None	1	Agriculture	Beans	3	30,000	90,000	Sorghum	16
6	REMERA	NDEKWE	GIKOMERO	UWIRINGIYE	31	N/A	3	1	4	0	M	None	0	Agriculture	Sorghum	7	20,000	140,000	Beans	4
7	REMERA	BUGERA	GASEBEYA	SEKIMONYO	27	0784815507	3	7	10	0	M	Secondary	0	Agriculture	Sorghum	21	20,000	420,000	Beans	3
8	REMERA	BUGERA	GASEBEYA	MUKAMURERA	29	0783435927	4	1	5	0	M	Primary	0	Agriculture	Sorghum	90	20,000	1,800,000	Beans	40
9	REMERA	BUGERA	GASEBEYA	KAYITARE Samuel	57	0783318241	6	2	8	0	M	Primary	0	Agriculture	Sorghum	20	20,000	400,000	Beans	6
10	REMERA	NDEKWE	GIKOMERO	MUKABIDERI Deborah	44	N/A	2	2	4	0	M	Primary	0	Agriculture	Sorghum	4	20,000	80,000	Beans	1
11*	REMERA	Ndekwe	GIKOMERO	Dr Rusa UWINTWALI Louis			3	4	7											

11*: Due to absence, survey was not conducted.

資料 6.5 (2) センサス調査結果 (丘陵地) (Remera)

No.	Sector	Cell	Village	Name of householder	Q6. 2nd crop price/bag (Rwf)	Q6.1 Income of 2nd crop (Rwf)	Q6. 3rd crop name	Q6. 3rd crop bags for sale	Q6. 3rd crop price/bag (Rwf)	Q6.1 Income of 3rd crop (Rwf)	Q6. 4th crop name	Q6. 4th crop bags for sale	Q6. 4th crop price/bag (Rwf)	Q6.1 Income of 4th crop (Rwf)	Q6. 5th crop name	Q6. 5th crop bags for sale	Q6. 5th crop price/bag (Rwf)	Q6.1 Income of 5th crop (Rwf)	Q6. 6th crop name	Q6. 6th crop bags for sale
1	REMERA	BUGERA	GASEBEYA	NYIRAMATAMA	25,000	50,000	Beans	3	30,000	90,000	Maize	4	20,000	80,000	Tomatoes	10	21,000	210,000	Cabbage	20
2	REMERA	BUGERA	GASEBEYA	MUKADEREVU						-				-				-		
3	REMERA	NDEKWE	GIKOMERO	SHYIRAMBERE Evariste	20,000	100,000	Sorghum	4	25,000	100,000	weet Potatoes	4	10,000	40,000				-		
4	REMERA	NDEKWE	GIKOMERO	NZIMURINDA	30,000	90,000	Cassava	10	30,000	300,000	Maize	1	20,000	20,000				-		
5	REMERA	BUGERA	NKENKE	SEROMBA	20,000	320,000	Coffee	55	12,000	660,000	Maize	16	30,000	480,000				-		
6	REMERA	NDEKWE	GIKOMERO	UWIRINGIYE	30,000	120,000	Potatoes	3	15,000	45,000	Maize	2	25,000	50,000				-		
7	REMERA	BUGERA	GASEBEYA	SEKIMONYO	30,000	90,000	Maize	6	30,000	180,000	Cassava	15	15,000	225,000				-		
8	REMERA	BUGERA	GASEBEYA	MUKAMURERA	30,000	1,200,000	Cassava	120	25,000	3,000,000	Maize	120	30,000	3,600,000				-		
9	REMERA	BUGERA	GASEBEYA	KAYITARE Samuel	30,000	180,000	Maize	4	30,000	120,000	Cassava	40	25,000	1,000,000				-		
10	REMERA	NDEKWE	GIKOMERO	MUKABIDERI Deborah	30,000	30,000	Maize	2	30,000	60,000	Cassava	15	25,000	375,000				-		
11*	REMERA	Ndekwe	GIKOMERO	Dr Rusa UWINTWALI Louis																

11*: Due to absence, survey was not conducted.

