

SAUTI YA WAKULIMA



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SAUTI YA WAKULIMA

This book contains a selection of photos and transcriptions of voice recordings made by a group of Tanzanian farmers, who took part in the *Sauti ya wakulima*¹ project. The photos, along with their corresponding texts, represent snapshots of daily life, as captured by the farmers using smartphones, and posted also by them to an open website. Between 2011 and 2016, a group of ten smallholder farmers living near the town of Bagamoyo, in the Coastal Region of Tanzania, participated in *Sauti ya wakulima*, by creating a collaborative, audiovisual documentation of their environment. The members of the group shared two available smartphones, and used them to take pictures and record voice messages that depicted and explained their common matters of concern. Despite the often unreliable internet connection available in their area, they regularly posted their photos and voice recordings to a shared and open website².

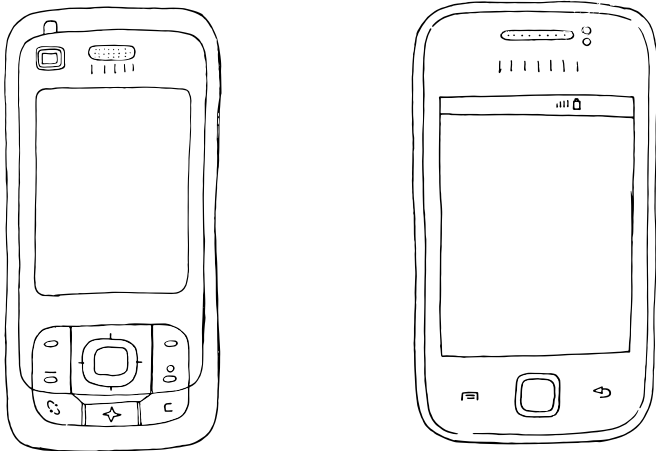
The original purpose of *Sauti ya wakulima* was to include a group of Tanzanian farmers in a transdisciplinary research project about climate change. The project, initiated by a group of environmental scientists and media artists, sought to map the effects of climate change as experienced by smallholder farmers. Events such as the increased incidence of pests and diseases on crops, possibly related to unprecedented weather conditions, as well as strategies for coping with droughts,

1. *The voice of the farmers* in Kiswahili.

2. <http://sautiyawakulima.net>

erratic rain patterns and other effects of climate change, were some of the different issues that the researchers expected farmers to document. The audiovisual evidence that farmers were invited to collect would serve as a qualitative body of data and information for further scientific investigation. Thus, in January 2011, a community of smallholder farmers around Bagamoyo was contacted by the researchers, who called and gathered its members in order to explain the project to them and seek their participation. At that time, smartphones were rare in Tanzania. However, farmers were not only familiar with basic mobile phones, but most of them actually owned at least one. Farmers had also heard about the internet, but had never experienced it directly. Nevertheless, they accepted the researchers' invitation to take part in the project, and immediately formed a group of ten participants selected from the broader community: five men and five women.

The ten participants of *Sauti ya wakulima* took turns to share the two smartphones provided by the team of researchers. By limiting the number of available smartphones, the researchers not only saved material resources, but also hoped to redefine and repurpose the devices as shared tools for collaborative documentation. Consequently, the ten farmers got together every week at the Chambezi research station to rotate the phones and, crucially, to browse the project's website and discuss the contents previously posted by others. However, after a few months into the project, the farmers reshaped the project itself, and turned it into a platform for mutual learning. Rather than merely sticking to the goal of documenting the effects of climate change (which they did), they expanded the scope and potential of the project by exchanging knowledge and information about agriculture with other farmers in their community and, eventually, also with those living in remote



areas. In this book, this process of appropriation is presented as it progressively unfolded throughout the project's duration. Many of the photos and texts included here correspond to interviews to fellow farmers done by the participants of *Sauti ya wakulima*. In some cases, the interviewed farmers lived in neighboring villages within the Bagamoyo District. However, as the project evolved, members of the group were able to travel and interview people living in far away places. They even documented their conversations with attendees of the Nane Nane show, the largest agricultural fair in Tanzania, celebrated each year in several locations across the country.

But why did the farmers of the *Sauti ya wakulima* group decide to transform the goals of the project? The words of Renalda Msaki, one of the participants, may clarify this question. When asked about her opinion regarding the project, Mrs. Renalda said: "farmers have a lot of things to say, but don't have the means where to say them." These words reveal that the group

had purposefully adopted and transformed *Sauti ya wakulima* in order to turn it into a sort of collective megaphone through which they could make their voices (and the voices of their fellow farmers) heard. Mrs. Renalda also said that, thanks to the meetings and discussions, the project had strengthened the bonds within the group. She expressed that the group had learned from farmers living in remote regions, and that she had realized that “computers and phones are not just fancy things for rich people in towns, since they can also be used by farmers to help them solve their problems.” In sum, it is possible to say that the group’s strategy of redefining the goals of *Sauti ya wakulima* made perfect sense. On one hand, the new goal resonated more directly with the needs and aspirations of the farmers. And, on the other, the act of freely exchanging and sharing local knowledge about agricultural practices has the actual potential of becoming an effective strategy for coping with the unpredictability of climate change, as well as other looming challenges. Finally, the fact that the participants of *Sauti ya wakulima* kept the project alive for five years only goes to show the extent to which they considered it to be useful and valuable.

Some of the most significant contents posted by the participants of *Sauti ya wakulima* are featured in the following pages. The contents are ordered chronologically, as a testimony of the participants’ evolving process of learning and sharing. It is interesting to see how, as time went by, the smartphones used by the farmers to document fragments of daily life became more technically advanced, resulting in a progressive improvement in the quality of the images. The photos and texts are classified according to four different tags or keywords. Up to two of the following tags are associated to each content:

→ **Climate change** is used to classify contents that explicitly address issues related to climate change.

→ **Advice** describes contents in which an advice is offered by one of the speakers.

→ **Challenge** is used to describe contents that highlight a specific challenge faced by farmers.

→ **Community** is the tag used in contents which represent different forms of socialization.



Last but not least, this book is first and foremost a homage to the participants of *Sauti ya wakulima*. By redefining the original goals of the research project, the participants highlighted the crucial role that weaving a strong social network by mutually exchanging knowledge can have in building resilience in complex and challenging times. And, through their collective documentation, the farmers also created a beautiful and valuable snapshot of their social and ecological environment, as seen through their own eyes and narrated by their own voices.



March 14th | 2011 ▲

This lady is from Bagamoyo, and her main activity is rice cultivation. We have visited her to find out how she is affected by climate change. I really do not know if she will be able to harvest anything when it rains, as it is too hot now. This is the reality of how rice farmers are affected by climate change.



March 15th | 2011 ▲

My name is Ally Issa Salum, I am one of the small growers of coconuts and cashew nuts, as well as an animal keeper from the Chambezi community. I have visited our fellow entrepreneur Mr. Kobelo from Mataya, Bagamoyo, to see how he runs his agriculture and animal keeping activities, and also to know how he overcomes the effects of climate change. He tells me that he has made good progress in watermelon production, since in only half an hectare he was able to harvest 1,500 fruits! He insists that other people should follow his example and start growing watermelons too, so that they can earn their living through this practice.

March 15th | 2011 ▼

This is Mr. Kobelo, and he is preparing his plot of tomato seedlings for the rainy season.

He is also growing a variety of crops at the same time, as a strategy to cope with climate change.





March 15th | 2011 ▲

Here we can see Mr. Kobelo again. Besides the crops that he grows, he also raises goats. He can compensate the negative effects of climate change on his agricultural production by selling the goats and earning enough income to run his daily life. He finds that this helps him, because he doesn't have to rely on crops alone.



March 19th | 2011 ▲

—

This is an 18 year-old boy. He is a hard working boy, and mainly involves himself in agricultural activities to earn income. I call upon all people including youths to carry out agricultural activities, as they can pay well if we put our efforts in them.



March 20th | 2011 ▲

—
I am in Mataya, and this is Mrs. Rajabu, a coconut grower. Due to the effects of climate change, she has experienced a decline in her yields. She told us that her trees had suffered from diseases, but not too much, although drought is certainly a problem.



April 8th | 2011 ▲

The farming season has started. As you can see, this is the right time to plant the pulse seeds. The voices that were recorded together with this photo are from the farmers who are participating in this activity.



April 20th | 2011 ▲

This plot belongs to one of the farmers from the Magore neighborhood. As you can see, he has planted pulses and maize in the same ridges and, if you look in the background, he also planted rice in the field next to this one. He is planting these crops because he is poor, but these plants will provide him with food, and hopefully money as well.



April 21st | 2011 ▲

Hello, I am in Buma. These pulses are ready for harvest, and you can see the kids picking up the leaves that will be eaten as vegetables. It is a good variety, as it can grow in only two and a half months, can you imagine? They were planted in February, and now they are flowering!

The farmer who owns these plants advises other farmers to come and get some seeds from him when they are dry.

I tried to look and see if I could find any pests, but I haven't seen any. I think that after the long period of rains they disappeared.

