



2021

For a Wealthy Future

RWARRI

ANNUAL REPORT



RWANDA RURAL REHABILITATION INITIATIVE – RWARRI
P.O.Box: 256 Kigali – Rwanda
Telephone: (+250) 788308374
General e-mail address: info@rwarri.com
Web site : www.rwarri.com

Message from the Chairman of the Board of Directors



Mr. Gatera Augustin
Chairman of Board of Directors

Amid the Coronavirus pandemic's uncertainty, 2021 will be tabled in Rwanda Rural Rehabilitation Initiative's books as a surprisingly successful year filled with the introduction of four new projects, one of which initiates us into urban development.

As has been our tradition, in this report, we share not just our vast successes but also challenges, lessons learnt, and what we resolve to do in 2022.

Our programs until 2021 had primarily targeted rural development. However, we are intervening in the City of Kigali through a Farmer to Market Alliance (FtMA) project and a new project targeting food waste mitigation in Kigali city.

We continue to contribute to a more ecologically viable Rwanda through projects promoting afforestation, land restoration, and green technologies. Our emphasis on gender mainstreaming goes with including women in our first targeted groups. In addition, our employees were trained in GALS (Gender Action Learning System) which has proven to encompass and strengthen the social transformation of our target groups, including People living with disabilities.

On behalf of the board, I thank and commend our supportive partners, community devotees, excellent staff, and board members, as our success has been conceivable through you.

I am pleased to present our 2021 Annual Report.



Executive Summary

What a year 2021 was for RWARRI!

For the past 25 years, our focus has been on rural development. However, our recently added project, whose emphasis is on reducing food waste in the City of Kigali, thrust us into urban advancement.

2021, as you will see in the following pages of this annual report, RWARRI achieved more. We reached a total population of 93,426 people in 2021 alone through our interventions. Of the total population, 45,982 are women; 10,063 are youth; and 908 are people living with disabilities, which is a significant increase from 2020 when we reached 50,177,000 population, 29,376 women, 4,891 youths and 316 people are living with disabilities.

We served in twenty-one (21) out of the thirty (30) districts in all four (4) provinces and the City of Kigali. As we grew, we learnt some lessons that have helped us make positive changes and notice our achievements. Some of these lessons include introducing a management system, RWARRI MIS, to facilitate the integration of various human resources and financial functions. The system has supported transparency and accountability within the organization. Another lesson learnt was involving the community in implementing partners' interventions (activities); the result is ownership. Innovation pays out, as was the case in changing the irrigation system that was highly beneficial to the women farmers in the Ngoma district, as it has helped them conserve time and increase incomes.

What's next for us?! As our five-year strategic plan comes to an end, we are planning and preparing for the next era with a strong foundation which you will see in the following pages.

Here's to another great year!

UWIZEYE Belange

Executive Director of RWARRI



RWARRI Silver Jubilee Celebration (Photo: Jabo)

Acronyms

9YBE: Nine-Year Basic Education
AIF: Africa Improved Foods
AMITH: Amizero Institute of Technology and Hospitality
AREECA: Alliance for Restoration of Forest Ecosystems in Africa
CoK: City of Kigali
COOPCRU: Coopérative des animateurs des Cultivateurs de Rugengabari
EAX: East Africa Exchange
EBM: Electronic Billing Machine
ECOREF: Economic Inclusion of Refugees and Host Communities
EWMR: Embedding Integrated Water Resources Management in Rwanda
FAO: Food and Agriculture Organization
FLR: Forest Landscapes Restoration
FtMA: Farm to Market Alliance
FWRD: Food Waste Reduction and Management
GALS: Gender Action Learning System
GAPs: Good Agriculture Practices
GCCASP: Gender Climate Change and Agriculture Support Program
GTP: Green Technology Project
Kg: Kilo gramme
KOJYAMUGI : Koperative Jyambere Muhinzi Gisagara
KOPAJEKA: Cooperative des Agriculteur de Kansi
MINIMEX: Minoteries Industrielles Import-Export
MIS: Management Information System
MT: Metric Tons
NAIS: National Agriculture Insurance Scheme
NGO: Non-Government Organization
PHHS: Post Harvest Handling and Storage
PWD: People With Disability
RAB: Rwanda Agriculture Board
RCOT: Rwanda Chamber of Tourism
REMA: Rwanda Environment Management Authority
RFDA: Rwanda Food and Drugs Authority
RGB: Rwanda Government Board
RRA: Rwanda Revenue Authority
RURA: Rwanda Utilities Regulatory Authority
RWARRI: Rwanda Rural Rehabilitation Initiative
RWF: Rwanda Francs
TIN: Taxpayer Identification Number
TVET: Technical and Vocational Education and Training
UNICEF: United Nations International Children’s Emergency Fund
VLUAPs: Village Land Use Action Plans
VSLAs: Village Savings and Credit Associations
WASAC: Water and Sanitation Corporation
WFP: World Food Program

Contents

Thematic Area 1: Economic sustainability P. 8 - P. 15



Thematic Area 2: Ecological viability P.16 - P.19



Thematic Area 3: Social transformation P. 20



Thematic Area 4: Technological transfer P. 21



Thematic Area 5: Institutional Development P. 22



RWARRI overview

What is RWARRI

Rwanda Rural Rehabilitation Initiative (RWARRI) is a national Non-Governmental Organization that started its operations in Rwanda in 1995. RWARRI is dedicated to promoting and improving rural communities' social and economic welfare in Rwanda. The Organization has officially been recognized and registered by the Government of Rwanda as a Non-Governmental Organization (NGO) since 2003. The Organization has registered with the Rwanda Governance Board (RGB) since 2011 under registration number 023/11.

Mission

The mission of RWARRI is to be one of the most valued and respected NGOs in Rwanda and beyond, working towards achieving sustainable livelihoods among the rural poor, contributing to shaping and implementing national and global policies that lead to the positive economic, social and technological transformation of the citizens.

