HAKAN PEAT HARVESTING AND POWER GENERATION PROJECT

COMPLEMENTARY REPORT: SOCIO-ECONOMIC BASELINE OF PEOPLE FARMING IN AKANYARU PEATBOGS (800 HA) AND SURVEY OF PEOPLE LIVING AND /OR FARMING IN ASH DISPOSAL AREA (BUYE VILLAGE, KABUMBWE CELL)

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I. INTRODUCTION

I.1. Context

Hakan Mining and Electricity Generation Industry and Trade Inc. of Istanbul, Turkey (HAKAN) is developing a project in Rwanda based on the production of peat and its firing in one or more new peat-fired power plants (PFPPs) of total net capacity of 70 MWe in a first phase and another 35 MWe in the second phase.

HAKAN has registered a company incorporated under the Laws of Rwanda in the name of YUMN Ltd which is used as the developer of the project.

A number of reports were earlier produced for the project which include Sweco Reports (Environmental and Social Impact Assessment Report- Final Report, July-2013; Rwanda Peat Production and Harvesting – Final Report, 13 May 2013 and Rwanda Peat-Fired Power Plant - Draft Report, 18 March 2013 and later revisions based on revisions due to EWSA and HAKAN/YUMN Agreements to modify the size of the Power Plant).

More recently, two other reports have been produced:

(i) WESConsult's report (Socio-economic baseline study of Akanyaru peat production and power generation project, May 2014),

(ii) Dr Fabien Twagiramungu's Report (Resettlement Action Plan (RAP) of Hakan Peat production and power generation project, May 2014).

I.2. Objective of the study

The objective of this complementary baseline report is to provide reliable additional data/information on livelihoods for the people who have been farming Akanyaru marshland (800 Ha of peat bogs HL and IL. This report contains also results of survey of people living on the ash disposal area as it has been requested by Hakan Mining and electricity generation industry and Trade Inc. In brief, this report completes the two previous reports produced in May 2014.

I.3. Structure of Report

The report is divided into six parts. The first part is introduction which deals with the context and the objective of the study. Section two discusses the approach and methodology followed to undertake the study. Section three presents the findings related to people who have been farming on the 800 ha of Akanyaru marshland. Section four presents the results of the survey of people living on the ash disposal area. Section five contains assistance and compensations planned for people who have been farming on 800 ha of Akanyaru peat bogs. The last part is conclusion and recommendations.

Technical appendices contain data collection forms, minutes of consultation meetings, list of people who attended the meetings, tables, etc…

II. STUDY METHODOLOGY

The study was designed to cover both quantitative and qualitative data to capture livelihoods conditions of people who have been farming on the Akanyaru peat bogs (800 ha) especially crop production and income. All people farming 800ha of Akanyaru peat bogs are grouped in one cooperative (KOJYAMUGI: Koperative Jyambere Muhinzi wa Gisagara). All assets belonging to people living on the ash disposal area have been recorded and assets values have been estimated using compensation costs published by Gisagara District in 2013.

The methodology followed during this study includes:

- Public consultation through meetings and focus group discussion;
- Interviews of Key persons;
- Survey

II.1. Public consultation

To obtain reliable data, public consultation has been made through meetings and focus group discussion:

- One meeting with people farming on peat bogs of Akanyaru marshland (800 ha) has been organized at Kabumbwe cell office on 20/June/2014. The meeting grouped Local authorities (District land Officer, Executive Secretary of Kabumbwe Cell), Dr Fabien Twagiramungu, supervisors and farmers grouped in KOJYAMUGI cooperative and other different local authorities at villages level (see minutes of public consultation, appendix-1)

Plate 1: Gisagara District Land officer addressing to the KOJYAMUGI members

Plate 2: KOJYAMUGI's members in the consultation meeting

- Focus group discussion has been organized between the consultant, farmer's representatives (4) and the president of the cooperative KOJYAMUGI.

- Other meeting has been organized between consultant and people living on the ash disposal area on the 24/07/2014. This meeting grouped around six household's members.

II.2. Interviews with key persons

Different interviews have been conducted by the consultant in order to collect more information related to the study: these include:

- Interview with the president of KOJYAMUGI
- Interview with Gisagara District Executive secretary,
- Interview with Gisagara land officer and
- Interview with Managing Director of Mamba Maize Plant.

II.3 Survey

The census of people living and or having assets on ash disposal area has been done by using a rapid assets collection form (appendix-1).

III. FINDINGS RELATED TO PEOPLE FARMING 800Ha OF AKANYARU PEAT BOGS

III.1. Introduction

People who are farming the 800 ha of Akanyaru peat bogs (HL) are all grouped in the cooperative called **KOJYAMUGI: JYAMBERE MUHINZI GISAGARA** (meaning "Develop the farmer of Gisagara").

About 768 farmers have been surveyed. These farmers are from Mamba sector, Ramba, Mamba, Kabumbwe and Gakoma Cells.

III.2. KOJYAMUGI cooperative

The cooperative Jyambere Muhinzi Gisagara (KOJYAMUGI), is composed of 4080 members with 2080 men and 2000 women. The land used by KOJYAMUGI is located in Akanyaru marshes situated in Mamba sector, Gisagara District in South province of Rwanda. The cooperative began operations in 2006 and get the legal personality in 2010. Its objective are to increase maize production in the Akanyaru marshland from 1.5 tons to 4.5 tons, to professionalize its members to maize production.

The condition of being a member of KOJYAMUGI is to have willingness to work as a group, having a plot in Akanyaru marshland, and pay the share of Rwf 20,000, this contribution is paid once. The internal regulations determine membership criteria for admission and exclusion as well as the rights and duties of members. Organs of Kojyamugi are following: general assembly is the supreme organ of the cooperative, the board of directors, and the executive committee, the two last organs are elected between the members and they have a duration of three years renewable.

III.3. Mamba Maize Plant

Mamba Maize Plant has started in June 2013 with support from Centre Iwacu, UGAMA and Canadian Cooperative Association (CCA). As a service provider and involved in capacity building of cooperatives, Centre IWACU has intensively supported "Koperative Jyambere Muhinzi Gisagara" (in short KOJYAMUGI) since 2006. Supports included the promotion and value addition of maize production. This crop increased the production from 1, 5 t/ha to 4t/ha, reason why Centre IWACU began to think about how to work on other stages of the chain in terms of adding values: Production, Transportation, Post-harvest, Processing, Marketing and Consumption. It is in this way that IWACU develop a big project funded by CCA through UGAMA and built a factory; drying stations and storage facility for KOJYAMUGI. Mamba Maize Plant buys the maize produced by KOJYAMUGI farmers' cooperative.

Plate 3: Mamba maize plant

The objective of this factory is to mill all maize produced by KOJYAMUGI, according to the Centre IWACU coordinator "the idea to build this plant came after observation of high maize losses after harvest suffered by farmers of KOJYAMUGI because of lack of market". The plant has nine permanent workers with one female and eight males, in addition to that, the company has five temporary workers depending on quantity to mill according to the command that factory obtained. The daily management of the company is commended by a plant manager engaged by agreement between the KOJYAMUGI Board of Directors, Centre IWACU and Gisagara District. The company consists of three parts which are processing and quality control of raw material, sales of maize flour and purchase of raw material and finally administration and accountancy. The Mamba Maize plant is the new plant in the area which can produce 500 tons per day, it has an opportunity to have enough maize to mill, but it doesn't provide any services to KOJYAMUGI such as extension services and provision of credit on inputs, because it is new. This affect the quantity supplied by farmers to the company due to other competitors in rural area who buy maize at the farm gate.