資料 6.5 (2) センサス調査結果 (丘陵地) (Remera)

No.	Sector	Cell	Village	Name of householder	Q6. 6th crop price/bag (Rwf)	Q6.1 Income of 6th crop (Rwf)	Q6. 7th crop name	Q6. 7th crop bags for sale	Q6. 7th crop price/bag (Rwf)	Q6.1 Income of 7th crop (Rwf)	Q7. Farm input :seed (Rwf)	Q7. Farm input: fertilizer (Rwf)	Q7 Farm input: pesticide (Rwf)	Q7 Farm input: labour (Rwf)	Total farm net income	Q8 Other income source	Q9 Other income (Rwf)	Total household net income	Q10. Times of cultivation in the hillside to be submerged	Q11. Crop (1) cultivated in the hillside to be affected
1	REMERA	BUGERA	GASEBEYA	NYIRAMATAMA	7,500	150,000	Coffee	2	25,000	50,000	50,000	30,000	35,000	15,000	780,000	Livestock	30,000	810,000	2	Sorghum
2	REMERA	BUGERA	GASEBEYA	MUKADEREVU							20,000	25,000	3,000	40,000	12,000	N/A	0	12,000	2	Sorghum
3	REMERA	NDEKWE	GIKOMERO	SHYIRAMBERE Evariste							20,000	0	0	0	270,000	Labour	15,000	285,000	2	Beans
4	REMERA	NDEKWE	GIKOMERO	NZIMURINDA							30,000	25,000	3,000	30,000	562,000	Livestock	50,000	612,000	2	Sorghum
5	REMERA	BUGERA	NKENKE	SEROMBA							40,000	25,000	5,000	50,000	1,430,000	N/A	0	1,430,000	2	Beans
6	REMERA	NDEKWE	GIKOMERO	UWIRINGIYE							30,000	26,000	0	40,000	259,000	N/A	0	259,000	2	Sorghum
7	REMERA	BUGERA	GASEBEYA	SEKIMONYO							20,000	30,000	5,000	45,000	815,000	N/A	0	815,000	2	Sorghum
8	REMERA	BUGERA	GASEBEYA	MUKAMURERA							200,000	140,000	50,000	200,000	9,010,000	N/A	0	9,010,000	2	Sorghum
9	REMERA	BUGERA	GASEBEYA	KAYITARE Samuel							30,000	52,000	25,000	70,000	1,523,000	Livestock	60,000	1,583,000	2	Sorghum
10	REMERA	NDEKWE	GIKOMERO	MUKABIDERI Deborah							15,000	8,000	6,000	20,000	496,000	N/A	0	496,000	2	Sorghum
11*	REMERA	Ndekwe	GIKOMERO	Dr Rusa UWINTWALI Louis																

11*: Due to absence, survey was not conducted.

資料 6.5 (2) センサス調査結果 (丘陵地) (Remera)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (1) number of bags produced in hillside	Q11. UPI Plot Number at hillside	Q11. Size of plot of crop (1) (m2) or sqm	Q11. Crop (2) cultivated in the hillside to be affected	Q11. Crop (2) number of bags produced in the hillside	Q11. UPI Plot Number at hillside for crop 2	Q11. Size of plot of crop (2) (m2) or sqm	Q11. Crop (3) cultivated in the hillside to be affected	Q11. Crop (3) number of bags produced in the hillside	Q11. UPI Plot Number at hillside for crop 3	Q11. Size of plot of crop (3) (m2) or sqm	Q11. Crop (4) cultivated in the hillside
1	REMERA	BUGERA	GASEBEYA	NYIRAMATAMA	10	1647	* 809	Cassava	5	1647	* 809	Beans	4	1647	* 809	Cabbage
2	REMERA	BUGERA	GASEBEYA	MUKADEREVU	6	1609	30 * 50 1,500	Beans	1	1612	40 * 50 2,000				* 0	
3	REMERA	NDEKWE	GIKOMERO	SHYIRAMBERE Evariste	3	2114	100 * 80 8,000	Sorghum	6	2114	100 * 80 8,000	Maize	1	Rotation	0 * 0 0	Sweet Potatoes
4	REMERA	NDEKWE	GIKOMERO	NZIMURINDA	14	2108	50 * 100 5,000	Beans	4	Rotation	20 * 30 600	Cassava	14	2319	20 * 30 600	
5	REMERA	BUGERA	NKENKE	SEROMBA	4	1636	* 4,487	Cassava	10	Rotation	* 0	Maize	17	Rotation	* 0	
6	REMERA	NDEKWE	GIKOMERO	UWIRINGIYE	2		54 * 68 3,672	Sorghum	2		54 * 68 3,672	Beans	1		54 * 68 3,672	
7	REMERA	BUGERA	GASEBEYA	SEKIMONYO	6	2504	21 * 200 4,200	Beans	1	2501	21 * 200 4,200				* 0	
8	REMERA	BUGERA	GASEBEYA	MUKAMURERA	10	1605	50 * 180 9,000	Beans	10	Rotation	* 0	Cassava	30	Rotation	* 0	Maize
9	REMERA	BUGERA	GASEBEYA	KAYITARE Samuel	12		100 * 110 11,000	Beans	4		100 * 110 11,000				* 0	
10	REMERA	NDEKWE	GIKOMERO	MUKABIDERI Deborah	2	2112	100 * 100 10,000	Beans	1	2114	100 * 180 18,000				* 0	
11*	REMERA	Ndekwe	GIKOMERO	Dr Rusa UWINTWALI Louis												