Vision

The vision of RWARRI is the ultimate realization of a rural and vulnerable community that is economically sustainable, socially transformed and food secure. Fundamental to our vision is the belief that the community members take ownership and responsibility for the entire development process.








Values

1. Transparency
2. Accountability
3. Respect for human dignity
4. Effectiveness and Equity



Solar pumping irrigation at Zaza site (Photo: Viateur)

What we did

PROJECT	KEY INTERVENTIONS	LOCATION	POPULATION REACHED
 FtMA	<ul style="list-style-type: none"> • Link coops to formal markets • Provision of extension services • Access to finance • Strengthening grassroots communities • Social welfare 	<u>City of Kigali</u> 1. Nyarugenge 2. Kicukiro 3. Gasabo	Total = 93,426 Male = 47,444 Female = 45,982 Youth = 10,063 Disability = 908
 EWMR	<ul style="list-style-type: none"> • Capacity building on EWMR interventions • Awareness raising • Compost making • Climate change resilience • Social welfare 	<u>Eastern Province</u> 1. Kirehe 2. Ngoma 3. Rwamagana 4. Kayonza	
 GTP	<ul style="list-style-type: none"> • Installation of an irrigation system using solar energy for water pumping and water storage • Increase horticultural production and link farmers to market • Strengthen farmers' capacity 	<u>Southern Province</u> 1. Huye 2. Gisagara 3. Nyamagabe 4. Nyaruguru	
 GCCASP	<ul style="list-style-type: none"> • Installation of an irrigation system using solar energy • Increase horticultural production • Strengthen farmers' capacity 	<u>Northern Province</u> 1. Gicumbi 2. Gakenke 3. Rulindo 4. Burera	
 ECOREF	<ul style="list-style-type: none"> • Hands-on skills provision • Jobs creation 	<u>Western Province</u> 1. Rubavu 2. Nyabihu 3. Rutsiro 4. Ngororero 5. Rusizi	
 AREECA	<ul style="list-style-type: none"> • Capacity building • Awareness-raising (campaigns) 		
 FWRM	<ul style="list-style-type: none"> • Food waste reduction management 		

Our Partners



Thematic Area 1: Economic sustainability

Market access: Linkages with markets, Mugisha Godefroid experience

Mugisha Godefroid is a member of COOPCRU, a cooperative of maize farmers under FtMA located in the Burera District. As the yield increased, Mugisha got the surplus for the market and started earning income.

In season 2021A, Mugisha delivered 1.3 metric tons to the FtMA member buyer African Improved Food (AIF) and earned 258,700 RWF. He spent the income to extend the agriculture activities and associate them with the livestock to get organic manure to increase productivity quickly.

He bought one gilt (female pig) at 50,000 RWF and one improved breed of ewe (female sheep) at 70,000 RWF. "I only invested 120,000 in livestock. In less than six months, I now have livestock valued at least 250,000 RWF, including one sow and its six piglets and one ewe and its two lambs. I get enough organic manure to fertilize my plots of land; of course, the productivity has increased", he joyfully expressed. Mugisha will no longer struggle to pay school fees for his children or the health insurance of his eight family members. Today, Mugisha's economy has dramatically improved due to the FtMA support, and he is grateful to the Alliance.

FtMA supported farmers were assisted in accessing the best market where they got a rewarding price for their produce. Six thousand metric tons of maize were delivered at 1,366,754,719 Rwandan Francs. As per Mugisha's story above, other farmers used the income gained to extend and improve their farming

activities and cover their family's basic needs. On the other hand, the green technology project implemented in the Ngoma district, in Zaza and Mutenderi sectors assisted farmers in accessing the market for vegetables, including main cabbages, green pepper, and watermelon. Around 50 metric tons (mt) worth 35,630,000 FRW were delivered to formal buyers.



The increase of maize production led to increased incomes (Photo: Viateur)



Vegetables producers are linked to formal markets (Photo: Viateur)

Quality of produce: HIRWA cooperative increased produce quality through postharvest equipment access



Tarpaulins availed to increase the maize quality (Photo: RWARRI)

Under the FtMA project, in the Rwamagana district, members of the Hirwa-35 cooperative were mobilized to buy postharvest equipment from private suppliers to produce quality maize; as a result, members of cooperatives ordered 460 tarpaulins to 5,980,000Rwf and 4500 bags at 1,575,000Rwf. As Namahoro Olive, president of the Hirwa-35 cooperative, expressed, tarpaulins are beneficial for drying maize cobs while bags are for maize grain packaging. "It has always been very tough to dry maize in the rainy season, and tarpaulins are the best at keeping the maize dry and preventing the aflatoxin," she explained.

Namahoro believes every farmer should have his tarpaulins and packaging bags to target good quality maize and professionalization the sector. "Buying post-harvest equipment is an investment in itself since good quality maize production gets a premium price", he expressed.

As a result, Hirwa-35 cooperative members have managed to sell 69 Mt of maize to EAX and AIF, meeting buyers' quality requirements.

Other farmers who purchased the post-harvest handling materials reported reduced losses and thus increased income. The mobilization continued to enhance the use of adequate post-harvest materials sustainably. It is already evident that they help maintain the best quality of products, which is the critical factor in winning the market competition.

In 2021, nearly 300 farmers (of whom 147 are women) bought 5,720 plastic bags and 615 tarpaulins, valuing 10,038300 Rwf. The use of adequate post-harvest handling equipment led to the buyers' appreciation of the product quality. The whole maize delivered to the market was quickly accepted and got a premium price.



The maize quality results from hard work (Photo: RWARRI)

Complying with taxes regulation for coops: The positive impact of tax compliance in Jyambere Muhinzi Kibeho coop

Jean Claude Bizumuremyi is the president of Jyambere Muhinzi cooperative, a FtMA member located in Nyaruguru District. As he said, his cooperative complied with Rwanda’s current tax policy, like using an Electronic Billing Machine (EBM) and tax declaration.

