Empowering rural women is powering agriculture

From the FAO Representative

Dear esteemed partner,

Food Hero,

It is that time again, we share with you what we have been doing during a loaded quarter.

Before I dive into headlines of stories you are about to read in this Newsletter, allow me to thank you first. I wish to express my gratitude to the government of Rwanda, all our partners, and donors. Without your unwavering support and collaboration, we would not be able to provide our modest contribution to an ongoing and promising journey of ending hunger in Rwanda. I thank my colleagues in the Food and Agriculture Organization of the United Nations, FAO and One UN family in Rwanda. Stories we have gathered in this issue clearly show that the effort you put in implementing various Projects and Joint Projects is changing lives, Leaving no One Behind. As we celebrate this month of March International Women’s Day, enjoy reading a profile story of Alphonsine Mukeshimana, a farmer and mother of 8, who explains how a spring catchment tap built by FAO under UN’s Joint Project Rural Women Economic Empowerment has changed her life. Let’s take a trip together to Northern Rwanda and experience local water management solutions for farmers in Yanze River Basin. Still in the North, meet Zainab Byukusenge, 44 years old, farmer of Irish potatoes, who testifies that preserving biodiversity actually saves money for her. How so?

These stories and many more are coming up in this edition.

Enjoy reading.

Gualbert Gbehounou

HIGHLIGHTS

- FAO’s twofold contribution in rural women empowerment, Irrigation and WASH.
- Preserving Biodiversity actually saves money - Zainab, Irish potato farmer.
- New project to enhance digital literacy and foster agri-prenuership among youth and women in Rwanda.
- 2022 a year of making Kigali even greener.
- Rwanda: Knowing Water Better is changing the lives of farmers in the Yanze river basin.
Alphonsine Mukeshimana fetching clean from the spring catchment tap.

FAO twofold contribution in rural women empowerment, Irrigation, and WASH

Alphonsine Mukeshimana is a farmer and mother of 8 children in Ngoma district, Eastern Rwanda near the Burundi border. Every day for many years she made a 3-hour journey to fetch water to use at home. The water wasn’t clean. “My children and I had to fetch very dirty water, which always caused us intestinal worms,” Alphonsine added.

One day this struggle changed, thanks to the UN’s joint project ‘Rural Women Economic Empowerment (RWEE)’ implemented by four UN agencies. The Food and Agriculture Organization of the United Nations, UN Women, World Food Programme, and International Fund for Agricultural Development. FAO as a participant built a spring catchment tap. Now it only takes Alphonsine 30 minutes to get water.

“But since you gave us clean water, we are healthy, we do not suffer from diseases related to dirty water because we now drink pure and clean water,” Alphonsine said.

The spring was initially planned for irrigation, supporting the Nkabikorera cooperative who grow maize and tomatoes. “This spring catchment is one of the best achievements of the RWEE project. We specifically thank FAO for coming down here, very far from the country’s capital city,” Elie Nsabimana, a farmer, said.

Josepha Mukamana, FAO Rwanda’s RWEE Project Manager explained how the idea of building the catchment came from. “After seeing how cooperative members don’t have clean water the idea of shooting two birds with one stone came. Now they can irrigate their crops and get clean water for their sanitation and nutrition,” Josepha said.

In the dry season, this spring catchment serves nine villages and around 300 people fetch clean water from here daily. “The leadership of Ngoma district highly thanks FAO and RWEE for the tremendous and impactful activities the project continues to carry out for the betterment of people of our district especially of Jarama sector,” said Nathalie Niyonagira, Mayor of Ngoma District.

Preserving Biodiversity actually saves money - Zainab, Irish potato farmer

Zainab Byukusenge, 44 years old, is a farmer of onions, Irish potatoes, Garlic, and beans on her arable land of one hectare in Rubavu district, Western Rwanda.

She says she is now farming as a business thanks to the training she attended on Integrated Pests Management (IPM), better farming practices with mainstreaming biodiversity. The training was organized by the Food and Agriculture Organization of the United Nations (FAO), funded by the European Union through ACP-MEAs3 Project (African, Caribbean and Pacific Group of States (ACP) countries Multilateral Environmental Agreements).

