



RESEARCH  
PROGRAM ON  
Roots, Tubers  
and Bananas



# Workshop report: PMCA Final Event

Reducing postharvest losses and promoting product differentiation  
in the cooking banana value chain

*Expanding Utilization of Roots, Tubers and Bananas  
and Reducing Their Postharvest Losses*

January 2017



A broad alliance of  
research-for-development  
stakeholders & partners



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[www.rtb.cgiar.org](http://www.rtb.cgiar.org)



**Participants at the Science day for cooking banana sub-project at Zebra hotel,  
Masaka-Uganda November 25-26, 2016**

*Expanding Utilization of Roots, Tubers and Bananas and Reducing Their Postharvest Losses (RTB-ENDURE) is a 3 year project (2014-2016) implemented by the CGIAR Research Program on Roots, Tubers and Bananas (RTB) with funding by the European Union and technical support of IFAD. <http://www.rtb.cgiar.org/endure>*

*The CGIAR Research Program on Roots, Tubers and Bananas (RTB) is a broad alliance led by the International Potato Center (CIP) jointly with Bioversity International, the International Center for Tropical Agriculture (CIAT), the International Institute for Tropical Agriculture (IITA), and CIRAD in collaboration with research and development partners. Our shared purpose is to tap the underutilized potential of root, tuber and banana crops for improving nutrition and food security, increasing incomes and fostering greater gender equity, especially among the world's poorest and most vulnerable populations.*



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## List of Acronyms

CAO	Chief Administrative Officer
CIP	International Potato Center
DAO	District Agricultural Officer
GAP	Good Agricultural Practices
GMP	Good Manufacturing Practices
IITA	International Institute for Tropical Agriculture
NARO	National Agriculture Research Organization
PH	Postharvest
PMCA	Participatory Market Chain Approach
RTB	CGIAR Research Programme on Roots, Tubers and Bananas
UFVEPA	Uganda Fruits and Vegetable Exporters and Producers Association
UIA	Uganda Investment Authority
UNBS	Uganda National Bureau of Standards



## Executive Summary

The 'Reducing Postharvest Losses and Promoting Product Differentiation in the Cooking Banana Value Chain' is a three year project (2014-2016) coordinated by Bioversity International and implemented in the districts of Rakai and Isingiro in southwestern Uganda. It is a sub-project under the larger 'Expanding Utilization of Roots, Tubers and Bananas and Reducing Their Postharvest Losses' (RTB-ENDURE) implemented by the CGIAR Research Program on Roots, Tubers and Bananas (RTB) with funding by the European Union and technical support of IFAD. The project implementation was based on four approaches: (1) Reduction of postharvest losses through promotion of varieties with intrinsic longer shelf-life and better postharvest handling practices; (2) Increase in market access and transparency in unit pricing through product differentiation and piloting the weight-based pricing system; (3) Promotion of sucker staggering for evening-out banana production across seasons; and (4) Linking the different actors along the value chain to benefit from emerging untapped market opportunities based on product differentiation.

As part of the project exit strategy, and in line with the Participatory Market Chain Approach (PMCA) adopted by the project, a two days project's final event was organized at Zebra hotel in Masaka on 25-26 November, 2016 whose objectives were: (1) To share research findings of the project activities with a wider audience and (2) To exhibit and launch the successful innovations to the market. The first day was used for presentations (for science day), while the second day was used for exhibitions and field visits.



## I. Introduction

### *Project background*

The 'Reducing Postharvest Losses and Promoting Product Differentiation in the Cooking Banana Value Chain' is a three year project (2014-2016) coordinated by Bioversity International and implemented in the districts of Rakai and Isingiro in southwestern Uganda. It is a sub-project under the larger 'Expanding Utilization of Roots, Tubers and Bananas and Reducing Their Postharvest Losses' (RTB-ENDURE) implemented by the CGIAR Research Program on Roots, Tubers and Bananas (RTB) with funding by the European Union and technical support of IFAD. The banana sub-project's goal is to contribute to increased food security and income for all actors in the cooking banana value chain. The project is promoting product differentiation in the cooking banana value chain (including promotion of cultivars with intrinsic longer shelf-life, protected bunches, protected clusters, unpeeled and peeled fingers) coupled with weight-based pricing to promote transparency and fairness in banana trade. The project intends to address five research questions: (1) Can smallholders even out supply across seasons through sucker staggering and/or use of diverse varieties?; (2) What current and future opportunities exist for product differentiation, and which capacities do value chain actors need to respond effectively?; (3) What is the cost-benefit ratio of different cooking banana presentation forms in response to consumers' preferences and their willingness to pay?; (4) What is the feasibility of upgrading options related to storage, transport and marketing to reduce PH losses?; and (5) Can value chain efficiency be increased through a weight-based pricing system, and what is needed to be accepted by producers, traders, and consumers?