11*: Due to absence, survey was not conducted.

資料 6.5 (2) センサス調査結果 (丘陵地) (Remera)

No.	Sector	Cell	Village	Name of householder	Q11. Crop (4) number of bags produced in hillside	Q11. UPI Plot Number at hillside for crop 4	Q11. Size of plot of crop (4) (m2) or sqm	Q11. Crop (5) cultivated in the hillside	Q11. Crop (5) number of bags produced in the hillside	Q11. UPI Plot Number at hillside for crop 5	Q11. Size of plot of crop (5) (m2) or sqm	Q12. Size of plot A outside of submerged (m2) or sqm	Q12. Size of plot B outside of submerged (m2) or sqm	Total farmland
1	REMERA	BUGERA	GASEBEYA	NYIRAMATAMA	20	1629	* 892	Tomato	10	Rotation	* 0	20 * 35 700	28 * 20 560	4,579
2	REMERA	BUGERA	GASEBEYA	MUKADEREVU			* 0				* 0	60 * 40 2,400	30 * 80 2,400	8,300
3	REMERA	NDEKWE	GIKOMERO	SHYIRAMBERE Evariste	1	2114	* 0	Soya	1	Rotation	* 0	0 * 0 0	0 * 0 0	16,000
4	REMERA	NDEKWE	GIKOMERO	NZIMURINDA			* 0				* 0	50 * 100 5,000	30 * 20 600	11,800
5	REMERA	BUGERA	NKENKE	SEROMBA			* 0				* 0	* 0	* 0	4,487
6	REMERA	NDEKWE	GIKOMERO	UWIRINGIYE			* 0				* 0	54 * 68 3,672	* 0	14,688
7	REMERA	BUGERA	GASEBEYA	SEKIMONYO			* 0				* 0	100 * 150 15,000	* 0	23,400
8	REMERA	BUGERA	GASEBEYA	MUKAMURERA	20	rotation	* 0				* 0	250 * 280 70,000	* 0	79,000
9	REMERA	BUGERA	GASEBEYA	KAYITARE Samuel			* 0				* 0	100 * 110 11,000	* 0	33,000
10	REMERA	NDEKWE	GIKOMERO	MUKABIDERI Deborah			* 0				* 0	100 * 180 18,000	* 0	46,000
11*	REMERA	Ndekwe	GIKOMERO	Dr Rusa UWINTWALI Louis										

11*: Due to absence, survey was not conducted.

資料 6.5 (2) センサス調査結果 (丘陵地) (Remera)