The Project is entitled “Capacity Building Related to Multilateral Environmental Agreements in ACP Countries - Phase III (ACP-MEAs 3)”.

“I was surprised recently; I sold Irish potatoes and got Rwfr400 000 (USD 400). Before knowing the importance of taking care of biodiversity, I used to get barely Rwfr100 000 on the same land, a half-hectare,” Zainab Byukusenge, Irish potato farmer, said.
Conserving biodiversity

“I used to waste money buying unnecessary pesticides and use excess chemical fertilizers. But now everything I do is measured. I know the importance of organic fertilizer. Thanks to Farmer Field School, I understood the importance of preserving ‘friends of farmers,” she added.

Friends of farmers

Biodiversity has various living creatures in soil, water bodies, or above soil that help farmers in a natural yet interesting way to successfully grow crops. Some of those creatures include bees which pollinate crops, birds, microorganisms, earthworms, among others. Those creatures are called ‘friends of farmers’.

“Instead of spending money buying expensive pesticides, I take time and preserve some insects I see in the farm which as I learned in the training are natural enemies of pests (biological control). I also collect earthworms, because I now know their wonders. It increases soil fertility and helps increase the production of vegetables in poor and salty soils. You understand that I am saving much money,” Zainab said.

Zainab’s mindset of farming while preserving biodiversity is not only saving her farm or her country, it is actually a noble gesture that saves the world’s infinite natural resources by meeting the needs of the current generation without compromising the needs of the future generation.

Graduation of 30 Farmer Field School trainees

Zainab is one of 30 farmers from six districts: Musanze, Rulindo, Nyabihu, Rubavu, Rwamagana, and Kayonza, who have graduated on 10 February 2022 in Musanze district, Northern Rwanda. She said, she has acquired a wide range of skills in farming Irish potatoes and other various crops. After graduation day, her fellow farmers have now become Farmer Field School (FFS) facilitators. They help and train other farmers in their communities adopting Integrated Pest Management (IPM) to better farm, mainstreaming biodiversity and management of ecosystem services for better production, better nutrition, a better environment and a better life for all.

New project to enhance digital literacy and foster agri-preneurship among youth and women in Rwanda

Agricultural digitalization and bridging the gaps of digital literacy among the local farmers will go a long way to empower more youth to be agri-preneurs. FAO in collaboration with the Rwanda Development Board has launched a new project to enhance the digital skills and innovation capabilities to foster agri-preneurship among youth and women in Rwanda

“This project is coming in addressing first of all the critical challenge we are having in terms of digital skills, but secondly it’s also coming to target more than 50 percent of our population which is women and youth. They are very active, they are contributing a lot in the agriculture sector and with them being educated on digital-related aspects we believe that it is going to bring a very big change in Agriculture sector and Rwanda in general,” said Diane Sayinzoga, Head of Special Economic Zones and Export Facilitation Department at Rwanda Development Board (RDB).

“There is an African proverb I like. It says if you want to go fast go alone, but if you want to go far go together. In order to achieve the digital transformation, we need to work together. FAO is delighted to work with various partners and we are happy to work with Rwanda Development Board on this project,” Officer-in-Charge, Office of Innovation, Beth Crawford said.

Increasing young agri-preneurs

About 70 percent of Rwandans are engaged in Agriculture. The sector employs around 66 percent of the working population. The agricultural sector accounts for 26 percent of the national GDP and Young people in Rwanda constitute more than 40 percent of the entire population. However, a big percentage of young Rwandans have not yet embraced agribusiness regarding being one of the most beneficial profession.

“Youth like innovations, new ways of doing things, using electronic gadgets, interacting online actually they like a business that keeps them connected. We need to make sure that we introduce all that digital approaches they prefer along the food chain, from farm to table. Therefore, if we successfully implement this project we will be immensely contributing to achieving zero hunger for present and future, Leaving No One Behind,” FAO Representative, Gualbert Gbehounou said.
Involving Women

To educate a woman is to educate the whole family because women informally unknowingly or knowingly transfer their skills and knowledge to all members of the household. This new project targets women because hunger cannot be ended without empowering and fully involving them. The contribution of women to move a needle of the world’s development has been underrated for so long, yet they bear brunt of every dire condition a household, a family, and the world can endure. The promotion of digital skills and boosting innovation capabilities of women will greatly contribute to making their farming becomes less tiresome, rewarding, and joyous and finally increase production towards sustainable, inclusive, and resilient food systems.