The success of this project lied in fostering collaboration among the direct and indirect actors in the banana value chain to explore emerging opportunities during project implementation. Hence, the Participatory Market Chain Approach (PMCA) has been used to implement the project activities. PMCA provided a framework for project implementation following four approaches: (1) Reducing postharvest losses through promotion of varieties with intrinsic longer shelf-life and better postharvest handling practices; (2) Increasing market access and transparency in pricing through product differentiation and piloting the weight-based pricing system; (3) Promoting sucker staggering for evening out banana production across seasons; and (4) Linking the different actors along the value chain to benefit from emerging untapped market opportunities based on product differentiation. The project activities are conducted by a number of institutions, including Bioversity International, IITA, CIRAD, NARO, KAIKA Investco, Uganda Fruits and Vegetable Exporters and Producers Association (UFVEPA), and the Ssemwanga Group.

### *Implementation*

The project activities have been piloted in southwestern Uganda in the districts of Rakai and Isingiro. This region produces 68% of the cooking bananas in Uganda. The project activities started with baseline market study within the sites and involving traders in central Uganda. The market study revealed the postharvest losses and market opportunities within the banana value



chain. The project then laid out opportunities for reducing postharvest losses through promoting product differentiation in the cooking banana value chain, better storage, transport, and marketing, promotion of banana varieties that are highly demanded by the market and have intrinsic long shelf-life such as Kibuzi with the final aim to increase farmers' margins and the value adding along the chain. These were achieved through (1) promotion of affordable field-based planting materials multiplication techniques (decapitation, enhanced nutrition, macro-propagation using corms) and access models; (2) sucker staggering to even out production; (3) establishment of optimal harvest age and storage temperature for cooking banana cultivar Kibuzi; and (4) diversification of the units in which bananas are sold such as fingers (peeled and unpeeled) and clusters, which are amenable to the weight-based pricing system. The project has stimulated market activities through establishment of marketing committees at farm level, and training farmers in various market-related skills including pre- and post-harvest handling and group marketing. Farmers have been linked to both local and export markets, and the project has championed the integration of women in more profitable nodes of the cooking banana value chain.

### *Outputs*

- Increased farmers' access to cooking banana varieties with preferred quality attributes and intrinsic longer shelf life traits (such as Kibuzi, Nakitembe, Musakala, and Mbwazirume)
- Businesses based on multiplication of market demanded varieties have emerged
- Sucker staggering for evening out banana production across seasons has been piloted successfully in Isingiro
- Convenient presentation forms have been piloted
- A charcoal cooler to store peeled bananas for up to one week is available in the market
- Two farmer groups are supplying differentiated banana products collectively to the domestic markets
- Business plans (for seed multiplication and differentiated banana products) have been developed.

## **II. Workshop Objectives**

The objectives of the final event were:

1. To share research findings of the project activities with a wider audience
2. To exhibit and launch the successful innovations to the market.





### III. Methodology

Facilitators used a series of methods to foster interactions and learning during the sessions. The aim was to ensure that the participants appreciate the outputs of the banana sub-project.

#### a. Presentations

Facilitators used oral and poster presentations to provide insights on the outputs of the banana sub-project.

#### b. Question and answer (Q&A) in plenary sessions

The Q&A sessions were used to seek more clarifications on the way forward.

#### c. Field visits and exhibitions

The field visit was aimed at a clear understanding, appreciation and marketing of the project innovations. During the field visit, farmers demonstrated and displayed new innovations piloted and validated by the project.