May 31st | 2011 ▼

I just came from visiting Mr. Mohamed Ally, who is growing pulses. Now I am with a woman who is growing local peas. These peas normally take about six months to mature. Now it's not yet June, but her plants are already giving fruits. I will ask for her name and she will tell us more about her activities.

- What is your name?

- Rehema Rajabu.



- Mrs. Rehema, I have been looking around in other farms, but so far I hadn't seen any peas. I can see that you have planted peas by themselves, without combining them with any other crop, while other farmers usually grow them on the edges of plots, and just a few of them. Can you tell us what motivated you to grow them without any other crops?
- They have grown well because I didn't mix them with other crops.
- Maybe that is not the only reason. Do you think you'll harvest more peas by planting them like this? Is it a known fact that peas grow well by themselves?
- It's obvious that peas are a good crop.
- Since you have planted about half an acre, how many sacks do you expect to harvest?
- About 2 sacks.
- With shells, fresh or dried? What kind of sacks are you talking about?
- Sacks of unpeeled peas.
- Are these peas for selling, or only used for food?
- For both food and business.
- Can you tell us something about climate change and how it is affecting you?
- The plants dried up because of the drought, but they sprouted again with the rains.

- Do you sell fresh or dried peas?
- Fresh ones.

- How much do you earn?
- I don't do accounting, I just sell them.

- Where do you find your market? In Chalinze, Dar or Bagamoyo?
- In the Bagamoyo market.

- Do you sell them in small measures or in sacks?
- In sacks of 25 kg.

- How much do you get from one sack?
- There is no fixed price, it's only based on how we agree with each other.

June 1st | 2011 ▼

My name is Ally Issa Salum, I am one of the small-scale farmers growing mixed crops. I am also a member of the Chambezi community from the Kilomo ward, Yombo division of the Bagamoyo district, in the Coastal region of Tanzania. I am responsible for taking pictures and starting some small conversations with other farmers, and later posting them to the Internet in order to share information. This includes learning about climate change as well as how others carry out their farming activities, such as farming techniques, or controlling pests and plant



diseases. Also to advertise our products and broaden our market. And, finally, through this medium we want to remind the agricultural officers to visit us often, because we need them.

I have visited one of the farmers who is a real model for those who grow maize. He is from the Kimeremeta neighborhood of the Mataya village. I am going to ask him his name.

- What is your name?

- Haeshi Shabani.

- I have learned something from you. Because Mataya is characterized by having sandy soils, most people prefer to grow cassava, especially during the rain seasons. Since the soil is always waterlogged, which technique did you use to get such nice looking maize?

- I planted them on ridges.

- Which variety of maize did you grow?

- Kito variety.

- Good. Have you faced any challenges when planting maize on ridges?

- Well, the biggest challenge I found were pests.

June 3rd | 2011 ►

This is a professional farmer. Since we walked from his house up to this point, we have seen only teak trees, you couldn't believe it! This place looks like the Njombe district, but it is actually still part of the Bagamoyo district. In another field, I can see that he has planted both teak and neem trees. I will ask him to tell us why did he opt for tree planting, and where did he get the knowledge from.

- Mr. Ali, please tell us how big is this area in terms of length and width.
- The length is 50 meters and the width is 3 meters.
- Actually, this area seems to be a road to your house. What motivated you to plant trees here, instead of looking for a different place? And how many trees do you have here?
- About 92 trees, 46 trees on each side. I was motivated to plant these trees here because I thought of the difficulties of planting them in a bigger field. By planting them here, I can easily do the gardening tasks every time I clean my land.



Well, it's a good thing to learn from this man, who can be found at the Magore neighborhood of Mataya village. If people from different places come here, they will find all sorts of good things. As you all know, teak trees are expensive, but this man grows them in a very simple way, this is unbelievable!



June 4th | 2011 ▲

This is a sunflower field. I am going to ask Mr. Ali Chinga what motivated him to plant this crop.

- Thanks Mr. Hamis. As you know, the agriculture officers use their own education to teach us how to plant a wide variety of crops. So I thought about doing my own research, and here you can see the results. In this field there are sunflowers, maize and beans, this is the result of my research. But I am not going to reply your question

now, I will do that only after harvesting. The only thing I can tell you now is that I see signs that tell me that I am going to get enough harvest from these sunflower plants. Moreover, a good thing is that sunflowers can be planted in the same field with maize without affecting the yields. As I told you before, when I went to Morogoro I saw that 5 liters of sunflower oil were sold for 18,000 Tanzanian shillings. This means that if we, the people from Bagamoyo, engage ourselves in this activity, we will have an additional cash crop.

- How did you manage to prepare and plant such a big field, can you tell us how much money did you invest?
- Yes, I have used some money, but money doesn't work by itself. The thing is that one needs to invest time and make follow-ups and this is what my family is doing to reach our goal.
- Have you used any pesticides in the sesame and sunflower?
- Not yet, but I am in the process of doing that.
- Are these sesame and sunflower plants being disturbed by other animals besides pests?
- Yes, there are some birds that eat sunflower seeds.



June 6th, 2011 ▲

Hello! I am with a lady who grows vegetables. However, this lady does not grow only vegetables, but also trees like oranges, mangoes and cashews. I can see that there is a crop which I am not familiar with, I will ask this lady to tell us what it is.

- What is your name?

- Imani Mloka

- Just beside you there is this kind of crop, can you tell us what it is?

- This is Rosella plant, it is considered to be a good plant since it helps to increase the production of blood in the human body.

- So how do you prepare it for use?
- You just pick up the flowers, dry them and store them in a dry place. When someone wants to use them, she can take some of the dry flowers, boil them in water and drink the liquid.
- Do you sometimes sell them to other people?
- Yes, I also sell them.
- Do you have a fixed price for them?
- No, I normally sell them in different amounts ranging from 400 to 1,000 Tanzanian shillings, depending on the buyer's needs.
- Can you tell us what other crops do you grow in this field?
- I also have rice, banana, amaranth and potato leaves.
- When did you start these activities?
- It has been twenty years now.
- Which crops sell at the highest price out of all the crops that you are growing?
- Everything has its own importance, and they were all supposed to sell at high prices, but the problem is that the buyers are not willing to pay well.

The Internet space is somehow small, so we cannot show everything at the same time, we will therefore show you the other crops later. We are now going to see the bananas. This lady can be found at the Chambezi neighborhood of Buma village, in the Kilomo ward, Yombo division of the Bagamoyo district in the Coastal Region of Tanzania. Whenever someone wants to see her, they can just find her at this village, close to the secondary school.



June 7th | 2011 ▲

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We are now at a chicken shed. This is a good shed, and all the people from Bagamoyo should learn from it. As we have seen, Mr. Jumanne has prepared very good sheds for both goats and chickens. Let's ask him why is he involved in this kind of activity.

- I would say that I get a number of advantages from this work, ranging from food for my family to income from selling animal products to other people.
- What is your advice for other people from your village, and also from Bagamoyo in general?



- I say that people should employ themselves in several different activities, such as growing vegetables or keeping animals.
- Did you hire any experts to build this shed?
- Not really, I just looked at some books and built it myself.
- How many rooms are supposed to be built in one shed, as a matter of principle?
- In principle, it depends on the number of goats you have. For example, the empty room you see is for the newborns. The mother will use that room to breastfeed the kid until it's able to live together with other goats.



August 4th | 2011 ▲

People from Bagamoyo are also showing their handcrafts. I have seen people buying some of these articles, and here is the owner. I am going to interview him.

- What is your name sir?

- My name is Damas Msoka.

- Mr. Damas Msoka, I can see that you are making crafts from a culture that belongs to the southern regions, can you please explain to us the origin of each products' raw materials?
- Some of these articles are made from blackwood, and some are made from coconut shells.
- It seems that people from Bagamoyo are carrying out so many activities: from farming and fishing to making handcrafts. Is there a school where people can learn all these things? Just in case other people are motivated and want to learn.
- We have a group that manufactures the pieces and sells them.
- Well, I think the main raw materials are trees which are found naturally in any place, what do you do to motivate other Tanzanians to take part in these activities? Do you have a school, or do the people have to learn on their own?
- We need to do this together, so that people can become motivated to stop wearing those foreign products and buy locally made jewelry instead.
- Where are you located?
- We are in Dunda county, in Bagamoyo.
- Thank you very much.



August 4th | 2011 ▲

People from Kinondoni are very creative. They have an agricultural system which is very useful for people living in cities. I am going to ask them how they got this idea.

- What is your name madam?

- My name is Lenaisha.

- Well, please tell us in detail why did you decide to practice this kind of agriculture.
- We have seen that in most cities people are living in tall buildings and, as time goes by, the land becomes scarce, meaning that these people will not have enough land for practicing agriculture. So we thought that by doing this, people will still be able to grow some vegetables in their houses, so that there can be enough supply of vegetables in the cities.
- Thank you very much. What is your advice to people living in cities?
- They should work hard, they have to look at these examples and practice, since agriculture is possible in cities, even in tall buildings. This type of agriculture does not require a lot of water, just a very small amount of water can be used to feed these plants grown in plastic bags.
- Thank you very much. These are things that need to be learned from Kinondoni. It is possible to have vegetables grown in plastic bags, it's amazing that they can even get tomatoes in only three months.