A renewed commitment of making Kigali even greener

As of now the Food and Agriculture Organization of the United Nations (FAO) in Rwanda in collaboration with the City of Kigali has planted more than 20 thousand trees in five sites of the three districts of Kigali. 15 915 are fruit trees and 4 200 are Ornamental trees.

Those trees were planted under the FAO’s Green Cities Initiative that was launched on 18 September 2020 at a high-level event during the 75th session of the UN General Assembly. The initiative is being implemented in metropolitan, intermediary, and small cities in developing countries and aims at reaching globally 1000 cities by 2030. The Green City Kigali is a pioneering concept responding to emerging global issues. Kigali is set to become a blueprint for other cities, for the region, and for the continent. The neighborhoods of Kigali will be among the first Green cities in Africa. A place of sustainable, affordable, green, and inclusive urban living. A place is full of life.

“I feel very amazed when I am moving around Kigali and see trees on the streets and in neighborhoods. Though the number of cars is increasing, the air remains clean and the city looks healthy and green. I really thank FAO,” said Gaspard Mutimura, Kigali resident.

FAO in Rwanda has planned many activities that it will carry out in 2022 in partnership with the Ministry of Agriculture and Animal Resources (MINAGRI) and the City of Kigali. Those activities mainly focus on planting more trees in other public places including bus stations and in schools supporting school gardening and urban agriculture.

This year will also be marked by funnelling efforts of partners in food management and waste management. This initiative will yield a Food Waste Task Force in the City of Kigali that will be following up the food waste activities and advice the city of the way forward to the improvement of the food waste reduction. In addition to the taskforce, there will be a creation of awareness on food waste management for the city dwellers including public institutions such as schools, market vendors and others.

“We highly thank the government of Rwanda and the City of Kigali for a great partnership with FAO to make Kigali green. We remain committed to working together in rendering Kigali City more greener for the betterment of its population. We are equally proud” said Otto Vianney Muhinda Assistant FAO Representative in Rwanda.

The initiative of greening Kigali also strives to mitigate the effects of climate change towards a resilient and sustainable food system. In the rainy season the city experiences heavy rains, floods, landslides, droughts, and windstorms that disrupt people’s lives and livelihoods, sometimes destroy infrastructure.

“Unpredictable and severe climate events, such as extreme flooding and drought, are affecting every aspect of our lives, from health to food security. We cannot accept to let the lives and livelihoods of our fellow citizens to be put at risk,” said Pudence Rubingisa Mayor of the City of Kigali, while commenting on the nomination of Kigali as the winner of Bloomberg Philanthropies 2021 Global Mayors Challenge.

FAO has decided to focus on cities in addition to rural areas because the increasing pace of urbanization implies a growing demand for basic goods and services and local administrations are finding it more and more difficult to meet the needs of urban populations. This is similar to our city which needs to be strengthened with regards to making sure that our food systems are resilient to be able to cope with the difficulties of climate change and pandemics (COVID-19).
FAO-EU led project to strengthen agricultural innovation partnerships for sustainable transformation of agricultural systems in Rwanda

New innovative approaches have the potential to help Rwandan farmers and actors deal with shocks and risks in the agriculture sector. The Food and Agriculture Organization of the United Nations (FAO) in collaboration with partners has unveiled a new project to strengthen agricultural innovation partnerships and processes that support climate-relevant and sustainable transformation of agriculture systems in Rwanda. The four-year project will focus on three areas: diversification of livestock and crop systems; effective management of irrigated areas; crop intensification; and diversification in drought-prone areas.

“This project will contribute to efforts to revamp agriculture and livestock activities in Rwanda, so we can shift from traditional to modern farming. This is a great support to solving some of the issues related to skills and capacity which impede the vision of farming as a business,” said Jean Claude Musabyimana, Permanent Secretary for the Ministry of Agriculture and Animal Resources (MINAGRI).

“The DeSIRA project is going to place innovation at the center of agriculture development in Rwanda. It will involve farmers throughout every step and together explore areas where innovations and improvements are needed to achieve the four betters defined by FAO: Better production, better nutrition, a better environment, and a better life for all; Leaving no one behind,” FAO Representative in Rwanda, Gualbert Gbehounou said.