### IV. Workshop and Exhibition Proceedings

#### *Day One (Science day)*

##### ***Session I: Opening remarks***

The chairperson of the opening session welcomed participants and the session commenced with the national anthem, Buganda anthem and a prayer. Participants included representatives from all nodes of the banana value chain including: banana farmers from Dwaniro in Rakai and Rugaga in Isingiro; representatives of banana traders from Kampala; representative of banana exporters association; processors and other private sector players (Excel Horticulture); Isingiro local government representatives including the district Chief Administrative Officer (CAO); representatives of Rakai district local government; NARO Kawanda; a team from Bioversity International-Uganda; CIP representatives including the RTB-ENDURE project coordinator Dr. Diego Naziri; media representatives; UIA and UNBS representatives; and members of the banana multi-stakeholders platform.

##### **Communication from Bioversity International regional representative, Eldad Karamura**

He was much impressed by the presence of several actors in the banana value chain. He noted that this was a very important meeting that brought together researchers, policy makers in addition to all actors along the banana value chain. He emphasized the relevance of multi-stakeholder interventions that target the farmers up to the consumers and the policy makers. He also appreciated the support of various project partners including donors, the beneficiaries/farmers, researchers and the facilitators and urged the participants to network.

##### ***Highlights***



- The origin of bananas into Uganda was unclear; however, Kintu is said to have landed in Uganda with a cow and a banana
- Bananas were predominantly grown in central Uganda in the 1960s
- Bananas started to stream to the western region of Uganda in the 1970s
- Currently, bananas consumed in Uganda are predominantly from the western region
- However, there is low productivity due to soil mining and poor soil nutrition
- Ugandans know, use and love bananas more than any country in the world, but they have not exploited the opportunities in the value chain especially in the global context.
- There is a need for a thorough strategic plan for Ugandans to earn more from an enterprise they know best, bananas.
- As participants in the project, there is a need to take something out of the project to benefit society now and for posterity.

#### **Remarks from the Guest of honor, Mr. Donald Echwilu**

The Chief Administrative Officer for Isingiro district, Mr. Donald Echwilu, was the Guest of honor. He appreciated the various stakeholders in the project for taking a whole value chain approach. He also hinted on the food security situation in Isingiro as getting back to normal following food shortage that had hit the district. Considering the food shortage that was affecting Isingiro district partly because farmers had over-dependended on bananas for both food and income security, he emphasized the need for farmers to diversify crop enterprises to increase household resilience in the event of a natural shock such as the prolonged drought which was affecting farmers.

#### ***Highlights***

- Farmers should diversify crop enterprise considering climate change. Due to the drought in Isingiro, some of the farmers are starving because they didn't diversify their crop production. He appealed to the stakeholders to advocate for crop diversification especially if the project gets an extension
- He noted that beautiful structures have been built in Isingiro as a result of farmers being actively involved in commercial production of banana. This, he emphasized, is an indicator of improved livelihoods
- There is need to reduce postharvest losses in commodity value chains
- He noted that about 60% of the banana transported to the far markets was wasted
- Bananas being considered a preserve of mostly the Bantu people is unrealistic. Bananas can thrive in most regions in the country including eastern Uganda
- Non-Bantu need to change their mindset on bananas since it is a major cash crop so that they can also benefit from the lucrative market



- Banana industry is still affected by lack of standards
- There is need for clean planting material to reduce disease incidences in bananas especially BXW
- Emphasis should also be put on value addition whereby bananas are processed into juice, wine, flour, baked into cakes, etc.
- There is need to address the issue of water scarcity so as to enable farmers to produce all-year round
- Emphasis should also be placed on building the capacity of smallholder farmers.

### **Communication from the RTB-ENDURE project coordinator, Diego Naziri**

The RTB-ENDURE project coordinator presented an outline of the project background which focused on reduction of postharvest losses for four crops including: cassava, bananas, sweet potatoes and Irish potatoes. About 400 million people depend on the roots tubers and bananas (RTBs) globally. In Uganda, RTBs have a large presence and many livelihoods are dependent on them. The rationale for RTB-ENDURE fell on the backdrop of the natural attributes of RTBs such as bulkiness, high perishability, poor postharvest handling, lack of processing and storage facilities and persistence of limited value addition which generally leads to high postharvest losses in bananas, cassava, sweet and Irish potatoes. It was also observed that the crops are largely grown by subsistence farmers who need support to help enhance postharvest management practices with focus on creating linkages between the farmers and the market.