August 4th | 2011 ▲

These people come from the city, and they are practicing the kind of agriculture that you see here. This lady will explain in detail.

- What is your name?
- My name is Doreen Maro from the Ilala municipality in Kitunda County.
- Where did you get the knowledge to grow vegetables in such beautiful containers?

- Thank you very much, we got this knowledge from a training program offered by the municipality, with the aim of telling people that it is possible to practice agriculture in cities, and that even children can play a role in increasing the family's income through this particular practice.
- What is your advice to the people living in cities?
- I advice all people, including parents, to teach their kids how to contribute to the income of their family. This technique helps families to get fresh vegetables that can be cultivated at home. It also helps children to learn how to take care of a garden, and by doing this they also contribute to the household income.
- I wanted to ask you, how can other people find you in case they want to learn from you?
- They can find us in the Ilala district, in Morogoro. We are in the Mwalimu Julius Kambarage Nyerere grounds, and we are also teaching people in farmers' schools. We encourage people to grow vegetables together with flowers, since by doing this they can decorate their houses and produce vegetables at the same time. Thank you.

I think this is a good message from Ilala to the people living in cities: that they can also practice agriculture despite the fact that they are living there. Thank you very much.



August 4th | 2011 ▲

- Mr. Songola, I have seen some palms and coconuts, but I have no idea of what varieties they are. Can you tell us?
- Yes, these are local varieties of coconut. Our district officer advised us to plant these varieties because they can resist droughts and diseases. The leaves can be used to make brushes, which last longer compared to those

made with the leaves of modern coconuts. The wood from the trees can be used to make furniture. However, these varieties do not grow well in Dar es Salaam.

- Thank you very much. This man has explained very well why people should plant the local varieties of coconuts, and not the modern ones. I have also seen some other fruits like bananas, palm oil and other things that you are going to see on the Internet.



August 4th | 2011 ▲

- What is your name sir?
- My name is Nazareno Kisinini.
- Mr. Kisinini, I have seen some onions and a tank above it. What kind of farming technique is this?
- It's called drip irrigation, a farming technique that can help one carry out other activities while irrigation is taking place through drops.

- Where did you get this knowledge?
- We were trained by our experts from Ilala. These trainers go around different villages teaching people about modern farming techniques.
- Thank you very much, this is very nice. What is your advice to other Tanzanians?
- They should come to this exhibition, so that they can learn how modern farming is being practiced.

As you can see on the Internet, this tank is connected to tubes which run from one side to another. These exhibitions help farmers exchange their views and learn from each other. Thank you very much.



August 5th | 2011 ▲

I am with the people from the Handeni District in Tanga. I have seen a building here, but I do not know what it's for. I will talk to an expert, so that he can tell us something about it.

- What is your name sir?

- My name is Japhary Said.

- What is this?

- It's a local warehouse used to store grains, such as maize or sorghum, and other crops like cassava.

- Where did you get this knowledge?
- From my grandparents, and later it was enhanced by people from the Sokoine University of Agriculture.
- What do you advice Tanzanians?
- They should use this technology for storing their crops, because it protects them from pests throughout the year.
- What is your name again?
- My name is Japhary Said Masokola.
- Mr. Masokola, where can one find you in case people want to know more?
- They should come to the Handeni District in the Tanga Region, in a village known as Machaga-Turiani.
- Thank you very much, this is Handeni District. They not only grow crops, but also store them. As you can see, this building is made out of local materials. We still have time, so people should come to the Handeni building and see this warehouse, it is a good thing to learn.



August 5th | 2011 ▲

The people from Mvomero are not only farmers, but also potters. Here is a lady who made a cooker from clay.

- What is your name madam?

- My name is Janeth Kilenga.

- How did you make this clay cooker?

- I made it from wet clay soil.

- How long did it take you to make it?
- Two weeks.

- People are used to iron cookers, what are the qualities of this one as compared to the others?
- It is very efficient since one can use a very small amount of charcoal to heat the food.

- What is your message to other women?
- They should work hard to earn money and pay the school fees for their children.

- How much is one cooker?
- It is sold for 3,500 Tanzanian Shillings. We are selling them at a low price since we are still introducing them.

- Where can people find you?
- In Turiani, at Manyunga.

- Thank you, these are the things that people brought from Mvomero. I call upon all farmers to visit this place, they will see a lot of good things.



August 7th | 2011 ▲

—
Bagamoyo has some villages that produce different kinds of crops. As you can see in this picture, this lady entrepreneur is holding some of them, and she is going to tell us something about her products.

- What is your name madam?
- My name is Mwanahawa Adam Mfikilwa.

- Mrs. Mfikilwa, can you tell us what you have brought to this exhibition, particularly to this stand that belongs to the Bagamoyo District Council?
- What I can teach my fellow Tanzanians is that they should grow pineapples, since they can increase their income.
- What do you do, starting from farm preparation to the harvesting this crop?
- First we clear the land and then we plant the pineapples.
- Do pineapples grow in seasons?
- They are not seasonal, you can plant them any time and they will grow. They can tolerate dry conditions, and produce fruits during the rainy seasons.
- Were your pineapple seeds prepared by professionals?
- Yes, this variety is called Kabazona.
- Where did you get it?
- It was brought to us by some officers.
- How long does it take for a pineapple plant to produce fruits?
- It will depend on the height of the seedling you planted. For a seedling that was planted when it was 1 to 1.5 ft, it can take up to 18 months.

- How many seedlings can be planted in one acre?
- It depend on your preferences.
- How many seeds should I use in an acre if I want to get big pineapples like the one you are holding?
- I used 1,111 seeds.
- Well, and where do you sell your products? Do you sell them within or outside the country?
- For the time being, we are only selling them in the country.
- To whom do you sell them?
- The main market is in Dar es Salaam.
- I heard that there are some small buyers who come and buy the fruits from farmers.
- Yes they do, but they cannot buy all the fruits, so in most cases we sell them in Dar es Salaam, Moshi and Arusha.



August 7th | 2011 ▲

This lady is an artist from the Bagamoyo District.

- What is your name?

- My name is Cecilia Mweni.

- As we all know, these Nane Nane exhibitions are intended to introduce the different activities that farmers and craftspeople are carrying out. Can you tell us what you have brought?

- I am an artist, I make clothing, and also jewelry by using different types of beads and bones of cattle. I have come to show people my work and also to train those who would like to be like me.
- Well, it seems you are coming from Bagamoyo, an old town with a cultural tradition. Can you tell us where did you get this knowledge?
- I didn't learn, it was a gift from God. I would say I am a designer because once I think of making something and try to make it, people immediately like it.
- Well, that is good. If someone wants to learn from you, how can they find you?
- There's a large group of artists called Moshi Mix at Bagamoyo, near the court. Anyone who goes there will find me.
- Please advertise your business.
- My business is in beads, we weave hats and leather shoes which are decorated with beads. Come all and get good products made by women and youths who do not want to get involved with alcohol.
- Please tell people where they can find you in these grounds, in this exhibition.
- You are all welcome, we are in the stand that belongs to the Bagamoyo District Council. You will find me here with my colleague, making all sorts of stuff. Welcome.
- Thanks a lot madam.



August 31st | 2011 ▲

—

This is the pool where Mr. Ezekiel gets water for his vegetables. Protecting water sources is a good thing. As you can see, the trees around this pool help it store water, and this helps Mr. Ezekiel in coping with climate change.



October 6th | 2011 ▲

I have visited a pavilion where I met this woman, who is a professional in making beads and other things. She will tell us a little about her expertise.

- What is your name madam?

- My name is Sarah.

- Madam Sarah, when did you start with these activities?

- A long time ago.

- What do you think of this exhibition?
- It is good.

- Did you sell a lot of your products yesterday?
- Somehow.

- What have you prepared for Tanzanians?
- There are a lot of things, like beads to be worn on the head, hands and neck, earrings and many other things.

- Well, as I see this is a good activity, how do you plan to teach youths?
- I am planning to teach them what I am doing. I am doing this for the betterment of my kids and family in general.

- Where do you come from?
- Bagamoyo, from a village known as Kiwanga.

- Very good, can you tell me again what you are making?
- I am making beads that can be worn on head, neck and on hands, earrings and many other things.

- What can you tell Tanzanians to learn from you?
- They should do a lot of manual work, especially those who are unemployed.



October 7th | 2011 ▲

- What is your name sir?
- My name is Joseph.
- What is the name of your group?
- Muungano Group.
- Why have you decided to organize this group of five youths and work together? What is your goal?
- Our goal is to earn income, so that we can better run our daily lives. We formed this group so that we don't stay idle, as staying idle could lead to vice.

- Well, your melons look very good and the young people seem to be doing a good job. As you can see, this one is watering the plants, what kind of fertilizer do you use?
- When we were planting we used local fertilizers, but when the plants started growing we used industrial fertilizers.
- Where do you find a market for your products?
- The market exists everywhere, it's only when you have the products that you can realize the market.
- Do you allow other people to join your group?
- We allow other people to join if they wish so.
- Five of you were able to cultivate these two acres. If someone wants to learn something from you, where can they find the group's chairman?
- At the Mataya suburb.
- What can you tell other youths and the public in general?
- They should start growing melons, as they are among the crops that grow very easily, and if you put your efforts in it you can earn a lot of money.

