



2022

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



Our Strategic Plan ended in 2022; we were constantly evaluating our interventions and inquiring about what other areas of involvement RWARRI would contribute to in the progress of our beloved country. In this effort, we are satisfied with the new annual report focus and the strategic goals to achieve the proposed interventions.

In 2022, we emphasized the implementation projects centered on four key areas: economic sustainability, ecological viability, technological transfer, and social transformation.

The document is evidence of the accomplishments, challenges, and lessons learned; thus, we focused on being more innovative as we advance.

RWARRI Board Chairperson

On behalf of the RWARRI organization, I would like to extend sincere gratitude to our partners for their willingness and support in engaging with us in contributing to the advancement of Rwanda to greater heights. To the outstanding staff, thank you for your continued efforts to be exemplary ambassadors of the organization. To the community members, we thank you for your collaboration in ensuring you receive the best from our intervention. To the organization members, I appreciate your commitment to providing practical guidance for the organization to act upon.

I am delighted to present our 2022 Annual Report.

Executive Summary



In compiling this year's annual report, we have reflected on the integrated innovation we apply in our interventions to demonstrate our commitment to the key thematic areas aligned with our Strategic Plan.

As you will note, two new projects were introduced to address the communities' economic sustainability, ecological viability, and technological transfer.

We continue to work in all four provinces, specifically in Twenty-Two (22) districts, particularly in previous years; in 2022, we implemented eight projects across the country and supported 165,068 direct beneficiaries.

RWARRI Executive Director

Much like the previous years, RWARRI grew by expanding intervention areas and awarded new projects. Our team expanded to facilitate the implementation of our activities across the country. We were presented with challenges that required innovation, mainly in bringing solutions to the drought in the eastern part of the country by assisting smallholder farmers in irrigating using green technologies.

We look forward to the fulfillment of our planned activities not just for 2023 but for the next seven years of our Strategic Plan.



Acronyms

AMITH: Amizero Institute of Technology and Hospitality
AREECA: Alliance for Restoration of Forest Ecosystems in Africa
CIT: Corporate Income Tax
CODUMU: Koperative Duhuzimbaraga Mushishito
EBM: Electronic Billing Machine
ECOREF: Economic Inclusion of Refugees and Host Communities
EWMR: Embedding Integrated Water Resources Management in Rwanda
FtMA: Farm to Market Alliance
GAPs: Good Agriculture Practices
GCCASP: Gender Climate Change and Agriculture Support Program
GIZ: Deutsche Gesellschaft für Internationale Zusammenarbeit
GSLA: Group Saving and Loan Association
Ha: Hectare
IGAs: Income Generating Activities
MT: Metric Tons
NAIS: National Agriculture Insurance Scheme
PHHS: Post Harvest Handling and Storage
RCA: Rwanda Cooperative Agency
RRA: Rwanda Revenue Authority
RWARRI: Rwanda Rural Rehabilitation Initiative
RWF: Rwandan Francs
SACCO: Saving and Credit Cooperative
SMART: Asset Creation for Resilient Communities and Gender Transformation
TIN: Taxpayer Identification Number
TV: Television
TVET: Technical and Vocational Education and Training
VAT: Value Added Tax
VLSA: Village Savings and Credit Associations
ZECC: Zero-energy cooling chamber



Contents

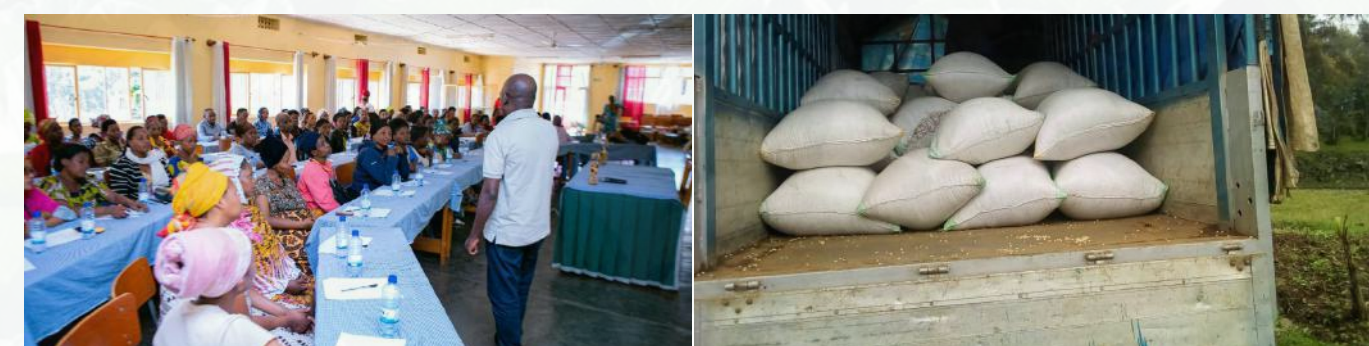
Thematic Area 1: Economic sustainability P. 8 - P. 16



Thematic Area 2: Ecological viability P. 17 - P. 19



Thematic Area 3: Social transformation P. 20 - P. 21



Thematic Area 4 Technological transfer 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 towards shaping and implementing national and global policies that lead to 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

Institutional development

During 2022, RWARRI managed to keep its fifty-two (52) staff in a conducive working environment, including renovated offices, periodical training, regular salaries payment, communication devices and allowances, transport facilities, and RWARRI branded T-shirts/Lacostes and caps for visibility. RWARRI also strengthened the use of its social media platforms to communicate promptly to its partners and the general public.

In addition, RWARRI board of directors' meetings and general assembly took place regularly (quarterly and bi-annually, respectively) to adopt the annual report, working plan, and budget and to sort out other organizational-related issues.

RWARRI staff at the senior management level, alone or with the field staff, had retreated to refresh their understanding of RWARRI's goals and increase their engagement to achieve planned activities. Finally, yet notably, in 2022, RWARRI awarded the employee of the year, the best communicator, the best innovator, and the most promising employee.