No.	Sector	Cell	Village	Name of householder	Q13. Years to stay in the area	Q14. Kind of domestic water, rainy season*	Q15. Kind of domestic water, dry season*	Q16. Availability of Electricity (Yes or No)	Q17. Cultivate in the submerged area	Q18. Want to continue farming activity when the Project comes	Q19. cultivate in the area which will be submerged in the reservoir	Q20. Official Land ownership certify ate in the affected area in the marshland	Q21. Official land ownership certify ate in the affected area in the Hillside	Q22. Want to continue farming after the project (Yes or No)	Q23. Other technical assistant from the Government apart of Technical assistant
1	REMERA	BUGERA	GASEBEYA	NYIRAMATAMA	32	1;4;5	4,5	No	Yes	Yes	Yes	Yes	Yes	Yes	Land Compensation
2	REMERA	BUGERA	GASEBEYA	MUKADEREVU	33	1;4	4	No	Yes	Yes	Yes	No	Yes	No	Social assistance
3	REMERA	NDEKWE	GIKOMERO	SHYIRAMBERE Evariste	40	1,5	5	No	Yes	Yes	Yes	No	No	Yes	Compensation
4	REMERA	NDEKWE	GIKOMERO	NZIMURINDA	74	1;4	4	No	Yes	Yes	Yes	No	Yes	No	Social assistance
5	REMERA	BUGERA	NKENKE	SEROMBA	50	1;4	4	Yes	Yes	Yes	Yes	No	Yes	No	Seeds
6	REMERA	NDEKWE	GIKOMERO	UWIRINGIYE	31	1,2	2	No	No	Yes	Yes	No	Yes	No	Fertilizers
7	REMERA	BUGERA	GASEBEYA	SEKIMONYO	27	1;4	4	No	Yes	Yes	Yes	No	Yes	No	Social assistance
8	REMERA	BUGERA	GASEBEYA	MUKAMURERA	29	1;4	4,5	No	Yes	Yes	Yes	No	Yes	Yes	Agriculture Input
9	REMERA	BUGERA	GASEBEYA	KAYITARE Samuel	57	1;4	4,5	No	No	Yes	Yes	No	Yes	No	Agriculture Input
10	REMERA	NDEKWE	GIKOMERO	MUKABIDERI Deborah	44	1;2	2	No	Yes	Yes	Yes	No	Yes	Yes	Pesticides
11*	REMERA	Ndekwe	GIKOMERO	Dr Rusa UWINTWALI Louis											

11*: Due to absence, survey was not conducted.

*Q14 & Q15 1. Rain water 2. Canal water 3. River water 4. Piped water (public water) 5. Tubewell (deep), public 6. Tubewell (deep), private 7. Shallow well

資料-6.6 住民協議参加者リスト

資料-6.6 (1) 第1回住民協議参加者リスト

No	Names	Organization	Position	Contact
1.	HABIMANA Anastase	Bugera	Farmer	0788591827
2.	TURATSINZE Siste	Ndekwe	Farmer	0786973171
3.	SINGIRANKABO J. Claude	Ndekwe	Executive Secretary of the Cell.	0787157813
4.	UFITIKIREZI Colette (Fe)	Bugera	Executive Secretary of the Cell.	0787157810
5.	MUNYURANGABO Félicien	Bugera	Farmer	0784281474
6.	NIYIGENA J.M V	Bugera	Farmer	0784393007
7.	NSABIYUMVA Eric	Muhurire	Farmer	0784919635
8.	NDAGIJIMANA Wellars	Muhurire	Farmer	0784350035
9.	NTEZIMANA Emmanuel	Muhurire	Farmer	0783872296
10.	MANIRAGENA J. Damascène	Ndekwe	Farmer	0785127477
11.	UBONYEBENSHI Joseph	Ndekwe	Farmer	0725334050 0731076695
12.	MUKAGIRUKWAYO Everusi (Fe)	Rujambarara	Farmer	0787685803
13.	MUKANKURANGA Ernestina (Fe)	Rujambarara	Farmer	-----
14.	MUTABAZI	Rujambarara	Farmer	-----
15.	NIYITEGEKA Philemon	Bugera	Farmer	0728096007
16.	NTAWIRINGIRA Elie	Ndekwe	Farmer	0783672297
17.	MURAGIJEMWABO Arcade	Rurenge	Executive Secretary of Rurenge Sector	0787236665
18.	NZAHABWANAYO Gaspard	Rujambara	Executive Secretary of Rujambara Cell	0784190535
19.	MANAGUSA African	Muhurire	S.E.D of Cell	0788650593
20.	NTAKAVURO Emmanuel	Rurenge	Farmer	0788770385
21.	MUKARUKUNDO Victoire	Remera Sector	Executive Secretary of Remera Sector	0783696013