Well, besides that, the chairman said that there are some fruiting watermelons somewhere in the farm and he wants us to feature them on the Internet. Let's go and see them.



October 7th | 2011 ▲

—
These are ground nuts. After removing the shell, the ground nuts are ready to eat. You can see them underneath the machine.



October 7th | 2011 ▲

- What is your name sir?

- My name is Mbaruku.

- Mr. Mbaruku, I can see you are doing something, what is it?

- This is a machine for removing ground nut shells.

- What is the capacity of this machine?

- This machine can remove the shells of three sacks of ground nuts per day.

- Did you make this machine yourself or did you buy it?
- I made it myself.

- So, do you mean that this is the fruit of your own creativity?
- Yes, it's my own creativity, which was inspired after facing the challenge of removing ground nut shells.

- How old is this machine?
- It's five years old.

- What are the materials used to make this machine?
- It's made from tree barks and tin from a drum.

- So, when you use the machine, all the shells drop to the ground together with the seeds, is it?
- Yes, they all mix together. But then we sift them and take the ground nuts to the market.



October 7th | 2011 ▲

—

This is a machine for removing ground nuts from their shells. What the operator does is to grind them in this machine, from which both the ground nuts and the shells will drop. Later, the ground nuts are sifted and packed into sacks, ready to be sold.



October 9th | 2011 ▲

I am very thankful that this lady has visited us, so that she can learn about watermelons from the Muungano group. She was highly motivated when she saw these youths producing such big watermelons. She is the mother of the group's sponsor, but she also wants to learn from them, so that she can practice their technique when she gets back home in Iringa.

- What is your name madam?

- My name is Anneth Mshenga.

- Why are you visiting this field? What do you want to learn?
- I want to learn how to cultivate these fruits, so that I can do it as well.
- Very good, I am going to explain it to you: once you get home and prepare your field, you have to look for a water source. You can use water from DAWASA, which will nevertheless be expensive, or you can look for underground water yourself. Then, you dig round holes with a diameter like that of a big tank, and with a depth of eight centimeters. The distance from one hole and one line to another should be between half a meter and one meter. Afterwards, fill the holes with five liters of manure. The type of manure can be from chicken or cow, if it's cow manure you have to mix it with soil and water the holes for three days, then soak the melon seeds one day before the planting day. When planting the seeds, you have to plant three seeds in one hole so that, in case two are dead, then at least one will survive. You should plant them at a depth that is equal to the length of your finger. After this, you have to wait for five days and then spray with pesticides.



October 9th | 2011 ▲

- What is this?

- It's an opener.

- How long does it take to make one or two hundred openers?

- One month.

- What is the name of your group?

- It is called Makonde group.

- When did it start?
- I don't know, because I joined after its founding. It had many people and some have left now, while others are in their farms working on their crafts.
- What is your name?
- My name is Mudy.
- Who is the chairman of the group?
- The chairman is under those shades there.
- Do you mean that all these people in this street belong to the same group?
- Yes, we are all members of this group.
- Why did you call you group Makonde?
- This is because what we are doing here was inherited from the Makonde tribe.
- Do you mean that this art came from Makonde?
- Yes, that's why, when someone visit this place, they call us Makonde. And we have to respond despite the fact that most of us are Zaramo people.
- Where do you come from?
- I am from Malulu in Kisarawe.
- When did you come here?
- In 2005, let's say at the end of 2004, as I started this work in early 2005, but I was not an expert. I learned from others.

October 17th | 2011 ▼

I am practicing agroforestry in this field. I have planted mango trees, coconut trees, cassava and pulses. They are all planted in rows.





27 Oktoba | 2011 ▲

On our way from Buma, me and my camerawoman Rehema Maganga met a farmer in Mataya whose name is Hamis Rajabu. He is growing coconuts. We find ourselves in his coconut nursery, so let's hear what he has to say as he is interviewed by Rehema.

- Dear farmer, what is your name?

- My name is Hamis Rajabu.

- When did you start your agricultural activities?

- I started in 1979, when I finished my studies.

- I can see that your main activity is cultivating coconuts, can you tell us how old are they?
- This is a local variety of coconut, it is known as African Tall. Once they grow up I do sell some of the seedlings and also plant some in my farm.
- How long does it take from the time you plant them until they start producing fruits?
- It takes three years, starting from the time I transplant them in the field.
- Why didn't you plant the modern varieties?
- Because they are easily destroyed by pests, and given the state of our soil it is a little difficult to grow them here.
- Where do you sell the harvested coconuts?
- I normally take them to the market in Bagamoyo, but sometimes I just wait for people to come and buy right from the farm.
- Do you have an open market?
- Yes, once I have picked them up I normally tell the buyer to come and get them.
- What is the price of one coconut?
- It ranges from 350 to 380 for one coconut, depending on the season.
- Thank you very much, what can you tell your fellow farmers from Mataya?
- We should join hands and form groups to produce local seedlings, as they are on high demand. The government should also assist us with materials to facilitate our work.



November 7th | 2011 ▲

Today on the seventh, I visited a cashew nut lab. In this place the sorting of cashew nuts is being done. I see a lady, she is working here. Let's talk to her so that she can tell us something about her work.

- What is your name madam?

- Kuruthumu Milao.

- I see you are doing something, what is it?

- These are cashew nuts.

- So, what are your main activities when you come here in the morning?
- My main activity is to weigh the cashew nuts brought from the farms, and put them into bags ready to be transported to Mtwara. In Mtwara, they remove the shells and weigh them again to get the real weight. What we normally do is make sure that we get one and a half kilos of cashew nuts from each tree, and pack them in separate bags ready to be taken to Mtwara. The rest of the cashew nuts are normally packed in other bags, waiting for the agriculture officers to check them.
- You seem to be very knowledgeable about cashew nuts, what varieties are you dealing with?
- We have four varieties of cashew nuts.
- Can you mention them?
- 33 hybrid, 25 Brazil, 98 process and 99 process.
- You seem to be an expert. I know a lot of people from Buma who grow cashew nuts, so how will these people benefit from your research?

- This crop is still being researched. We aim at getting the best seeds, which will later be given to farmers who need them.
- What variety is being grown in Bagamoyo, out of the ones you mentioned?
- We have them all, but they are in different plots. Our colleague knows exactly which plot corresponds to which variety.
- You said that you are only checking the general weight of the cashew nuts, isn't it?
- Yes, in Mtwara they remove the shells and weigh the actual weight of the nuts. They also weigh them separately to get the weight of each variety. The best seed will therefore be determined in Mtwara after they have the actual weight of the cashew nuts.
- I am happy that you are also residing in Buma, Bagamoyo. We have seen how people can benefit from research on cashew nuts.



November 10th | 2011 ▲

Well, I have visited a farm in the Mikongoro valley, in Magore village, where some farmers are trying to do research by planting watermelons, so that other farmers can learn from them. They planted watermelons and maize plants side by side, in order to make sure that when they use fertilizers or pesticides, both the maize plants and the watermelons may benefit from a single application. I talked to one of the farmers and he said that they are doing this so that they can get money and food at the same time. He said that, for them, maize is

for eating, while the melons can bring in some money. He also said that this kind of practice helps them very much when it comes to watering plants, since it is difficult to water the maize and the watermelons separately. For sure, their research is going to be successful. However, on the Internet you can see that the maize plants are still young while the watermelons are already producing fruits. We will make follow up reports of this farm until the maize plants are ready to harvest, so that we can learn and teach other farmers that they can also practice other types of farming within the valleys that are normally used for rice production.

November 17th | 2011 ▼

Anyone can store seeds just by letting the amaranth plant grow up to a height of about 5 to 6 feet. At that point, the plant can produce new seeds. Because of this, the Lishe variety of amaranth is one of the best known varieties, and it's very nice for food and good health.





November 20th | 2011 ▲

—
Mr. Ndenga is not only growing tomatoes and maize, but also bananas.

- Please tell us, what variety of banana is this?

- This is the Malindi variety.

- They seem to be very attractive, which fertilizer are you using?

- I am using cow manure.

- Your practice could motivate other people living in areas with sandy soils, what can you tell people living in Bagamoyo about bananas?
- They should not only rely on cow manure, also farm remains can be used as fertilizer if they are placed around the banana trees.
- Thank you very much. I hope you have gotten the message that it is possible to grow bananas in Bagaomoyo, especially in the Kilomo ward and in villages such as Buma, Kitopeni, Kilomo and Mataya. As I told you, I am at Mataya in the Kimeremeta suburb, Kilomo ward and Yombo division of the Bagamoyo District. Thank you.



November 26th | 2011 ▲

Here I am at the Mandawe suburb of Kilomo village, at Mr. Abdallah Jumanne's house. The lady that you see in the picture is Jumanne's wife. After working in the farm, she normally makes handcrafts such as baskets and mats. As you can see, she is very creative. She also made the mat she is sitting on, and she is now weaving another one. I am going to ask her about the materials she uses in the fabrication of these crafts.