What we did

Farm to Market Alliance

- Link coops to formal markets
- Provision of extension services
- Access to finances
- Strengthening grassroots communities
- Social welfare

Reached people: 71,195



Embedding Integrated Water Resources Management in Rwanda

- Capacity building on EWMR interventions
- Awareness raising
- Climate change resilience
- Social welfare

Reached people: 22,585



Gender Climate Change and Agriculture Support Programme

- Installation of an irrigation system using solar energy
- Increase horticultural production
- Strengthen farmers' capacity

Reached people: 295



Economic Inclusion of Refugees and Host Communities in Rwanda / TVET

- Hands-on skills provision
- Jobs creation

Reached people: 372



Large-Scale Forest Landscape Restoration under AREECA program

- Capacity building
- Awareness-raising
- Community mobilization

Reached people: 69,823



Capacity building of Kigali City on Food Waste reduction and management

- Awareness on food waste reduction and management

Reached people: 600



Promoting solar-powered irrigation toward climate change resilience of smallholder farmers in Ngoma district

- Installation of an irrigation system using solar energy
- Increase horticultural production
- Strengthen farmers' capacity

Reached people: 198



Economic Inclusion of Refugees and Host Communities in Rwanda / Toolkits

- Jobs creation
- Business development

Reached people: 320



Thematic Area 1: Economic sustainability

Assisting cooperatives of farmers to access formal markets

Donath Kabanza, 45 years old, head of a household of 7 members, and member of Cyuna terraces cooperative under Sustainable Market alliance and Asset Creation for Resilient Communities and Gender Transformation (SMART project) of the FtMA located in the Rusenge Sector of Nyaruguru District. Kabanza testified that the impact of market linkage enabled her family to achieve his dream goal.

«With the support from RWARRI through the FtMA project, the valorization of radical terraces increased our family income. Terracing enhanced our agricultural activities in different ways”, she explained. Kabanza got support in Irish potatoes production such as seeds, mineral and organic fertilizers, pesticides, training on good agricultural practices, post-harvest handling and storage, and regular assistance from RWARRI technicians. The skills gained from the training helped Kabanza increase potato yield, whereby she harvested 3,432 kilograms on 13.7 ares (proximately 1400m²) plot in season 2022A, like 25 Metric Tons /hectare. In contrast, the average yield is fifteen Metric Tons 15MT/Ha in Nyaruguru District. She took advantage of a good market in Cyuna terraces through FtMA and sold about 2.5MT at 190RWF/kg while the other 500 kg were kept for household consumption, and about 400 kgs were stored for seeds. With the income generated, Kabanza decided to rehabilitate her house. “I feel proud to earn from farming through the market linkage because the linkage enabled me to strengthen my bargaining power to sell potatoes at a good price, and I got unabridged money. This was impossible before because, during the harvesting period, each farmer used to sell their produce at the farm gate or the local market at a low price”, stated Kabanza Donath.

During 2022, through market linkage, RWARRI assisted farmer organizations in aggregating and selling the product of five crops: beans, potatoes, rice, soybeans, and maize.



FtMA facilitated maize coops to get formal markets (Photo: RWARRI)

Beans: 127 MT of beans produced by 40 farmers, including 25 women from 2 cooperatives, were aggregated and sold at 130,308,780 RWF.

Irish Potatoes: 96 MT of Irish potatoes, produced by 221 members, including 82 women, from 1 cooperative, were aggregated and sold at 17,524,820 RWF.

Rice: 59 MT of rice, produced by 83 farmers, including 21 women from 1 cooperative, were aggregated and sold at 22,952,670 RWF.

Soya Beans: 49 MT of Soya beans, produced by 76 members, including 33 women from 2 cooperatives, were aggregated and sold at 37,918,400 RWF

Maize: 27,657 farmers, including 12,772 women from cooperatives, aggregated and sold 5,794 MT of maize to formal buyers with a value of 1,928,099,941 RWF.

Horticulture: Beneficiaries of the GCCASP implemented in the Ngoma District received 3,666,700 RWF of income from horticultural crops delivered to formal buyers. Women earned 86% of the total revenue.



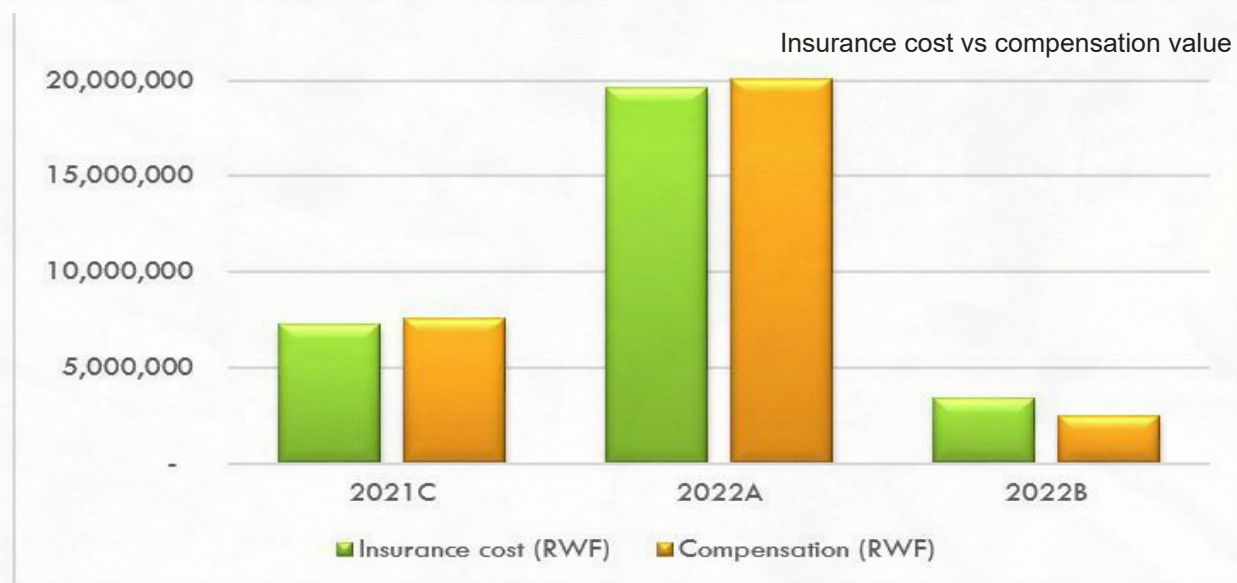
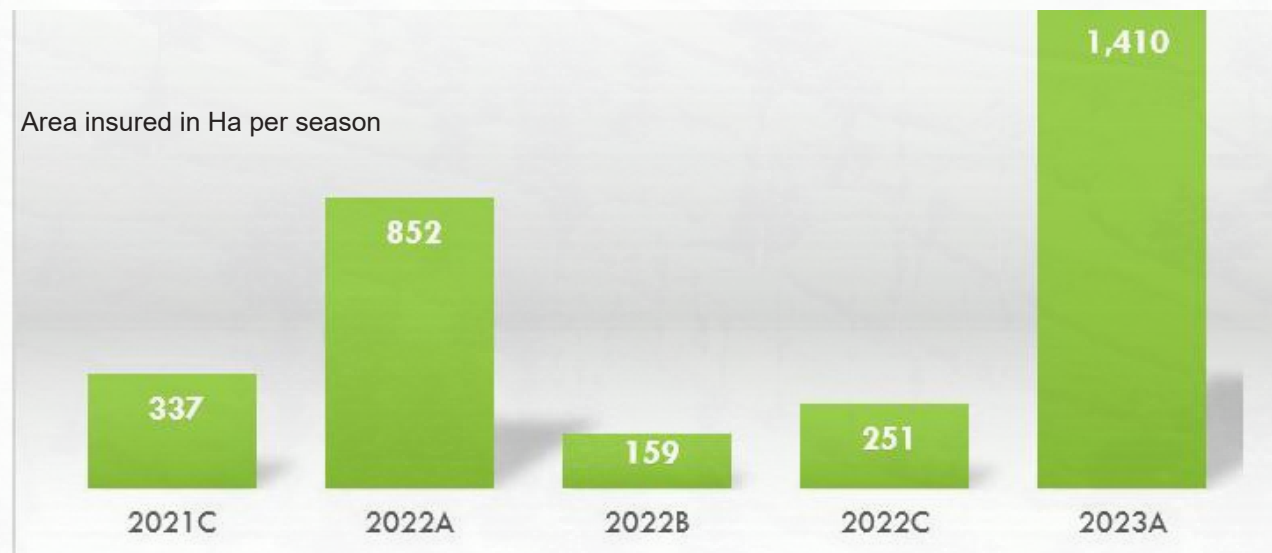
Linking cooperatives with insurance companies

