

Healthy farmer Wealthy nation *Magazine*



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FOREWORD



In January 2010 a team of scientists from the International Potato Center (CIP) came to Rwanda to introduce a new initiative, the Sweetpotato Action for Security and Health in Africa (SASHA). We were armed with a dream of building the first Sweetpotato Value Chain in Africa. This was a four year proof of concept project funded by the Bill and Melinda Gates Foundation. The aim of the project was to find ways through which a viable Orange Flesh Sweetpotato (OFSP) value chain can be built. We landed in Rwanda convinced that our dream would work in Rwanda though it had been tried elsewhere and was not very successful.

We partnered with ISAR the predecessor of Rwanda Agricultural Board (RAB) to build a seed system based on producing clean seed through tissue culture. Starting with 20 test tubes of clean seed from the Nairobi-based Kenya Plant Health Inspectorate Services (KEPHIS), technicians at Rubona embarked on multiplying the delicate plantlets. Meanwhile we started working with a few materials that had been introduced in Rwanda by Dissemination of New Agricultural Technologies in Africa (DONATA) through positive selection to give the vines to farmers. This was also a partnership with Catholic Relief Services (CRS) and their implementing partners IMBARAGA farmers' association and Young Women Christian Association (YWCA) then based in Muhanga. To succeed in building a value chain, we had to work with the private sector. This was made possible when Urwibutso Enterprises came on board to partner in development of commercially viable OFSP products, assisted by Euro Ingredients Limited. Through research with RAB's food science department, we quickly realized that we had to change our plan from utilizing sweetpotato flour and switched to sweetpotato puree. It was easier to manage and we could make a consistent product from it. We also partnered with Kigali Institute of Science and Technology (KIST), now a part of University of Kigali. It is through this partnership that we have worked very hard to build the momentum we now see in Rwanda's OFSP value chain. This culminated in Rwanda being the first country in Africa to launch a commercially viable OFSP based product, the Akarabo Biscuit and the famous mandazi sold at SINA Gerard stores and more so at Nyirangarama. From these products, the firms' sales value has consistently been above US\$ 350,000 annually since 2013. This has provided a consistent market for the smallholder farmers in Gakenke and Rulindo in particular. The farmers have now a market for roots and vines and this has changed their lives. We have also set up two cooperative-led processing units, one at Gakenke and the other at Muhanga. These are still struggling to be on their feet. However, the initiative has shown that this is possible. Currently, there is a new private sector processing unit set in Kigali Carl Foods, another one being set up in Kamonyi and another one in Rwamagana. All these successes have been made possible through partnerships with many actors, including the local governments. In particular, in Rulindo district we are developing a road side market that is giving farmer cooperatives a market for their farm products and especially OFSP roots.

In this inaugural CIP Rwanda magazine, we document the stories of some of these partnerships and the farmers that have been touched by our work in Rwanda. You will also find stories of the new projects that have been funded by UKAID in the Scaling Up Sweetpotato Through Agriculture and Nutrition (SUSTAIN) Project and Feed the Future OFSP for Income and Health funded by USAID. This started as a dream and we can share with you what we have achieved and where are planning to go to give every household in Rwanda access to OFSP vines and hence roots for their food security, income and also ease access to vitamin A.

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WORKING TOGETHER TOWARDS A FUTURE WITHOUT POVERTY AND HUNGER

By Sindi Kiriimi



A nutritious sweetpotato variety is growing in popularity and becoming an important strategy to improve vitamin A deficiency across Rwanda. Orange-fleshed sweetpotato (OFSP) is rich in vitamin A and is being disseminated with the support of USAID under Feed the Future, the U.S. Government's global hunger and food security initiative. OFSP planting material has now been given to over 25,000 farming households, with up to 200,000 households expected to be planting and eating it by 2018. It is expected that over 300,000 children under five years of age will have a minimum acceptable diet.

The overall goal of the Feed the Future Rwanda Orange-fleshed Sweetpotato (OFSP) for Income and Nutrition Activity is to promote the production and consumption of OFSP in ten districts in USAID's Feed the Future (FTF) zones of influence in Rwanda. These districts are: Gatsibo, Bugesera, Burera, Musanze, Rubavu, Ngororero, Rutsiro, Karongi, Nyamagabe, and Nyaruguru.

