

# Big Picnic

## TOORO BOTANICAL GARDENS SCIENTIFIC CAFÉ CASE STUDY 3

**Date:** 17<sup>th</sup>-May-2018

**Venue:** Mr. Edson Businges in Kiyega Kibasi parish

**Topic:** “food crop sustainability”

### **Description of activity;**

The scientific café meeting involved the local council one executive, two secondary school teachers, three (3) TBG staff and thirty (30) farmers of small households

### **Approach:**

### **Main purpose of the activity.**

The purpose of the activity was to share information about food crops sustainability amongst farmers, suggest new innovations on how they can increase food crop production and availability and recognize that it is a role for everyone in their community to be an Ambassadors of food.

Information sharing in this case was to make farmers aware of different food crops that are neglected, identify variety of nutritious foods, help them balance home meals and come up with responsible research and innovations that would help address food security issues.

### **Summary of the activity:**

The scientific café meeting was organised in Kiyega Kibasi parish at Mr edson Businges' home, where approximately 30 farmers from different villages gathered. The topic was “**food crop sustainability**” as a core of addressing food security related issues in the region. The topic of food crop sustainability as one of the core objectives of TBG in the Big picnic project to minimize food security issues in the Uganda was developed by a number of famers and team from TBG given their experiences gained from the previous number of meetings and workshops held on food wastage minimization, productivity, and accessibility.

During our interaction with the farmers, different Innovations in agriculture that promote food crop sustainability were suggested. ***These included, Kitchen gardens, Sun drying, better crop identification suiting the region and the soils, adopting***

***traditional storage methods like, use of sacks, granaries made of reeds, banana fibers, and clay pots.***



*Figure 1: Farmers raise up their hands each suggesting an innovation to increase crop production.*

### **Who was involved?**

Approximately 30 farmers of Kiyaga village ,Kibasi parish Hakibaale sub county ,kabarole District, the main speaker was Mr.Ntegge Ngonzibwoha who is the sub county agricultural extension officer, Chairman Local council one members who are farmers and a team from TBG who were Alislam Said Musa ,Harriet and Richard.

### **What happened?**

Harriet gave an introduction of food security to the audience by definition and describing the pillars of food security under taken by TBG i.e. food increased production, food wastage minimization, availability, accessibility and utilization. This was intended to widen the farmers understanding about what was to be shared in the meeting since it was our first meeting with them. Objectives of the Big picnic project and the need for stake holder active involvement to address food security issues through possible research and innovations were shared.

Mr. Said presided over the discussion on topic of the activity ***food crop sustainability*** so as to fully involve farmers, this was done through face to face discussions between farmers and the facilitators, physical elaboration of the food crops.

After the meeting participants were taken to **Mr. Twesigomwe Goefry Food crop plantation** and we found that he had green pepper, rosemary plants, beans, maize and banana intercropped. He further said that this was the best way to have a variety of food crops on a small piece of land if they are to ensure food crop sustainability, this attracted other farmers attention and promised to transfer and practice the knowledge shared to their farms.

## Outcomes /what was achieved.

- The activity was successful and farmers appreciated the initiatives of bringing them together to discuss matters that concern their wellbeing and were motivated to discuss their experiences as regards food crop sustainability.
- Hands-on practical from the farms and physical observation encouraged most participants.
- -Documenting the different food crops that were suggested by participants.
- -Also, innovations on crop growing, harvest, storage and transportation were suggested, these included, intercropping, agro- forestry, early planting, food value addition, transportation containers.
- initiatives of bringing them together to discuss matters that concern their wellbeing and were motivated to discuss their experiences as regards food crop sustainability.
- -Documenting the different food crops that were suggested by participants.
- -Also, innovations on crop growing, harvest, storage and transportation were suggested, these included, intercropping, agro- forestry, early planting, food value addition, transportation containers. Farmers were helped on choosing food crops to cultivate which would promote food crop sustainability in the area.
- -Farmers greatly recommended cultivation of the following food crops for sustainability and also revive kitchen garden culture in their homes to address food **security issues as summarized in the table below:**

| Food crop      | Kitchen gardening crops     |
|----------------|-----------------------------|
| Cassava        | Amaranthus (Dodo)           |
| Millet         | Eteeke                      |
| Yams           | Enyamusiri                  |
| Maize          | Green pepper                |
| Banana         | Eggplants                   |
| Sweet potatoes | Tomatoes (tree tomatoes )   |
| Irish potatoes | Eyobyoy                     |
| Sorghum        | Biringanya                  |
|                | Obugooro                    |
|                | Black nightshade (Enswiiga) |

## What was the impact.

Farmers to appreciate the initiatives that aim at promoting food crop sustainability, to freely share their experiences and agreed to be food ambassadors' of promoting awareness about food crops that are sustainable and food security in the communities.