III.4. Household size

The household size of the population farming in Akanyaru peat bogs (800ha) ranges from 1 to 12 30.5% of sampled population has the household size ranging between 1 and 3, 46.4% has the household size ranging between 4 and 6 and 23.2% has a household size above 6 (see table below).

Table 1: Household size

Range	Frequency	Percent
1-3	234	30,5
4-6	356	46,4
>6	178	23,2
Total	768	100,0

III.5. Land Tenure and land ownership

In the Akanyaru marshland, plots of land were distributed to the population depending on household size, arable area available in that marshland. The distribution takes into account of the law n°24/2012 of 15/06/2012 relating to the planning of land use and planning development in Rwanda were land consolidation for a better production is a priority. It also considered the Organic Law n° 04/2005 of 08 April determining the modalities of protection, conservation and promotion of environment in Rwanda; in which all marshlands belong to the government and the provisional land certificate (land lease contract) are provided to current land occupier or user.

In the acquisition process, local authorities give 20 acres to every person who was able to pay a contribution of 20,000RWF which were required to be at the same time a member of a cooperative KOJYAMUGI. Each member gets a provisional certificate “receipt” to assure the ownership. This type of certificate is not land certificate for ownership but short rental by the government.

We should note that in the AKANYARU Marshland there are many unidentified occupiers who cultivate unused land during summer.

III.5. Number of plots

The survey has shown that the number of plot owned by household farming in Akanyaru marshland ranges from one to ten but more than 49.9% has only one plot and 32.6% of sampled farmers has two plots in Akanyaru marshland (see table 2).

Table 2: Number of owned plots

Number of plots	Frequency	Percent
0.5	2	0,3
1	383	49,9
2	250	32,6
3	74	9,6
4	35	4,6
5	14	1,8
6	5	0,7
7	2	0,3
8	2	0,3
10	1	0,1
Total	768	100,0

III.6. Farm Power

As in many rural areas in Rwanda; there is no modern farm powers used in their agriculture activities. Identified farmers in the Akanyaru marshland use only hoe (drag) and three-pronged (pitch) as main tools in their agriculture activities. Other small tools like machete (panga) are also use in some land clearing activities.

III.7. Crop Husbandry

In the surveyed marshland, 3 major crops (Maize, beans and vegetables) are the most grown by farmers. In association and within the support of the land consolidation program in Rwanda, cooperative members are asked to plant maize which is the main crop for the cooperative since they have a ready customer to purchase their production.

In addition to maize, some members plant beans as a secondary crop to ensure great revenue and to reduce risks as cooperative members said. They always have fear of planting just one crop. A few portions of vegetables are found in the marshland composed mainly with tomato and spinach for Huye market.

Table 3: Type of crop under cultivation in the Akanyaru marshland

Crops	Frequency	Percent
Beans	271	35.3
Maize	381	49.6
Beans and Maize	109	14.2
Other	7	0.9
Total	768	100.0

III.8. Seed

With their important role in crop husbandry, seeds are the major component and input. Improved seeds are distributed in the country through a special maize program. Rwanda

Agriculture Board (RAB) assures the availability, the distribution and the quality of seed to be planted.

These distributions are done from RAB through district authorities who also assure the distribution through cell agriculture agent. For last year cropping period they planted improved maize seed called **H628** and **H523** (all two are new hybrid, more resistant and more productive). According to farmers, these two hybrids are very productive and very resistant to many diseases and pests. On average the production obtained in 2013 was 2.7T/Ha which is high to the national average 2.35t/Ha (NISR, 2012).

For beans, the seed are not given by any government body or program. However, farmers identify good seed themself depending on the value on the market and the yield. The most planted beans seed planted are the yellow beans. These beans are known to be high value on the market where the price is the double of other local beans varieties.

In the surveyed area, there is no modern seed storage in which seed environment can be controlled to maintain required moisture, temperature and other factors. Seed are stored in ordinary bags and are stored together with other things in the household. There is no seed market where you can find a known variety. However, population in the area can buy any maize seed from the market from others yield. This is a big problem since most of varieties from Burundi are not known and can contribute in decreasing the yield.

Table 4: Use of Improved seed

Item	Frequency	Percent
Use Improved seed	490	63.8
Don't use improved seed	278	36.2
Total	768	100.0

III.9. Cropping Calendar and use of fertilisers

The cropping calendar in the AKANYARU marshland is from June to December. This period is characterized to be the dry season (June to August) and low rain period (September to December).

The land preparation starts late May and early June by preparing the drainage system to reduce water in the marshland. End may is characterized to be the end of the rainy season and June is the beginning of the dry season.

Planting system are known by Rwandese for major crops in Rwanda agriculture, but agriculture agent (agronomist) assure the follow up of modern planting method on special crop program like maize.

Regarding the fertilizer, maize program avail subsidies for UREA fertilizer and identified farmers who want to plant maize pay 50% of the price. Even during the discussion with farmers in the meeting, farmers reported about the advantage of fertilizer usage; some of them don’t use fertilizers due to lack of financial means as they said despite the subsidy

given by the government. But for other crop like beans and vegetables, it was seen that no one use fertilizer for those crops.

According to the farmers, broad leaves and grass weeds are very common and are a threat to crop production. The types of weeds and their effect vary from crop to crop and from place to place. Due to moisture content in the marshland, weeding is one of the major activities during the cropping period.

A number of insect pests and diseases of cereals, and horticultural crops were reported during the focus group discussions.

In 2013, members present in group discussion reported that two types of weeds were observed which were ***Striga hermonthica*** and ***asiatica***. For the pest, some members reported to have been victim of maize weevil in their seeds stored at home and few of them said that they saw a neigbour whose plantation of maize were destroyed by an unknown disease which was like turicum leaf blight. This information was difficult to verify since the concerned plots were already cleared for new season.

Harvesting is done from mid-November to end December depending on crop maturity and type. Most of maize farmers in the cooperative KOJYAMUGI start harvesting mid-December since the planted variety take 5 to 6 months to be mature. For beans they harvest end October till mid-November depending on the planting date and other factors such as location of the plots in the marshland and organic matter content. Note that harvesting in Akanyaru marshland is done manually.

III.10. Crop Yield

Yield of crop is a function of many factors such as timely planting and weeding, moisture, use of improved seed, fertilizer and pest control. Whenever any of these is missing, the yield is equally affected. The results of the survey show that the harvest of farmers was 2.7T/Ha of maize and not 4T/Ha as the target of the cooperative KOJYAMUGI. It was almost impossible to estimate the yield for other crop despite of using revenue data from crop sold as shown in the table below.