資料-6.6 (2) 第 2 回住民協議参加者リスト

	Name	Institution	Position	Mobile Number
1	Mr. NZABIRINDA Damien	Rurenge Sector	Agronomist	0788656113
2	Mr. NZABONIMPA Eraste	Remera Sector	Agronomist	0788500754
3	Mr. RURANGIRWA Shabani	Remera Sector	Acting Executive Secretary	0788568785
4	Mr. UWIMANA J.M.V	Rurenge Sector	Acting Executive Secretary	0783468668
5	Mr. NZAHABWANAYO Gaspard	Rujambara Cell	SEDO	0784190535
6	Mr. KARIKUMUTIMA J Paul	Mbonwa Village	Village Head	0783747921
7	Mr. BASHIR Amur	Nyamata Village	Village Head	0725112503
8	Mr. SINGIRANKABO Jean Claude	Ndekwe Cell	Executive Secretary	0787157813
9	Mr. KAYITANA Eric	Rukore Village	Village Head	0785573038
10	Mr. NDAYISABYE Jean Bosco	Ndekwe Village	Village Head	0783587643
11	Mr. HABIMANA Anastase	Gasebeya Village	Village Head	0788591827
12	Mr. MVUYEKURE Faustin	Ruhuha Village	Village Head	0786966766
13	Mr. MUTSINZI Jean Pierre	Cyakabiri Village	Village Head	0783774216
14	Mr. NYATANYI Benjamin	Rugando Village	Village Head	0784902998
15	Mr. MAKERERA Alexandre	Rwikubo Cell	Executive Secretary	0787236663
16	Mr. TUMUSHIME Joseph	Rugera Cell	SEDO	0788806106
17	Ms. NFITIMANA Regina	Muhurire Cell	Executive Secretary	0787236668
18	Mr. NSABIYUMVA Eric	Gitobe Village	Village Head	0784919635
19	Mr. RWABARINDA Jean de Dieu	Gisunzu Village	Village Head	0786966849
20	Ms. MUKAMUREGO Philomene	Kiyanja Village	Village Head	0785975689
21	Mr. RUTAGUNGIRA Theogene	Mashyoza Village	Village Head	0737820599
22	Mr. HABINEZA Theoneste	Urusagara Village	Village Head	0783162688
23	Mr. HABIYAKARE Jean Baptist	Nyabaganza Village	Village Head	0786966873
24	Ms. MUKAYUHI Beatrice	Akarambaraye Village	Village Head	0782926966
25	Mr. NIZEYIMANA Emmanuel	Kabeza Village	Village Head	0786966875
26	MANIRAGENA Damascene	Gikomero Village	Village Head	0785127477
27	Mr. MAJYAMBERE Silas	Nkenke Village	Village Head	0722412030
28	Ms. UFITIKIREZI Colleta	Bugera Cell	Executive Secretary	0787157810
29	Mr. UWUHOREYE Venuste	Kivugangoma Village	Village Head	0786966883
30	Mr. MANIRAFASHA Emmanuel	GCS Ltd	Technical Assistant	0788889545
31	Mr. BIGAGAZA Jean	GCS Ltd	Team Leader	0788306659
32	Mr. HABAKUBAHO Theogene	LWH/RSSP	Safeguard Specialist	0788643282
33	Mr. NGARUKIYE Blaise	IM T/F	Irrigation Engineer	0788600560
34	Mr. NIYONGABIRE Janvier	Ngoma District	Agronomist	0788277622
35	Mr. TATSUYA Ieizumi	JICA Study Team	Team Leader	0782857832
36	Mr. NTEZIREMBO Valens	JICA Study Team	Administrative Assistant	0788358759
37	Ms RIE Kitao	JICA Study Team	Environmental and Social Consideration	0782859375
38	Mr. IMPETA Fred	JICA Study Team	Field Manager	0788598136

資料-6.6 (3) 第3回住民協議参加者リスト

Jica Representatives:

Name	Institution
1. Mr. MATSUMOTO	Senior advisor, JICA headquarters
2. Mr. Tatsuki NODA	Program Manager, JICA Rwanda
3. Mr. Pascal FURAHA	Program coordinator, JICA Rwanda
4. Mr. Jules NZABONIMAA	Assistant to Irrigation advisor
5. Mr. Tatsuya IEIZUMI	Team Leader of the Consultant Team

The Rwandan Government Officers and Representatives of Beneficiaries:

