



## HEBRON COOPERATIVE MULTI-STAKEHOLDER ENGAGEMENT

In honour of Women's Month, on 25 August 2021, we hosted a Hebron multi-stakeholder engagement webinar titled Female Mango Farmers and Climate Change Adaptation Techniques. There were two presentations from Mr Andre Botha, a representative of the South African Mango Growers Association (SAMGA) and Dr Newton Amaglo from Kwame Nkrumah University in Ghana.

Furthermore, a representative from the Hebron Mango Tree Cooperative, Ms Lesego Hlaletsoa, gave a presentation about the project status of the project. The representative from the local government, Mr Potso Moagi of Madibeng local municipality, was in attendance and gave a brief overview of the work that they had been engaged with - regards to the Hebron Mango Tree Cooperative, as well as their current plans.

### Event Highlights:

#### **Mr Andre Botha, South African Mango Growers Association**

Mr Andre Botha mentioned that the recent droughts have negatively impacted the yield of mangoes in the recent past. He referred to an article by Pieter Demsey that mentioned that the decrease in yield is due to the drought in 2020 and the increased loss in productivity is due to COVID19.

Mr Andre Botha spoke about several key points:

- The different climatic requirements needed to grow mangoes and the soil types required for optimal mango growing.
- He explained how to graft mango trees and how to prepare a splice section.
- The different cultivars of mango. The best time to plant trees and the technique of planting with decomposed kraal manure mixed with soil.
- The best time to fertilize the trees is once they are well established. The seasonal water irrigation of mango trees per 500 trees per hectare and the impact of climate change and drought on Mango fruit tree yield and that irrigation costs are subject to water availability on each site.
- The different options for spraying and pest control for mango trees and the process from the packhouse and post-harvest procedure to minimize waste of harvested mango.

#### **Professor Newton Amaglo: School of Horticulture: Kwame Nkrumah University**

- He spoke about moringa cultivation and how moringa and mango trees can be grafted as a way of mitigating droughts. He also touched on having an adaptation strategy to climate change.
- He expressed an interest in working with the Hebron Mango Tree Cooperative and teaching them the skills of moringa cultivation as an alternative enterprise and how they can graft mango to moringa trees.
- He explained the soil types and water requirements for cultivating mangoes.

## **Hebron Multistakeholder Engagement and Workshop**

Notes from Day 2 (5 November 2021)

Prepared by Nonhlanhla Radebe

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- Mr Treasure Peja from MURIMI was the first speaker. These were the highlights of what he spoke about:
- Treasure gave some history about MURIMI and their achievements so far.
- MURIMI won the MTN best agricultural app for 2021.
- Treasure explained that MURIMI was an app that served as a diagnostic tool to assist farmers.
- He demonstrated how the app works and how users can register to use the app

### **Ms Siphwe Sithole – African Marmalade**

- Spoke about the unsustainable ways in which farming was taking place and the imbalance between modern agricultural practices and the indigenous ways of farming.
- She touched on how modern farming practices are degrading the soil.
- A call to action towards having indigenous food systems revived and concentrating on our own indigenous strains of produce.
- She explained why people should not be having bottled water especially if they are climate change activists, because 3L of water is used to produce 1L of water and bottled water plastic takes up a lot of resources and generates carbon.
- We must be doing more to sequester carbon.
- Mentioned that the first thing that farmers do is debush but those animals are being displaced.
- Modern agriculture is anthropogenic and human beings are disturbing the environment.
- She called for young people to go back and ask their elders about the farming practices.
- Permaculture and regenerative agriculture is basically saying that we should remember what we used to do in the past.
- What did we do before to harvest water without Jojo tanks?: we dug tunnels/ trenches etc.
- If we create a problem we must be willing to clean up the mess.
- Asked people not to pave their homes and now there is sheet flow and erosion
- We need to plan according to the course of the water
- We need to go back into using indigenous ways of building as well because now there are these tin roof houses that now need additional air conditioning

- Asked people to use natural material for planting
- In Thailand et al, they utilize their own indigenous knowledge systems to build structures that are adapted to their climate and specific environmental conditions
- Knowledge needs to be passed on from the older people
- The solutions for South Africa and Africa must come from Africa
- People coming from overseas cannot bring knowledge that is specifically adapted to our environment
- She showed 'monkey fruit' and explained how the fruit was now sourced from Mozambique
- Job creation, look for these indigenous seeds and also show how it can be grown in a nursery et al
- Challenged participants that they plant and grow these indigenous trees
- We must replant these indigenous trees and plant them again and focus on them for reforestation
- Explained that replanting indigenous trees was better and trees that were adapted to the climate were better because they were well adapted to the climate and they did not require as much water or additional irrigation.
- She showed a sample of the "castor oil tree" and showed the castor bean seed and how it can be used as biodiesel with petrol prices high
- She explained that the castor bean was used to make castor oil and that the red dye and the castor oil was used by traditional healers to dye their hair.
- The castor beans were also used for babies, in particular for massaging babies.
- She explained the importance of seed banks and concentrating on indigenous African crops
- Agroprocessing is a buzz word, but mentioned that before you can start agroprocessing, you need to have knowledge
- She emphasized that you cannot talk agroprocessing without addressing the primary agricultural side
- She also explained that it is not necessary for farmers to do it all and agroprocess
- She mentioned that it was important for people to specialize and concentrate on one thing that they were good at
- She mentioned that being a "jack of all trades" was a disadvantage
- She said farmers should concentrate on farming and not have their attention split
- She mentioned that there are only 24 hours in a day and that people must distinguish themselves and know that they are not everything to everyone.
- She mentioned that it will take about 3 years for a business to break even
- Pricing is a challenge because you sell at market price
- If you are planting with the right seeds, there is no need for you to continue buying your seeds; this is doable if these are indigenous seeds
- She said that if the farmers sell their produce and indigenous seeds
- She said that the farmers have to de-risk their operations
- She says that there is a market for indigenous produce
- 3 – 6 kg pumpkin seed to plant 1 Hectare
- She offered to supply the seeds

- She said that pumpkin can be sold; by drying the leaves of the pumpkin, the seeds and the melon.
- She called out to farmers that they must simplify their lives by growing the produce that they previous generations were growing
- She explained that farmers have a challenge and opportunity to preserve indigenous seeds
- She explained that there is a market for indigenous produce
- As parents she noticed that we are feeding our children the wrong produce.
- She has been operating her business since Level 5
- She mentioned that food is medicine
- She explained how sweet potato is grown
- She explained that indigenous maize always has “8” rows, if it is more than 8 lines, it is not the real maize.

Nonhlanhla Radebe

(Presentation on Rainwater Harvesting)