Table 5: Revenue from crop sale

Range of Income (in RWF)	Frequency	Percent
<50,000	59	7.7
50,000-100,000	160	20.8
105,000-150,000	90	11.7
160,000-300,000	255	33.2
310,000-500,000	153	19.9
>500,000	51	6.6
Total	768	100.0

For maize farmers and members of KOJYAMUGI, they supplied 700,380KG in 2013 to Mamba Maize Plant on price of 220RWF per 1 Kg. Before 2013, KOJYAMUGI members were supplying Rwanda Agriculture Board through the seed production program. Maize producers are expected to stay with 40% of the produced maize for their household consumption and further seeds for planting.

Beans and other crops are sold on local market were different wholesalers from Huye town come to buy the production on farm gate. Some of those wholesalers buy even maize which pending to be delivered to Mamba maize plant.

III.11. Crop production constraints

The major factors influencing crop production are: timely land preparation, rainfall, proper use of inputs such as fertilizer, seed, pest control and others.

In the group discussion held with cooperative members, they said that the most limiting factor they face is the fertilizer cost. However it was mentioned that some facilities with low family size have difficult to get necessary labor force which bring lateness in land preparation and other activities which require lot of labor.

Table 6: Fertilizer usage

Item	Frequency	Percent
Use fertilizer	304	39.6
Don't use fertilizer	464	60.4
Total	768	100.0

Above table shows clearly that only 39.6% of the farmers met use fertilizer while the remaining 60.4% don’t use fertilizers. As said by the farmers who don’t use fertilizers, input like fertilizers are very expensive to us despite the subsidy granted by the government.

IV. FINDINGS OF THE CENSUS OF PEOPLE LIVING AND / OR FARMING ON ASH DISPOSAL AREA

IV.1. Location

The area of ash disposal (ash landfill) is located within the plot of Akanyaru peat fired power plant in Buye village, Kabumbwe cell, Mamba sector.

The present census concerns a portion of plot of about 9,3 Ha as indicated on **map-1**.

IV.2. Land Ownership

The site for the construction of ash landfill is owned by different individuals who have the legal right over the different pieces of land. In total 18 persons are concerned (**see table-6**).

IV.3. Land Use Type

The land to be acquired is being utilized in different ways that vary in nature and includes:

- Shelter
- Livestock keeping
- Agricultural activities

IV.4. Loss of land, crops and shelter

The civil works activities for ash landfill construction will entails clearing of the vegetation inherent in the project site which includes fruit trees, other exotic trees, elephant grass and crops that have been planted or cultivated by local population.

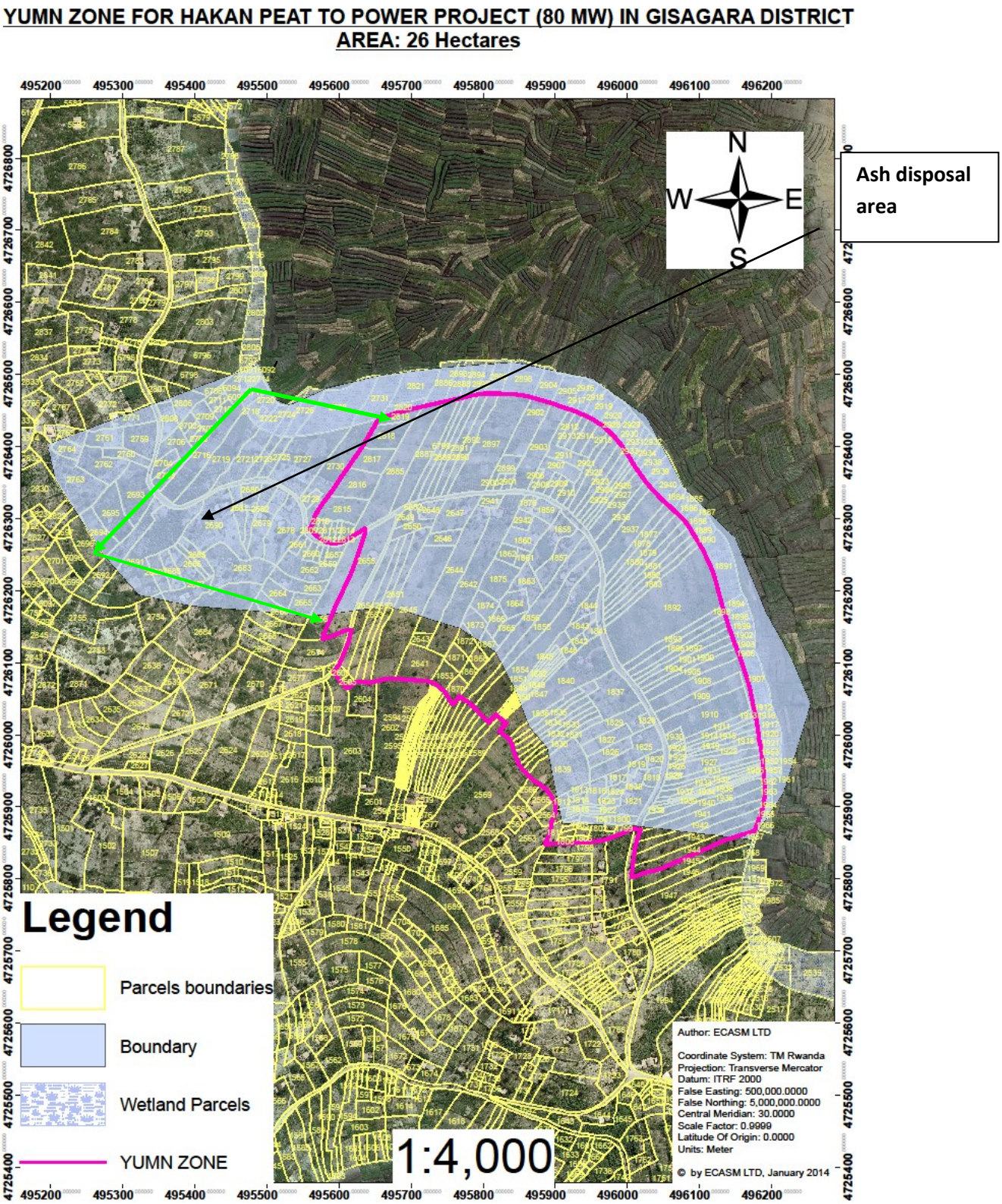
Plate 4: Some crops (banana, cassava) and trees observed in ash landfill site

Six houses are concerned by this ash disposal area and will have to be demolished and the occupants will be resettled to new designated sites known as imidugudu (grouped settlement).

Plate 5: Conditions of houses in the ash landfill site

IV.5. Size of land expected to be acquired

The total area of land to be permanently acquired for the construction of ash landfill is estimated at about 9,3 Ha (see the map-1 below).



Map 1: Ash disposal area

IV.6. Public consultation

One meeting was held on 24-July-2014 at the ash landfill area, Buye village, Kabumbwe Cell, Mamba Sector, Gisagara District.

The meeting was attended by local population to be affected by the construction of ash landfill and by two surveyors and their supervisor Mr Irambona Bruce (see attendice list, appendix VI.4).