Before joining the FtMA, COVAMABA had no culture of paying for crop insurance. After joining FtMA, this cooperative received FtMA assistance in training, mobilization, and linkage to insurance companies.

Through the mobilization, in the season 2022A, COVAMABA managed to pay 3,863,250 Rwf for insuring 181hectares out of 257hectares planted to Radiant insurance company.

Since long ago, the Bahimba marshland has been experiencing severe flooding affecting production. In the season 2021A, severe flooding affected the maize in the Bahimba zone. At the end of the season, Radiant company, jointly with other concerned parties, assessed the loss. After determining the loss, Radiant insurance company compensated COVAMABA cooperative an amount of 8,071,961RWF worth the loss severity. Being compensated with such a significant amount was considered a success by all members of the cooperative, who testified the importance of insuring crops. Thus, COVAMABA thanks the RWARRI for the role played by intensely mobilizing and linking them with various stakeholders, including crop insurance companies.

Linkage with insurance companies yielded insurance of 1,189 hectares of maize made by 32 cooperatives assisted by RWARRI for the seasons 2021C and 2022A on 26,912,098 RWF and got paid 27,654,597 RWF for compensation. For the season 2022B, six cooperatives paid 3,379,987 Rwf for 159 hectares of maize insurance. The compensation was 2,502361 Rwf. For the seasons of 2022C and 2023A, 72 cooperatives collected 37,185,812 RWF and insured 1661 Ha.



Cooperatives complied with RCA and RRA requirements

The RWARRI staff got capacitated on how cooperatives should comply with the Rwanda Cooperative Agency (RCA) and Rwanda Revenue Authority (RRA) requirements; among these requirements, there is the registration to RCA, registration to Tax Identification Number, declaration and payment of tax, and the use of Electronic Billing Machine (EBM) in their businesses. Gisagara cooperatives were mobilized to comply with RCA and RRA requirements, resulting in into 18 out of 22 cooperatives legally registered to RCA, 18 out of 22 cooperatives declaring and paying the tax, 21 out of 22 cooperatives having TIN, and 18 out of 22 cooperatives acquired EBM.

This compliance eased the control of the tax administration, and in the case of VAT refund, information is easily found to allow quicker payment without further auditing processes. It also simplified audit processes and therefore reduced risks caused by manual invoices.

Therefore, intensive mobilization has changed farmers' mindset about using EBM in their businesses.

In addition, 18 out of 21 cooperatives registered to TIN have produced EBM invoices to their buyers in the season 2022A. The cooperatives' accountants and presidents experienced the use of EBM because they could now differentiate the types of taxes they had to declare and pay. The president of COOPAGKA, Mr. Isaïe NSABIMANA, said "before we started using the EBM, the tax declaration was confusing, and sometimes we experienced penalties from RRA without knowledge but look at now, we know that we will pay Corporate Income Tax and not Value Added Tax."

Despite the loophole in the RCA registration system, which does not allow new cooperatives to proceed with the registration, so far, 84% of cooperatives under FtMA are registered in RCA.

In 2022, 135 cooperatives had a TIN with 27 new; among them, 118 of them declared and paid tax. Then, 83 cooperatives acquired the EBM to comply with the RRA tax declaration and pay new regulations and requirements.



Farmer maize coops have to comply with RRA and RCA requirements delivery complies with RRA requirements

Capacitating farmers in GAPs and PHHS to increase the product quantity and quality

Speciose Mukakalisa, a 57-year-old member of the KOIKWI cooperative since 2017. Today, she benefited greatly from Good Agriculture Practices (GAPs) training from RWARRI through the FtMA project. During the season of 2022B, she received the GAP training as a lead farmer and applied herself all steps of maize GAPs training technics. She learned how to use all inputs timely and adequately by following all GAPs from land preparation to Post Harvest and Handling Storage (PHHS) practices that will lead her to good products and attract buyers.

She doubled production from her five Are (about 500m2) that yielded 225kg, where she used to get 125kg of maize grains. She earned 56,250RWF from 125Kg sold at 450Rwf/Kg; the rest was used for home consumption. She paid health insurance and Ejo Heza for her family. She also paid school fees for her daughter, dressed home members, and used the remaining money to ensure food security in the household.

In 2022, under FtMA, 118 cooperatives of 23,588 farmers, including 11,079 females, were trained in Good Agriculture Practice. The capacity building on GAPs skills enabled the farmers to increase maize production.

In addition, 22,801 farmers from 114 cooperatives, including 10,805 women, received PHHS training. Thus, farmers improved the quality of their maize by using their PHHS skills, and then 5399 MT, of which 93% were categorized as Grade 1 and sold at a premium price.