The project is contributing to FTF objectives of inclusive agricultural sector growth and improved nutritional status, especially of women and children. This OFSP value chain for nutrition project also supports the ongoing work of the International Potato Center (CIP) on scaling up OFSP based agriculture-nutrition-health initiative for improved household income and nutrition status. In support of these overall goals, the activity is pursuing three specific objectives: 1) *Increased production of OFSP among smallholder farmers*; 2) *Improved incomes from OFSP along the value chain*; and 3) *Improved nutrition outcomes for women and children under five*.



Feed the Future activity beneficiaries learning to improve food diversity for better nutrition incorporating OFSP

Agriculture remains the largest sector and the central driver of Rwanda's economy. Over 70% of the country's population is active in agriculture. In addition, Rwanda's economy has been growing at an average of 7% per annum for several years now, resulting in the reduction of poverty levels to 48.5%. However, the rate of poverty reduction has been much slower in rural areas. The proportion of poor, 44.9% and ultra-poor 24.1%, remains high in Rwanda despite significant reductions over the last decade. Therefore, while progress over the past two decades has been remarkable in many sectors, several key development goals still need to be achieved to meet global targets. A comprehensive response is thus required to address rural poverty and malnutrition challenges. Approaches that combine interventions from a range of economic, health, infrastructure and social service sectors are key if Rwanda is to make further progress. Nutrition-oriented agricultural development can make significant contributions given the pivotal role of agriculture as the main source of both food and income for the rural poor. This is critical, since ensuring household food and nutrition security remains a critical priority for the

Government of Rwanda.

The expected results of the project are:

- Improved utilization of OFSP among 200,000 households with at least 300,000 children under five; supported through demonstrations of safe and nutritious food preparation and storage, including options for OFSP utilization as a complementary baby food.
- Strengthened sector-wide human and institutional capacity for nutrition-sensitive and market-oriented agricultural development linkages with the health and nutrition sector at national and local levels.
- Consumer demand increased through public awareness campaigns and additional demand created through technical support to food processors to include OFSP as an ingredient in their existing and new products.

Different partners are working to ensure that the initiative is a success. These include Rwanda Agricultural Board, partner organizations, and groups of seed multipliers, sweetpotato farmers, health centers, schools, and the local government.

A SUREFIRE WAY OF MAKING YOUR LIFE BETTER

By Caroline Namara

International Potato Center (CIP) has been leading the research on potato and sweetpotato for over 40 years now. In Rwanda, CIP started implementing development projects in the field in 2008, as a proof-of concept, to link research finding to their practical work. This was mainly executed through the Dissemination of New Agricultural Technologies in Africa (DONATA) project, the Sweetpotato for Action for Security and Health in Africa (SASHA). Currently the organization is implementing the Scaling up Sweetpotato through Agriculture and Nutrition (SUSTAIN) project as well as Feed the Future, which aim to improve the lives of people financially and nutritionally.

The numbers of people benefiting from these projects are increasing daily. While some of us might still be struggling to find ways to sustain our lives, they have found a sure way of how to make their lives better. Here are two examples that are a clear illustration of how they are doing it. By the time I am done narrating them to you, you'll probably be wondering why you did not know about these projects.

Recently, we visited some farmers in the South-



Jeanne, in one of her fields in Gakenke.

ern Province that are planting a orange-fleshed sweetpotato, known in short as OFSP. It is doing magic in their lives. You might be asking yourself now, what exactly I mean by magic.

One of the farmers, Jeanne Mukasine (Gakenke), said in an interview with us, that she started planting this variety in 2013. Between then and now, you won't believe the remarkable changes it has made in her life.

With a smiling face, she explains that OFSP has been like a long awaited savior. She has been able to buy herself many pieces of land, built her own house, bought livestock and moved from her remote village to the city center where she now does her business. Not only that, she has been able to make the lives of her neighbours better by distributing to them OFSP vines for free. They now sell the sweetpotato roots and are making enough money to invest and take care of their families.

"Now that people have understood the benefits of OFSP, individuals, organizations and companies come to us regularly to buy vines and roots. I am making a lot of money now. For example, in the first quarter of this year, I have been able to make over one million Rwandan francs from OFSP vines and roots. My life is not the same. OFSP has made me proud," she says.

Yankurije Dorcilla (Muhanga) who started planting OFSP in 2010 had this to say when asked about the benefits of planting OFSP: "When I started, I just wanted to try. It required so much work and a lot of reading manuals but within a year, I had gotten used to planting them." At that time, she, like many other people, was just struggling to make ends meet. But when she started selling the roots and vines from her OFSP crop, all this changed. "Because of planting OFSP, I have my own piped



A clear view of Jeanne's garden with clean OFSP vines.

water, something that even business men had failed to achieve. I was able to buy a TV set and my kids now don't need to go watch it elsewhere. I have a motorcycle and a water pump. I pay for all my children's school fees and I get all this money from OFSP. I could go on but the list is without end." Dorcilla recalls a time when her neighbors thought she was mad and laughed at her ventures. Now, because of her achievements, she has been able to change their mindsets, especially the mothers. The demand is getting high because of the value of OFSP.