Plate 6: Pictures showing the PAPs attending the meeting and the supervisor explaining to the population the objective of the meeting

This consultation meeting had these main objectives:

- to create awareness about the intended project especially to those who may be directly affected by the ash landfill;
- to obtain the stakeholders response, feedback and concerns about the project.

During the meeting, people were informed about the proposed project. They were also informed about the purpose of the meeting. The presentation highlighted the project background, objectives of the project, expected oncoming activities, etc... After the project presentations, a chance was given to the community members to give their views, comments and ask questions. All the views, comments and recommendations were documented and the questions raised by the community were responded to.

Concerns and issues raised from consultation activity are grouped in the table below.

Table 7: Concerns and issues raised by the population living on the ash landfill area

Component	Issues and Concerns
Compensation measures for loss of land, properties, income, etc.	**Need for compensation** for any land and crops that are likely to be taken up. This needs to be handled cautiously because people usually fear being displaced from their land which they have inhabited for years and have inherited from their forefathers.
	Fear of land and property being undervalued: especially if public officers or middlemen undertake the valuation or negociation without the community or the landowner being involved. The compensation process should take place between property owners and HAKAN/YUMN without the Government administration department being involved. The Government role should be limited to ascertain the level of compensation and to verify the true owner of the land or property but not to distribute compensation payments.
	Valuation of land: Community members are worried that the method used in valuing the land may not use the market rates and as a result the people may get money which might not be enough to buy them land elsewhere. They prefer that they be given a say in determining the value of their land than using government valuers who usually undervalue rural land. They cautioned that land prices are likely to go up because people will be expecting that the affected households have been given a lot of money and are desperate for other pieces of land for resettlement and as a result those selling will hike their prices.
	Communities want to be sensitized in time: on the entire compensation policy and procedures that will be used before they begin, mainly how valuation of crops will be done and how payment will be effected.
	Need for quick payment of their dues in the case of land and crop compensation because they have a fear that government projects usually have bureaucratic tendencies, which delay payments.
Compensation measures for loss of land, properties, income, etc.	**Concern that land valuers may impose a standard price** on land thereby benefiting those whose land is at poor locations or far inland while "robbing" those whose owned land at prime locations. The consensus was that market land prices at the time of compensation be applied. Land situated close to main trunk roads, markets or schools be accorded higher value than the land far-removed from such infrastructure.
	Fear that too much land is being taken up for this project because of the distances as suggested from the centre of the line to the edge of the wayleaves.
	Communities requested that **ample time should be given for relocation**, as looking for resettlement land may take time.
	The **people have no suggestion for relocation** sites as long as compensation money will enable them to buy alternative land within the same area or in areas nearby.

IV.7. Assets survey

IV.7.1. Trees & Crop survey

The survey of assets for local people living or farming in ash disposal area has been carried out and results are indicated in the table below.

Table 8: Estimation of assets for people living or farming in ash landfill area

#	Name of land owner	Identity card number	Owning House/Plot	Size of Plot (m^2)	Assets (Crop, trees, other)	Number/quantity/ area	Estimated value (RWF)
1	KARINDA Viateur	1197080090848073	Plot/House	3925	Insina	545	1,090,000
					Imyumbati	375m^2	157,500
					Avocat	3	60,000
					Ipera	1	6000
					Umusave	1	5720
					Umuvumu	1	
					Imibirizi	9	
					Ipapayi	1	1,200
					Imiyenzi	1.2 A	7,200
					Urubingo	25 m^2	10,000
					Ibijumba	1800 m^2	36,000
S/total							1,373,620
2	HAVUGIMANA Alex	11970080024265077	Plot/House	2780	Gereveriya	6	34,320
					Urubingo	50 m^2	20,000
					Imyumbati	140	294,000
					Imubirizi	12	
					Umuravumba	4	
					Imuyenzi	1	600
					Ibikakarubamba	36	
					Pineapple	32	9,600
					Avocado	2	6,000
					Papaya	1	1,200
					Banana	642	1,284,000
S/total							1,649,720
3	RUREMESHA Celestin	1195980017332083	Plot	6012	Casava	350	735,000
					Avocado	6	18,000
					Umuvumu	1	
					Penissetum	83.5 m^2	33,400
					Greveria	36	205,920
					Guava	4	13,800

#	Name of land owner	Identity card number	Owning House/Plot	Size of Plot (m^2)	Assets (Crop, trees, other)	Number/quantity/ area	Estimated value (RWF)
S/total							1,006,120
4	MUKABUTERA Esperance	1195570011963054	Plot	2080	Umubirizi	12	
					Imiyenzi	4	2,400
					Yam	35	7,000
					Umuko	1	
					Banana	102	204,000
					Banana	239	478,000
					Cassava	94	197,400
					Sweet Potato	415 m^2	83,000
					Umusave	1	2,500
					Imibirizi	40	
					Penissetum	100 m^2	40,000
					Imiyenzi	2	1,200
					Gereveria	1	5,720
					Imigwegwe	5	
S/total							1,021,220
5	MUKARUREMA Anonciata		Plot	200	Insina	1	2,000
					Papaya	1	1,200
S/total							3,200
6	NSABIMANA Theoneste	1196980021216013	Plot/House	8640	Banana	159	318,000
					Guava	4	13,800
					Imibiriizi	29	
					Greveria	19	108,680
					Papaya	7	8,400
					Pineapple	101	30,300
					Mango	6	20,700
					Avocado	4	12,000
					Umusave	6	15,000
					Imirama	9	
					Intoryi	50	
					Imiyenzi	36	21,600

#	Name of land owner	Identity card number	Owning House/Plot	Size of Plot (m^2)	Assets (Crop, trees, other)	Number/quantity/ area	Estimated value (RWF)
					Imigwegwe	80	
					Umumuna	1	
					Umuharata	1	
					Ikawa	59	206,500
					Imikindo	2	
					Tomato	880 m^2	660,000
					Cassava	5500 m^2	2,310,000
					Penissetum	58 m^2	23,200
S/total							3,748,180
7	NYIRAHABIYAMBERE Beatrice	1196870023075067	Plot	330	Banana	84	168,000
					Avocado	1	20,000
					Umusave	1	5720
					Imibirizi	3	
S/total							193,720
8	SEKIMONYO Elias	1197180020497028	Plot/House	750	Banana	50	100,000
					Cassava	850	105,000
					Yam	60	12,000
					Chili	30	450
					Introryi	4	360
					Pineapple	60	18,000
					Greveria	1	5,720
					Cassava*	25	7,500
					Imibirizi	3	
					Imiyenzi	90	54,000
					Pennissetum	15 m^2	6,000
					Mango	4	13,800
					Avocado	6	35,000
					Ibibiringanya	10	500
					Orange	4	
S/total							358,330
9	Nyiranturo Ersma	119327002603081	Plot	3120	Cassava*	1	