Planting requires GAPs training (Photo: RWARRI)

Assist farmer organizations in accessing finance

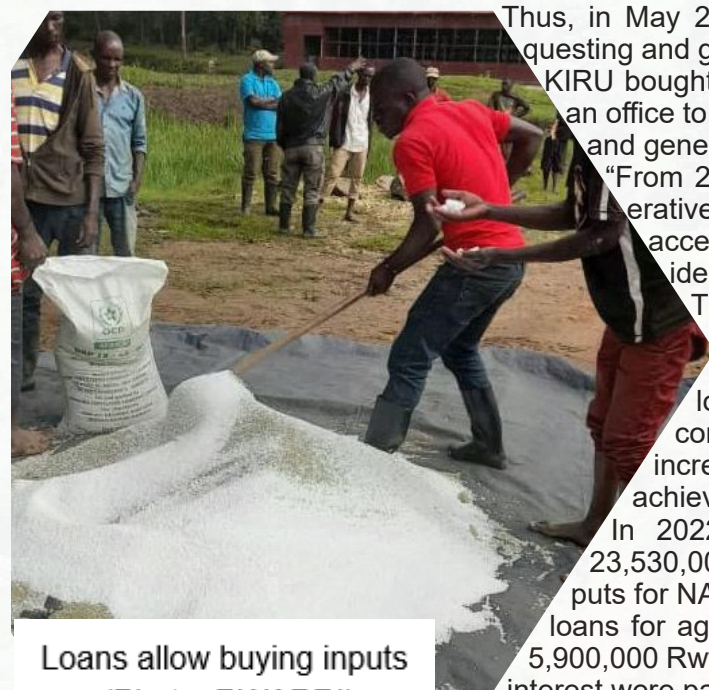
KOYAKIRU is a cooperative of 515 farmers who have grown maize on 72 ha in the Nyarububa marshland since 2018. The cooperative is located in the Rukozo and Cyungo sectors of the Rulindo District. Initially, there was no aggregation of the maize production at the cooperative level, where each farmer had to find a market for their products individually. That market was predominantly the local market characterized by unpleased prices.

KOYAKIRU was onboarded in the FtMA in 2020. From then, RWARRI, through FtMA, started assisting in linking them to financial institutions. They began to sell their produce to formal buyers and be paid through the transfer on the cooperative's account opened in UMURENGE SACCO (Rukozo Sector). After two consecutive payments via that account, the coop KOYAKIRU became a trustful client eligible for a loan.

Thus, in May 2022, KOYAKIRU cooperative took advantage by requesting and getting a loan of 6,500,000 RWF. With this loan, KOYAKIRU bought a house with three rooms. They shifted from renting an office to becoming a landlord, renting the remaining two rooms and generating an additional income of 60,000 RWF per month. "From 2018 to 2021, we were renting an office for our cooperative, but we became the owner of our house due to the access to a loan in 2022," Said Rwishema Florian, the president of KOYAKIRU.

They will complete paying back the loan by the end of May 2024. Thus, members are very thankful for the support given by FtMA that led them to get access to loans. They are committed to continuing the culture of conducting all transactions on their SACCO account and increasing their maize production in quantity and quality to achieve much more.

In 2022, the cooperatives requested a total amount of 23,530,000 RWF loans. The 17,630,000 Rwf was invested in inputs for NAIS payment and season preparation. Then, the output loans for aggregation and purchasing PHHS equipment totaled 5,900,000 Rwf. The required Loan amount (input and output) plus its interest were paid back.



Loans allow buying inputs (Photo: RWARRI)

ECOREF Toolkits project revived Group Saving and Loan Associations activities

Under the Ecoref Toolkits project, RWARRI has engaged 1155 youth-Technical and Vocational Education and Training graduates grouped into 48 Group Saving and Loan Associations (GSLAs) and 162 existing enterprises to receive toolkits/equipment that can facilitate them in job creation, contribute to employment and businesses expansion for the existing enterprises.

This has led to having 664 TVET graduates and 112 existing enterprises that applied for toolkits/equipment, which will result in supporting 300 TVET graduates with toolkits and 20 enterprises with equipment. Indeed, RWARRI staff did coaching of 48 GSLAs Presidents and 48 GSLAs volunteers for GSLAs' better functioning.

This coaching conducted in the cascade model

trained 828 GSLA members, including 427 females. Thus, all GSLAs members are aware of the operations of saving and lending groups, namely the group leadership, positions, roles, and responsibilities; group rules and regulations; benefits of GSLAs on its members and the whole community in general; setting goals; saving principle and where to keep; working with financial institutions; consequences of loan defaulting both in the group and in the financial institutions.

At the end of 2022, GSLA follow-ups highlighted that 48 GSLAs of 828 members are working correctly, with total savings equal to 3,285,850Rwf and a total loan equal to 1,450,063Rwf which in turn has provided a total interest similar to 174,007Rwf.



GSLAs representatives were trained on saving and lending operations (Photo: RWARRI)

**ECOREF TVET to ease access to jobs:
Best performing internees got jobs during an internship**

During the three-month-internship period after completing a four-month training course, some internees from Amizero Institute of Technology and Hospitality-AMITH, an RWARRI-owned technical school, who showed their best performance got jobs in the host companies.

Umuhoza Jeanne d’Arc, one of these internees who got jobs, was enrolled in Ubwiza Saloon in Rwamagana City as an internee from AMITH from the 1st of October to the 31st of December 2022.

As stated by Masengesho Elyse, the owner of Ubwiza Saloon, Umuhoza Jeanne d’Arc demonstrated enormous skills and discipline to be offered a monthly paid job. Masengesho Elyse explained that three weeks after Umuhoza started her internship, there was no difference between her and other permanent staff. In most cases, she could perform better than the staff. Thus, Umuhoza was offered a job with a good salary.

For Josam Gakwerere, a staff for AYATEKE Star Ltd, a private company operating in water distribution in the Kirehe district, it was exciting to work with a skillful internee like Muhire Jean Claude from AMITH. “Due to Muhire’s performance during his internship period, I recommended him to the company boss and the first job opportunity in the the company was offered to Muhire without any other test,” he revealed and added that one the month was enough to appreciate Muhire’s skills.

The Economic Inclusion of Refugees and Host Communities-ECOREF, a GIZ-funded project, sponsored 248 youths for seven-month through Rwanda Rural Rehabilitation Initiative-RWARRI-AMITH in a period starting from 6th June to 31st December 2022. The project’s the aim was to promote equal access to employment for refugees and members of the host communities. The verified data showed that at least 11 internees got permanent jobs during the internship period.



Umuhoza Jeanne d’Arc, one of the internees who got jobs during their internship period (Photo: RWARRI)

Dukuzumuremyi became a millionaire due to community mobilization and capacity building

As a result of community mobilization and capacity building conducted by RWARRI staff, Dukuzumuremyi Marc, a resident of Rutsiro district, Murunda Sector, Kirwa Cell, Karumbi Village, he earned nine million Rwandan Francs (9,000,000 Rwf) in season 2022B from 30 Metric Tons of Irish potatoes sold from his land of 2 hectares radically terraced with support from the Embedding Integrated Water Resource Management in Rwanda-EWMMR Project.

Since May 2020, Dukuzumuremyi’s land has been unproductive due to erosion, which washed away soil, fertilizers, and planted seeds each season.

Through RWARRI staff mobilization, Dukuzumuremyi agreed to release his 2 hectares of land to establish radical terraces. Once in place, the land became very productive, with a harvest of up to 30 metric tons from less than three metric tons since the land no longer faced erosion.