IMPROVING ACCESS TO NUTRITIONAL FOODS THROUGH ORANGE-FLESHED SWEETPOTATOES

By Olivia Tusiime



An ongoing nutrition training for SUSTAIN beneficiaries in Muhanga

Nutritional foods contain different types of nutrients, such as proteins, carbohydrates, and vitamins. A balanced diet contains foods with these nutrients. Such balanced diets are necessary for a healthy life. However accessing the foods needed to develop a body nutritionally is a challenge to some people. Whilst others simply lack the nutritional knowledge on what they should eat, others cannot afford to buy the right foods

Vitamin A deficiency is one of the results of malnutrition. It is often high among young children, pregnant and lactating mothers, who are the most vulnerable to hunger. In a bid to improve the nutrition of people in Rwanda, the

International Potato Center (CIP), through its SUSTAIN and Feed the Future projects, promotes orange-fleshed sweetpotatoes, which are rich in beta carotene, a precursor to vitamin A, and which is easily accessible to the project beneficiaries who are vulnerable to vitamin A deficiency.

The projects understand the power of knowledge. That is why CIP, together with project implementing partners hold nutritional trainings for the targeted groups. These trainings teach households how they can live healthier lives by eating nutritious foods.

A fifty year old woman witnesses her triumph over poverty through orange-fleshed sweetpotato farming.

By Aime Ndayisenga

During the golden period celebration of Rwanda's 21st liberation, it was clear that Rwanda shines as a country that liberates its citizens from poverty. What more could be evidence of this, if not fifty-year old Muhayimana Margaret showcasing her achievements that have been made possible through orange-fleshed sweetpotatoes? She grows the crop in Bushoki Sector, Rulindo District, where she lives.



Margaret showing her biogas energy plant funded by the income from selling OFSP roots and vines through the SUSTAIN Project.

To enter her home, one must first ring an electric bell and wait to be let in. As she opens the door, an innocently happy smile covers her face. One does not need to ask about the source of her happiness. A beautiful home, with two hybrid cows, which generate not only milk for home consumption and market is enough reason. Not only that, Margaret uses the cow dung to run the biogas energy plant she has set up to provide energy to her household. A visit to this home leaves no question of how much can be achieved by simply growing a food that many consider not only for rural people but unbeneficial too.

**She earns 120,000
Rwandan francs
monthly from her
daily sales of
Orange Fleshed
Sweetpotatoes**

Speaking to **Imvaho Nshya Newspaper**, Muhayimana Margaret confidently attributes her success to orange-fleshed sweetpotatoes. She also says that the overall good governance, leadership and security in the country has enabled her to comfortably pursue her childhood dreams.

"Honestly, I can't properly describe how far these orange varieties of sweetpotato have brought me. Since the time I started valuing this crop, I earn money and the most important thing in my life is when a certain need arises in my household, I can pay for it," she tells the newspaper correspondent.

She goes on to explain that at first, she was torn by uncertainty. She didn't believe it could take her to the economic status that she holds today. However through selling sweetpotato vines, roots and sweetpotato-based value added products, she admits that she discovered the untapped gold hidden in orange-fleshed sweetpotatoes.

Muhayimana appeals to her fellow Rwandan women to take advantage of the good leadership and security surrounding them, so as to expand their ideas by simply respecting small career opportunities that they are exposed to.



SOLUTIONS FOR GROWTH

By Caroline Namara.

Want to know a secret? Nobody really makes it on their own, at some point it all comes back to the relationships we make that open the right doors. In every success story there's always at least one person that opened a doorway through which that success was found.

Tuesday 5th April, 2016 was quite an interesting day, a very calm environment, beautiful climate with industrious people. At Grand Legacy Hotel, Rwanda, the Consortium of International Agricultural Research Centers (CGIAR) held a site integration meeting that brought together about 70 people from different locations within and outside Rwanda. In attendance were representatives of stakeholder categories that included government, NGOs / civil society organizations, research, private sector, UN system, donors, and investors working in the agriculture sector. One of the objectives of the meeting was to develop a site integration plan, to bring together the work of CGIAR centers and programs so that we can

scale up innovations to reach millions of our beneficiaries in Rwanda. Other objectives were alignment of research, coordination of delivery, integration of operation functions, and facilities to increase delivery and efficiency. It was graced and opened officially by the Minister of State in charge of Agriculture and Animal resources, Hon. Tony Robert Nsanganira.