***Farmers shared different food crops in the area and gave descriptions as to why they value them as indicated in the table below:***

| Example of Food crop | Number of people who grow a particular crop. | Values /benefits attached to crops grown.   |
|----------------------|--|---|
| Sweet potatoes       | 20   | -Provides steady supply of food.<br>-It can be made into flour for future use.<br>-It lasts longer when dried.  |
| Irish potatoes       | 19   | -Grows faster in a period of only 2.5 months therefore all year round.<br>-Easy to prepare in terms of time.  |
| Cassava              | 15   | -Most parts are used for example the leaves are eaten as sauce called <b>Sombe</b> , tuber made into flour other products like porridge and can also be prepared and eaten as solid food.                                       |
| Yams                 | 30   | -can stay longer in the soil after harvesting without getting spoilt.<br>-young leaves are eaten as source called <b>Omuteene by the Batooro local communities</b> .<br>-Rich in carbohydrates hence help in body strengthening |
| Banana               | 32   | -provides food production all year round.<br>-It can be made into snacks for breakfast and other simple meals.<br>-The banana fruit tip can be made into sauce known as <b>Inkaanana</b>  |
| Maize                | 25   | -Can be made into different products, maize flour for posho, porridge, baking bread etc<br>-Feed for livestock in terms of fresh leaves, silage and maize brand.<br>-Mulch for plantations                                      |
| Millet               | 04   | -cultivated for porridge and food which is referred as <b>Obuuro</b> traditional staple food which was very much treasured by their ancestors and for every ritual.   |

|                           |    |   |
|---------------------------|----|---|
| Sorghum                   | 00 | -Not cultivated because it doesn't do well there because of soils   |
| Rice                      | 00 | -Not cultivated because the soils and the climate is not favourable.  |
| Beans                     | 30 | -Short growth period<br>-It is a staple source for every type of food<br>-Easy to prepare<br>-Rich in many essential nutrients<br>-Eaten as source in many forms( ferinda, madeko,cunculya and ebiserere )<br>-Lasts longer when dried. |
| Peas                      | 00 | -Not cultivated just bought from shops and markets for consumption  |
| Cabbages                  | 20 | -Easy to grow<br>-Lasts longer when sliced and dried<br>-Eaten as source and salad  |
| Onions                    | 00 | -Not cultivated just bought from shops and markets  |
| Tomatoes                  | 00 | -Rarely cultivated commonly bought from shops and markets and vendors buy from neighbouring areas that are known for tomato cultivation   |
| Eggplants                 | 30 | -spice and nice aroma for food<br>-can grow even under shed in plantations  |
| Amaranthus /dodo          | 30 | -Nutritious when steamed<br>-mostly grows naturally<br>-It provides source all year round<br>-Needs no maintenance  |
| Carrots                   | 02 | -Eaten as a salad<br>-short growth period   |
| Black nightshade/enswiiga | 32 | -very much nutritious<br>-mostly grows naturally  |
| Mentha /mint              | 07 | -commonly used as spice in many types of food mixtures known as <b>Katogo</b> and ground nut source   |
| Groundnut                 | 08 | -Nutritious and rich in proteins and fats<br>-Easy to prepare source<br>-It can be made into snacks   |
| Papaya                    | 04 | -Agro forestry tree even in banana plantations  |
| Avocadoes                 | 05 | -Agro forestry tree and nutritious in terms of vitamins<br>-It can make good source if mixed with fresh onions and tomatoes   |
| Pineapples                | 25 | -For making natural juice   |
| Pumpkins                  | 15 | -Helps expectant mothers<br>-leaves made nice source called <b>Ebisunsa</b>   |
| Mangoes                   | 30 | -For juice  |



|                     |    |                                    |
|---------------------|----|------------------------------------|
| Jack fruit          | 06 | -Nutritious and supplementary food |
| Beet root           | 00 | -Rarely cultivated                 |
| Coffee              | 22 | -Commercial purposes               |
| Eyobyo              | 12 | -Nutritious source                 |
| Sunflower(Amacande) | 05 | -Making snacks                     |
| Soya bean (choloko) | 04 | -Snacks and source                 |
| Entedigwa           | 03 | -source                            |