Bizumuremyi attested that registering and using EBM helped them keep their financial books properly and protected their loyalty toward taxpayers from unfair competition. “EBM is designed with enough flexibility to reduce operative and administrative costs, while still, the highest security standards are in place for safekeeping our tax information”, he stated and added that EBM enhanced their store management and improved their financial records keeping, and this boosted the cooperative member’s trust because they can now track and record well all operations.

Before the EBM adoption, Bizumuremyi indicated that the cooperative used to spend much time preparing invoices; sometimes, errors occurred due to filing problems or missing documents related to invoices, etc. Nevertheless, currently, EBM performs their business efficiently; they are not afraid of audits since all operations are captured in EBM, and tax declarations are made at the right time to avoid fines that they may be charged due to overdue.

As per the government regulations, all the cooperatives had to get TIN, make tax declarations, and acquire the EBM formally in the framework of doing business. RWARRI, under FtMA, as a supporter of the Government initiatives, took the lead in mobilizing cooperatives – members of the Alliance, to comply with the above requirements with much emphasis on the EBM use, given that it requires some initial investment. As a result, 108 cooperatives got TIN, 49 did tax declaration, and 23 cooperatives acquired the EBM in 2021. A continuous mobilization strategy is in place to increase the acquisition and use by all cooperatives – members of FtMA and to comply with all taxes related requirements.



Coops are encouraged to adopt EBM to comply with RRA
(Photo: RWARRI)



Extension services: Burindwi experienced Good Agriculture Practices (GAPs) positively

Burindwi Xavier, a resident of Kibeho Sector in Nyaruguru District, joined JYAMBERE Muhinzi Kibeho cooperative, which grows maize. In 2018, he started benefiting from the cooperative's Farm to Market Alliance (FtMA) technical support. According to Burindwi, before joining FtMA, he grew maize and Irish potatoes traditionally for home consumption only. Since Burindwi joined the FtMA project, he has improved his agricultural practice by using improved seeds and applying proper organic and inorganic fertilizers. Burindwi observed planting distancing measures and improved other planting techniques, which led to increased yield.

"I ploughed 18 Ares and got 29 kgs per Acre, which was 522 kgs from my land. After being trained in Good Agricultural Practices (GAPs), my harvest boosted to 47 kgs per Acre which means that I now get 846 kgs of maize from the same land", he pointed out.

Under FtMA, 27,504 farmers, among them 13,848 females, were trained in Good Agriculture Practices and increased their maize production in 2021.



GAPs led to increased yield (Photo: RWARRI)

PHHS training to reduce produce losses: Camille increased income due to innovative storage

Havugimana Camille, a KOPAJEKA cooperative member in Gisagara District, Kansi Sector Umunini Cell, and Agatare Village, after receiving training on post-harvest handling and storage from RWARRI, bought a silo where he stored 500Kgs after selling the produce of Season 2021A. The stored maize helped Camille's family fight hunger during the COVID-19 period. After six months, Camille sold 200 kg at 300 Rwf and got 60,000 Rwf. The money helped Camille's family fulfil household activities and pay school fees and school feeding for his children. His two kids are studying, and he pays 25000 Rwf to one girl in TVET School and 9000Rwf for another in 9YBE for school feeding. The rest was used in the 2021B season's cultivating activities; when schools reopened in October 2021, Camille bought school materials for his kids.

100 Kg of the stored maize has been consumed at home. Today he holds 300 kg of maize of good quality and plans to sell it. Note that using improved silos, there are no maize grains destroyed by

weevils, and rodents cannot damage the produce. In 2021, 14,371 farmers, including 7,038 females, were trained on post-harvest handling and storage (PHHS). Trained farmers showed the improvement in their economy mainly due to the increase in the assets like livestock, plots of land, etc. Such positive change resulted in productivity increase in terms of quality and quantity and the increased income due to the access to the best markets for their produce.



Improved silos are effective to store maize (Photo: RWARRI)

Registration to NAIS: KOJYAMUGI experienced the benefits of crop insurance

KOJYAMUGI cooperative, with 4080 members, including 2000 females, is a cooperative located in Gisagara district, Mamba sector. It grows maize on 385 Ha in Akanyaru marshland. During the season 2021C, the cooperative was mobilized and insured 317 Ha with 6.355.576 Rwf, and this was their first-time paying crop insurance in the National Agriculture insurance scheme (NAIS). In the previous years, the cooperative had been challenged with disasters, especially those caused by the Akanyaru River. The flooding they experienced in the earlier seasons encouraged them to collect and pay for crop insurance. This season 2021C, the cooperative faced the same flooding issue; fortunately, they have ensured the maize and compensated with 7.032.955 Rwf. Through the FtMA project, RWARRI mobilized farmers to pay insurance for their maize crop under National Agriculture Insurance Scheme-NAIS to adapt and mitigate the impact of natural disasters on agricultural production. Among the 125 supported farmer cooperatives, 47 cooperatives collected 31,433,508 Frw to insure 1,284ha for the seasons of 2020C, 2021A and 2021B. Among these cooperatives, 26 were affected by drought, floods and heavy rain, which involved the yield. These cooperatives were compensated with 12,950,728 Frw in 2021.



Crop insurance to mitigate natural disasters
(Photo: RWARRI)

Saving groups to ease access to financial services

The critical role of Village Savings and Credit Associations-VSLAs is to provide access to financial services for community members who do not have bank accounts. In 2021, the created VSLAs were trained on financial literacy. VSLAs at the initiation stage were also equipped with training on laws of VSLAs formation, setting VSLAs committees, and VSLAs' information recording in different VSLAs financial management books. About the membership, 7,665 VSLA members were found in 331 saving groups. However, VSLA members who borrowed from their saving groups initiated 329 Income Generating Activities (IGAs). The mobilization team continues to accompany VSLAs by helping them keep financial records and mobilizing them to keep saving to start engaging money into farming activities to generate more income. However, the goals for most VSLAs in the

constitution are categorized into the following categories:

- Buying small livestock and agriculture inputs;
- Paying health insurance and school fees.