- What materials are you using in preparing these mats?
- I am using palm leaves.
- Where do you find them?
- Along the river.
- Do you mean that those trees grow in wetlands?
- Yes.
- How much is one mat in case someone wants to buy it?
- The price depends on the size of the mat.
- What is the price of the one you are sitting on?
- 50,000 Tanzanian Shillings.
- I can see it is colorful, how do you color the mats?
- I do boil the palm leaves in colored water.
- Is that why they have white and other colors? How do you get the white color?
- I only boil the leaves to get the other colors, but for white I only use the leaves without coloring.
- Thank you very much. After this interview, I will go to the place where the palm trees are found, and I will show them to you in the next picture.



November 26th | 2011 ▲

This is a tree whose leaves are used to prepare mats. It belongs to the family of palm trees, and grows on wetlands. This tree is in danger of becoming extinct, since the places where it grows are now being turned into farmlands. Also, people bring their cattle for pasture along rivers. Because of these issues, this tree will become extinct, and the entrepreneur lady will be forced to walk long distances to look for materials to weave her mats. There will also be a change in the weather, as these trees play a big role in storing underground water.



March 19th | 2012 ▲

Here is another nursery, and it's good that we found an expert here.

- What is your name?

- My name is Pius Joseph.

- Pius Joseph, where did you get your knowledge about seedlings?

- Just around here.

- How long does it take for a seedling to be ready for budding?
- Three months.
- Are these cashew seedlings?
- Yes, we do grow the local cashews and bud them with the modern variety.
- How many varieties of cashews do you have?
- Three of them: the hybrid, the Brazilian and the crosses.
- So which variety is this one?
- Crosses, it takes three years for the trees to produce fruits.
- How long can it survive in a farm?
- It depends on how good they are taken care of. If you take good care of them, they can last for a long time.
- Thank you, where can we find you in case we want to consult you?
- I am available at Chambezi.
- What is your advice to other farmers?
- They should follow the advice of the extension officers, or visit us for more information.



March 20th | 2012 ▲

—
This garden is very close to the school. I see a lot of seedlings, and here comes a person who deals with teak seedlings.

- What is your name sir?

- My name is Budogwa.

- Budogwa, can you tell us what are the uses of teak trees?

- They are mainly bought by investors who work with the government, and by individuals who plant the trees next to their farms.
- How did you get the seedlings?
- We collected the seeds and planted them.
- I heard that it is very difficult for the teak seeds to grow, how do you do it?
- We take the seeds, plant them in a plastic bag, water them for a certain period of time and leave them to grow. The trees take about three months to grow and one year to be ready for selling.
- Where do your customers come from?
- They come from Dar es Salaam.
- Where did you get this knowledge?
- It's my own creativity.
- How is drought affecting your business?
- We are highly affected by droughts, and in most cases we get customers only during the rainy season.
- Where do you get the water?
- We get it from the tap.
- Thank you very much, soon you are going to see people buying seedlings from this garden.



March 29th | 2012 ▲

Thank you. What day is today? Today is 29th. I have visited my colleague, I am going to interview her and ask her about her activities. She is going to tell us why she is doing all these things.

- What is your name?

- My name is Renalda Msaki, or Mama Fundikira.

- Mama Fundikira, can you tell us what motivated you to grow this orange garden?

- When I started selling orange seedlings, most of my customers wanted to know how these oranges looked like, so I decided to have these samples in my garden.
- Which variety of orange is this one?
- This one is called Valencia.
- Where does this variety come from?
- It is produced at the Chambezi research station. We have other varieties like Matombo, Binti Juma and Meridian.
- Which is the best month for buying the seedlings?
- From the 15th of March until May.
- How much is one seedling?
- 1,500 to 2,000 shillings, depending on its size.
- Can you tell people something about the other types and varieties of seedlings that you have?
- We have about twelve varieties of mango seedlings.
- What is your advice to people living in Bagamoyo and the Coastal region in general?
- I advice them to buy orange seedlings, because this crop grows well in this region and can help one to earn some money.
- Thank you very much.



April 11th | 2012 ▲

Today, on the 11th of April, I visited the Magole neighborhood and met Mr. Mtegwa, a farmer who is growing maize now, after the rains. This shows that he is a careful farmer, because he prepared the farm in advance in order to make an optimal use of the rains. He also grows other crops like cassava, and in July or August he will harvest enough food. I call upon all people in Bagamoyo to work on their farms during these rains and plant various different crops, so that they may have enough food by September.



April 23th | 2012 ▲

This is one of the entrepreneurs at Kitopeni.

- What is your name madam?

- My name is Helena.

- What are the main things being sold in this place?

- Avocados, chili, okras, tomatoes, onions, coconuts and other crops.

- Where do you get the avocados from?

- From the Kariakoo market.

- How much is one avocado?
- 300 to 500, depending on the size.

- What are the products that you can obtain within Kitopeni and Bagamoyo?
- Most of them are found here seasonally, in the Bagamoyo market, and sometimes you get them directly from the farmers.

- What are the main challenges in this business?
- Sometimes it's hard to get a good supply of these products, especially when they are not in season.

- What can you tell us about the coconuts?
- Now it's harvest season, so we are getting them at a lower price, 250 to 300 shillings. We sell them for 400 to 500 shillings.

- Have the droughts affected the availability of coconuts in Bagamoyo?
- They have somehow affected the production of coconuts, sometimes you can hardly get them and if you do, you have to pay up to 500 shillings for each.

- Most of the people in Kitopeni are doing their business along the road but you are doing it in the middle of the street, why is it so?
- Every person has her own share from God, it does not matter where you find it.

- What do you advise your fellow women about self employment?
- I advice them to carry out small business regardless of the location of their business, they will always receive customers.

- Thank you.



April 26th | 2012 ▲

Today I visited the Magole neighborhood. I am at a house where there is a lady who is making mats. She is also teaching her grandchildren, as you can see in the picture. I will interview them to get the details of everything.

- What is your name?

- Mariam.

- Who taught you how to make mats?

- My grandmother, her name is Asha Athumani.

- Are you also going to learn how to decorate them? When did you start working on this piece?

- Yes I will decorate it, I started the day before yesterday.

- Here is another kid, her name is Zainab Rajabu. She also knows how to make mats, she learned it from her grandmother. Now I am going to interview the grandmother herself, wait a moment... well here I am.

- What is your name madam?

- My name is Asha Athumani.

- Which techniques are you using to teach these young kids to make mats? As far as I know, nowadays nobody wants to keep herself busy with this kind of work, can you tell us how you involve the kids?

- I normally involve them in the entire process: from collecting materials to making mats, and assist them whenever they need my help. That is why they became motivated to do this work.

- How much is one mat like this one?

- 20,000.

- Can you teach other people to do this job?
- Yes I can.

- How many colors have you used to make this mat?
- Three colors.

- Where do you get the colors and what is their price?
- I bought them in Bagamoyo, I paid 100 shillings for each color.

- How long does it take to make one mat?
- Three weeks.

- Thank you very much, youth should learn how to make mats so that we do not loose this tradition.



April 26th | 2012 ▲

There are several shapes in which a mat can be made. I would like to ask Mrs. Asha to tell us in how many different ways can she make mats, so that when we invite people to come and learn from her, we can tell them all the details.

- Asha, can you tell us about the different ways that you can make a mat?
- Yes, I can make them in many shapes.



- Do you think it is a good idea to start a class at Magore village, so you can teach other women?

- Yes, it is a good idea and I am willing to do that.

Well, as I told you, this knowledge is in danger of disappearing with time. I would like to tell all people in this village to visit this lady and learn from her.



April 29th | 2012 ▲

—
Today on the 10th, I visited a banana farmer. I am going to ask her about the types of banana that she grows, and what are their main uses.

- What is your name madam?

- My name is Imani Mloka.

- Which kind of banana do you normally use to prepare breakfast?

- It's called Bokoboko, it is very good for breakfast.

- Do you mix it with other things?

- I add in coconut milk, tomatoes and onions.

- Can you show us other types of bananas that can be used for breakfast?

- Yes, there are several varieties.

Well as you can see in the Internet, she has several varieties of bananas that can be used for breakfast, but this was the only variety that I found her preparing this morning.



April 29th | 2012 ▲

As I told you, this farm has a lot of different crops, and here are some papayas. It is known that people in Bagamoyo do not grow papayas, they mostly buy them from Mkuranga. But this lady was able to grow them. This is something that needs to be learned, as most of us thought that the land of Bagamoyo was not good for growing papaya trees. You cannot find in Chambezi as many papayas as there are in this garden!

- How many varieties of papaya do you have?
- Only one variety.
- What motivated you to grow papaya?
- Just the struggle to make an income.
- Who buys these fruits from you?
- People with retail shops.
- Would you like it if people came here to learn from you?
- Yes, they are warmly welcome.
- As you know, this interview is being shown in the Internet to different people in the world, can you tell them where to find you?
- At Chambezi, in Makondeko.
- Thank you very much, this garden belongs to Imani Mloka who is at Makondeko. The garden has several varieties of trees and fruits, it has passion fruits and papayas. This is in Kilomo ward, Bagamoyo district in the Coastal region.
Yours, reporter from the voice of the farmers.



April 29th | 2012 ▲

This is one of our reporters, she is in her cassava farm picking up cassava leaves which will later be used as vegetables. She is going to introduce herself and let us know the importance of growing cassava.