Innovations for healthy food systems

The project “Capacity Development for Innovation in Rwanda: strengthening innovation partnerships in six districts: Burera, Rutsiro, Gatsibo, Nyagatare, Bugesera, and Ruhango” builds on, and further develops, the approaches and lessons learnt from the EU-supported CDAIS (Capacity Development for Agricultural Innovation Systems) project (2015-2019), which strengthened capacities for agricultural innovation in three local partnerships (Cassava value chain in Ruhango District, Dairy value chain in Burera and Effectiveness use of Water in Nyagatare and Gatsibo Districts) and at policy level.

Financially supported by the European Union, it will be implemented in partnership with Rwanda Agriculture and Animal Resources Development Board (RAB), University of Rwanda (UR) and Ecole supérieure d’agro-développement international (ISTOM).

“The project comes at the right time, when science and innovation are needed to promote Climate-smart agriculture and keep the food systems alive,” Lluis Navarro, Head of Cooperation of European Union Delegation to Rwanda, said.

Leveraging partnerships

At national level partnerships and capacities will be improved through stakeholders’ collaboration. The project will facilitate a research exchange program between the University of Rwanda’s College of Agriculture, Animal Sciences and Veterinary Medicine (UR-CAVM) and Ecole supérieure d’agro-développement international (ISTOM).

In addition, six Masters’ students (two per each thematic area) and one Ph.D. student researcher will be supported to better craft scientific approaches that are needed to develop sustainable, resilient, and inclusive farming in six selected districts. “The University of Rwanda has been a teaching-led university and we have to transform it to be a research and innovation led university. The project is another platform to join hands with other sister institutions to deploy science and make a difference,” Alexandre Lyambabaje, Vice-Chancellor of the University of Rwanda, said.

“ISTOM has developed its own Agro-development and Innovation researches. It’s a great opportunity for our research unit and students to be able to examine areas of innovation in Rwanda and contribute to finding solutions,” Marc Pouly, General Manager of ISTOM, said.

All hands are on deck to promote Agricultural Innovation Systems in Rwanda

FAO’s collaboration with the Government of Rwanda to promote Agricultural Innovation Systems (AIS) rallies behind the project “Developing capacities in agricultural innovation systems: scaling up the Tropical Agriculture Platform Framework (TAP-AIS)”. It is funded by the

Participants at the national inception workshop of the project in Kigali.
European Union, under the EU-DeSIRA initiative, and coordinated by FAO’s Research and Extension Unit (OINR). The project is scaling up the Tropical Agriculture Platform (TAP) Common Framework on Capacity Development for Agricultural Innovation Systems (AIS) at national level in nine countries, in regional research and extension networks in Africa, Asia-Pacific and Latin America, and the Caribbean, and through the publication of global knowledge products.

In Rwanda, the TAP-AIS country project is implemented by FAO Rwanda in collaboration with the Ministry of Agriculture and Animal Resources (MINAGRI), with the objective to strengthen capacity to innovate in the national AIS. The inception phase, completed in 2020, identified the small livestock subsector as the project’s focus and entry point for strengthening innovation capacities. As 2022 gets underway it is important we looked back and recalled the guiding recommendations and paces to advance Agricultural Innovation Systems in Rwanda that were drawn at the end of 2021.

An assessment of Agricultural Innovation Systems (AIS) of the small livestock sub-sector in Rwanda was conducted in the first half of 2021. Accelerating innovation and trigger investments in small livestock hinges on better data and information on the sub-sector’s current status and needs, to guide decisions from local to policy level.

Objectives of the assessment were to identify constraints and bottlenecks of the AIS of the small livestock subsector in Rwanda, to identify the TAP-AIS project’s niche within the AIS of the small livestock subsector, and to prioritize opportunities and entry points for the project’s capacity development phase. This enables the TAP-AIS project to make realistic and strategic decisions on engaging with stakeholders and allocation of limited resources.

Findings of the assessment

On functional analysis the assessment found insufficient capacity building for smallholder farmers, insufficient technical support and delivery services, urgent need of research and knowledge sharing, communication and awareness creation, poor coordination, community mobilization and involvement to increase productivity market linkages and commercialization, transportation of small livestock (chicken, pigs and pork) and a considerable need to help smallholder farmers access to finance and resource mobilization.