"If you want to go fast, go alone but if you want to go further go together." These were some of the quotes shared by speakers as they gave examples of successful collaborations and showed how integration is possible and necessary.

It is human nature to dream of success, and this dream places a soothing smile on our cheek, yet few of us get up and work hard for it. Fear of trying and failing often stops people from making decisions. Throughout the meeting, everyone liked the idea of integration and coordination but there were questions and fears raised. Some of them were: Is it possible to have all this without any conflict of interests? What incentives or motivations will keep everyone committed to this cause?





Hon Minister of State Tony Nsanganira giving remarks .

Dale Carnegie said "Inaction breeds doubt and fear. Action breeds confidence and courage. If you want to conquer fear, do not sit at home and think about it. Go out and get busy." The ambience in the room showed that this is a group that could not be defeated. The drive on every face proved success is near only if we act now. The vibrant group discussions and idea sharing, beamed a light that vanquished most fears and questions raised by participants. It was agreed that with reduced duplication, effective planning, better aligned strategies and purpose to the

government's priorities plus cost effectiveness, which can be achieved by reducing internal cost transactions from the various CG centers, malnutrition, climate change and other challenges could be addressed more effectively. With the existing partnerships and the ones we continue to build, our goals can be met, reiterated a key note speaker. The meeting started on a high note, with different expectations. Some of us did not really understand what CG centers were all about but as the meeting progressed, participants' involvement in the discussions gave better understanding to the novice.



Participants brainstorming on way forward to join efforts in agricultural research .

Public and Private Partners to boost household incomes of Rwanda's OFSP Farmers.

Together with Rulindo District leadership, CIP-Rwanda launches OFSP selling outlet model.

By Aime Ndayisenga



In glasses (Dr. Sindi Kirimi) of CIP with Government officials, officially opening the farmer selling point

The International Potato Center (CIP) has been promoting orange-fleshed sweetpotato growing in Rwanda since 2008. With the first project Dissemination of New Agricultural Technologies in Africa (DONATA) introducing the first varieties, thus laying the foundation for innovation platforms. The proof of concept seeking to build an OFSP value chain was continued through the saw Sweetpotato for Action for Security and Health in Africa (SASHA) and a subsequent project continue the work, which later bore the Scaling up Sweetpotato through Agriculture and Nutrition (SUSTAIN) projects.

The SUSTAIN project builds up on the value chain concept, but adds a strong nutritional component, with six OFSP varieties targeting households with pregnant women, lactating mothers and children under five years of age in Rwanda.

Different varieties of orange-fleshed sweetpotato roots available for household home consumption and surplus for the market have been increased, and beneficiaries are harvesting more yields than what they did from their landraces.

With the value chain project linking beneficiaries

to ready buyers, especially processors, there is an expanded fresh roots market. However it's still a challenge for consumers to be aware of the orange-fleshed sweetpotatoes as they are mixed with the dominant white varieties which are commonly consumed in Rwanda.



The CIP-Rwanda Country Leader with Govt Officials cutting an OFSP Cake at the ceremony

This mixing of varieties reduces the impact of the message that OFSP varieties are rich in vitamin A and are more nutritious than the normal white-fleshed varieties. Adult consumers in Rwanda are used to sweetpotato roots with high dry matter content. Whereas OFSP roots take

less energy and time to boil when cooked alone, they overcook and absorb more water when mixed with other varieties, and become soggy. Therefore, mixing these varieties reduces the probability of OFSP being preferred for home consumption.

To address this, there is need to differentiate OFSP roots from the other local sweetpotato varieties, and advising consumers about how to cook them to ensure that they retain their integrity. There is also need to increase access to OFSP roots in the market.

CIP has introduced different ideas in Rwanda, including working with partners to develop special selling outlets and information channel points for OFSP, where traders and farmers will be giving more information to customers. Building on this idea, the Rulindo district committed finances to build an OFSP roadside market.

The SUSTAIN project has partnered with the Rwanda Agricultural Board and IMBARAGA to develop the market into a viable venture business. This market is strategically located on a major highway that not only goes to Musanze, the capital city of the Northern district, but also leads to the tourist destination in the volcanic mountains, which are home to the world famous Mountain Gorillas. This road also leads to the lakeside resort city of Gisenyi and the main border town of Goma of the D.R. Congo. Hence, if well developed, it will greatly increase the visibility of the crop. It is definitely set to be a major stop-over point by travelers and a major marketing tool for OFSP in Rwanda.