- Hello madam, please introduce yourself and tell us about the importance of cassava.
- My name is Rehema Maganga, I am a farmer, and I am growing cassava. Cassava provides us with food and money when it's sold.

- What are you doing now?
- I am collecting cassava leaves so that I can use them as vegetables.
- Can you tell us about the whole process, up to when they become vegetables?
- You pound them, cook them and finally serve them with ugali or rice.
- Are there any other crops in this farm?
- Yes, there are some peas and cowpeas.
- Which variety of cassava is this, and how long does it take to mature?
- This is Mfaransa variety, and it takes twelve to fourteen months to mature
- Thank you very much, as I told you this is one of our reporters from Chambezi. She has told us many things about cassava and later she will tell us something about her fruit garden as well.



April 29th | 2011 ▲

This rice farm belongs to Rehema Maganga. These rice plants were supposed to be flowering, but they aren't because there were no rains. If the situation continues like this, people will not be able to harvest anything. She is going to tell us about her expectations.

- As for now, I am not expecting to harvest any rice because it was supposed to rain from the 13th of April until May, but up to now there's nothing. These rice plants will not grow anymore, and they have already been affected by diseases.

- What percentage of Chambezi residents grow rice?
 - 90 percent.
- Have you been visited by agricultural officers to talk about this problem?
 - No, they have not visited us. We have been weeding the rice fields while waiting for rains until now.
- What is your advice to other farmers, especially about alternative crops?
 - If possible, the government should supply us with maize at an affordable price, since we are not expecting to harvest any rice from our farms.

As she has explained, the government should take immediate measures to rescue the farmers from hunger because, if there is no rain until May, they will not get anything out of their farms. Thank you.

May 30th | 2012 ▼

At last we are receiving some rain, after a long period of drought that affected the rice production in Bagamoyo. I advise people who have farms in Kilomo and Buma to grow crops that can produce in a short time, such as pulses and cassava, that can be used for food, especially this year that we had very few rains.





June 22nd | 2012 ▲

—
Today on 22nd I visited this pulse farm, and here is a person who is working in the field.

- This is Vuli One variety, I planted the three varieties: Vuli Two, Vuli One and Tumaini. However, because I did not take proper care of them, two of the varieties died, and I was left only with Vuli One. Preparing the seeds for this variety of peas is too demanding, and I would suggest that the price of one kilogram should be 5,000 instead of 3,000. I planted them in late April, and now I am harvesting them. It takes approximately two months for the plants to mature. I have nothing to add, but if someone wants seeds from this variety, they can just visit me at the Magore ward in Mataya village, Bagamoyo.



JULY 4th | 2012 ▲

—
I am at Bago Village, distributing cassava sticks as a preparation for the coming short rain season. Let's listen to the farmers' views about cassava farming.

- Excuse me sir, what can you tell us about these sticks?
- It's a good idea to try these sticks, and we are all happy about it because we hope that they are going to produce good cassava. Farmers from Bago will all benefit from

this, but we need some more sticks and they should be distributed early.

- What is your advice to the farmers in this village, and in the district as a whole?
- Cassava farming is very important for both food and commercial purposes. We will cooperate to make sure these sticks produce enough cassava to serve our purposes as a village and the ward as a whole.



August 3rd | 2012 ▲

—
The necklace she is holding is made from coconut shells.

- Madam, can you tell us how you came up with this design?
- I thought that most people do not value coconut shells. However, they are very useful. Once I have the coconut shells, I shape them, color them and add some decorations to finally get this necklace. I call upon all

women to start working, the raw materials are found everywhere. They need to be creative and not just sit and wait for assistance. By selling these crafts, they can easily earn money to support their families.

As you have heard from this lady, you can visit this building to see more of her jewelry. Buy from her and support her art work.



August 8th | 2012 ▲

We are in the Ulanga district, and I have come across one participant from Bagamoyo and an expert. I will talk to them to learn about their bananas.

- What is your name sir?

- My name is Claudi Frednand.

- What is your name madam?

- My name is Mwajuma. I am coming from Bagamoyo and I grow algae. What do you want to learn?

- I want to learn how to grow bananas.
- My name is Claudi Frednand, I come from Ulanga and I am a banana grower. To plant bananas you need to prepare a hole of 3 feet long and wide, add manure, plant the seedling and then water the plant.
- How long does the manure need to be in the hole before planting the banana tree?
- One week.
- What is the name of this variety?
- Mtwike.
- Bananas are very rare in Bagamoyo. How long does it take for the tree to grow until you can harvest the bananas?
- About one year.
- Can you tell us something about the best climate for bananas?
- Bananas can grow anywhere.
- Where do you sell your products?
- Within the district and in other places.
- How many varieties do you have in this nursery?
- Three varieties: Mtwike, Bukoba and Mzuzu.
- Why have you chosen these varieties?
- Because they are marketable.

As you have heard, bananas can grow anywhere, you only need to have enough water and manure.

September 5th | 2012 ▼

This is a cashew tree nursery. Once I took a picture of this nursery and spoke about it but, as you can see, now it is in a bad situation because of droughts and climate change. Absence of rains and inadequate supply of water have caused all the seedlings to dry. A bucket of water is sold for a thousand shillings, so it's impossible to buy water for personal use or for the nursery. This is one of the main challenges that farmers from the Bagamoyo district have to face.





September 23rd | 2012 ▲

After my visit to the food mills, I met a farmer who grows bananas.

- What is your name sir?

- My name is Michael.

- Michael, which village are you coming from?

- I come from Ifakara. I am not a farmer, I'm just a buyer.

- As a buyer, which variety of banana do you like the most?

- Mzuzu variety.

- Where were those big bunches of bananas grown?
- In Mbungu village.
- How far is Mbugu village from the district council headquarters?
- About 50 kilometers.
- How has climate change affected your activities, especially regarding bananas?
- We are heavily affected by droughts, especially this year.
- How much is one bunch of bananas on the farm, and for how much would you resell it?
- About 4,000 on the farm, and I will sell it for up to 7,000 or 8,000 shillings.
- After the effect of droughts, how much do you pay for one bunch and for how much do you resell them?
- I buy them for 2,500 because they are small bunches, and then resell them for 5,000 to 6,000 shillings.

- What is your advice for banana farmers, especially regarding drought and climate change?
- They should seek support for installing irrigation systems, that would be nice. Depending only on rain will always threaten our production.
- Is there another village where you can buy bananas?
- Yes, in Mgeta.
- I am thankful for learning that Ifakara does not only grow rice but also bananas, I already saw it even before I reached the farms. This person has explained how climate change has affected his business, and also how it affects the farmers. Thank you very much sir, so what is your name again?
- My name is Michael.

September 24th | 2012 ▼

Along my journey from Bagamoyo to Mahenge, I have seen and learned about a lot of different activities being carried out by people in different areas, including banana farms. Now I am in the Kigandugandu village in the Mwaya ward, Mahenge district. What I have learned in this place is that the bunches of bananas produced here are very big, and that the farmers are still cultivating the local variety of cassava. The lady I am going to interview will tell us more about the crops grown here.



- What is your name madam?
- My name is Zainabu Njalo.

- Which crops are grown in this area?
- In this village we grow maize, rice, sorghum, sesame, legumes, bananas and cassava.

- Which ones are the cash crops?
- Maize, rice and sesame.

- How do you measure your maize?
- By using a local bowl called pishi.

- So how much is one pishi?
- 400 shillings.

- Where do you sell your bananas?
- Around the village.

- Aren't you selling them in cities like Dar es Salaam?
- No.

- Which variety of cassava do you grow?
- The local variety called Kigoma because it grows very tall.

- What is the main usage of cassava?
- It is used to cook ugali, and also as lunch to feed the children.

- What are the other crops?
- Sesame, maize and rice.



September 24th | 2012 ▲

As the previous speaker said, this area is famous for growing bananas. This lady will tell us how climate change affects her.

- What is your name?

- My name is Mariam.

- Mrs. Mariam, as far as I know, most farmers were very affected by the drought. How did they affect you and the village in general?

- We did not get enough food.

- Is there an alternative for you people, now that you couldn't harvest enough rice, maize and sorghum?
- We mostly eat bananas and sometimes we buy maize from other villages.
- Which varieties of banana are grown in this village?
- Mtwika and Msiba varieties.
- The bunch of bananas above your head is very attractive despite the weather conditions. How big do they get when there is enough rain?
- One bunch will have about 20 to 25 bundles.
- Do you sometimes use bananas as cash crop, and where do you sell them?
- We sell them within the village for 6,000 per bunch.
- Besides bananas, what other crops are grown in this village?
- Maize, sorghum and sweet potatoes.
- What is your advice to other farmers who grow bananas, and to those who do not grow bananas but have a favorable farm for this crop?
- I advice them to grow bananas in their farms, as they can resist the effects of climate change.
- In how many ways do you use bananas?
- They can be cooked, and the Msiba variety is used to prepare local alcohol.
- Can you show me this local alcohol?
- Yes.



September 24th | 2012 ▲

Besides practicing farming, people in this village also manufacture handcrafts. I will interview them for more details.