The project's goal was to improve food availability and income generation through better postharvest management. The project success was hinged on creating an enabling environment, capacity building and multi-stakeholder dialogue to generate innovations through the Participatory Market Chain Approach (PMCA). Implementing agencies included CGIAR centers – CIP, IITA, CIAT and Bioversity International in partnership with NARO, CIRAD, Universities and various private sector players. This broad partnership was deemed necessary to foster synergy and address the enormous postharvest challenges in RTBs. Participants were referred to [www.cgiar.org/endure](http://www.cgiar.org/endure) for details on the project design and project areas. Appreciation was given to the funders and all the stakeholders that were part of the project.

### **Presentation by team leader, RTB-ENDURE banana sub-project, Enoch Kikulwe**

The team leader gave an overview of the RTB-ENDURE sub-project and the objective of the one day workshop. He further emphasized that the aim of the project was to reduce postharvest losses and promote product differentiation. It was also observed that about 60% of bananas are used for food, 35% for income and 5% for other purposes. Significant postharvest losses existed and required interventions including through multiplication of clean planting materials and enhanced market access.

#### ***Highlights***

- Postharvest losses in bananas were high



- Kibuzi, Nakitembe, Mbwazirume and Musakala are the most preferred banana varieties
- Kibuzi is the most preferred for export because of its intrinsic longer shelf life
- Shift from selling bunches to selling clusters and fingers can represent a viable and profitable option for farmers
- PH losses can be substantially reduced through PMCA bringing together and fostering dialogue among different value chain actors, gender integration, deep understanding of the economic viability of the different options and streamlined communication along the value chain.

## **Session II: Presentations and discussions**

### **Study 1: Banana susceptibility to damage, Kephaz Nowakunda**

Dr. Nowakunda observed that bananas are a significant income earner for households in central and western Uganda with some households reported to be earning over UGX 10 million per month. However postharvest losses were still high partly due to absence of planned production. Research by NARO was done to answer three key questions;

- (1) At what temperature should retailers store cooking bananas?
- (2) How can the shelf life of peeled bananas be extended?
- (3) What is the best harvest age for cooking bananas?

#### **Research findings**

- The best harvest age for cooking bananas is 135-145 days
- At temperatures of 12-18 °C, peeled bananas can last for up to 5 days

#### **Key highlights**

- The market is dynamic and there are constantly changing dynamics in the market (different lifestyles, smaller household sizes)
- The cooking banana value chain must respond to the changing trends in the market
- There is increasing demand due to population growth and rapid urbanization
- The key challenge in the supply chain is in packaging and transportation that are not compatible with the changing consumer needs
- Production is unplanned
- The production and marketing systems are not well organized and this results into high losses, especially during peak season, and low farm-gate prices
- Farmers are not responding to changes such as long periods of drought



- There is need to shift from retailing of bunches to fingers
- There is need to produce for the market.

### Success stories 1



Supplier: Nabigaaga Annet

Ms Nabigaaga informed the audience that Musakala, Kibuzi and Nakitembe were the most demanded cooking bananas. She has adopted a streamlined process in selecting bananas for the market, sorting, weighing, packaging and appropriate transportation.

She earns about UGX 30,000 from a bunch compared to UGX 7,000 – 15,000 under the traditional ways.

### Success stories 2



Bugolobi banana retailer:  
Ms. Margaret Nalujja

Ms. Nalujja was supported with a charcoal cooler which, according to her experience, extends the shelf life of peeled bananas for up to 7 days. She observed that customers were pleased with her products. Many other banana retailers have shown interest in getting a charcoal cooler.

### *Study 2: Access to planting materials for market oriented cooking bananas, Kephas Nowakunda*

Farmers majorly obtain planting materials from own and neighbors banana field. As such, controlling diseases is still a challenge. The RTB-ENDURE project helped to tackle the problem of limited access to safe planting materials by training farmers on disease control and local production of clean material. The intervention involved establishment of mother gardens hosted by group members and dissemination through two approaches – the share of planting material within the group and commercial sales to the wider community.