Moreover, the structural analysis was conducted to identify key organizations delivering the AIS functions of the small livestock subsector in Rwanda. In total, 36 organizations were identified, comprising government agencies, development partners, the private sector, producer groups, civil society organizations, and local government entities. Based on the Net-maps, there was a good working relationship among all the actors towards promoting the small livestock subsector

The capacity analysis considered how the actors could perform their key functions while being mindful of the capacity gaps that impede the performance. The analysis identified outstanding gaps in capacity domains like coordination, collaboration and networking, markets and value chain development, animal health, animal husbandry, transportation, and logistics.

This validation workshop which presented key findings of the assessment and elaborated recommendations was attended by a wide range of stakeholders including senior government officials, Development Partners, FAO Representative and staff. After strategic all-round discussion to chart the way forward on priorities and entry points for strengthening the AIS of Rwanda’s small livestock subsector, findings were approved.

“All the PSTA4 priority areas (innovation and extension, productivity and resilience, enabling environment and responsive institutions) and cross-cutting areas (capacity development) are reflected in this project. This emphasizes that there are many expectations from this project” said Jean Claude Musabyimana, the Permanent Secretary of the Minister of Agriculture and Animal Resources.

“In a special way, I wish to thank the EU Delegation to Rwanda for the support provided, particularly in TAP-AIS and other related initiatives. EU has been impactful in capacity development for agricultural innovation systems. A special thank you message is extended to MINAGRI team supporting the national coordination and implementation of the project” FAO Representative in Rwanda Gualbert Gbehounou said.

Systemic capacity gaps identification and formulation of capacity development plan

During the workshop, two associations, namely, Rwanda Poultry Industry Farmers Association (RPIA) and Rwanda Piggery Farmers Association (RPFA) were identified as potential beneficiaries of capacity development under TAP-AIS. To complement suggestions from the previous
workshop, a field visit was organized to selected organizations, in order to compare notes with partners with regard to capacity needs.

Without fostering innovation systems in Agriculture mighty hands and minds of youth can be left behind. About 78 percent of Rwandans are below 35 years of age. To spur agriculture in youth and make this big category of Rwandans “agri-preneurs” or take the created agri-jobs requires policymakers to show them that there will find innovative and tech systems in farms as well. Most youths don’t get involved in Agriculture because the stereotype is that it is traditional and tedious.

**Kick-off Stakeholder Advisory Group meeting to start the planning of the Kigali CRFS Strategy to improve food system resilience**

30 members of the Kigali City Region Food System gathered for an important meeting organized by the FAO Country Office in Rwanda to validate the findings of an in-depth assessment on the main shocks, stresses and vulnerabilities of the food system related to climate change and the COVID-19 pandemic.

The food system’s Stakeholder Advisory Group includes a wide range of food system actors, including from the agriculture, insurance, financial, value chain, extension services, and governance sectors. The in-depth assessment addressed the ten most prominent challenges of the food system in the Kigali City Region including issues.

These include the lack of affordable irrigation systems for farmers, inadequate information mechanisms on financing and insurance opportunities for agricultural activities, and insufficient coordination of farmers’ cooperatives for adequate access to market facilities and information.

The findings of the assessment will guide local decision-makers in defining a strategy and an action plan to improve the resilience of the food system, focusing on the main agricultural commodities.

The participants of the Stakeholder Advisory Group meeting recommended that government actors work collaboratively with development partners to expand the irrigation subsidy system in drought-prone districts of the Kigali City Region, and enhance investment into facilitating access to rainwater harvesting technologies for farmers.

Moreover, stakeholders should proactively encourage access to information about existing financial and insurance schemes for farmers to increase opportunities for agricultural production.

Overall, access to information and involvement of youth and women were pointed out as key to enable a more sustainable development of the local food system. Based on the findings of the assessment, the participants ultimately identified key priority actions that will be implemented to strengthen the resilience of the Kigali City Region Food System, as well as food and nutrition security.