In 2021, among the saving and solidarity groups in Sebeya Catchment, the cumulative amount of loans disbursed by VSLAs was 121,615,064 Rwf across the Rubavu, Nyabihu, Rutsiro and Ngororero districts.



Saving group members in a meeting (Photo: RWARRI)

Food waste reduction and management for greening the City of Kigali

Justin Manzi Muhire, one of the Taskforce members for Food waste reduction and management in the City of Kigali and at the same time an employee of Rwanda Food and Drugs Authority, stated that food waste is an issue that spans the entire supply chain, from the farm to the consumer.

At the household level, Muhire explained that there's a link between wealth and food waste (higher-income households waste more food than lower-income ones) according to the information obtained from a waste transportation company.

At the retailer level, in different markets visited, Muhire revealed that vegetables that look a little weird or misshapen are discarded before they become rotten (this is the case of broccoli). Thus, food waste due to mechanical damage (during harvesting and transportation) and spillage during offloading was observed at Nyabugogo Market.

It isn't straightforward to transport food from where it is produced to where it gets processed and ultimately sold and consumed. Still, the challenge increases with time-sensitive products (fruits and vegetables).

Ineffective or unsophisticated product management processes and procedures lead to wasted food across the supply chain; they saw that most unsold food at the retail level is due to handling errors.

There is the issue of substandard avocados purchased by the retailers and rotten before they ripen.

Less food waste was observed in schools, hotels and factory-like MINIMEX; the little food waste generated is used as animal feed.

At Nduba, food waste disposal in landfills is a burden

to the country since removing food waste in landfills leads to greenhouse gas emissions, contributing to climate change. In addition, when food is wasted, all the resources used to produce this food - including water, land, energy, labour and capital - go to destroy. Food waste can also negatively affect food security and food availability and increase the cost of food.

In brief, food waste causes are mainly related to managerial and technical limitations in harvesting techniques, storage and cooling facilities, infrastructure and marketing systems.

In Rwanda, up to 40% of total food production, each year is never consumed; at the same time, 19% of the population doesn't have enough to eat. Food is the single largest, most significant municipal solid waste disposal component across Kigali; more food is landfilled than plastic, paper, metal, glass, or other material. To mitigate this issue, the City of Kigali, in partnership with Food and Agriculture Organization (FAO), invited and created a task force whose focal points are from various organizations/institutions such as REMA, RURA, Rwanda FDA, CoK, RCOT, RAB, WFP, WASAC. The Task Force's experiences are to guide, advise, and orient the City of Kigali in food waste reduction and management.

There was a training and inspection series in food waste reduction and management where the Taskforce was acquainted with the statistics, sources and realities of the waste issue in Kigali city. The expected outcome of the task force is to produce recommendations for the City of Kigali and report to their respective institutions/organizations. The team will develop a solid plan to reduce and manage food waste.



FWRM taskforce members in a meeting (Photo: RWARRI)

From savings, Rehema Mediatrice opened a shop

Rehema Mediatrice revealed that she saved 150,000 Rwandan francs from working at the Sebeya project, and she decided to open a small shop, which has grown to the worth of nearly 500,000 Rwandan francs by the end of 2021.

She started by being part of the workforce in radical terracing activities of Rutsiro high hills located in Sebeya catchment; then, she became a team leader of her coworkers. “When I got a job in the Sebeya project in September 2020, I set a target. Thus, I started saving the money that I was earning, and within nine months, I had saved 150,000 Rwandan francs to open a small business”, she disclosed.

Rehema’s shop contains many goods, including sugar, salt, beans, Irish potatoes, bananas, cooking oil, vegetables, flour, soaps, skin lotions, and food ingredients to supply her neighbours and, more importantly, to generate income for her family’s wellbeing.

Rehema Mediatrice is a resident of Murambi village, Ruhango sector in the Rutsiro district.

In the Sebeya catchment, nearly 6772 individuals saved 145,619,987 Rwf in 2021 under RWARRI Community mobilisers’ support.



Rehema in her shop (Photo: Uziel)

Linkage to financial institutions: Coops under FtMA got inputs and output loans

Cooperatives members under FtMA were linked to financial institutions for easy access to financial services. Farmers were more concerned with input and output loans. The input loan was used to buy seeds, and fertilizers, hire land, and pay the labourers, while the output loan was used to aggregate the produce to sell it to the formal market. In 2021, cooperatives requested the total amounts of 73,640,000Rwf, whereby 71,032,740Rwf were already repaid. Of this entire loan requested, 46,640,000 Rwf were the input loan while 27,000,000 Rwf were the output one. Regarding the repayment, 47,232,740 Rwf were repaid as the input loan plus its interest, while 23,800,000 Rwf of output loan were compensated by the end of 2021.

Covid-19 prevention measures at the RWARRI workplace

In 2021, RWARRI adopted a Coronavirus policy that enabled the staff to stay safe at the maximum. Apart from the general rules observed at the national level, including washing hands, social distancing and wearing face masks, RWARRI management established its prevention measures. These are stated as follows:

1. If you have cold symptoms, such as cough, sneezing, fever or feel poorly but can work, request to work from home.
2. If you have a positive COVID-19 diagnosis, you can return to the office only after you’ve fully recovered, with a doctor’s confirmation.
3. If you have recently returned from areas with a high number of COVID-19 cases based on the government’s announcements, we’ll ask you to work from home for 14 calendar days and return to the office only if you are entirely asymptomatic. You will also be asked not to come into physical contact with any colleagues during this time.
4. If you have been in close contact with someone infected by COVID-19, with high chances of being infected yourself, request to work from home and return to the workplace after a negative test confirmation.
5. If you need to provide care to a family member infected by COVID-19, request work from home. You’ll only be permitted to return to the office after your family member has fully recovered.