### Success story 3



Ms Nabukenya acknowledged that she was trained on several techniques for multiplying clean banana planting materials including: macro-propagation, decapitation and the chamber based approach.



Ms Nabukenya	She observed that using the chamber approach, they produce 6,000 suckers every three months and generate an income of about UGX 4 million.
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*Study 3: Commercial viability of different methods for production of clean banana planting materials, Asha Nalunga*

This presentation aimed at comparing the benefits and costs of the corm method, decapitation method and enhanced nutrition method. Each plantlet was sold at UGX 1,000 and benefits varied with level of production. Costs varied by method due to differences in materials and land requirement. The results of the cost-benefit analyses are presented in the table below.

**Key findings**

	<b>Corm method (Rakai)</b>	<b>Corm method (Isingiro)</b>	<b>Decapitation</b>	<b>Enhanced nutrition</b>
Period (years)	2	2	2	2
Present value of costs	1,723,318	1,879,384	2,763,690	1,958,969
Present value of benefits	4,877,100	4,877,100	6,242,688	4,161,792
<b>Benefit-Cost Ratio (BCR)</b>	<b>2.83</b>	<b>2.60</b>	<b>2.26</b>	<b>2.12</b>

**Conclusion**

Based on BCR evaluated over a 2-year period, the corm method came out as the best method for commercial production of clean planting materials.

*Study 4: Gender integration in the cooking banana value chain, Susan Ajambo*

The study was done in the context of banana farmers in Dwaniro, Rakai district.

**Key highlights**

- Women are dominant in retail while men are mostly in wholesale
- Among all value chain actors, wholesalers benefit most in terms of margins
- There is very limited access to market information by market players
- Women and youth have benefited from the chamber technology due to the limited land required



- Macro propagation/corm method is a gender responsive technology.

#### *Study 5: Opportunities in the banana value chain, Enoch Kikulwe*

Generally, bananas are now a commercial crop to farmers with about 35% of the farm produce sold to the market. In Uganda, commercial potential is minimally exploited. There is limited agribusiness development in the sub-sector.

#### **Key highlights**

- Opportunities for people to earn income exist right from seed production to retailing of differentiated forms and processed banana products
- The annual demand for planting materials alone is estimated at 2 million plantlets in Uganda
- Farmers can also increase output and earn more by improving soil fertility through fertilizer application. This has a potential of raising annual productivity from the current 20mt/ha to 70mt/ha.

#### *The role of the Uganda Investment Authority (UIA), Ms Yvonne Munabi*

UIA is mainly mandated with attracting both domestic and foreign investors.

#### **Key highlights**

- UIA registers investors
- UIA also trains entrepreneurs on various business aspects
- Additionally, UIA plays an advocacy role for organized persons
- As local farmers are financially constrained, there is need for collective action to attract attention and support from government.

#### *Can small scale farmers access markets? The role of UFVEPA*

The exporters association has a membership of 55 established companies. The association through its members supports small-scale farmers in accessing both local and export markets. However, the major challenge is ensuring safety and compliance with standards. In the course of project implementation, farmers were trained on negotiation, branding, quality aspects, market information and intelligence, and market linkages were facilitated.

#### **Key highlights**

- Farmers need to recognize the importance of consistency in quality and quantities
- Farmers need to also know safety requirements



- Farmers need to improve packaging and branding
- Farmers know banana types demanded in the market
- Two farmer groups have been linked to export markets
- Market committees have been formed
- Value chain actors including farmers sell differentiated products
- Farmers need to adopt GAPs and GMPs, cultivate trust, be consistent in quality and required quantities, and importantly keep & manage records well.

#### ***Next steps/Way forward***

- Farmers should grow bananas that are demanded by consumers/ market
- Other than climate and gender focus, banana management must also recognize phyto-sanitary aspects
- Farmers should embrace the banana cooperative union, UBCU, for enhanced lobbying
- All stakeholders need to play their part: researchers, extension, market players and processors.