The Newly launched OFSP farmer selling point jointly funded by Rulindo District and SUSTAIN Project .

Farmers in the district as well as the processors who buying their roots will have another market outlet besides their regular market. This market is currently stocked with all the farmers produce besides the OFSP fresh roots. It will also be having finished OFSP products and fresh drinks to serve the consumers as they rest and shop. It is expected that this market will add a significant amount of income to the farmers who will be

selling there. The processing market has ensured that OFSP gets double the prices of the white and yellow flesh sweet potatoes throughout the year. This has had a significant impact on the lives of the beneficiaries especially in terms of improving their nutrition status by improving household's food diversity. Through the trainings and other assistance groups farmers through the work of CIP have received training enable them to add value to OFSP and sell processed products in the market, through this outlet.

On June 26th 2015 during the launching ceremony of the 1st OFSP Farmer Selling market in Rwanda, Dr. Kirimi Sindi, and the SUSTAIN-RWANDA Project country leader highlighted the nutrition importance of Vitamin A rich sweet potato. He further pointed out that it was in Rulindo that SASHA project produced the first commercially successful OFSP based products. "We were first in SSA to launch a commercially viable processed products based on orange flesh sweet potato. This success is being replicated all over Africa by the various projects being currently implemented. And this outlet could be another pillar of OFSP history in Rwanda that is replicable."



Farmers exhibiting their crops in the new roadside market.

Beatrice Nyirahabimana a 50 year OFSP farmer when interviewed by the media she had this to say, "This selling point is very strategic to us and gives us hope of the future. I have been a farmer since I was young and per unit area I have not made as much money with any other crop like I have been able to make with OFSP farming. I believe there will be a bigger impact on our lives with the construction of this market near my home because I will have access to a bigger market" Farmers are not alone in praising this market initiative, All the government officials present at the official launch lauded the idea of selling the famous vitamin A rich sweet potato near a road that feeds the country with many food crops as well a major highway for the tourist circuit in Rwanda.

Mu Ryabazira, an international Sweetpotato market attracting different nationalities.

By Aime Ndayisenga

Thousands of Gakenke residents, flow into mu ryabaziramarket, known as the Sweetpotato hub and an international market as it attracts different nationalities due to its uniqueness of Sweetpotato selling. Located in Muhaza cell, Cyabingo sector on Kigali-Musanze - Rubavu highway. Residents of this district who believe their prime cash crop is sweet potatoes. We always meet every Tuesday, Thursday and Sunday from the surrounding sectors of Cyabingo, Busengo, Kivuruga and Kamubuga carrying baskets of sweet potato roots and tubers. The first eye catching item on arrival at this market being sweet potatoes.

Different individuals who talked to Izubarirash Newspaper, showcased the importance of this market in the development process of Gakenke District

'It's a Wealth market' they say whoever attends "Mu Ryarubirizi" market strongly attributes their financial stock to this market.

Nemeyintwali Valens, a young man of 23 years old from Cyabingo Sector after depositing a basket of sweet potatoes told our reporter.

"As a young man from the village, this market really helped me! All I have today, I owe thanks to these sweet potatoes. Through which I have been able to build my own house, am here to sell another basket to be able to buy the house door."

He further said "I wonder what could happen to the youth in this area, if this market wasn't here. We normally have huge yields of sweet potato in our area, and people especially youth use it to find their way out of poverty, and indeed this market makes it happen."

Mukeshimana Louise, is another sweet potato farmer with a story to tell, here she goes

"I can't exhaust the list all the goodness of our market. Look, it is 8 am and I have already collected my four thousand Rwandan francs from the sweet potato basket I harvested this morning. In addition to that, I have already payed the health insurances for my whole family and my children are all clothed. I feel happy and free of any other family burdens".



The big part of 'Mu Ryabazira' market is dedicated to Sweetpotatoes .

The barter exchange system that existed before the introduction of monetary systems in Rwanda is still alive in this market as some attendants come to exchange their sweet potatoes with Irish potatoes. However, it's also rare as the majority people sell their sweet potatoes for money to be able to purchase their household needs.

Like Nyiraharerima Sophie, one of the regular sweet potato sellers in this market said:

"Besides saving for my primary needs like cloths and health insurance, I buy different food commodities like Irish potatoes and rice which are rare in our area as we don't grow them".