- How are you all today, and how is Kigandugandu village and Mahenge as a whole? What is your name madam?

- My name is Zaituni Matuga.

- Are you from the Pogoro or the Ngindo tribe?

- I am a Pogoro.

- Are you among those who use bamboo flutes?
- Yes of course, it is a traditional thing.

- Where else can the Pogoro be found?
- In Ruaha and Mahenge.

- So how did you get here?
- My grandparents already lived here.

- Do you teach other people the art of making mats?
- Yes.

- Where do you get the materials?
- In the bush, very far from the village.

- If someone brought these materials and sold them to you, would you buy them?
- Yes.

- How do you make the mats colored?
- I boil the materials in colored water before making a mat.

- Which crops were grown in this area in the past?
- We grew maize, rice, cassava and bananas.

- What do you do in case of droughts?
- We mostly feed on bananas and wild roots.



September 24th | 2012 ▲

People in the Kigandugandu area build their houses using poles and bamboo sticks. The roof is made of grasses as the ones you see here, these ones are ready to be used. The collection of grasses is done by women, and they normally charge 2,000 to 1,000 Tanzanian shillings per load.

- What is your name?
 - My name is Abdallah Tule.
- What is the name of this tree and why is it important in this area?
 - It is called Mgwangwa, we use it as medicine to treat the wounds caused by thorns.
- How did you learn that?
 - Our grandfather told us to plant it because the leaves can treat wounds.
- What would you like to tell other people?
 - They should plant this tree, as it is a local tree and can be used as medicine.
- Thank you.





December 9th | 2012 ▲

- What is your name madam?
- My name is Mgasha bin Mwinyikambi.
- What are you doing?
- I am processing cashew nuts.
- Are they for selling or for your own?
- They are for selling.
- What do you do before taking them to the market?
- I dry them in the sun and remove the shells before bringing them to the market.



December 20th | 2012 ▲

I'm still at Kitopeni, and I am happy to see women involved in business. Here is one of them, I am going to interview her.

- What is your name?

- My name is Mwanahamis Selemani

- Are these mangoes raw or ripe?

- They are raw.

- How do you make them ripe?

- We buy them raw like this, leave them in the sun for a day, put them in a covered hole for two or three days,

and then they are finally ready to be sold.

- Do you sell them in baskets or per unit?

- I sell them individually.

- How much is one mango?

- I buy one mango for 150 shillings, and I sell them for 200 each. My customers come from Tegeta and Dar es Salaam.

- What is your advice to other women?

- They should engage themselves in business, as it pays well. You can sell fruits, charcoal, coconuts, and many other things.

- Thank you. We will now visit her shop which is very close to the road that comes from Bagamoyo. Let's go.



December 20st | 2012 ▲

This mango tree can produce up to 1,500 mangoes, as you can see, this is just a sample. A mango tree needs to be weeded, watered and taken care of. People should learn from me, I never force the mangoes off the tree. I normally wait for them to mature and ripen, and then they drop by themselves. The price of a raw mango is 200 shillings, but when it is ripe it can be sold for 300 to 350 shillings. If you have 1,000 mangoes you can earn a lot of money. The people from Bagamoyo should plant as many mango trees as possible, both the local and modern varieties.



December 23rd | 2012 ▲

This is a nursery for orange tree seedlings.

- Can you tell people how you prepare the seedlings?
- I normally plant the lemon seeds, I plant them and take care of them until they reach a specific height. I later bud them with a small orange cutting and leave them for 14 days before I take out the bandage and cut down the lemon branch, leaving the orange stick which will sprout in 14 to 33 days.

- How long does it take for the orange seedlings to grow?
- 8 months, I plant them in April and bud them in the warm season.
- How long does it take for you to sell the seedlings after budding?
- I can sell the seedlings one month after budding.
- How much is a seedling?
- It depends on the age of the seedling, so the price can range from 2,000 to 5,000 shillings.
- What are the challenges you face?
- The main challenge is water, especially during dry season.

Well, Mr. Yahaya is also affected by climate change, as he has just explained. We will later see his mango nursery.



December 24th | 2012 ▲

—
I am thankful that this morning people were able to sell all their products. As you can see, this man has an empty basket, which shows that he has sold everything he had brought.

- How many varieties of mangoes are grown in this place?

- There are several varieties.

- Thank you. All the sounds you can hear here are made by the people in this market, they are also selling mangoes. Which variety is the best at the market?

- Dodo.

- How many fruits can be produced by a mango tree of said variety after 30 years?
- 5,000 to 6,000 mangoes.
- What is the price of the fruit in the market?
- Up to 300 shillings per unit.
- So what will happen if you have 5 trees?
- You will get enough money.
- So what is your advice to other farmers?
- They should plant as many trees as possible.
- What can you tell them about the modern and the local varieties of mangoes?
- The modern trees give fruit in a shorter time, about two to three years, but they do not last long, while the local varieties can produce fruits for ages, so I would advice people to grow both types.
- Thank you, as you have heard you can earn a lot of money if you plant mangoes, so his advice to other farmers is to plant as many trees as they can.



December 29th | 2012 ▲

—
This person is roasting cashew nuts, getting them ready to be crushed.

- What is your name sir?

- My name is Misosi.

- What are you doing here?

- I am roasting cashew nuts so that I can crush them easily.

- Why are you doing this when there are companies that buy raw cashew nuts?
- Because most of them do not pay immediately, it takes too long. But by crushing them myself I can get some money on the spot.
- How much can you harvest from a tree like this one?
- About one sack.



December 30th | 2012 ▲

As I told you before, the people in this village cultivate sorghum. I will ask the head of the family to tell us which variety of sorghum is this one.

- What is your name sir?

- My name is Juma Amry Chambanda.

- Which variety of sorghum is grown in this area?

- Msumbiji variety.

- Is it a long or short variety? How long does it take to mature?
- This is a short variety that can mature in just five months, as compared to others which mature in seven months.
- It seems like most people in the Chilangalile area grow maize, what can you say about maize and sorghum production in this area?
- We mainly grow maize, and sorghum is an additional crop.
- What are the main uses of sorghum?
- We normally cook it as rice, or grind it to obtain flour.



December 30th | 2012 ▲

—

I see a building here, the owner will tell us about it.

- Can you introduce yourself?
- My name is Juma Amry Chambanda, and this building has two main uses: the top part is for keeping food and the lower part is for keeping chicken.
- Where did these poles come from?
- Most of them come from bamboo trees.

- How long can this building last?
- Two to three years.

- How do you store your crops, for example maize?
- This is the first stop when I bring the crops from the field, later I process them and store them in sacks.

- Well, these are the techniques and customs of the people from Lindi, they are creative and very organized when it comes to agricultural matters.



January 2nd | 2013 ▲

Today on the 2nd, after my trip to Lindi, I visited some villages in the Bagamoyo district. I visited Kimindu village and took some pictures. On my way back our car broke down, so I had to walk around the village. I could witness the effects of climate change, and this is what I saw. These bananas have been affected by droughts, they are drying. Most areas along the Tanga road have been affected by droughts, even the coconut plots.

January 9th | 2013 ▼

Yesterday I was doing a research in one of the villages to see how the pulse seeds were doing. I found out that some people are not using pesticides on these seeds, so maybe this shows that modern seeds can survive in our land without them, we only need to take good care of the plants. Here comes a farmer, let me interview him.

- What is your name sir?

- My name is Mateo Inega.



- Mr. Mateo, what are you doing here?
- I am preparing the field to plant sweet potato seeds.
- Which variety of sweet potatoes do you mostly use for your business?
- Mbutu, it is good and matures in short time, if it is planted in March, the plants may mature in May.
- What is your message to other farmers?
- They should start preparing their fields, so they can plant in March.
- When do you sell the sweet potatoes?
- We start in May. We normally sell them in sacks of 50 kg, which may cost between 25,000 and 30,000 shillings each.
- How many bags can be harvested from one acre?
- 50 bags or more.
- This is a very good deal, as you can imagine. Growing sweet potatoes pays a lot, so take your time to prepare your seeds now.

January 9th | 2013 ▼

He is showing us the farm, all these are sweet potato seedling. In February, these seedlings will no longer be here. That is why he will be planting them again for future use.

- Are there any other cash crops besides sweet potatoes?
- Yes, cassava, but it takes a long time to mature so we prefer these short term crops.
- As far as I know, in March and April most people will be looking for the sweet potato seedlings that you normally sell. If someone asks you for sweet potatoes now, will you sell them or will you give them away for free?
- I will sell them.