Dukuzumuremyi applied organic manure and chemical fertilizers to increase production correctly. In addition, these radical terraces provide fodder to his three cows, increasing the daily milk quantity to 8 liters per day per cow, which gives him an income valued at 216,000 Rwandan Francs per month.

Dukuzumuremyi also acknowledged having gained different training to increase his skills, including Climate Smart Agriculture, Compost making, and financial literacy through a saving and lending group that he is a member of within the community.

In 2022, RWARRI staff reached 22,585 individuals across Sebeya Catchment during community mobilization campaigns.



Dukuzumuremyi agreed to release his 2 hectares of land to establish radical terraces. Now, he is feeding his three cows (Photo: RWARRI)

RWARRI facilitated refugees to integrate farming under the FtMA project

Under Farm to Market Alliance-FtMA, RWARRI facilitated 1427 smallholder farmers made of 500 refugees from the Kigeme camp and 927 other farmers from the host community to integrate professional farming through “Koperative Duhuzimbaraga Mushishito-CODUMU Coop” whose members grow maize on 47Ha of Mushishito marshland located in Winkingi and Kibirizi Sectors in Nyamagabe District.

Kabanda Jean Bosco, a refugee in Kigeme camp and active member of CODUMU, revealed that each farmer was given three Ares (3Ares) of land in Mushishito marshland and got technical support from FtMA through Rwanda Rural Rehabilitation Initiative-RWARRI. He added that refugees had never thought that one day they could become skilled farmers in a foreign country.

Thus, Kabanda acknowledged that CODUMU coop members got training on Good Agriculture Practices and Post-Harvest Handling and Storage. Therefore, their farming skills were increased, and the quantity and quality of our maize production for the 2022B season also increased.

Indeed, CODUMU members aggregated and sold about 48.512 Metric tons (Mt) of grade one to the Gikongoro Catholic Diocese at 610Rwf per kilogram, equivalent to 29,592,320Rwf for all sales. The money that the coop members got from sales helped them to solve their respective families’ issues, including paying fees for health insurance, school tuition, savings, loans, and modern farming technologies for host community members and refugees; this money was mainly used to pay their basic needs including food and clothes.



Kigeme camp and 927 other farmers from the host community to integrate professional farming through “Koperative Duhuzimbaraga Mushishito (Photo: RWARRI)

TUGIRUBUZIMA BWIZA, a prosperous saving group in Nyabihu under the EWMR project

Tugirubuzima Bwiza, a Village Saving and Lending Association grouping 30 members, among them 20 females running their operations in Nyabihu district, Bigogwe sector, Rega Cell, Gaturu village managed to save 508,600 Rwandan francs and donate 498,000 Rwandan francs as loans to 14 members having small projects related to agriculture and seven other linked to small livestock.

The current situation is that the EWMR Project supports 269 VSLAs (100 VSAs in Rubavu, 45 VSLAs in Nyabihu, 115 VSLAs in Rutsiro, and 9 in the Ngororero district) with a total member-

ship of 6,400, of which 64% are females. The total cumulative saving across the catchment is elevated at 101,418,441 Rwf, while the cumulative loans disbursed to the VSLA members is 57,292,306 Rwf representing 56.5% of the savings.

All these VSLAs got technical assistance in leadership and management, including keeping financial records to provide easy access to financial services to their members who do not have accounts in formal commercial banks. At least 329 VSLA members who borrowed money initiated new Income Generating Activities (IGAs).

Thematic Area 2: Ecological viability

Calliandra calothyrsus satisfies AREECA project beneficiaries’ needs

Calliandra calothyrsus, one of the agroforestry species introduced in the Rwimiyaga sector of Nyagatare district is progressively earning the farmers’ attention. In contrast, the latter resisted planting them on their lands or farms a year ago.

As per Nyaminani Cyriaque, a lead farmer in Rwimiyaga, there is a high potential for using calliandra calothyrsus as protein-rich fodder trees for cows and goats, sheep, rabbits, and pigs. “Calliandra is also crucial for soil conservation, air nitrogen fixation, controlling soil erosion, use as firewood, stakes, bee forage, milk increase in the livestock, and boundary marking,” he added.

Mukarugwiza Angelique, another lead farmer in Rwimiyaga, on behalf of farmers, expressed her wish to have more calliandra calothyrsus seedlings to plant to continuously satisfy the need for fodder supply for livestock, among many other reasons.

“Today, calliandra has gained farmers’ respect to the extent that everyone would like to plant more of them,” she revealed.

Ndungutse John, also a lead farmer in Rwimiyaga, suggested having training on Calliandra seedlings production to satisfy their demand at the community level. “We no longer wish to have Calliandra seedlings from development partners. Once trained; we are ready to produce and plant them”.

In 2022, RWARRI staff engagement in community mobilization resulted in a thriving tree plantation of Grevillea robusta and Callitris Robusta in Nyagatare district, where 36,803 agroforestry trees were planted on 245ha; 14,800 enrichment trees on 17ha and 3,000 trees on 30ha of pastures.



Calliandra gained farmers respect and interests (Photo: RWARRI)

Improved cooking stoves adoption to reduce deforestation under the AREECA project

RWARRI field staff contributed to identifying the improved cooking stoves beneficiaries and mobilized them to start using them for cooking.



Adopting new cooking technologies reduces the use of firewood in households while failing to reach this goal, and continuing to use the traditional 3-stone stoves accelerates deforestation. This situation would expose Rwanda to climate change effects like increased heat, drought, water shortage, and reduced agricultural yields.

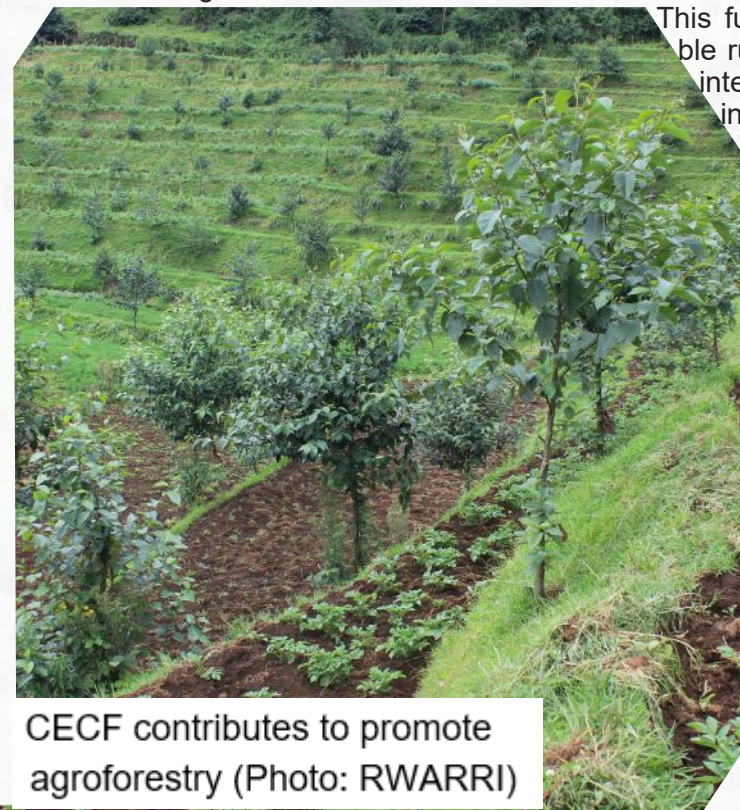
The beneficiaries of these improved cooking stoves were advised to look after them to benefit the growth of the AREECA-planted tree. In this context, the AREECA project donated at least 1000 improved cooking stoves to beneficiaries from “Ubudehe” categories 1 and 2 living in the Nyamugari and Kigarama sectors of the Kirehe in Rwimiyaga sector of Nyagatare district.