However, in spite of the shining of improved livelihoods, setbacks do sometimes exist, the delay to rehabilitate the market has left men and women operating here being bothered during the rainy seasons, as they are still appealing to the local administration for their roof rehabilitation. The location of the market is near the Kigali-Musanze highway, is another threat as farmers complain that they are exposed to multiple accidents which are sometimes deadly.

To emphasize the challenges faced by farmers using that market, Odette Uwizeyimana, Gakenke district Vice Mayor in charge of Economic development promised collaborating with the District's private sector federation to build a Selling point (Point de vente) facilitating farmers to exhibit and sell their sweet potato crops.

However, the Vice Mayor did not exactly state the timeline for this structure to be completed, but she stated among other selling points to be constructed including the one at Kirenge in Muhondo Sector, Buranga, in Nemba Sector as well as Kivuruga to be set up in Kivuruga Sector.



Sweetpotato Display in "Mu Ryabazira " public market.

Unveiling The Natural Remedy For Health Problems Faced By Malnourished People

By Olivia Tusiime



A mother carrying her child, below five years, who is a beneficiary of the SUSTAIN Project in Muhanga District.

Orange-fleshed Sweetpotato a natural remedy to malnourishment. Due to lack of sufficient and proper nutrition in one's life, the risk of being malnourished is inevitable. People who are affected by hunger including children, the poor, elderly, pregnant women, lactating mothers, people with chronic eating disorders etc. are vulnerable to malnutrition.

One of the results of malnutrition is vitamin A deficiency, which lowers the immune system. Sometimes to address these, people are given tablets to provide them with vitamin A supplementation.

However this threat to people's health can be cured naturally through simply eating foods rich in vitamin A. Orange-fleshed Sweetpotatoes stand as a true and tested

remedy to vitamin A deficiency. The food can easily be accessed and purchased, it is easy to prepare and can be eaten in many different ways. It has very many health benefits, and yet it is not given enough attention.

Together with other implementing partners, the International Potato Center is working to ensure that this rich food is available to different households in Rwanda, that are at a high risk of malnutrition. These partners distribute orange-fleshed sweetpotato vines to the households and teaches them the right way to grow, cook and eat this food in order to get the most health benefits. One just a slice of one sweet potato per day is enough for one to live a life free from vitamin A deficiency.

She lives the life of her dreams through sweetpotato farming

By Caroline Namara

For 50-year old Beatrice Nyirahabimana, cultivating orange-fleshed sweetpotatoes (OFSP) is her primary income generating activity. It has been a lifelong struggle to transition this activity from a subsistence activity to one that her entire family can rely on for a livelihood. Throughout, she is motivated by the principle that “a job well done feeds you well.” This quote has helped her to confidently assert herself to achieve the success she is experiencing today.



Nyirahabimana poses by her hybrid cow bought from the proceeds of sweet potato farming funded by SUSTAIN Project.

Beatrice lives in Rulindo District, with her four children of which one is adopted. Upon her husband’s death in the 1994 Genocide she has since, been forced to double her efforts.

She says: “We started as a cooperative society. We were the first to switch from traditional varieties to these high yielding and nutritious varieties. In the first season, we doubled the yield, and in the second season, we almost tripled it. We started making profits.”

“In addition, I would make 30,000 Rwf (\$41) and the minimum per month wouldn’t go below 100,000 Rwf (\$137). This is an amazing income for a woman like me who has never been to school,” she adds.

Beatrice joined up with her neighbours and started processing OFSP into mandazi (doughnuts), bread, queen cakes, and biscuits, chips etc. “Those who trained us to grow OFSP taught us how to make all these value-added products.

In partnership with district authorities, these donors erected a market for us. We are eager to

use it to our commodities to tourists travelling to or from the Northern region,” she says enthusiastically.

Slowly, Beatrice’s home has started reflecting the fruits of her efforts. With the money she collects from the sale of the vitamin A rich OFSP, she was able to buy small livestock, which she sold off until she had enough money to purchase hybrid cows. Now that she has some assured income, she feels hopeful that she’ll be able to pay fees for her children until they complete their university education, so that they may take care of themselves in future.

Today, Beatrice is considered a role model in her village - a woman who succeeded to lift herself



from abject poverty using OFSP. In a light-hearted tone, Nyirahabimana says: “I’m now a visionary woman in my village. I have succeeded in installing electricity in my house. I light up my sitting room by simply touching the wall.” Her sights are set on even greater developments and she says nothing is impossible with courage and determination.