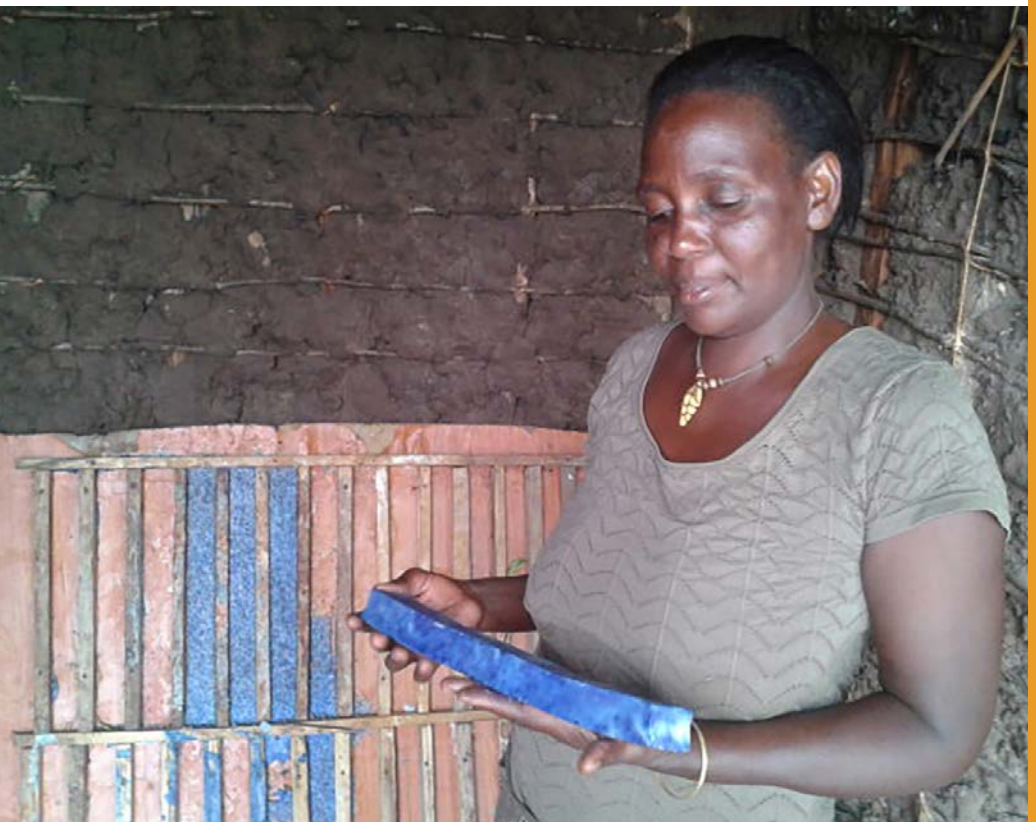
May 12th | 2013 ▲

Here are three types of crops that are grown together: sesame, maize and pulses. When planted at this distance, the farmer is also conserving most of the soil fertility. This is a very good practice.

May 28th | 2013 ▼

Today on 28th I visited some places in Bagamoyo, and I met this entrepreneur who is making soap. She will tell us all the details of soap-making.

- What is your name madam?
- My name is Imani, and I am an entrepreneur producing soap. As you may have heard on the radio, we learned how to make these soap bars, and also liquid soap and batik. This bar of soap is made from a mixture of different ingredients including palm oil and water, mixed, stirred and then poured into boxes to get the shape.



- How much is one bar?
- 1,500 to 2,000 shillings.

- How many bars can you produce from one mixture?
- About 200 bars.

- Are you working in a group or individually?
- In a group.

- Where does the group meet?
- In Makondeko. Only two more people have the knowledge now, but we are planning to educate more people.

- Thank you, what can you tell the people of Makondeko about your group?
- This is an individual choice, one has to be willing to come and join us after paying an entry fee.

- How much is the entry fee?
- 50,000 shillings only. After paying this fee you can become a member and learn our craft.

- How can people from other places contact you?
- Once they visit us they can get my phone number.

- Thank you so much. This is Mrs. Imani, as I told you she knows how to produce soap using traditional techniques.



April 5th | 2013 ▲

I am in the Kihanagaiko village, in the Msata ward. This is one of the farmers that I interviewed about the effects of climate change on food production. He told me that, as of today, all preparations are going on well, all farmers have finished planting, and they have started to weed their farms. However, the rains did not arrive on time. Pests are also a challenge, especially on sesame, and he believes that the pests were also an effect of insufficient rains. To overcome this situation, farmers should shift to short term crops and drought resistant ones.



April 15th | 2013 ▲

—

The Kizimbani variety of cassava should be grown in this area, as it can resist diseases and produces well, compared to the Kiroba variety. The only problem with this variety is that storing its sticks is very challenging, since they tend to be heavily attacked by pests.



April 27th | 2013 ▲

This is a sweet potato farm that belongs to Mr. Mtolo Kisomi from the Matimbwa village. There are 14 different varieties of sweet potatoes in this farm, 13 from the Kibaha research center and one local variety. The main purpose of planting all these varieties is to do research and select the best one for the Matimbwa village in terms of taste, resistance to diseases and to the effects of climate change. Farmers are encouraged to plant short term crops so as to overcome the effects of climate change. Mr. Mtolo told

us something about this research. He is motivated since he obtained good seeds, compared to the ones that he had previously planted. He requests that more researchers come to visit his village to teach the farmers about good agricultural practices, as they benefit greatly. The effects of climate change are obvious, but farmers are trying their best to deal with the situation. He is advising his colleagues to prepare their farms early and make sure they plant and weed their farms at the right time



April 29th | 2013 ▲

We are farmers, but we also visit other farmers, and we tell them about our different activities in order to motivate them. As you can see, these maize plants have grown well, they are short but they have very big cobs. I call upon farmers to grow pulses, especially the Vuli One variety, as they take a short time to mature, rather than all other crops which take around six months to grow. With pulses, people can make an income much faster.



May 15th | 2013 ▲

This is the project coordinator, her name is Mwajuma Amanzi. She thinks that today's visit shows that the people in Bagamoyo are doing better, and that is why they get more and more visitors that want to see what they are doing. She also commented that the irrigation project will help farmers during droughts, one of the major effects of climate change.



June 13th | 2013 ▲

I am in Machui village, in Zanzibar. People in this area have large farms, and in every farm there is a plot of banana trees. They use bananas as food. This person will tell us the details of the farming activities in this village.

- My name is Suleiman, I live in Machui village and my main activity is agriculture. We started with banana farming many years ago, and thanks to the advances in agriculture research, we have recently planted several new varieties which are all productive. We normally

use manure and compost to fertilize our soil instead of industrial chemicals, because we have very limited land and we do not want to destroy it. We also grow long term crops, as you know Zanzibar is called 'the spice island'. So we have several spices. We also grow maize and cassava. We sell bananas mostly within the island, especially to the big hotels. Climate change is affecting the whole world and we are among those who are most affected. We are also facing problems with diseases, which affect almost all crops. I call upon all Tanzanians to produce their own food in a modern way, so that they can improve their living conditions.

June 20th | 2013 ►

Mrs. Mariam is one of the cassava growers, and she is giving us some explanations about this crop. She says that, as compared to previous times, now she cultivates in an improved way. She has improved seeds, and now she has the knowledge on how to plant them in rows, and how to weed properly. She thanks the government for sending agricultural officers to the villages, as well as investors. Because of this, now she can process cassava flour, and her harvest is enough for selling cassava to other people. So, this is a good development! Mrs. Mariam says that she is selling cassava flour to business people in Dar



es Salaam. In the past years, she used to get very little harvest as compared to now. She expects that, if things remain the same, in the next five years she will build a house from the savings of her farming activities. She and her family are peeling cassava, and then soaking it in water to prepare it for processing. Tomorrow they will make cassava flour, and then it will be packed and sold. This flour is of the best quality: it can be used to feed babies and prepare bread, as well as ugali. These are farmers from the Kongo village, explaining the benefits obtained from cassava production. The Kiroba variety of cassava is one of the best ones to plant, because it can resist pests and drought.

July 13th | 2013 ▼

This is natural sorghum, it was planted after the long rains. Sorghum can be grown even during the dry season. Maize growing areas that are currently not getting enough rain due to climate change are advised to cultivate sorghum in order to have enough food.



July 24th | 2013 ►

A farmer showing the disease that affects his cassava. The disease started last year. The farmers know that it is a disease, but they don't have a solution for it. The farmer thinks that this disease appears mainly during the rainy seasons, but in reality it is caused by the white flies that fly around the cassava plants. The flies transfer a virus from one cassava to another, and the solution is to plant seeds which are not affected, or varieties which are tolerant to the disease.





August 15th | 2013 ◀

Members of the Mwendapole group are receiving radios that will be used in raising awareness on proper feeding habits, particularly regarding the intake of vitamin A for pregnant women and children under 5 years. They are thankful and happy.

February 8th | 2014 ►

This year all the cassava seedlings were destroyed. The good news is that we have just received sesame seeds, so let's work hard and grow them. If we receive cassava seedlings, we will grow them as well. We will request cassava seedlings from donors or from the government.





These farmers are grafting mangoes.

- Have you motivated other farmers to do this?
- Yes, a number of people in my village are practicing this. I also encourage most of the people who come to buy seedlings.
- Have you advertised your business outside this area?
- Not yet, but I'm planning to do it in the news papers as soon as I have money.
- Do you only graft mangoes and oranges?
- Well, you can also graft avocados, tangerines, lemons and many other fruits, but in this place we only work with oranges and mangoes

People in this area are highly motivated to carry out this activity, and most of them grow their own fruit trees at their homes or in their farms. My advice to other farmers who wish to grow mangoes is to come and visit the Chambezi research station to buy some fruit seedlings and plant them in their own farms. This can help them to boost their income.



<http://sautiyawakulima.net>