Recorded data indicate that RWARRI staff in conducting AREECA awareness-raising campaigns reached at least 69823 individuals, including 21468 who attended community works, 29151 who attended Community members’ assemblies, 15334 who attended parents’ evening assemblies, 3234 members of schools’ environment clubs and 636 local leaders.

Improved cooking stoves to reduce deforestation (Photo: RWARRI)

A hundred eighty million to run the Environment Conservation Fund in the Sebeya Catchment

The Embedding Integrated Water Resources Management in Rwanda (EWMR) project allocated 180 million Rwandan francs to RWARRI to run the Community Environment Conservation Fund (CECF) in 130 Villages Savings and Loans Associations, including ten villages which got 30 million in phase I and 120 villages which expect to reach 150 million in phase II in Sebeya Catchment, involving Rubavu, Nyabihu, Rutsiro, and Ngorongero districts.



This fund promotes access to micro-credits for vulnerable rural area members by providing loans at a low flat interest of 5% to implement activities that target restoring and managing ecosystems, usually based on an agreed environmental management plan, and that do not get loans from financial institutions.

The implemented activities directly contribute to landscape restoration and water resources management, such as tree seedlings production; afforestation; agroforestry; conservation agriculture, and on-farm water storage; e.g., infiltration pits; riverbank protection; on-farm sediment traps; use of energy-efficient cooking stoves; kitchen garden establishment; local-scale methods for environmentally friendly mining and climate-smart agriculture practices.

The fund is operational through Savings and Credits Cooperatives that manage selected VLSAs accounts.

CECF contributes to promote agroforestry (Photo: RWARRI)

Climate-smart agriculture practices to increase sustainable agriculture productivity

Hitiyaremye Theophile, a more than 10-year experienced vegetable farmer in Jarama Sector, Ngoma district, adopted climate-smart agriculture practices early to increase sustainably agricultural productivity and income, adapt and build resilience to unpredictable climate, and reduce greenhouse gas emissions to meet food security.

Consequently, Hitiyaremye invested in climate-smart agriculture practices by establishing radical terraces on his land to prevent losses of arable land while regenerating degraded lands and by promoting maintenance of a permanent soil structure and minimum soil disturbance to increase water and nutrient use efficiency to improve and sustain vegetable production. Hitiyaremye Cultivates vegetables, including tomatoes, onions, cabbages, green peppers, and cucumbers, intercropped with fruit and agroforestry trees like papayas and Calliandra Callothyrsus, respectively.



Hitiyaremye adopted Smart Agriculture (Photo: RWARRI)

One of the problems that Hitiyaremye faced was climate change, reflected in the unusual drought season that hit his region yearly. Today, Hitiyaremye acknowledges experiencing new life since installing the solar-powered irrigation facility in Jarama Sector. Today, Hitiyaremye is taking advantage of the Jarama solar-powered irrigation and the claystone reservoir established typically for TUZAMURANE Cooperative under the Gender Climate Change and Agriculture Support Programme (GCCASP), to cultivate three seasons a year, including the drought season that hits his region drastically, each year.

In 2022, 295 farmers and 253 women received climate-smart agriculture training. As a result, 5 of the 7 hectares were mulched. 17 MT of organic manure was applied on 5 hectares, and 4.25 hectares of land were terraced. Furthermore, 8.950 kgs of seeds were provided to GCCASP beneficiaries, including beetroots, cabbages, carrots, eggplants, green beans, green pepper, Okla, onions, and tomatoes.

Cyamahehe solar-powered irrigation system upgraded

Cyamahehe site, located in the Eastern Province, Ngoma District, Rukira Sector, Nyaruvumu cell, in Cyamahehe Village, already had a solar-powered irrigation system with eight plastic tanks and a storage capacity of 10m3 per each. However, the area was experiencing significant water scarcity issues, which did not reach the command area allocated for irrigation.

The farmers on the site only irrigated crops on three (3) hectares. Every August, when rain is insufficient, they would engage in maize multiplication and soybean planting, which requires much rain. The site had eight (8) water storage tanks of 80m3 and two (2) solar pumps with sixteen (16) solar panels, pipelines, and hosepipes already installed for 10 hectares. The powered irrigation system is connected to the Kamagombe stream to secure the water during the dry period. However, the stored volume of water in the tanks could only irrigate 3 hectares, which is needed to cover the farmers’ needs.

Therefore, the project upgraded the solar-powered system by installing a second high-capacitated solar pump of 36 PV panels to increase the area under irrigation from 3 to 10 hectares; enhanced the efficiency of the water intake by building a gabion to improve conveyance and distribution of water; established a water distribution network and increased the capacity of farmers on climate-smart agriculture for 198 farmers including 71 women and one person living with disabilities who are members of the KOTWORU cooperative which was formed in 2012.



Solar powered irrigation upgraded Photo: RWARRI)

Thematic Area 3: Social transformation

Gakuru testifies that having reduced waste food in his restaurant

Gakuru Francois, the Manager of Oliga Restaurant in the City of Kigali, testifies as having benefited enormously from the food waste reduction and management project training. Gakuru said they no longer have waste food in their restaurant since the project trained them.



Garuku Francois
Photo: RWARRI

maximum income. Gakuru Francois is one of the restaurant and hotel managers that benefited from the food waste reduction and management project training in the City of Kigali. Critical interventions were identified to mitigate the rising food waste concern in the City of Kigali to achieve the objectives of the Food waste reduction and management project. These included creating an operational food waste Taskforce to guide the City of Kigali, consisting of eight (8) focal point members, three women and five men, from relevant organizations and institutions in the public and non-profit sectors. They were trained theoretically and practically through an inspection series conducted in various public spaces identified as mass generators of food waste in Kigali.