A planning meeting with implementing partners.

COLLECTING AND HARMONIZING DATA AS A WAY OF IMPROVING PLANNING

By Olivia Tussiime

Collection and harmonization of data entails gathering and measuring of information about the different goals that have been set. It enables the evaluation of the work being done and collection of quality evidence. Data collection is extremely essential in maintaining the integrity of research. Thus the International Potato Center, Rwanda, being a research based organization, ensures collection of quality data through its monitoring and evaluation department. The department tracks the achievement of set goals through assessing the how different projects are delivering their activities, with a goal of improving current and future management of outputs, outcomes and impact of the organization's work.

Francine Uwera one of the monitoring and evaluation officers says, "we continuously do monitoring work in this organization. It helps us, the managers, partners and every one working with the

organization to meet the expectations in line with the plans of the project. We do evaluations at certain periods, sometimes at the end of a specific project, to see if we met the success indicators of the project. Because most of the work is done by implementing partners, it's essential to keep track of what they are doing to contribute to the achievement of the project goals."



Enumerator Interviewing one of CIP's beneficiaries.

INCREASING FARMER'S INCOME THROUGH OFSP VALUE ADDITION...

By Olivia Tussiime



Growing sweet potato for nutritional benefits is not reason enough for a farmer to wake up in the wee hours just to plant what to put in his stomach, not generating any income for him. This saw to CIPs initiating of value chains to support that farmer's benefit from OFSP both as a domestic crop and a cash crop.

This food that is looked to as unbeneficial for many, CIP tends to make it beneficial through sharing its ideas with implementing partners showing them that farmers can get much more from sweet potato if they are used as raw materials to process other cash consumable products that include bread,

cakes, biscuits of which have recently been manufactured from wheat. Thus the introduction of value chains to enable its beneficial and farmers processing OFSP products to be able to improve their lives through selling them.

Believing that this products on market, when purchased will improve the nutritional aspect of the consumer but also bring a financial smile in a farmer's life. CIP together with the farmers take on a large task of marketing this products through developing of new marketing plans, market price data collection, selling the OFSP products on the roadside markets, participating in exhibitions, attending Agri shows, to the establishment of OFSP markets in Rulindo and Gakenke district commonly known as sweet potato hubs, which has given light to the existence of OFSP goods.



Working hand in hand; CIP with its implementing partners and the farmer growers group, have widely opened their doors to the farmers and beneficiaries to see to it that lives are improved as all together they continuously share the data collected on the market, tackle the challenges encountered, and carry out evaluation and monitoring of their work to ensure transparency and trust of which many farmers bear witness of this project that has been a blessing in their lives, as of today it caters for their lives desires.

However despite all the hope, unavoidable challenges still occur in a bid of making this products a household name, as the mixture of OFSP raw materials with other famously used white sweet potato makes the products lose identification of which kind of sweet potato they are made from, as for Tuesdays farmers attend the market day in Gasiza, leaving the market empty. However high hope is still held that for the future to come OFSP products will be desired snacks and eatables of all households that will come to know their value and benefit in their lives.

USING TECHNOLOGY TO EFFECTIVELY MEASURE RESULTS

By Olivia Tussiime

To effectively measure results, the International Potato Center (CIP) Rwanda team, decided to use technology and digitize its monitoring and evaluation work. The team was assisted by Luka wanjohi and Temesgen Bocher, from CIP Kenya. The two trained staff on monitoring and evaluation and data collection using Open Data Kit (ODK), after which the staff went on a field trip to test their new skills.

As they set out for their trip, staff had some unanswered questions, such as: “will the farmers be able to provide all the required information on this form?” It was a question that would be answered in due time. With a lot of excitement, the staff divided themselves into six teams and armed with their tablets, they interviewed selected farmers and entered the data into their tablets.

A lot was learned from this first experience.



CIP's valentine interviewing a farmer During the field trip visit.

Farmers completely opened up on all the information that the interviewers needed. This was an open expression of the high confidence that the Rwanda team had built with its beneficiaries. It was also the answer to the staff's question. The farmers were ready and able to answer the questions on the data collection form.

During the trip, farmers committed cooperate whenever called upon for information, and the team was delighted with the new modules of information digitization. They are convinced that using mobile technology and ODK will make their work quicker and smarter.



CIP's Luka Wanjohi and Caroline Namara interviewing some of the farmers using the new ODK tablet.

50 plus products you can make using Orange Fleshed Sweetpotato

New Sweetpotato recipes for your Menu!