#	Name of land owner	Identity card number	Owning House/Plot	Size of Plot (m^2)	Assets (Crop, trees, other)	Number/quantity/ area	Estimated value (RWF)
					Imikindo	14	
					Umusave	8	45,760
					Eucalyptus	1	2,500
					Guava	2	6,900
					Umuvumu	1	
					Coffee trees	43	150,000
					Avocado	4	24,000
					Greveria	7	40,040
					Penissetum	12 m^2	5,000
					Banana	460	920,000
					Pineapple	130	30,000
S/total							1,224,200
10	NTEZUKOBAGIRA Janvier	1198480197074075	Plot	3920	Tomato	2371 m^2	1,779,000
					Sweet Potato	572 m^2	114,400
					Cassava	68	142,800
S/total							2,036,200
11	MUKAMURERA Virginie	1197170020500022	Plot	7700	Umurama	1	
					Pineapple	250	75,000
					Banana	700	1,400,000
					Casava*	1	
					Umuko	3	
					Imiyenzi	15	9000
					Penissetum	110 m^2	44,000
					Imibirizi	13	
					Guava	6	20,700
					Avocado	7	42,000
					Imigwegwe	40	
					Cassava	50	105,000
S/total							1,695,700
12	SHUMBUSHO Faustin	1198680048242048	Plot		Cassava	63	132,300
S/total							132,300

#	Name of land owner	Identity card number	Owning House/Plot	Size of Plot (m^2)	Assets (Crop, trees, other)	Number/quantity/ area	Estimated value (RWF)
13	SINDERIBUYE Augustin	1198470053991081	Plot/House	23,040	Imiyenzi	30	18,000
					Guava	4	24,000
					Imibirizi	20	
					Papaya	2	12,000
					Banana	600	1,200,000
					Eucalyptus	7	17,500
					Imikindo	3	
					Greveria	7	70,000
					Mango	4	24,000
					Cassava	120	252,000
					Coffee tree	20	70,000
					Cassava	2890 m^2	1,213,800
					Umuko	2	
					Amateke	2	400
					Avocado	3	60,000
S/total							2,961,700
14	MUKAMPAZIMPAKA Olive	1197870038260052	Plot		Sweet Potato	434 m^2	86,800
S/total							86,800
15	MUGARURA Francois	1195480011048011	Plot	616	Umusave	1	5,720
S/total							5,720
16	NDAYISENGA Patrice	1196580017899081	Plot	6975	Cassava	4140 m^2	1,738,800
					Banana	580	1,160,000
					Avocado	3	60,000
					Mango	21	72,450
					Greveria	2	20,000
					Imiyenzi	30	18,000
					Penissetum	71	28,400
					Umuko	1	
					Imirama	4	
S/total							3,097,650
17	NYIRIMANZI Faustin	1197680101022096	Plot/House	14,400	Guava	27	93,150

#	Name of land owner	Identity card number	Owning House/Plot	Size of Plot (m^2)	Assets (Crop, trees, other)	Number/quantity/ area	Estimated value (RWF)
					Imibirizi	30	
					Pineapple	270	81,000
					Papaya	2	12,000
					Banana	154	308,000
					Greveria	10	100,000
					Imisave	14	80,080
					Eucalyptus	160	915,200
					Penissetum	620 m^2	248,000
					Umukindo	1	
S/total							1,837,430
18	Nzabandora J. Nepo	1198480053978194	Plot	9,114	Tomato	300 m^2	225,000
					Penissetum	720 m^2	288,000
					Sweet Potato	1050 m^2	210,000
					Banana	12	24,000
					Umuyenzi	1	600
					Cassava	30	63,000
					Cassava	3444 m^2	1,446,480
					Yam	60	1,200
					Ibikoro	45	22,500
					Umusave	7	40,040
					Greveria	3	17,160
					Avocat	8	24,000
					Mango	2	6,900
					Eucalyptus	8	45,760
S/total							2,414,640
Grand total			**6 (houses)**	**93,632**			**24,846,450**

IV.7.2. Number of houses and PAPs

Results from the survey show that in total six (6) houses will be concerned by the construction of ash landfill. Their cost is estimated to fifteen millions Rwf considering 2,500,000 Rwf per house (15,000,000 Rwf = 6 X 2,500,000 Rwf).

The table above shows that eighteen (18) people living and /or farming in ash disposal area will be affected.

IV.7.3. Summary of assets cost estimation

The following table below provides a summary of the total shelter, land and crop compensation for the people living on ash landfill disposal for Akanyaru peat fired power plant project.

Table 9: Summary of assets estimation of ash disposal area

Items	Cost estimation (RWF)
Land (9,3 Ha)	28,089,600
Crops and trees	24,846,450
Houses	15,000,000
Total	**67,936,050**

It should be noted that this is an estimation cost of assets considering the current situation. Some crops will be harvested and other will be planted during the next season.

The exact compensation cost will have to be estimated by an independent valuator on the basis of the standards set by the Gisagara District Land Office as they were established by the Government of Rwanda through the Law N° 08/2013/OL of 16/06/2013.

V. ASSISTANCE AND COMPENSATION PLANNED

V.1. Assistance for people farming Akanyaru peat bogs

As it was found during the survey, about 768 people are farming in the Akanyaru peat bogs (800 ha). These people cultivate different crops: maize, beans and vegetable.

The project of peat harvesting in Akanyaru marshland will have direct impacts on these people including income loss from crops production (see table xx above).

During the meeting with these farmers, they expressed their concern and fear about this issue and they have requested assistance from local authorities and Hakan peat fired power plant project.

V.1.1. Assistance from Gisagara District

(i) Gisagara District has promised to find alternative land (hillside or wetland) after consultation with KOJYAMUGI and lower local authorities (Villages and Cells).

(ii) Gisagara District has accepted to play advocacy role nearby local financial institutions in order to facilitate credit access for the concerned people in order to develop other types of activities.

(iii) Gisagara district in close collaboration with cooperatives will facilitate the access to improved seeds and fertilizers in order to improve the agricultural production.

(iv) Gisagara district and local authorities (sector and cell level) are committed to provide to project affected persons the capacity building in management of small business and micro-projects.

V.1.2. Assistance from HAKAN peat project

(i) During the construction and the operation phases, HAKAN peat project management in close collaboration with local authorities will ensure that these project affected persons get first priority to job.

(ii) HAKAN peat project should provide support to these farmers in order to efficiently use the top soil that will be excavated from the peat extraction in the Akanyaru marshland.

(iii) As the project zone is experiencing the problem of potable water, the project could undertake a study of water supply to affected people by using even manual pumps.

(iv) During the project implementation, Hakan peat project could put in place other types of small and middle projects (fishing, animal husbandry, etc) in order to assist local population.

V.2. Compensation

The compensation will concern the people living and /or farming the ash disposal area. The project affected persons (PAPs) will be compensated for loss of land, houses and trees and crops.

The compensation process will follow both the Rwandan constitution (Article 29) and the Expropriation Law.

VI. TECHNICAL APPENDICES

Vi.1. Minutes of public consultation: people farming Akanyaru peatbogs (800ha)

-1-

Minutes of public consultation held at Kabumbwe cell. 20/06/2014

Were present in the meeting:

- Dr Fabien TWAGIRAMUNGU : EIA Expert and Local ESIA team leader
- Eng Bruce IRAMBONA BRUCE : Land use expert
- Mrs Alice Uwambaje : Executive secretary of Kabumbwe Cell
- Mr Musafiri J. Pierre : Land Officer Rusagara District
- KOJWAMULI Cooperative members
- Other Affected population

The meeting started with a quick introduction of Mrs Alice Uwambaje, in which she introduced the ESIA team and the land officer. She asked the public to be attentive and listen to their visitors.