### ***Day Two (Farmers exhibitions)***

#### ***Opening***

The day was opened with the National anthem, Buganda anthem, and a prayer. These were followed by welcoming remarks from the LC I, the area LC III and the chairperson of Bakyala Twekulakulanye Farmers group.

#### ***Observations from the MC, Yusuf Lubega (DAO Rakai)***

- Farmers have a market
- Farmers are producing clean planting materials
- Farmers are selling bananas in kilograms
- Farmers have adopted GAPs
- Farmers will continue working together
- The seed multiplication techniques will be promoted and disseminated in other sub-counties in the district.





### ***Drama act by members of Bakyala kwekulakulanya Farmers group***

#### ***Key message***

- Due to cultural and/or societal construct of women's roles in the household and community, they face constraints in accessing extension services while men are usually reluctant to access the same. However, if given opportunity, access to extension services on banana can improve production practices and benefit the household and benefits can further be enhanced through collective action.



***Drama group performing***

### ***Communication from the RTB-ENDURE project coordinator, Dr. Diego Naziri***

The intervention was translated in local language by Enoch Kikulwe.

#### ***Highlights***

- The project coordinator was impressed with what the farmers had learnt and the technologies adopted
- He encouraged farmers to continue growing market-demand bananas
- He was also delighted for the market linkage that had been created
- He implored farmers to continue working together to resolve the challenges associated with bananas.

### ***Communication from the gender experts, Sarah Mayanja & Susan Ajambo***

#### ***Highlights***



- It was emphasized that market opportunities exist and value chain actors must be linked to exploit the opportunities.
- Farmers need to wake up to the call of value addition to farm produce and deliver products in forms that can generate more income to the households

### ***The quest for a Banana Cooperative Union, Asaph Mugizi***

#### ***Highlights***

- Farmers in Rakai district were encouraged to form primary cooperatives and later registered them under the banana cooperative union that was being formalized. In the current state, the cooperative union has an interim executive which was handling all the registration procedures. The purpose of the union was to bring banana stakeholders together and allow collective lobbying.

### ***Cooperative officer Rakai district, Mr. Jackson Matovu***

#### ***Highlight***

- The cooperative officer requested for development partners to expand their support to the entire parishes of the district. He also pointed out that there were several cooperatives that were currently registered and existing however, many were growing bananas traditionally i.e., growing any banana without consideration of which types/varieties are demanded by the market.

### ***CAO Isingiro, Mr. Donald Esiru***

#### ***Highlights***

- It was evident that bananas have empowered several households in central and western Uganda
- Uganda's imports are greater than exports and bananas can add to the basket of exports to increase the country's foreign earnings
- The research on banana maturity age and storage has implications on a farmer's bargaining position
- The CAO was also impressed by farmers who had adopted sale of bananas by weight
- Farmers were also encouraged to form cooperatives.



### **Tour of exhibits**

- 1) The LC V officially opened the micro-propagation chamber owned by the Bakyala Kwekulakulanye farmers group constructed with support from Bioversity International. Farmers demonstrated how the process of generating plantlets from corm is done, from healthy corm selection through final potting of plantlets that are eventually sold. The main challenge faced by the farmers' group is limited access to water for regular watering of the growing plantlets.
- 2) The export products: The farmer/trader explained the process of selection of cooking banana bunches for export, the weighing, packing and transportation. The bananas are prepared based on orders: 10 to 20 Kg are packed in pre-labelled boxes and each Kg is sold at UGX 1,500. One good bunch can generate about 30Kg which yields 3 boxes of 10Kg each. For each box, an extra 0.5Kg is added to cater for damages during transit and the weight of the boxes. The banana consignment is often accompanied by other primary commodities such as pepper, chili, ntula, among others. The orders are given days in advance and it takes about 10hours to finish a consignment on the farm and deliver to Kampala where a second round of sorting is done due to damage that occurs during transit. The cost of transport is often borne by the exporter and at times there is cost sharing depending on prior negotiations. Transport cost ranges between UGX 400,000 to 500,000 per consignment. The losses during transit are for the exporter not the farmer. In case of export, it takes about 18 hours for the bananas to leave the country from the time of harvest. Orders range from 50 to 200 boxes, i.e. 500Kg to 2,000Kg. The major challenge relates to damages and delays due to poor roads especially during the rainy season.
- 3) The charcoal fridge technology: The fridge was designed to extend the shelf life of peeled bananas. The fridge can extend the shelf life of peeled bananas for up to seven days. The fridge can store about 50 to 80 Kg of peeled bananas. Fabrication of the fridge costs about UGX 400,000.