By Caroline Namara

We have a great opportunity to build value-added processing of orange-fleshed sweetpotato (OFSP) products. This will provide opportunity for greater profit margins for the growers and packers.

It has only been a few years since OFSP were introduced in Rwanda. OFSP varieties are high in Vitamin A and are an effective way of reducing vitamin A deficiency among children under five years of age who are the most at risk of this deficiency. In 2014, the International Potato Center (CIP) introduced a sweetpotato value chain project, where household beneficiaries were linked to the market through OFSP value addition activities to improve their incomes. Farmers started making handmade doughnuts (mandazi). Today, there's so much more being got out of OFSP that few of us could imagine. Different recipes are combined to get a final product which must include a portion of OFSP.

Recently farmers, vine multipliers and promoters were trained on the different products that can be made out of OFSP. One of the organizers, Madjaliwa Nzamwita, who works in the Rwanda Agricultural Board (RAB) on postharvest and nutrition program, which partners with CIP on OFSP, said that the main objectives are to fight against the perception that sweetpotato is a food for the poor. He said that many people are only used to boiling, roasting and frying them, but with value addition, they can do so much more.

Value addition was thought of as a solution to those who don't like to eat sweetpotatoes. It can be used to fortify locally available foods that

people love eating such as cassava, rice, beans among others. In this way, they can get the nutritional benefits.

The initial step is testing, where different people taste the products and give feedback. After getting feedback from all the phases of tasting, a recipe book is published so that anyone can be able to make these products by themselves. This will increase vitamin A intake hence alleviating vitamin A deficiency in the Rwanda. It's not only about nutrition but also commercial benefits to the sellers, who sell the products.

During the training, Umugwaneza Eminate, a promoter in Kamonyi said: "This is my very first time to see sweetpotatoes being combined with ingredients such as cassava flour and onions." She went on to say that what she has discovered from these trainings has helped improve her perception towards sweetpotatoes. Previously, she didn't like to eat sweetpotatoes, but she is already thinking of how she will start making chips out of them. "I also discovered that it's not expensive to make these products since you use less flour and all the other recipes are affordable," she added.

Mukankusi Ephigenie, a decentralized vine multiplier at Shogwe, Muhanga said: "Unlike other businesses, the main input is sweetpotatoes. All the other ingredients are not expensive. Things that require using machines or a lot of money are difficult for us farmers, but with the skills acquired here, I am going to try them out at home first, and am seeing a potential business out of this."

The people attending the training understand now that sweetpotato is not just a food for the poor. They know that OFSP is rich in vitamin A and can be used in different ways through value addition.

ORANGE FLESHED SWEETPOTATO FOR RWANDA

GIHINGUMUKUNGU

Country of origin: Rwanda
 β -carotene content: 11030 $\mu\text{g}/100\text{g}$ fwb
Root yields: 28.0 t/ha
Maturity period: 3-4 months
Dry matter content: 26-28%
Resistance: High to sweetpotato virus disease

NDAMIRABANA

Country of origin: Rwanda
 β -carotene content: 4100 $\mu\text{g}/100\text{g}$ fwb
Root yields: 20.0 t/ha
Maturity period: 4 months
Dry matter content: 31.1%
Resistance: High to sweetpotato virus diseases

VITA

Country of origin: Uganda
 β -carotene content: 11030 $\mu\text{g}/100\text{g}$ fwb
Root yields: 16.5 t/ha
Maturity period: 3-4 months
Dry matter content: 30.1%
Resistance: Moderate to Alternaria blight and high to sweetpotato virus disease

KABODE

Country of origin: Uganda
 β -carotene content: 11030 $\mu\text{g}/100\text{g}$ fwb
Root yields: 16.0 t/ha
Maturity period: 3-4 months
Dry matter: 30.5%
Resistance: Moderate to Alternaria blight and to sweetpotato virus disease

TERIMBERE

Country of origin: Rwanda
 β -carotene content: 10500 $\mu\text{g}/100\text{g}$ fwb
Root yields: 20.0 t/ha
Maturity period: 4 months
Dry matter content: 21.0%
Resistance: High to sweetpotato virus disease

CACEARPEDO

Country of origin: Peru
 β -carotene content: 1197.5 $\mu\text{g}/100\text{g}$ fwb
Root yields: 25.0t/ha
Maturity period: 4-5 months
Dry matter content: 36%
Resistance: Moderate to sweetpotato virus and High to Alternaria

Invest in Orange Fleshed Sweetpotato to
promote Health and Wealth in Rwanda

GIHINGUMUKUNGU