**Knowing Water Better is changing the lives of farmers in the Yanze river basin**

Through KnoWat Project, FAO Rwanda has been partnering with APEFA (Action pour la Protection de l’ Environnement et la Promotion de Filières Agricoles), a local NGO, to improve water management in the Yanze river basin. The harvested water is used in both aquaculture and agriculture.

“Thanks to this project there are now fish and agriculture products all from this water,” Marcel Munyawera, a fish farmer said. While taking care of his fishpond, he added “I feed 2000 fish, we have kept in this fishpond. If you take good care of it, in seven months you can harvest 500 kilograms. The money Marcel will get from the fishpond cannot be less than 1 million Rwandan Francs equivalent to one thousand US Dollars. He sells a kilo of fish for two thousand Rwandan Francs (USD 2). Because the river basin is well managed, he is expecting to earn one million Rwandan Francs (USD 1000).

**Social change**

Farmers in Yanze river basin, say the importance of water management for them is not only economic. It has also a social impact. “Before the project provided the dams, we used to have conflicts due to water scarcity. Everyone was fighting for the wetland,” Said Marcel Munyawera.

Marcel Munyawera, 30 is a member of YAHOPROC, a cooperative of farmers of fruits and vegetables, which use solar-powered irrigation. To grow crops now, does not depend only on a rainy season.
“We no longer sit idly during the sunny season, worrying about how we can irrigate. There is no such problem now, we have water and a machine which automatically pumps it for us,” said Jeanne d’Arc Mukabaranyanga, farmer of Broccoli and a member of YAHOPROC. She added “The mechanical pumps we had before, were very tiring, especially for us women. It was for men. We were left out because they required excessive force.”

Economic change

Jeanne d’Arc said due to the fact that she grows crops every season, her yields have increased and she now has access to finance. “Before on 2 acres, I could barely harvest 60 kilograms of broccoli per season but since I started using this solar-powered pump, I easily harvest 200 kilograms,” she said. She added “Before getting this technology and have increased yield, I didn’t have a bank account and I had no idea of where banks were. Now, I have an account, I save and have money to buy an asset for my development so I will have a better life when I am old and unable to work.”

Improved nutrition

“We could not eat vegetables before, now our nutrition is improved. We no longer have malnutrition issues. Children don’t suffer from Kwashiorkor (severe malnutrition),” Jeanne d’Arc Mukabaranyanga, farmer of broccoli.

About KnoWat Project

All around the world, countries are struggling to adapt their agriculture and food systems to conditions of water scarcity, climate change and increased competition between users. According to the actual trends and projections, water scarcity is expected to increase. Particularly smallholders are the most vulnerable to changes in water access and availability. A strengthened focus on water governance for agriculture and food security is therefore crucial to address water scarcity in a changing climate. FAO, with the support of the Federal Government of Germany, is implementing the project “KnoWat - Knowing Water better” to strengthen water governance processes in Rwanda, Senegal and Sri Lanka, as pilot countries.

In Rwanda, several scenarios of water allocate have been be explored in the context of increasing competition among water users.

On top of other activities implemented under KnoWat, the validation workshop for KnoWat’s Water Tenure Assessment Results in Rwanda took place on 10 March 2022 in Kigali. Senior Rwandan government officials from Rwanda Water Resources Board, Rwanda Agriculture and Animal Resources Board, Water and Sanitation Corporation, representatives of the local authority, water engineers, and other actors in the water sector attended this hybrid validation workshop. The global team of the Food and Agriculture Organization of the United Nations also participated in the event by Zoom.

The Chairman of the workshop Bernard Musana, Head of Knowledge and Forecasting Hub Department at Rwanda Water Resources Board, welcomed the assessment report and commended the work done by FAO under the KnoWat project. The assessment contributes to Water tenure arrangements determining how people, communities, and organizations gain access to, and use, water resources, how much of the resource can be used, for how long, for what purpose, and under what conditions.

After engaging in presentations and panel discussions on the results of the Water Tenure Assessment done on Rwanda, the report was approved and the participants provided comments that the national team will address. The water tenure assessment identifies and compares the various water tenure arrangements that exist in Rwanda, assessing the access and use of water resources and highlighting the challenges that may hinder the effectiveness and efficiency of those arrangements. The report also provides recommendations to stakeholders to achieve more responsible and equitable governance of water tenure in Rwanda.

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