Mr Musafiri J. Pierre took the speech and started by explaining why the ESIA team and himself are there. He said that the reason of the presence was the peat exploitation project which will start activities very soon in the marshland. He said that existing activities will stop and marshland will be handed to APFPPP. He said that the district accepted to give the marshland to project since it will be benefitfull as a development tools for the country in general and for the district in particular. He explained that there is no compensation for the land in marshland since all marshland belong to the government and lease it to whoever have a development project which can benefit the country. He ensured the population that the district is looking for different mechanism to assist them.

Mr Musafiri introduced Dr Fabien Twagiramungu to give a deep and precise explanation. Dr Fabien started by thanking the population who came instead of staying in their usualy daily activities. He said that this show the value and concerns given to the project. Dr Fabien explained that the peat exploitation will start very soon and these activities will end all existing farming activities. He said that what is already planted in this season (namely season C) will not be damaged. However, Dr Fabien said that further activities will be done after confirmation of the schedule of peat exploitation activities since all marshland will not used at once.

Dr Fabien said that local authorities will be informed on time to ~~es~~ ensure that the population are informed on time to avoid any loss or damage. He emphasized on the fact that such activities will create additional employment in the area.

Mrs Alice Uwamboje, the executive secretary, took time to encourage the present population to ask any questions or to ask for any further clarification regarding the small presentation.

Nsabimana Theoneste, a resident of Kabumbwe and KOSYAMUCI Cooperative member, asked when they will be informed to know who will be concerned in the begining so they can plan accordingly.

Sebera Innocent (Cooperative member) asked about who will pay for the land preparation cost since they get the marshland when it was just a bush and that they are ~~amb~~ about to hand it out with a good shape.

Discussions continued whe the population were suggesting that the district can try to help them to increase hillsid production and possibly give them new land for agriculture activities.

Dr Fabien Twagiramungu explained to the population that the peat exploitation activities will start soon but the concerned part of marshland to be started with will be communicated on time as he said before. He said thas he will share their concern and suggestion to all stakeholder. Mr Musafiri (land officer) said that there will be no compensation for the land preparation cost. However, said Musafiri, the district will use different development program already in place to assist former marshland farmers and other concerned population to increase their production on hillside and possibly giving them other land for further agriculture activities.

Mrs Alice Uwamboje, executive secretary, thank all the parties for such fruitful meeting and encourage both parties to participate in such development project. She assured the population that she will make a follow-up on the way forward after this meeting.

The meeting started 10:30AM and End at 13:45PM.

VI.2. Attendance list of local authorities (village level) in public consultation meeting

ABITABIRIYE INAMA Y'ABATURAGEYO KUWA 20/06/2014

N°	AMAZINA YOMBI	IYO ASHINZWE	UMUDUGUDU	UMUKONO
1.	Hatungimana Alphonse	umujyanamakuriyo	Mulabura	
2	Ndagijimana Simon	Umukuriwudu	Nunga	
3	Iyakaremye Theoneste	" " "	Buye	
4.	NSHIMYIMANA Joseph	UMUTEKANO	Munopfu	
5.	HABIMANA Radisiyasi	Shefu umudugudu	Munopfu	
6.	Mukantagara Leonie	Imiberehomyiza	NUNGA	
7.	Bayamuneza Réverien	umujyanamakuriyo	BUYE	
8	Ndindabahizi	Diendi		
9.	NZABAMWITA Joseph	NUNGA		
10.	Mbonishimana Eric	umujyanama	MUHABURA	
11.	Ndimugukiza David	umutekano	Nunga	
12	MBAJIKE Thomas	Ngengamyitwarire	Nunga	
13	NGAYABAHIGA J-Claude	Coordinateur ASC	KIRWA	
14	Kabandana Clavier	ITERAMBERE	KIRWA	
15	Bizimana Sylvie	Shf	KIRWA	
16.	MUGUHUKIZI PIERRE	Teramberc	Nunga	
17	Bali Muta Jeles	POLISING	KUNAMBA	
18	Bampide Assegisandesi	Ubumwe	Munda	
19	Mushimiyimana Esperance	imiberehomyiza	Munopfu	
20	Ndikumana Elysi	amakuru	Munopfu	
21	NSHIMIYIMANA Felicien	umujyanama	Nunga	
22	NSABAMUZIMA Maurice	umutekano	Nunga	
23	NZABONIMPA Jean Baptiste	Umuturage	MUNOPFU	
24	Gakumba Joseph	Justusse paix	NUNGA	
25	NGENDAHIMANA JOSEPH	Demobe Police	Kabuga	
26	NDAYAMBAJE Alexis	UMUNYI	NUNGA	
27	MANARIYO KESIMA	ABIKORERA Kugiti cyabo	Kabuga	
28	Simodamwewejmiu	umuturage	MUNOPFU	
		umuturage	NUNGA	

VI.3. Example of filled technical forms used for data collection: KOJYAMUGI's members

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No	Name	Sector	Cell	Village	Cooperative	Household size	Number of Plots	Size	Cultivated crops	Income (Rwf) per year	Signature
1.	NShimiyimana Joseph	Mamba	Kabumbwe	Munopfu	COJYAMUGI	8	3	3x20ares =60ares	Beans maize	200,000 160,000	
2.	HABIMANA Rodrigue	MAMBA	KABUMBWE	Munopfu	KOJYAMUGI	8	3	3x20 =60	2 IBISHYIMBO 1 IBIGORI	200.000 160,000	
3.	NDIKUMKIKOERYASI	MAMBA	KABUMBWE	Munopfu	KOJYAMUGI	9	5	5x20 =100	IBIGORI	800.000	
4.	NIRINGIYIMANA KEREMANTU	MAMBA	KABUMBWE	Munopfu	KOJYAMUGI	7	1	1x20ares	IBISHYIMBO	100000	
5.	NYIRANGEZA MAYO FARADIYA	MAMBA	KABUMBWE	Munopfu	KOJYAMUGI	5	1	20ares	IBIGORI	120.000	
6.	SIBOMANA FERESIYANI	MAMBA	KABUMBWE	Muhabura	KOJYAMUGI	5	2	2x2 =40	IBIGORI 1 IBISHIMBO 1 IBIGORI 1	60000 160000	
7.	MUNYANEZA JAMUIYE	MAMBA	KABUMBWE	Munopfu	KOJYAMUGI	4	1	20ar	IBIGORI	160.000	
8.	KANSANA ANGELYATA	MAMBA	KABUMBWE	Munopfu	KOJYAMUGI	8	5	5x20 =100	3 IBISHIMBO 2 IBIGORI	240.000 160.000	
9.	UWAMARIYA BIBIYANA	MAMBA	KABUMBWE	Munga	KOJYAMUGI	3	1	20ari	IBISHYIMBO	100000	
10	MUSHIMIYIMANA RIDEVINA	MAMBA	KABUMBWE	Munga	KOJYAMUGI	3	1	20are	IBISHYIMBO	100.000	
11	KAYIBINGA PASCALI	MAMBA	KABUMBWE	GAHARA	KOJYAMUGI	4	1	20ari	IBISHYIMBO	100.000	
12	~~BIGIRIMANA~~ SHUMBUSHA EMMANUEL	MA	"	Munopfu	"	3	1	20are	" "	50,000	
13	MUKANTAMBARA ANYESI	"	"	Munga	"	2	2	20x2 =40	IBISHYIMBO IBIGORI	100.000 120000	
14	NYAMYASA TEWOSEN	"	"	Munopfu	"	12	5	20x5 =100	IBIGORI IBISHYIMBO	80000 1000000	