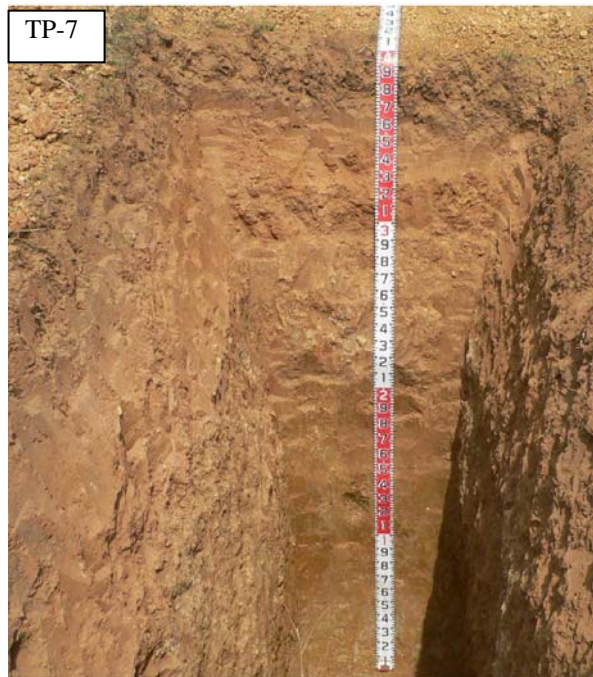
Name	Institution
1. Blaise NGARUKIYE MINAGRI,	GFI Contract Manager in Mechanization and Irrigation Task Force
2. Mr. Janvier NIYONGABIRE	Ngoma district, District agronomist
3. Mr. Africa MANAGUSA	Rurenge sector, SEDO of cell
4. Mr. Gaspard NZAHABWANAYO	Rurenge sector, SEDO of cell
5. Mr. Jean Claude SINGIRANKABO	Remera Sector, Executive secretary of cell
6. Ms. Collette UFITIKIREZI	Remera Sector, Executive secretary of cell
7. Mr. Anastase HABIMANA	Remera Sector, Head of village
8. Mr. Justin TURATSINZE	Remera Sector, Farmers mobilize
9. Mr. Etienne MUTABAZI	Remera Sector, Member of sector council
10. Mr. Arcade MURAGIJEMUNGU	Rurenge sector, Executive Secretary
11. Mr. Emmanuel NTEZIMANA	Rurenge sector, Representative of farmers
12. Mr. Emmanuel NTAKAVURO	Rurenge sector, Representative of farmers
13. Mr. Eric NSABIYUMVA	Rurenge Sector, Head of village
14. Mr. Wellars NDAGIJIMANA	Rurenge sector, Representative of farmers
15. Ms. Ernestine MUKANKURANGA	Rurenge sector, Representative of farmers
16. Ms. Eveus MUKAGIRUKWAYO	Rurenge sector, Representative of farmers

資料7 その他関連資料

資料-7.1 堤敷掘削調査における土層の状況



堤敷調査テストピットの状況 (TP-1～TP-4)



堤敷調査テストピットの状況 (TP-5 ~ TP-7)

