

## ENKOVUKENI CLIMATE CHANGE ADAPTATION WORKSHOP AND DEMONSTRATION

Date: 30 April 2024

Time: 09h00

Venue: Enkovukeni community resource hub



Participants in Nkovukeni were eager to get into action and start with practices in efforts to improve and adapt their production activities to the changing climatic conditions. This day was a combination of a presentation of climate change adaptation proposed activities across themes of soil, water, and crop management along with soil fertility, taking care of indigenous environment as well as a demonstration on one of the practices. This document is a breakdown of the day's discussion with participants on different potential activities as well as the demonstration.

Field and hub staff collectively ferried inputs across the lake in the community boat and up the steep slope all the way to the hub; this included gravel stone, droppers, shade netting, seedlings, and refreshments. Unfortunately gravel stone was too heavy for the ladies to carry and this meant guys had to do repeated trips to carry the ten bags of gravel to the hub.



Figure 1: Field and hub staff ferrying inputs across the lake

## Workshop 2: CCA Practices

Mahlathini Development Foundation has begun a series of climate change adaptation workshops in Enkovukeni, Zululand. One of the key objectives of the workshops is to build capacity among individuals and the community of Enkovukeni to effectively respond to climate change challenges. Through the interactive sessions from these workshops, participants gain insights into various adaptation strategies such as ecosystem-based approaches, technological innovations, and community engagement initiatives.

The first workshop was completed in the first week of April. On the 30<sup>th</sup> of April, the team completed day two of the workshop which was mainly a presentation of climate change adaptation (CCA) practices and a practical demonstration of a tower garden, which is the first intervention implemented by the organisation in the area. This workshop and demonstration served as part of a collective response to Climate Change and emerges as a valuable platform for knowledge sharing and collaboration. The workshop was attended by 23 farmers of which majority were female.

## Discussions

The workshop opened with a short recap of workshop 1, which was an introduction to climate change and its impacts on nature, human life, and rural livelihoods. In the first workshop it was highlighted that the reality of climate change necessitates a shift in the way people interact with their environment and has increased the urgency to formulate solutions which will ensure long term sustainability and resilience. As the purpose of this

workshop was to present possible CCA practices, the group was asked to share the main factors they consider when preparing for their farming activities. This exercise was aimed at understanding their thought processes and ideologies that inform their farming practices. The responses focused primarily on procurement of inputs, water access and land preparation. When probed on the practices they use when farming, the group shared that planting is done mainly by hand and they use manure to boost fertility. In terms of water access, the group shared that this is a major challenge which is why they prefer planting closer to the lakes and wetlands.

Following the above discussion was the presentation of CCA practices where the core principles of sustainable farming were outlined which included: low use of external inputs, maximising diversity, improvement soil health and fertility, water conservation as well as collaboration. It was explained to the group that farming goes beyond just obtaining food and raw materials from the soil, but humans also have a responsibility to replenish the soil and water resources if farming activities are to be sustained over time. The team discussed that climate change effects cannot be mitigated using a one-dimensional approach but require a holistic approach to strengthen farming resilience. The five-finger model of soil and water conservation was introduced which includes:

- Water management
- Limiting soil movement
- Crop management
- Soil health and fertility
- Taking care of indigenous plants

The discussion around the five-finger model was followed by a detailed presentation of the CCA practices which were grouped within the five categories. Under water management, practices included the building of tower gardens, check dams, under ground storage tanks, diversion ditches and grey water use amongst others. In terms of limiting soil movement, practices such as conservation agriculture, diversion ditches, stone lines, contours and terraces were discussed. Practices under soil fertility included use of manure, liquid manure, eco circles, trench beds and intercropping with leguminous crops amongst others. Following the plenary session was the demonstration of the tower garden which was facilitated by Mazwi.

## Tower Garden Demonstration

The team held a tower garden demonstration at Mrs Mita Vumase's homestead. It was explained that a tower garden is a vertical planting system which allows planting to be done in different areas, on the sides and on top. It consists of a stone/gravel 'pillar' at the centre which is where irrigation is done. The stones help to filter out unwanted particles and soap and spreads the water throughout the 'tower'. Watering can also be done from the top. It is a low-cost system which allows a farmer to grow a range of leafy vegetables such as spinach, kale, Chinese cabbage, mustard spinach and lettuce on the sides. Root vegetables such as beetroot and onion are grown at the top, as well as green peppers and tomatoes.



Figure 2: Tower garden demonstration at Mita Vumase's



Figure 3: Tower garden using leaves to improve organic matter content of the garden along with kraal manure

Due to the sandy soils in the area, one of the tower gardens had a thick layer of organic matter at the bottom to help keep some of the water in the garden. In another household there was a lot of dry leaves from trees in the yard that were both mixed with soil and put in layers alternating with soil.

The demonstration was successful, and the following 10 participants undertook to try out the tower gardens:

1. Elizabeth Ngubane
2. Jabu Ngubane
3. Gloria Zwane
4. Gugu Mathenjwa
5. Mita Vumase
6. Slindile Buthelezi
7. Khanyisile Sibiya
8. Ntombikayise Mlambo
9. Velisiwe Mthembu
10. Violet Sibiya

At the end of the workshop each of the 10 participants received their input packs to build their tower gardens. These included seedlings, a bag of gravel, poles and shade net.



Figure 4: Tower garden materials for the 9 remaining volunteers to try out tower gardens

On Wednesday, the 1<sup>st</sup> of May the MDF team returned to Nkovukeni to assist some of the participants who expressed interest in the tower garden. They were requested to collect all the required materials the day before. Two tower gardens were built, and the shade net bags were sewn and dropped off at the hub for the seven remaining participants. Hub stuff and the Enkovukeni WhatsApp group was used to relay the message for volunteers to collect their sown nets.



Figure 5: Left; Voilet Sibiya, right; Elizabeth Ngubane with their two tower gardens planted with seedlings.