AMITH trainees generated incomes for their own school

After three months of hands-on skills provision to youths from refugee camps and host communities, trainees enrolled at Amizero Institute of Technology and Hospitality (AMITH) generated 535,000 Rwandan francs, including 295,000 Rwandan francs from Welding and 240,000 Rwandan francs from Tailoring.

The School Manager, Antoine Ndahimana said that the Welding trade generated money from selling and installing produced windows and doors for a neighboring client. Then, the Tailoring trade generated cash from selling made skirts, shirts, short trousers and trousers, and dresses

Under the Ecoref project, 124 trainees from Mahama and Giheke refugee camps and host communities are enrolled in 3 trades, namely Welding, Tailoring and Hairdressing, with 25, 56 and 43 trainees.

After three months of training, all trainees showed tremendous progress in gaining competencies and practical skills. Currently, trainees can produce different items in their respective trades like doors and windows for those in Welding; skirts, shirts, short trousers and trousers, and dresses in Tailoring marketing and applying different chemical products and techniques to get hairstyles for the trainees in Hairdressing trade.



Trainees are well equipped with skills (Photo: AMITH)

Mbarimombazi, a vulnerable to a valuable farmer

Mbarimombazi Pierre is one of the livestock beneficiaries of the Sebeya project, which received a cow in the Rubavu district, Kanama sector.

Mbarimombazi was a simple farmer with limited resources due to having his degraded and insalubrious land. He could not get a cow to give him organic fertiliser to increase productivity or acquire milk for the family's health improvement and money from selling the remaining milk after the family consumption. "I was the real kind of vulnerable man in the community", he acknowledged.

Today, Mbarimombazi is happy to have a cow from the Sebeya project. "I feel I am very different from my previous status before I got the cow", he noted. Mbarimombazi can get quickly 2 litres of milk for the family consumption every day and three more litters to sell every day, which gives him a month of nearly 20,000Rwf. Mbarimombazi got money from this organic fertiliser estimated at 15,000Rwf each month, and he used it in his land of 15 Ares. "My Irish potatoes productivity has been boosted from 2MT to 3,5MT due to the used organic fertiliser, and

I got almost 300,000Rwf of benefits from selling the produced Irish potatoes", he pointed out.

Mbarimombazi's cow gave birth to a heifer calf given to his neighbour, as the rules in this matter specify, and the same cow is now in the gestation period.

Mbarimombazi is currently very grateful to the Sebeya project that enabled him to move from vulnerability and increased his wellbeing life.

In Sebeya Catchment, by the end of 2021, there were at least 511 new born cows that were supposed to be given to new beneficiaries under "Girinka" policy.



Families that got cows increased productivity (Photo: Frodouard)

Thematic Area 2: Ecological viability

Climate change resilience: Uwihanganye took profits from solar pumping irrigation

Uwihanganye Faustin is one of the 126 small growers of vegetables in the Zaza and Mutenderi sectors of Ngoma district who benefit from the “Improving the smallholder farmers’ livelihoods and climate resilience by using green technologies in Ngoma district” project. Like his fellows, Uwihanganye practiced irrigation using small diesel irrigation machines. The cost of production was a bit high due to fuel.

From the beginning of July 2021, Uwihanganye started irrigating his crops using the solar irrigation system brought by the project. Since then, he saved 100,000Rwf per month to the amount he used to buy diesel for pumps during the dry season.

Apart from the irrigation systems set, the following are other interventions:

- The set-up of solar pumping stations for two small scale irrigation sites;
- The establishment of two clay-stone water

reservoirs at two sites, one dam sheet, and two plastic tanks for facilitating the water distribution;

- The installation of irrigations systems for four demonstration sites;

- The capacity of farmers was improved on the organizational skills and platform, good agriculture practices, climate-smart agriculture, post-harvest handling and storage of vegetables, gender mainstreaming and social inclusion, and book-keeping;

- The provision of agricultural inputs and seedlings of agroforestry trees;

- The linkage of farmer organizations with potential buyers to offtake the produce;

- Growing vegetables and fruits for diet diversification and income generation for beneficiary families.

In 2021, nearly 200 growers of vegetables exploited 23ha three seasons a year using hosepipes, sprinklers, drain pipes, and rain guns.



Solar pumping irrigation facilities enable farmers to have 3 seasons a year
(Photo: Viateur)

Agroforestry adoption for landscape restoration

Under the AREECA project, community mobilization activities in the Rwimiyaga sector of Nyagatare district and the Nyamugari sector of Kirehe district made adopting agroforestry species easy. Thus, “Inteko z’abatwari (Community members’ assemblies)” and community work (Umuganda) were used to disseminate pre-recorded audio messages through loudspeakers and megaphones that invited Nyamugari and Rwimiyaga residents to plant agroforestry species, including Calliandra Callothyrsus, Grevillea robusta, Markhamia lutea in their farms and on roadsides. Thus, these audio messages reached nearly 3000 individuals in Nyamugari and Rwimiyaga sectors. As a result, 500ha of agroforestry were restored in each sector, 120ha of woodlots were rehabilitated in each sector, 10km of roads in each sector got



Agroforestry to restore Kirehe and Nyagatare districts landscapes (Photo: Viateur)

trees planted, and 1500 tree fruits were distributed and planted in each sector too.

In both Rwimiyaga and Nyamugari sectors, planted areas have been divided into zones of 50 households, each led by a farm promoter charged to report regularly on the status of planted trees. In this way, Nyamugari has 14 zones and Rwimiyaga 18 zones.

On the other side, in the Ngoma district, under the Green technology project, 414 farmers, including 191 females, planted 9000 agroforestry comprising fruit trees, namely Avocado, tree tomatoes, papaya, and calliandra trees in the buffer zone of Mugesera Lake, on the contour lines, alongside the irrigation pipelines, and within the plantations in Zaza, Mutenderi and Sake Sectors.

Climate-Smart Agriculture promotion to improve farming

Ngendahimana Jean-Paul is one of the farmers who grow different crops at the Kiyanza site located in the Mutenderi sector of Ngoma district. Jean-Paul is a Water Users Organization member, which helped him to improve his farming activities.