*Figure 2:Participants being introduced to the activity topic of crop sustainability.*



*Figure 3:Mr.Richard demonstrates the need to promote food crop sustainability by individuals.*



*Figure 4: A participant discussing the causes of negative attitudes towards neglecting some food crops like yams.*



*Figure 5: Participants pose for a photo after the science cafe meeting.*

## **Results /findings and observations**

Participants mentioned different food crops commonly cultivated in the area and gave reasons why they are value

Most Small house hold farmers in the area practiced intercropping where by the mentioned food crops were mixed to a combination of two or three in different plots. This was evidenced in many banana plantations around. Mr. Twesigomwe Goefry guided us around his plantation and we realized that he had green pepper, rosemary plants, beans, maize and banana intercropped. He further said that this was the best way to have a variety of food crops on a small piece of if they are to ensure food crop sustainability.





*Figure 6:An intercropped/mixed garden of Maize and Beans.*



*Figure 7:Garden of inter-cropped Cassava and Bannanas.*

**The farmers observed the following reasons as the leading causes of food insecurity in their area,**



- Lack of enough land for food crop cultivation
- Over exploitation of land leading to reduced crop yields
- Lack of knowledge to predict seasons as they lose a lot of food crops due to untimely planting
- High levels of infestation affecting their food crop gardens
- Concentration on cash crop growing neglecting food crops and they mentioned coffee as the commonly cultivated cash crop in the area

The farmers also described the following results of food insecurity in the area

- It has resulted into high levels of poverty amongst many members of the community
- It has resulted into high levels of immorality like sex abuse and theft
- It has resulted into increased levels of malnutrition

The farmers suggested the following solutions of food insecurity

- Increased cultivation of food crops to promote their out put
- Discourage the increased supply of genetically modified seeds since they contribute unsustainable food supply, that these seeds affect the native resistant seeds they used to cultivate
- Sensitization of the community about best agronomic practices
- Engaging the small house hold farmers on food crop planning and best timing of seasons

## **Conclusions:**

### **Observations and Challenges.**

- Food crops like millet, sorghum, rice, peas, onions tomatoes and carrots are neglected in this area.
- Participants were interested in modern agronomic practices mainly for the banana production for commercial purposes neglecting the idea of consumption.
- Participants were interactive and appreciated TBG initiatives of involving them in such projects since most NGOs concentrate in commercial production forgetting the grass root issues of human consumption behaviors and their lively hoods.
- Lack of enough land for food crop cultivation
- Over exploitation of land leading to reduced crop yields
- Lack of knowledge to predict seasons as they lose a lot of food crops due to untimely planting
- High levels of infestation affecting their food crop gardens

- Concentration on cash crop growing neglecting food crops and they mentioned coffee as the commonly cultivated cash crop in the area

## **Recommendations**

- Participants were asked to implement what was discussed in the meeting so as to create a difference in their way of life and address issues of food security in the region.
- Participants greatly recommended cultivation of the following food crops for issues of sustainability and also revive kitchen garden culture in their homes to address food security issues.
- More sensitization meetings in the villages especially for the youth who do not want to do farming and in love for white collar Jobs..
- Value addition to farmers foods that get spoilt during different chains in production.
- Provide better storage materials rather than theirs only which seem to spoil the food within a short period of time approximately 1-2months after harvesting.
- Education about modern food values because from our observation, some families lack information on food values.
- Improve on transport facilities such as roads, motor vehicles and other means of transport for easy accessibility to the market.
- Encourage farmers to observe and keep their own seeds to plant during the upcoming season because we noted that farmers depend on seed donations from the Ugandan government, buying from markets which is expensive in most cases.
- Increased cultivation of food crops to promote their output
- Discourage the increased supply of genetically modified seeds since they contribute to unsustainable food supply, that these seeds affect the native resistant seeds they used to cultivate
- Sensitization of the community about best agronomic practices
- Engaging the small household farmers on food crop planning and best timing of seasons

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