Then, the creation of awareness aptly themed 'Stop Food waste at Home, for the people, for the planet' was conducted through campaign workshops for public institutions such as schools, hotels, and restaurants, and waste collection and treatment companies; mass media communication (RBA, TV10, Radio1, and Radio10), Newspapers, flyers, and posters.

To reach more people in Kigali, talk shows were organized on two major radio and television networks, including Radio/TV10 and Radio 1, and Rwanda Broadcasting Agency (RBA) and elaborated by RWARRI, the City of Kigali and a member of the Taskforce.

Training on food waste reduction and management for 567, including 523 women and 44 men market vendors from 19 public markets across Kigali's three districts, took place over six days. The market vendors actively participated and shared their opinions and recommendations with optimism that the interventions have shifted the perception of food waste reduction and management now and in the future.

Since Gakuru attended the training on food waste reduction and management organized by the City of Kigali in partnership with FAO and RWARRI, he is now running the business in a new way that allows gaining benefits. To reach this step, Gakuru assessed the types of foods, the quantity, and the quality of each food the clients liked the most. Currently, he knows every food's quantity and quality to prepare for clients; he can no longer experience food waste; as a result, the restaurant is increasing



Awareness campaign on food waste reduction and management Photo: RWARRI

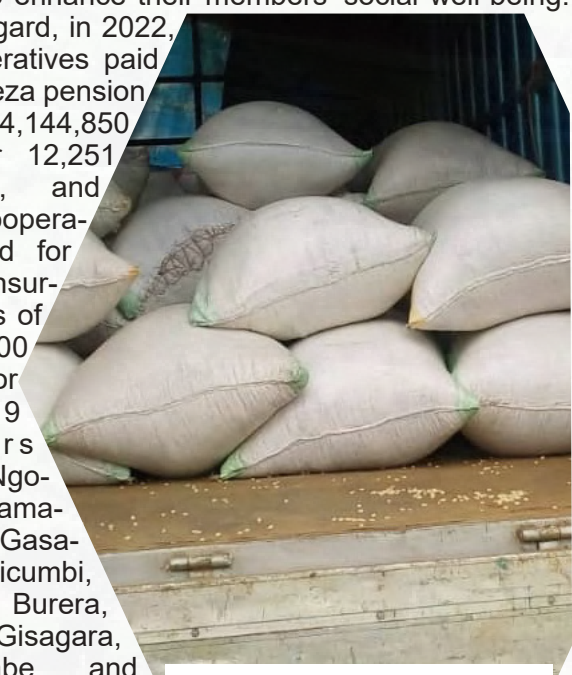
Farmers are enabled to pay for Health Insurance and Ejo Heza

COPAC ABUNZUBUMWE is a cooperative located in the Rugarama Sector of Burera District made of 48 farmers with 18 women growers of maize and beans in Gafumba village. They joined the Farm to Market Alliance (FtMA) in August 2021. Since then, they have started benefiting from the technical support of RWARRI through the FtMA project's interventions. The yield boosted considerably from 0.8MT/Ha to 3.9MT/Ha after applying GAPs. The quality was improved to the level that the coop attracted potential buyers due to good handling of the product gained from the PHS training.

The increase in production helped the cooperative members to maintain food security in their respective families, and at the same time, they earned 2,758,400 RWF from selling another part of their production at an excellent price to TUBURA (One Acre Fund), which was linked with them by RWARRI through FtMA as the best buyer who offered the best price at the time of selling.

After selling their maize produce, the cooperative paid 630,000 RWF for health insurance, also known as "Mutuel de santé (MUSA)," to 48 households comprising 162 members. From the trading

margins or commissions saved by cooperatives after selling, most of those cooperatives use the income earned to enhance their members' social well-being. In this regard, in 2022, 66 cooperatives paid for Ejo Heza pension fees of 34,144,850 RWF for 12,251 members, and 80 cooperatives paid for health insurance fees of 83,274,000 RWF for 15,289 members from Ngoma, Rwamagana, Gasabo, Gicumbi, Rulindo, Burera, Huye, Gisagara, Nyamagabe, and Nyaruguru districts.



Maize generates income
Photo: RWARRI

Ndereyimana managed to fight malnutrition due to GCCASP interventions

Ndereyimana Piedan, a member of the Twaguke Murama cooperative, revealed that the irrigation system established by GCCASP availed enough water that eased vegetable production, followed by selling produce to either big buyers or neighbors. Since then, we have no longer experienced cases of malnutrition.

With these additional advantages, the size of work that ten people did is now carried out by two people within the same amount of time with adequate output. "I hired some plots from neighbors near cooperative plots to grow vegetables, and now I grow all types of vegetables that require much water."

The gender Climate Change and Agriculture Support Program (GCCASP) was implemented to improve the livelihood of women-dominated cooperative members for socioeconomic and income generation. It was implemented in partnership with the Ngoma district. The project operates in the Sake, Jarama, and Murama sectors of the Ngoma district to establish a solar-powered irrigation system catering to the population's well-being, predominantly women.

Farmers accessed agricultural inputs, including improved vegetable seeds, agroforestry and fruit tree seedlings, and mulch and farm yard manure. The GCCASP program responded to the problem of low production resulting from insufficient rainfall, the issue of malnutrition, and low income. Among 295 farmers (253 women) benefiting from GCCASP interventions are grouped into four women-dominated cooperatives that have increased their income using Climate-Smart Agriculture technology to irrigate 7Ha.

Under normal circumstances, major current environmental issues are dominated by climate change, air pollution, environmental degradation, and resource depletion, mainly caused by erosion, the use of fuel in traditional irrigation, and poor agricultural practices.

GCCASP established a solar-powered irrigation system to address the acute issues as an alternative and sustainable answer. Twaguke Murama cooperative is located in the Murama Sector of the Ngoma District; 42 out of 47 members are women. They wished to irrigate their total area. Still, its cost was only affordable once the GCCASP initiated an intelligent irrigation system for 1Ha, allowing them to grow vegetables thrice a year.

Thematic Area 4 Technological transfer

TWITEZIMBERE Kiyonza coop says thanks to the technology of using a moisture analyzer

TWITEZIMBERE Kiyonza is a farmer cooperative in Nyaruguru district, Ngoma Sector, Kiyonza Cell, Kagano Village. It is made of 221 members; among them, 161 are females. The cooperative uses 10ha to grow maize during season A and is rotated with vegetables in season B. Since 2017 TWITEZIMBERE KIYONZA cooperative has been a member of the FtMA project. Through FtMA, the cooperative members have received different interventions like their capacity building in Good Agricultural Practices (GAP), Post-Harvest Handling and Storage (PHHS), and Nutrition. To support the cooperative in quality control and maintenance, the cooperative was linked to the dealers of PHHS equipment (taraulins, bags) to get good equipment.