“In 2021, the biggest challenge I met when growing maize was the lack of rain, and I could not afford to irrigate. With the skills gained from Climate-Smart Agriculture, we are improving the quality of our soil, which was devastated by consistent erosion”, he mentioned. Resulting from the skills gained, Ngendahima learned the benefits of making compost on the field and applied it to produce manure through compost making. The money he used to buy the organic fertilizers was saved from being used in other activities.

In Ngoma district again, 91 farmers from Terimbere Sake and Dukomezanye Nkanga cooperatives and 126 from Terimbere muhinzi Zaza and Ubumwe Mutenderi water user organizations were equipped with climate-smart agriculture skills and practices to use while protecting soil against degradation.

Farmer beneficiaries of the “Improving the smallholder farmers’ livelihoods and climate resilience by using green technologies in Ngoma district” project formed two Water User Organizations named Terimbere Muhinzi Zaza and Ubumwe Mutenderi. They are in charge of maintaining and managing the irrigation infrastructure using solar pumping machines.

Climate-Smart Agriculture aims to tackle three main objectives: sustainably increasing agricultural productivity and incomes, adapting and building resilience to climate change, and reducing and removing greenhouse gas emissions.



Climate smart agriculture adoption (Photo: Viateur)

The adoption of push-pull technology saved farmers' maize production

Ndagijimana Telesphore, a farmer promoter from Kajugujugu Village, Kirwa Cell, Murunda Sector, Rutsiro District, experienced good maize production after being trained by Sebeya Project on push-pull technology to protect maize against armyworms.

Indeed, push-pull technology was introduced to farmer promoters and Farmer Field School Facilitators who participated in training trainers to facilitate their adoption in the community.

The push-pull technology consists of planting desmodium grasses intercropped with maize in between rows. This desmodium produces a foul

smell to armyworms forced to escape from maize to braccalia in the same family as maize, killing armyworm eggs. Indeed, said Ndagijimana, maize affected by armyworms decreases production immensely.

For the case of Ndagijimana, push-pull technology saved 2.8MT of maize that would have been perished by armyworms if there had been no push-pull technology established in his 1ha of land. This production and its income had a high impact on the Ndagijimana family's livelihood improvement, such as assets purchase, health insurance, medical bills and school fees payments for the children.



Desmodium to fight armyworms
(Photo: Jean Pierre)

Miners' representatives from the Sebeya catchment learnt new practices

Harerimana Jean Claude from the Ngororero district acknowledged practicing unprofessional mining that caused environmental problems such as water pollution, deforestation, poor soil fertility, limited land access for agriculture productivity, air pollution, wildlife and habitat harm and permanently scarred natural landscapes.

After an exchange learning visit to New Bugarama Mining Company, Harerimana expects to introduce newly learnt practices to the Sebeya catchment mining sector to conserve the environment in the long term.

Then, peer-to-peer learning sessions were organized in Sebeya Catchment to facilitate community members learning from their neighbours who benefited from the exchange visit.

The poor mining sector had contributed to land degradation and erosion in the Sebeya catchment. Currently, efforts are put together to introduce green mining in the area through the Embedding Integrated Water Resources Management in Rwanda project–EWMR.

In this context, 24 miners' representatives accompanied by sector leaders in charge of mining

from Rubavu, Nyabihu, Rutsiro, and Ngororero districts visited New Bugarama Mining, located in the Burera District, to learn best practices that comply with environmental guidelines in the industry.



Green mining introduction in Sebeya Catchment
(Photo: Viateur)

Effectiveness of community approach in landscape restoration and maintenance

Local community members in Rubavu, Rutsiro, Ngororero and Nyabihu districts where the EWMR project was implemented were involved in developing the Village Land Use Action Plans (VLUAPs).

However, regarding VLUAPs implementation, RWARRI conducted mobilization campaigns about the project implementation, community participation, and its contribution. The community work approach was introduced in 73 villages across Sebeya in the Rubavu and Nyabihu districts, whose residents participated in the Landscape Restoration (LR) activities.

In Rutsiro and Ngororero, the community approach activities were introduced in 40 villages for VLUAP implementation and Landscape Restoration activities.

The community approach consisted of organizing meetings to discuss the implementation, raising the interest in participating in the project activities by providing the labour, providing the land while doing terraces construction, and other landscape restoration activities.

As a result of this approach, the maintenance of damaged project interventions such as trenches, planted trees, and radical terraces has started in all villages where VLUAPs were implemented.

Almost 50% of project interventions, such as the constructed radical and progressive terraces and open trenches, were operationalized and maintained in 2021.



The maintenance of trenches belongs to beneficiaries
(Photo: Liliane)

Awareness-raising campaigns to boost EWMR interventions maintenance

Mukamana Francoise, a resident of the Sebeya catchment, revealed that it was beneficial to organize mass mobilization campaigns to guarantee continuous landscape restoration and well-managed water resources in the Sebeya catchment. “It would be a waste of money and time for the Sebeya project if we, as beneficiaries, don’t manage with our resources to maintain all the Sebeya project interventions at our disposal for our development”, she mentioned.

Apart from written messages distributed on flyers, calendars, posters, stickers, posters, T-Shirts, Caps, pull-ups, vests, and block notes, other letters were written as announcements read in churches or posted on institutions’ notice boards. Through loudspeakers, further messages were disseminated through songs, poems, audio, and video sketches played in markets and schools.

Under EWMR, RWARRI produced various awareness materials to boost the Sebeya catchment residents’ ownership and engagement vis-a-vis EWMR interventions. Nearly 35,000 individuals were reached and urged to increase their attention to maintain and take advantage of the project interventions for their development in the long term.



Awareness campaigns in Sebeya Catchment (Photo: Viateur)

Thematic Area 3: Social transformation

Nutrition to foster the family wellbeing

Despite the efforts made by other entities, RWARRI under the FtMA project mobilized farmers and their neighbours to fight and eradicate malnutrition. Farmers were given knowledge about nutritious food and how to prepare a portion of better nutrition for children and adults. In that case, Mrs Liberatha started to feed well her young kids.