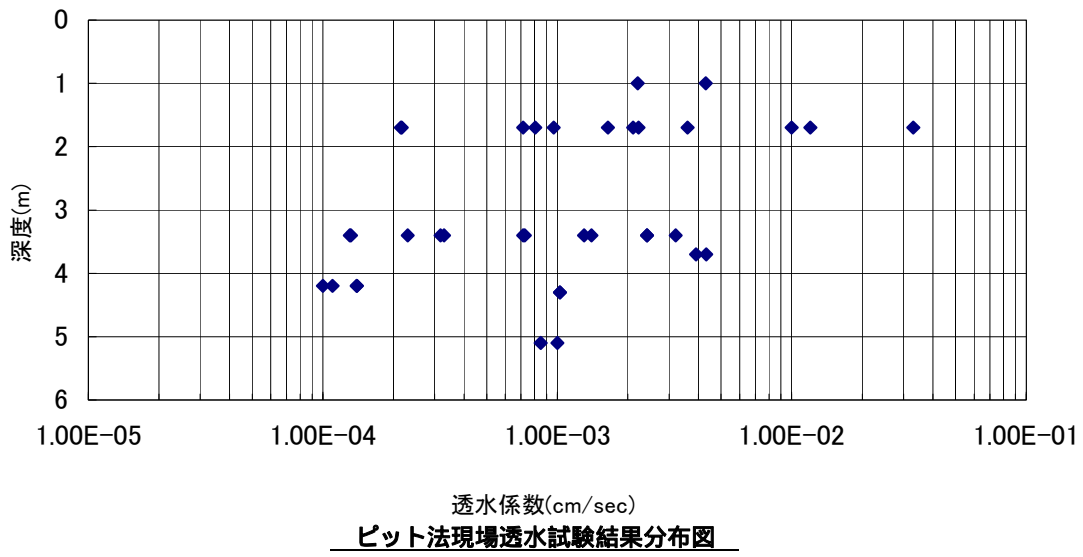
資料-7.2 テストピット内の現場透水試験結果

$$k = \frac{Q}{2\pi h^2} \left[\ln \left\{ \frac{h}{r_0} + \left(\frac{h^2}{r_0^2} + 1 \right)^{1/2} \right\} - \left(\frac{r_0^2}{h^2} + 1 \right)^{1/2} + \frac{r_0}{h} \right]$$

ここに、 Q ：定常流量 (cm³/s)
 h ：試験孔内水深 (cm)
 r_0 ：試験孔の半径 (cm)

現場透水試験結果総括表

Pit/ Bore hole	Hole No.	test depth (m)	Permeability coefficient (cm/sec)	mean value (cm/sec)	ground condition
TP-1	No.1	1.7	3.60E-03	9.77E-04	earth
	No.2	1.7	3.30E-02		earth
	No.3	3.4	2.30E-04		earth
	No.4	3.4	3.20E-03		earth
	No.5	5.1	8.50E-04		earth
	No.6	5.1	1.00E-03		earth
TP-2	No.1	1.0	2.20E-03		earth
	No.2	1.0	4.30E-03		earth
TP-3	No.1	1.7	1.20E-02		earth
	No.2	1.7	1.00E-02		earth
	No.3	3.4	1.40E-03		earth~highly weathered
	No.4	3.4	1.30E-03		highly weathered
	No.5	4.2	1.10E-04		highly weathered
	No.6	4.2	1.00E-04		highly weathered
TP-4	No.1	1.7	2.15E-04		earth
	No.2	1.7	2.17E-04		earth
	No.3	3.4	2.42E-03		earth
	No.4	3.4	2.42E-03		earth
	No.5	3.7	3.91E-03		highly weathered
	No.6	3.7	4.32E-03		highly weathered
TP-5	No.1	1.7	8.05E-04		earth
	No.2	1.7	2.22E-03		earth
	No.3	3.4	1.30E-04		earth, water
	No.4	3.4	1.32E-04		earth, water
TP-6	No.1	1.7	2.11E-03		earth
	No.2	1.7	1.64E-03		earth
	No.3	3.4	7.27E-04		earth
	No.4	3.4	7.14E-04		earth
	No.5	4.3	1.03E-03		highly weathered
	No.6	4.3	1.03E-03		highly weathered
TP-7	No.1	1.7	7.14E-04		earth
	No.2	1.7	9.66E-04		earth
	No.3	3.4	3.28E-04		earth
	No.4	3.4	3.18E-04		earth
	No.5	4.2	1.40E-04		earth
	No.6	4.2	1.39E-04		earth