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No	Name	Sector	Cell	Village	Cooperative	Household size	Number of Plots	Size	Cultivated crops	Income (Rwf) per year	Signature
1	MUKANDEKEZI V.	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	6	2	40	ibigori	320,000	
2.	NKUNSI ALEXIS	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	6	2	40	IBIGORI	320.000	
3.	HABIMANA BENJ.	MAMBA	KABUMBWE	MUNOPFU	KOJYAMUGI	4	1	20	IBIGORI	160.000	
4.	SEBERA INNOCENT	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	5	2	40	IBIGORI	320.000	
5.	MANISHIMWE D.	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	1	1	20	IBIGORI	160.000	
6.	MUKAMUSONI O	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	1	1	20	IBIGORI	160.000	
7.	NSHIMIYIMANA	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	6	1	20	IBIGORI	160.000	
8.	NYIRORA EREVA	MAMBA	KABUMBA	MUHABURA	KOJYAMUGI	7	2	40	IBIGORI	320.000	
9.	NTEZIRYAYO J.P.	MAMBA	KABUMBA	MUHABURA	KOJYAMUGI	3	2	40	IBIGORI	320.000	
10.	NY. BANYIGINYA	MAMBA	KABUMBA	MUHABURA	KOJYAMUGI	3	2	40	IBISHYIMBO	420.000	
11.	MUKAMANA FOTINA	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	6	2	40	IBISHYIMBO	420.000	
12.	KAWERA FOYIS	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	4	2	40	IBISHYIMBO	420.000	
13.	MUKAMUSONI KONSO	MAMBA	KABUMBA	MUNOPFU	KOJYAMUGI	4	2	40	IBISHYIMBO	420.000	
14.	MBARUSHIMANA E.	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	3	2	40	IBISHYIMBO	420.000	
15.	NIYONKURU J.P	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	6	2	40	IBISHYIMBO	420.000	
16.	BAPFAKUWUGIRIYA	MAMBA	KABUMBA	MUHABURA	KOJYAMUGI	4	1	20	IBISHYIMBO	210.000	
17.	NYANDWI JUVENAL	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	6	3	60	IBISHYIMBO	630.000	
18.	MUKANGENZI	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	7	1	20	IBISHYIMBO	210.000	
19.	NIKUZE Claude	MAMBA	KABUMBA	NUNGA	KOJYAMUGI	3	1	20	IBIGORI	160.000	
20.	NYIRANSABIMANA D.	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	6	2	40	IBISHYIMBO	420.000	
21.	RUCAHOBOTINYA	MAMBA	KABUMBWE	MUHABURA	KOJYAMUGI	1	1	20	IBISHYIMBO	210.000	
22.	NZABONIMANA SAD.	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	1	1	20	IBISHYIMBO	210.000	
23.	IRAGUHALI Jose	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	4	2	40	IBISHYIMBO	420.000	
24.	SEMWIZA DAVID	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	11	2	40	IBIGORI	320.000	
25	KANYWABAHIZI Jean	MAMBA	KABUMBWE	KABUGA	KOJYAMUGI	6	3	60	IBIGORI	630.000	
26	NIYOMBIKESHA Karude	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	1	1	20	SHYIMBO	210.000	
27	MUKANDANGA Josee	MAMBA	KABUMBWE	NUNGA	KOJYAMUGI	3	1	20	SHYIMBO	210.000	
28.	NAHIMANA	MAMBA	KABUMBWE	MUHABURA	KOJYAMUGI	1	1	20	IBISHYIMBO	210000	
29.	MUTIRENDE	MAMBA	KABUMBWE	MUNOPFU	KOJYAMUGI	12	1	20	IBIGORI	160000	

CENSUS OF POPULATION USING AKANYARU MARSHLAND GIVEN TO HAKAN PEAT POWER PLANT

No	Name	Sector	Cell	Village	Cooperative	Household size	Number of Plots	Size	Cultivated crops	Income (Rwf) per year	Signature
1	Mporuwiki Martin	Mamba	Gakoma	Rugenge	Twambere mu Akanyaru	7	1	20 ARE	Ibishyimbo	175000	
2	Itamishaka Dansila	"	Mamba	N. Rugenge	"	7	2	40 ARE	Ibishy.-Ibigori	250000	
3	Uwadahaho Chantal	"	"	"	"	4	1	20 ARE	Ibishyimbo	175000	
4	Sebahizi Philip	"	"	Buhima	"	6	1	20 ARE	Ibigori	300000	
5	N. Zaninka Tanaziya	"	Kabumbwe	Muhabura	"	3	1	20 ARE	Ibigori	100000	
6	Nshimiyimana Pascal	"	Mamba	Buhima	"	8	1	20 ARE	Ibishyimbo	175000	
7	Ngayaberuza Alphonse	"	"	"	"	4	1	20 ARE	"	175000	
8	M. Nkusi Alphonline	"	"	"	"	6	1	20 ARE	"	150.000	
9	Umwamari ya Vikiyana	"	"	"	"	1	1	20 ARE	Ibigori	200000	
10	Mayira Paterina	"	Kabumbwe	Nyuma	"	4	1	20 ARE	Ibishimbo	185000	
11	Berahuta Gerard	"	Mamba	Buhima	"	6	3	60 ARE	Ibishy. Ibigori	420.000	
12	Gasana Gaspard	"	"	"	"	10	1	20 ARE	Ibishyimbo	175000	
13	Nshimiyimana Faustin	"	"	"	"	8	1	20 ARE	"	150.000	
14	Nikuze Cesile	"	Gakoma	Kwamba	"	3	1	20 ARE	"	80.000	
15	Nyirabakunzi Violete	"	Kabumbwe	Munopfu	"	4	1	20 ARE	Ibigori	40.000	
16	Kariso Viomey	"	Gakoma	Kwamba	"	3	1	20 ARE	"	70.000	
17	Ruwerangoga Emmanuel	"	Kabumbwe	Kabuga	"	6	3	60 ARE	Ibishy. Ibigori	295000	
18	Muntebeka Venate	"	Gakoma	Repero	"	2	1	20 ARE	Ibigori	60000	
19	Ntawiziyandenye	"	Kabumbwe	Munopfu	"	4	2	40 ARE	Ibishy. Ibigori	275000	
20	Ntahofari J. Claude	"	Mamba	Buhima	"	2	1	20 ARE	Ibishyimbo	150.000	
21	N. Hategekimana	"	"	"	"	5	1	20 ARE	"	150.000	
22	Kakera Victeur	"	"	"	"	8	2	40 ARE	"	300000	
23	Musabyimana Espelence	"	Kabumbwe	Nyuma	"	1	3	60 ARE	Ibigori	450.000	
24	Mukandenda Georgie	"	Mamba	Buhima	"	6	1	20 ARE	"	80.000	
25	Nzabakiriho Oliva	"	"	"	"	6	1	20 ARE	"	80.000	
26	Mukandanga Pulquerie	"	Kabumbwe	Gerwa	"	4	2	40 ARE	Ibishy. Ibigori	200000	
27	Nsanzabandi Valense	"	Gakoma	Rugenge	"	5	2	40 ARE	Ibigori	120000	