Malnutrition affects many people, especially in rural areas and urban cities where poverty is a severe issue. According to UNICEF, 34 per cent of the population is undernourished. RWARRI field officers gave training on nutrition to lead farmers, and in their turn, lead farmers gave the knowledge to their fellow farmers in the cooperatives.

On the EWMR project side, the adoption of kitchen gardens in the Sebeya catchment at the household level contributed significantly to a healthy and balanced diet. Thus, 4788 households across the Sebeya catchment were engaged in establishing kitchen gardens in 2021.

After the farmers' training and demonstration sessions, Mrs. Liberatha (50 years old) began feeding her three grandchildren (Iturimbere Elisha, five years, Nishimwe Etienne, three years, and Ineza Claudette, seven months) local products like

potatoes and vegetables, eggs (products that she'd previously sold to buy more processed foods like white rice and biscuits) and milk. She said that she had learned from the session how to distinguish the three main groups of nutritionally valuable food: energized food, bodybuilding food, and body-protecting food. She believes that children's health could be improved if nutrition information was more available. She said, "after the information training shared by the RWARRI field officer, Mr Prosper Murwanashyaka, she began feeding her children the recommended foods. The weight of Nishimwe increased from 7.5 kg up to 11 Kg".

Like any other mother in society, Liberatha wishes to work and see her young children succeed and grow well. "Their well-being will give my heart tranquility to work and allow me to be a satisfied and fulfilled grandmother", she noticed.

Under FtMA, 28,877 farmers, including 14,155 females, were trained on good nutrition practices to ensure the well-being of supported farmers, mainly their children, as the vulnerable category. Thus, in 2021, over 28 cooperative members' malnourished children, 23 were recovered due to the support provided by FtMA field staff.



Beneficiaries learnt how to improve nutrition (Photo: RWARRI)

Muhawenimana expects a wealthy retirement

Muhawenimana Rosa is one of the farmers in KOANYA coop located in Nyamagabe district and who are registered with EJO HEZA scheme since 2021. By the end of 2021, Muhawenimana have saved in EJO HEZA 30,000 Rwandan Francs from the maize grains sold during that year. For Muhawenimana, EJO HEZA is a national program that allows Rwandans to save in time for their future. "I am sure that saving in EJO HEZA scheme is preparing for my retirement life or for any unexpected financial crisis that I can face", she explained.

KOANYA cooperative has 638 members and out of them 355 were EJO HEZA subscribers at the end of 2021.

As part of social transformation, FtMA supported cooperatives sensitized to adhere to Ejo Heza, accelerate the saving culture, and make timely health insurance payments. As a result, cooperative members enrolled in Ejo Heza in 2021 were 1597, 647 were females, and 7089 coop members, among them 3317 were females, paid health insurance for their families.

Thematic Area 4: Technological transfer

Solar Energy, water storage, and irrigation systems technologies

Mukansanga Xaverine is one of the green technology project direct beneficiaries living with her children in the Muzingira cell of Mutenderi Sector; her husband left her for a second wife. From the start of the irrigation system at the Mutenderi site, she grew green pepper on 20Ares for her first time growing any crop in season 2021C in Kiyanza marshland.

Apart from being a workforce in construction activities throughout the project, she earned 75,000 FRW and used that money to cover the home expenses and bought a goat. From the green pepper grown in 2021C, she harvested two sacks of 48kg each of green pepper for 46,000FRW to the contracted buyer. She used to feed his family with the harvested peppers and sold three bags every two weeks. Mrs Xaverine harvested 960kg in total and sold them at 420,000FRW.

In 2021, two projects implemented in Ngoma Districts had intervened in installing water reservoirs, dam sheets, and tanks for water storage and irrigation purposes. The stated projects are "Improving the smallholder farmers' livelihoods and climate resilience by using green technologies in Ngoma district" and "Gender Climate Change and Agriculture Support Programme (GCCASP)". Two

water reservoirs made of clay rip rap storage system of 500m³ each, one dam sheet, and two plastic tanks were installed and linked with water sources (water intakes) through the pipes powered by solar panels used in our solar pump systems to produce electricity by using the solar panels that absorb the sun's photons and convert them into energy that make pumps working and pump water to water storages. From the water reservoirs, different types of irrigation systems such as hose pipes, rain pipes, sprinklers, and rain guns irrigate 23Ha benefiting 414 smallholder farmers, including 277 women growers of horticultural crops.



Irrigation is the future of agriculture (Photo: Viateur)

Nyemazi got moisture content analyser to assure maize quality

Nyemazi Abel, a farmer from Ndora sector in Gisagara district, is a member of the "Cooperative pour la Valorisation du Marais de Kibugazi" who experienced with great satisfaction moisture content analyser in 2021. As Nyemazi stated, moisture meter analyser enabled his cooperative members to control the quality of maize before delivery. "We have to sell maize grains that meet the quality standards of buyers. We constantly check if the grains are well dried before shelling, storing or selling them", he mentioned.

Indeed, Nyemazi said that a constant use of moisture meter analyser helped them to measure the moisture level of stored grains and allowed to control and prevent mold growth that could contaminate the grains with Aflatoxin.

As a consequence, in 2021, Nyemazi cooperative sold 77.967MT of maize grains of good quality and earned 24,805,300 Rwf.

Cooperatives under FtMA were supported to

measure the moisture content using the electronic moisture meters. All FtMA field staff have moisture analysers used to detect the dryness level of maize. Cooperatives started to be supported with such devices whereby 13 had already received them. For sustainability, cooperatives were sensitized to acquire such devices with their means, and at the end of 2021, 8 cooperatives had their moisture meters by the end of 2021.