### **LC V representative (Guest of honour)**

#### **Highlights**

- The LC V was impressed by what the project had done for banana farmers in Dwaniro and encouraged women to continue with the good work
- The district will contribute further support to the women's group
- The district will buy farmers' plantlets for dissemination to other farmers
- The district will allocate UGX 7 million (USD 2,000) from the women's fund to Bakyala Kwekulakulanye farmers group
- "People should work hard under the government they do not like such that the government they like finds them in a better position"
- "Prepare the child instead of preparing for the child".



**Dep. RDC Rakai, Mr. Godfrey Byetegereize**

**Highlights**

- Appreciation of the donors and project team was resounded
- Farmers were encouraged to discipline and encourage the youth and young children to join farming
- Project implementers and farmers were also implored to always do things that are sustainable
- The community of Dwaniro and farmers at large should take farming as a business
- Farmers must also be conscious of household food security as they pursue income enterprise.
- The function was closed at 13:50 hours.



## ANNEXES

### Annex 1. Workshop Program

#### Science day program: 25th November

Time	Activity	Person in charge
0700 – 1000	Check in of participants at the hotel	Esther and Ambrose
	Registration	
1000 – 1100	Break	Hotel
	Session 1	D. Talengera
1100 – 1120	Opening remarks	Eldad Karamura
1120 - 1140	Presentation: Overview of the RTB ENDURE project	Diego Naziri
	Objectives and structure of the meeting	Enoch Kikulwe
1140 – 1200	The cooking banana value chain: Challenges, opportunities (Include PMCA approaches)	Enoch and Sarah Mayanja
1200 – 1220	Remarks from the Chief guest	Guest of honour
	Session II	W. Tinzaara
1220 – 13:15	Increasing access to planting materials of market demanded banana varieties	Kephas Nowakunda, Michael
	Banana presentation forms less susceptible to damage, amenable to weight-based pricing	Kephas, James, Michael and Vicent
13:15-13:30	Success stories	Nabukenya group, Ms. Katongore, Nalujja and Ms Nabigaaga
13:30- 14:30	Lunch	Hotel
	Session III	Tush
1430-14:45	Cooking banana trade: Can small holder farmers' access organised markets	Hasifah/Eliot/Susan/Enoch
14:45-15:00	Success stories	Kamya/Faisal group, Nalujja and Ms Nabigaaga
15:00 – 15:15	The banana value chain and gender: Lessons learnt	Susan
15:15-15:30	Success story	Ms Nabukenya
15:30-16:00	Break	
16:00 – 16:20	Emerging banana markets: How are the value chain	Sarah, Enoch, and Asha



	actors responding?	
16:20 – 17:00	General discussions and next steps	
17:00 – 17:20	Presentation of open day program	
17:20 - 17:30	Closing remarks	Director, NARL

***Exhibition program: 26th November***

<b>Time</b>	<b>Activity</b>	<b>Person in charge</b>
0800 - 0900	Arrival of guests and registration	
0900 - 0915	Prayer	
	Anthems (National, EA and Buganda)	
	Welcome remarks from the host group representative	Nabukenya Maria
	Remarks from LC1 chairperson	LC1 Chairperson
	Opening remarks by the Chief guest	Hon. S. Kinyamatama
0915 - 0920	Welcome remarks from the DAO	Yusuf Lubega
0920 - 1020	Share of business opportunities in cooking banana value chain	Sarah Mayanja
1020 - 1120	Visit to host farmers and tour of exhibits	Enoch Lwabulanga and host group
1120 - 1130	Communication from the project leader	Enoch Kikulwe
1200 - 1210	Communication from LC 5 –Rakai	Mr. Benon Mugabi
1210 - 1230	Closing remarks from the RDC-Rakai	Mr. Charles Mubiru
1230	Lunch & departure	

***Annex 2. List of Participants***

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***Annex 3. Pictures of the exhibition and field tour***