試験孔掘削



周辺への散水・試験孔注水



細粒礫注入、スティック建て込み



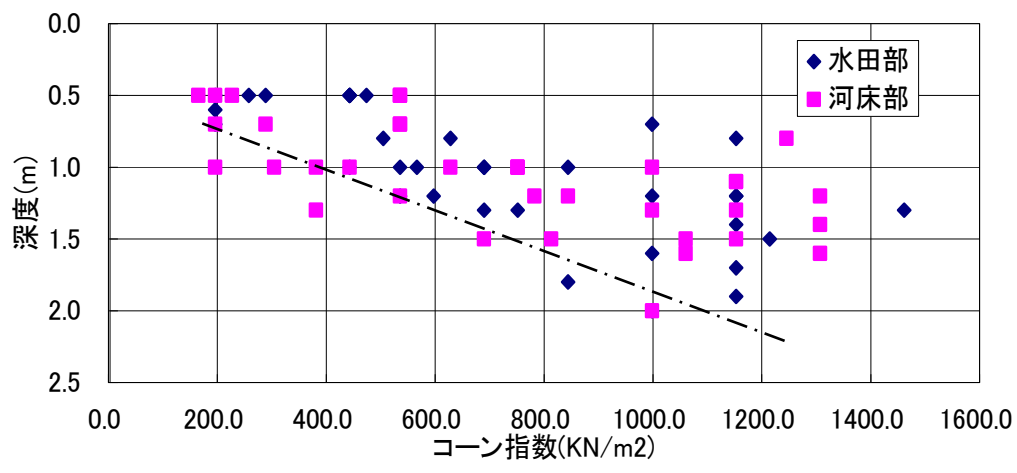
計測

現場透水試験実施状況

資料-7.3 コーン貫入試験結果

水田コーン貫入試験結果

試験位置		深度(m)	読み	qc (KN/m2)	試験位置		深度(m)	読み	qc (KN/m2)
①	ダム軸地点・水田	2.0	300	998.5	⑦	三叉分岐・水田	1.0	150	535.6
		1.0	100	381.2			1.2	300	998.5
	ダム軸地点・川・左岸	1.5	240	813.3			1.3	450	1461.5
		1.6	400	1307.2		三叉分岐・河床	0.5	40	196.0
	ダム軸地点・川・右岸	1.0	75	304.1			1.0	300	998.5
		1.2	150	535.6			1.2	400	1307.2
②	上流堤敷	1.0	150	535.6	⑧	三叉分岐下流100m・水田	0.5	120	443.0
		1.1	400	1307.2			1.0	200	689.9
③	SpringNo4脇・水田	0.5	70	288.6		⑨	三叉分岐下流100m・河床	1.2	350
		0.7	300	998.5	0.5			150	535.6
	SpringNo4脇・河床	1.0	40	196.0	1.0		220	751.6	
		1.3	100	381.2	1.1		350	1152.8	
④	SpringNo4下流100m 右岸水田	0.5	60	257.8	⑩	合流点上流450m・水田	0.5	120	443.0
		0.8	350	1152.8			0.8	180	628.1
	SpringNo4下流100m 河床	0.5	50	226.9		⑪	合流点上流450m・河床	1.0	250
		1.0	120	443.0	1.2			350	1152.8
		1.5	200	689.9	0.5			150	535.6
		2.0	300	998.5	1.0			220	751.6
⑤	SpringNo.5下流100m 水田	0.7	40	196.0	⑩	合流点上流250m・水田	1.1	350	1152.8
		0.8	140	504.7			0.5	130	473.8
		1.2	150	535.6		1.0	160	566.4	
		1.6	300	998.5		1.3	220	751.6	
	SpringNo.5下流100m 河床	0.7	70	288.6	⑪	合流点上流250m・河床	1.4	350	1152.8
		1.0	180	628.1			0.7	150	535.6
⑥	SpringNo.6脇・水田	1.2	230	782.5	⑩	合流点・水田	1.0	220	751.6
		1.3	300	998.5			1.3	350	1152.8
		1.4	400	1307.2			0.5	120	443.0
		1.5	370	1214.6			1.0	200	689.9
	SpringNo.6脇・河床	0.5	40	196.0	⑪	合流点・河床	1.7	350	1152.8
		1.0	120	443.0			0.7	40	196.0
⑥	SpringNo.6脇・水田	1.3	200	689.9	⑪	SpringNo.9脇・水田	1.2	250	844.2
		1.5	370	1214.6			1.5	350	1152.8
	SpringNo.6脇・河床	0.5	30	165.2			0.6	40	196.0
		0.7	150	535.6			1.2	170	597.3
0.8	380	1245.4	1.8	250	844.2				
						1.9	350	1152.8	



コーン貫入試験結果分布図



コーン貫入試験実施状況

資料-7.4 露頭写真

G2: Photo Album (写真集) "Outcrops"

(露頭写真集)

Locations are shown in Next page. (位置は次ページ図)



①: Laterite (ラテライト)



②: Laterite (ラテライト)



③: Quartzite (珪岩)



④: Quartzite(珪岩)



⑤: Sandstone (砂岩)



⑥: Schist (片岩)



⑦: Schist (片岩)



⑧: Sandstone (砂岩)



⑨: SS / Sch. Alt (砂岩・片岩互層)

資料-7.5 既存の湧水地点写真

”Photos of major Springs” (主たる湧泉)



① Spring No.1



④ Spring No.5'



⑦ Spring No.7



② Spring No.4



⑤ Spring No.5''



⑧ Spring No.9



③ Spring No.5



⑥ Spring No.6



⑨ Spring No.10