Moisture meter content analyser (Photo: Neo)

Thematic Area 5: Institutional Development

In September 2021, all RWARRI staff attended a retreat that was an opportunity for the new and old staff to meet. On our way to Rubavu, where the retreat took place, we visited Sina Gerard's enterprise to see and learn about the various innovative agricultural ventures that we may incorporate into our next strategic plan.

We were able to rest and recuperate as a group. There was brief training in RWARRI MS, employee policies, and procedures.

In 2021, RWARRI achieved and celebrated significant milestones despite the ongoing COVID-19 pandemic.

Four new projects were introduced into the growing project roster. These projects include Gender Climate Change and Agriculture Support Programme (GCCASP), Food Waste Reduction and Management (FWRM), Economic Inclusion of Refugees and Host Communities in Rwanda (SI Refugees), and Forest Landscapes Restoration (FLR) under the AREECA program.

In the Finance and Administrative department, a Human Resources sub-department was introduced to enhance employee engagement and facilitate HR administrative work and end-to-end recruitment, which saw the successful recruitment of our Project Manager. A human resources information system aptly named RWARRI MS was established to support the growing staff membership in monitoring their performance progress. The internship program was strengthened when four interns completed their internships, and one is currently employed as a Field Officer under the FtMA project.

Two board meetings and an annual general meeting were held, where critical resolutions were passed, including the RWARRI policies and employee handbook.

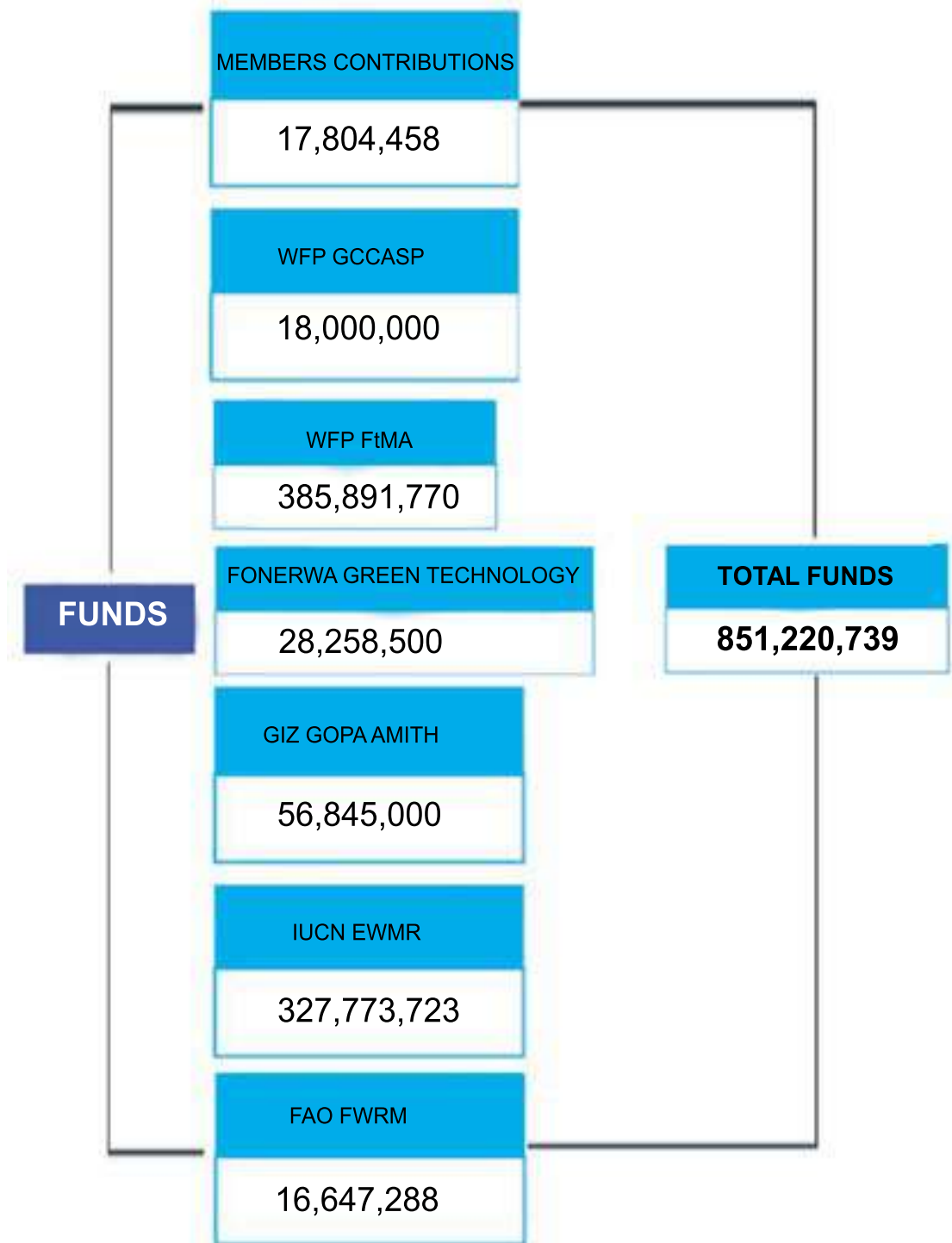
RWARRI concluded 2021 by finally taking the opportunity to celebrate 25 years of existence in a theme dubbed 'Jubilee Celebration', which saw the organization's founders and key partners recognized for their boundless partnership with RWARRI.



RWARRI's all staff
(Photo: Viateur)



RWARRI SOURCE OF FUNDS – 2021





Annual Report 2021

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Rwanda Rural Rehabilitation Initiative (RWARRI) is a non-profit making organization dedicated to the promotion and improvement of socio-economic welfare of rural communities in Rwanda. RWARRI is officially registered as a Non-Governmental Organization (registration number: 37/1114/SC&RT) and has its head office in Remera Sector, Gasabo District, City of Kigali.
P. O. Box 256, Kigali - Rwanda
Tel: +250 788 314 490, +250 788 308 374
Email: info@rwarri.com
www.rwarri.com

