



Farming with Hope

How Agroecology Eases Land Preparation for a Grandmother

By Vongai Makamure
(Contributions from Sunnypo Imawa)
Images by Sunnypo Imalwa

Agroecology is a holistic approach to farming that combines traditional agricultural knowledge with ecological principles. It promotes sustainable and resilient food systems by focusing on practices like crop diversification, soil health management and water conservation. This approach is particularly important in areas where water scarcity and climate variability pose challenges to farming.

As subsistence farmers approach the end of the year, it is the norm to start preparing the land in anticipation of the crop planting season. November marks a crucial time for farmers, especially 50-year-old Grace Nalucha Matengu, who resides in Kanono area of the Zambezi region. Despite the late rains and the drought during the last season, Grace, who is part of the KAZA Arise project, is finding relief and hope through the agroecological practices introduced by the project. Grace lives in her traditional homestead with her child and four grandchildren.



50-year-old Grace Nalucha Matengu

Despite Kanono's location in a region of two prominent rivers, water scarcity still remains a major issue due to insufficient infrastructure and prolonged droughts. Farmers like Grace often lack access to

boreholes or municipal water systems, leaving them vulnerable to the whims of an unpredictable climate. On this warm November day, the widow's field is being prepared while other farmers from the neighbouring homesteads watch and learn as her field becomes a field of transformation.

Two land preparation methods are being used on her 25X100 meter field. On one side of her field she has already-dug out basins for her maize crop and on the other half, a ripper is being used for ridges where she will grow her other crops. She has no cattle, so her neighbour's cattle are being used for ripping the soil. The basins Grace dug are shallow pits made with a hoe to plant crops like maize. The basins are filled with some manure or compost and closed after sowing. They help retain moisture from rainfall, making them invaluable in water-scarce regions.

Meanwhile, ridge ripping involves creating raised rows of soil to improve water infiltration and reduce erosion. Grace could not express her joy enough, as she often works in her field alone with no cattle or equipment.



Left: Grace would plough her field by hand using a hoe. This process would oftent take weeks to complete.
Right: A ripper used with cattle on Grace's field. This process took 1 to 2 hours to complete.





With the cattle and ripper, and a team to help her, the task that once took Grace days to complete with a hoe, is finished within just an hour. “Oh, I am so happy!” She says with relief. “My life has been made easy. Without cattle or a ripper I would have manually dug the ridges with a hoe and that could have taken days.” While the drought hit hard in the past two years, she harvested some crops enough for her family’s consumption. “I only got a bucket of maize, unlike the 15 to 50kg bags I would get in previous years with sufficient rain. Most of the crops died, but they had survived for much longer than other farmers’ because of the agroecological practices, which retained the moisture from the little rains we had received, for longer,” says Grace.

She solely relies on farming to look after her family. Before the drought, she made enough money for their upkeep and school fees from farming. Now the major challenge is access and availability of water. With no boreholes close by, their best option would be to rely on municipal water, which is costly.

With no boreholes close by, their best option would be to rely on municipal water, which is costly. However, there are no pipes to bring the water close to the village, therefore, Grace can only hope for better rains in the coming season.

Regardless of the challenges, Grace remains hopeful. She plans to grow maize, beans, watermelons and pumpkins this season, optimistic that the lessons from the KAZA Arise project will help her farm thrive.

About KAZA Arise Project

The KAZA Arise project is an initiative launched in March 2022, aiming to enhance food security and protect habitats within the Kavango Zambezi Transfrontier Conservation Area (KAZA). This conservation area is the world’s largest land-based transboundary conservation region, spanning parts of Angola, Botswana, Namibia, Zambia and Zimbabwe. The project enhances food security and ecosystem resilience by supporting at least 625 smallholder households with capacity-building in agroecological practices, improving habitat connectivity and implementing community initiatives such as borehole drilling for water access, benefiting both people and wildlife.

To find out more information about the KAZA Arise project and how it supports climate resilient farming, please contact:

1. Mareike Aufderheide-Voigt (Programme Lead: Sustainable Agriculture, KAZA Arise Project) mvoigts@nnf.org.na
2. Sunnypo Imalwa (Assistant Communications Officer – Namibia Nature Foundation). sunnypo@nnf.org.na
3. Vongai Makamure (Communications Specialist – World Wildlife Fund Zambia) vmakamure@wwf.org.zw



[Namibia Nature Foundation](https://www.nnf.org.na)



[World Wildlife Fund Zambia](https://www.wwf.org.zw)



Implemented by

**ENGAGEMENT
GLOBAL**

Service für Entwicklungsinitiativen