CENSUS OF POPULATION USING AKANYARU MARSHLAND GIVEN TO HAKAN PEAT POWER PLANT

No	Name	Sector / Umurenge	Cell / Akagari	Village / Umudugudu	Cooperative / Koperative	Household size/umubare w'abagize umuryango	Number of Plots / umubare w'imirima	Size/ingano	Cultivated crops/igihingwa	Income (Rwf) per year/amafaranga avamo	Signature/ umukono
1	MUVUZANKWA	MAMBA	KABUMBA	NUNGA	JYAMBERE	8	1	ares 20	IBISHYIMBO	220000	
2	UWAMBAJIMA	"	"	"	"	6	3	ares 60	"	360000	
3.	NGIRUWONSA	"	"	"	"	5	2	ares 40	"	240000	
4.	NYONSABA	"	"	"	"	6	5	ares 100	"	600.000	
5.	NZARAMYIMA	"	"	"	"	3	6	ares 60	"	360.000	
6.	KABANDANA	"	"	"	"	8	1	ares 20	"	220 000	
7.	AYOBAHORANA	"	"	MUNOPFU	"	4	3	ares 60	"	360000	
8.	MUNANIRA	"	"	"	"	6	2	ares 40	"	420000	
9.	UWIHOREYE	"	"	"	"	1	2	ares 40		420000	
10	NIYONKURU	"	"	"	"	4	1	ares 20		220000	
11.	NSANZIMANA	"	"	"	"	4	2	ares 40	"	420000	
12.	MURINDAHABI	"	"	"	"	6	2	ares 40	"	420000	
13	NYIRAMANA	"	"	NUNGA	"	8	2	ares 40	"	420000	
14	KUBWIMANA	"	"	"	"	3	1	ares 20	"	210000	
15.	HABIMANA	"	"	"	"	4	1	ares 20	"	210000	
16	BAKUNDUKIZE	"	"	KIRWA	"	5	3	ares 60	"	360000	
17	NTAKABEZINDA	"	"	NUNGA	"	1	1	" 20	"	220000	
18	NYIRIMPUNGA	"	"	"	"	4	2	" 40		420000	
19	NYIRAMINANI	"	"	"	"	1	1	" 20		210000	
20.	HARINDINTWA	"	"	"	"	4	1	" 40		210000	
21.	MUKANKUNSI	"	"	"	"	1	2	" 20		210000	
22	MUNYANEZA	"	"	"	"	1	2	" 40		420000	
23	NTABANGANYI	"	"	MUHABURA	"	4	3	" 60		400.000	
24	HAKIZIMANA	"	"	MUHABURA	"	8	3	" 60		400.000	
25	MUKANKUNSI	"	"	NUNGA	"	6	3	" 60		400000	
26	SEBARINDA	"	"	MUNOPFU	"	6	2	" 40		420000	
27	UWINGABIRE	"	"	NUNGA	"	1	1	" 20		220000	
28.	NGIRIMANDWA	"	"	MUNOPFU	"	5	2	" 40		420000	

VI.4. Attendance list of people who participated in consultation meeting related to ash disposal area on 24/July/2014 in Buye village, Kabumbwe cell, Mamba sector, Gisagara District

LISTE Y'ABAKOZE INAMA. (BUYE VILLAGE)

NAMES	SIGNATURE
1. KARINDA VIATEUR	
2. HAVUGIMANA Alex	
3. NSABIMANA Theoneste	
4. NYIRAHABIYAMBERE Béatrice	
5. SEKIMONYO Aliasse	
6. SINDERIBUYE Augustin	
7. ~~HARORI~~ HARERIMANA Patrice	
8. MUKAMUREBA Virginie	
9. NYIRANEZA Pransine	
10. MUKAMANA Clarisse	
11. SINANGIRYAYO J. Népo	
12. NYIRIMANZI Faustin	
13. MUKAMAZIMPAKA Vestine	

VI.5. Examples of filled form used to collect data during assets survey of people living and/or farming on ash disposal area

Survey of assets in the zone of ash landfill of Akanyaru peat fired power plant project

#	Name of land owner	Identity card No	Owning house and/or plot	Size of plot	Assets (crops, trees, other)	Estimated value	Observations/ Comments
1	KARINDA VIATEUR	1 1970800908480	PLOT, HOUSE	3925 m².	Insina : 545	1090000	
					Imyumbati : 375 m²	157500	
					Akaka : 3	60.000	
					Ipera : 6	6000	
					umusace : 1	5720	
					umukumu : 1	–	
					Imibinji : 9	–	
					papaye : 1	1200	
					Imiyenji : 12	7200	
					umubingo : 25 m²	10.000	
					ibijumba : 180 m²	36000	
					Total	1332220	
2	HAVUGIMANA ALEX	1197080024265077	PLOT ; HOUSE	2780 m²	Gerekeniya : 6	34320	
					umubingo : 50 m²	20000	
					Imyumbati : 140	294000	
					Imibinji : 12	–	
					umuvakumba : 4	–	
					Imiyenji : 1	600	
					Ibikakambamba 36	–	
					Amanas : 32	9600	
					Akaka : 2	6000	
					Ipapayi : 1	1200	
					Insina : 642	1284000	
					Total :	1.649.720	

V2

Survey of assets in the zone of ash landfill of Akanyaru peat fired power plant project

#	Name of land owner	Identity card No	Owning house and/or plot	Size of plot	Assets (crops, trees, other)	Estimated value	Observations/ Comments
1	RUREMESHA Celestin	~~1195980017332083~~ 1195980017 332083	PLOT	6012 m²	Imyumbati : 350	735000	
					Avoka : 6	18000	
					Umukumai = 1	–	
					Urubingo : 83 m²	33400	
					Gerekeniya : 36	205920	
					Imyembe : 4	13800	
					Umukore : 1	–	
					Umubinzi : 12	–	
					Imiyenzi : 4	2400	
					Amatekke : 35	7000	
					Umuko : 1	–	
					Insina : 102	204000	
					Total	1219520	
2	MUKABOTERA Esperance	119557001 1963054	PLOT	2080 m²	Insina : 239	478000	
					Imyumbati : 94	197400	
					Ibijumba : 415 m²	83000	
					Umurabe : 1	2500	
					Imibinzi : 40	–	
					Urubingo : 100 m²	40.000	
					Imiyenzi : 2	1200	
					Gerekeniya : 1	5720	
					Imiguegue : 5	–	
					Total	807.820	