The cooperative was also linked to potential buyers of maize harvest. In addition, this cooperative received the support of a moisture meter in 2019, which they use to measure the moisture content of their products so that they can sell their products at the best time not to be rejected or have a reduced price resulting in having out-of-range moisture content. This moisture meter has leveled the level of the cooperative in the use of technology in their activities, whereby they can now know the real moisture content of their production to decide when to sell.

Before getting the Moisture meter, the cooperative had suffered from not being able to know the real-time to sell their maize production, whereby they used to arrange delivery period was postponed more than twice because the buyer had measured the moisture content and requested to extend the drying period because the existing moisture content is still high. The non-having of a moisture analyzer also affected the maize stored for consumption because there was a time more than 200 kg of the maize had rotten, resulting in being stored at high storage moisture content.

After getting the moisture analyzer, the cooperative has observed positive change whereby Cooperative members use it themselves to test the moisture content of their maize grains, and by now, they can sell their produce maize to FtMA buyers as grade 1 on their decided right time to deliver without any issue with their contracted buyer regarding moisture content. Thus, the TWITEZIMBERE Kiyonza cooperative thanks FtMA for its technological support.



Moisture meter (Photo: RWARRI)

ZECC introduction to vegetable growers

Twaguke Murama cooperative is located in the Murama Sector of the Ngoma District; 42 out of 47 members are women. RWARRI, through GCCASP, installed a solar-powered irrigation system to irrigate 1 hectare, providing agricultural inputs including improved vegetable seeds, agroforestry, fruit trees seedlings, mulch, and farm yard manure.

After a couple of seasons of good production under irrigation, members of Twaguke Murama encountered a problem with handling and conserving fresh vegetable produce before delivery. In this regard, RWARRI installed a zero-energy cooling chamber (ZECC) to answer the problem of preserving vegetable produce before delivery. Since then, farmers are now using ZECC in vegetable produce pre-selling handling. "We have been struggling to manage the harvesting, aggregation, and selling on the same day, but ZECC came as a sustainable

solution; we can now keep up to 250Kg of fresh vegetables while waiting for delivery," Goreth, the president of Twaguke Murama cooperative witnessed.

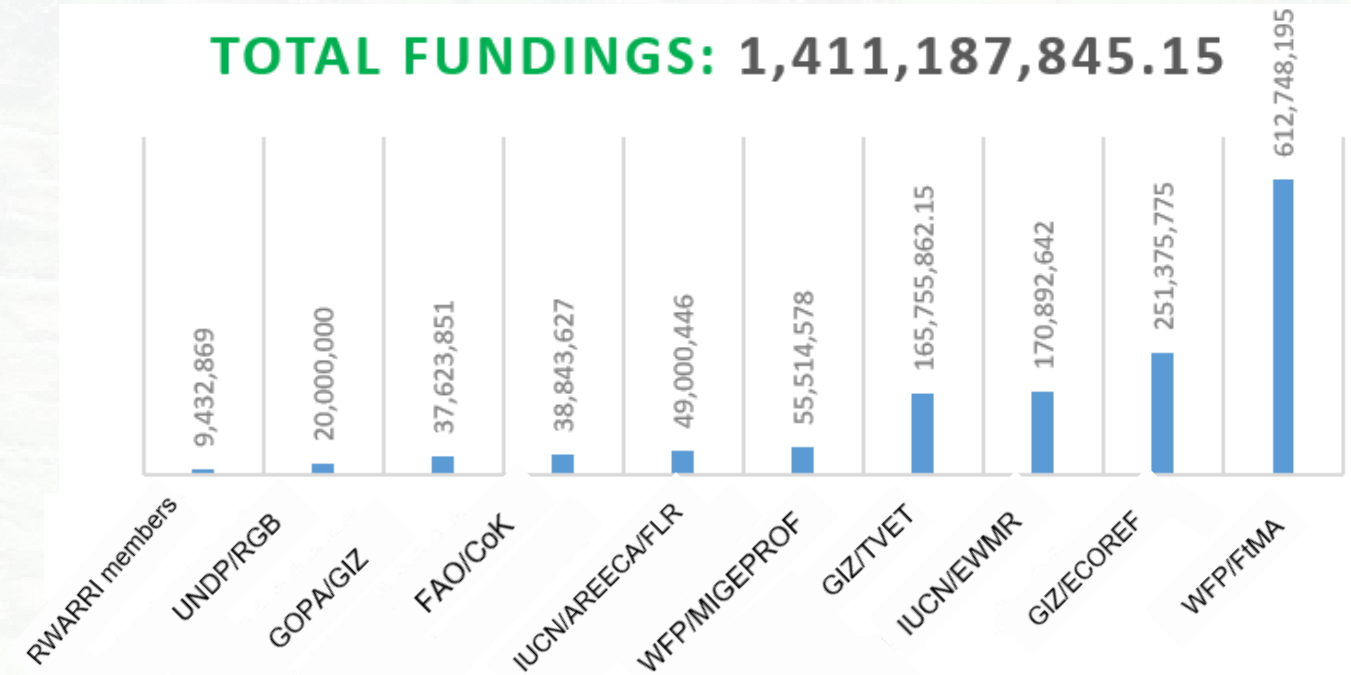
In addition, RWARRI introduced digital saving into Group Saving and Loan associations (GSLAs) made of youth TVET graduates under the ECOREF Toolkits project. The developed online saving system has been taught to 144 GSLAs leaders representing 48GSLAs which focuses on Account creation, group registration, members registration, how to record savings, how to apply for loans, and how to reimburse the loans by using tablets.



ZECC keep vegetables fresh (Photo: RWARRI)

RWARRI SOURCE OF FUNDS – 2022 in Rwf

TOTAL FUNDINGS: 1,411,187,845.15



Key partners



Districts of interventions

- City of Kigali
 - Nyarugenge
 - Kicukiro
 - Gasabo
- Eastern Province
 - Kirehe
 - Ngoma
 - Rwamagana
 - Kayonza
 - Nyagatare
- Southern Province
 - Huye
 - Gisagara
 - Nyamagabe
 - Nyaruguru
- Northern Province
 - Gicumbi
 - Gakenke
 - Rulindo
 - Burera
- Western Province
 - Rubavu
 - Nyabihu
 - Rutsiro
 - Ngororero
 - Rusizi



R W A R R I

RWANDA RURAL REHABILITATION INITIATIVE-RWARRI

P.O.Box: 256 Kigali – Rwanda

Telephone: + (250)788 30 83 74

General e-mail address: info@rwarri.com

Web site: www.rwarri.com