

# LOCAL PADDY SEED BRINGS PROSPERITY AND DIGNITY IN SHINYANGA, TANZANIA

"Before the intervention local seeds were owned by few people in the village, most of the farmers were engaged with corporate seeds based on the perception that they produce more than local seeds, but now almost every farmer in the village has a storage facility for local seeds."

Mr. Emmanuel Sali, farmer, Mwamakaranga village.

## The success story

Paddy is the major crop for household food security and income generation in Shinyanga district. In this semi-arid, mostly rainfed agricultural area, farmers may experience low yields due to shortage of rainfall, poor farming practices that include slash and burning of crop residues, and unfavourable conditions for improved seed varieties such as Machina, which is an open-pollinated variety from the stockist.

The Tanzania Inland Development Organisation (TIDO) is a non-government organization based

in Shinyanga Municipal that became aware of the many positive characteristics of local paddy varieties, namely Malamata, Matela, and Lugata. These varieties have demonstrable resilience to climate change, produce well in local growing conditions, and fetch good prices on the market because they have excellent taste, aroma and texture when cooked. The most favoured variety, Malamata, means 'two times' in Sukuma language – referring to the fact that it requires farmers to hit the bunch of rice twice to detach seeds from the plant, hence, easily threshed.

### Comparison of the improved variety to farmer-identified variety

Improved variety – Machina	Farmers' variety Malamata
8-10 bags per acre	15-18 bags per acre
Needs adequate rainfall for yield	Performs well in limited soil moisture
Brings in lower income on the market due to lack of favourable taste and aroma (TShs 100,00 per bag in 2021)	Brings in higher income due to its excellent taste and aroma (TShs 120,000 per bag in 2021)



Farmers during threshing the rice

Community Through TIDO's **Empowerment** Project, the organisation worked Mwamakalanga, Ichongo lyabusalu, and Bukamba villages in Shinyanga District Council. Their aim was to increase farmers' production and income with local rice varieties and sensitize people to the value of farmer-managed seed. This was done in tandem with the promotion of agro-ecological farming practices. As a result, the Malamata variety identified by farmers as the most appropriate, is now used by every family and has spread to the nearby village, thus preserving agro-biodiversity, reducing input costs and improving livelihoods. As Malamata is prepared for traditional celebrations, such as weddings, cultural identity is also preserved. The project activities, including trainings and seed and food fairs, have strengthened farmer networks from other areas namely Karatu, Babati, Same and Mbeya. Farmers also feel the dignity and confidence that comes with autonomy and recognition of their knowledge and the agrobiodiversity that is a part of their heritage.

An important factor in the success of this initiative came from including the district council and ward agricultural extension staff to train farmers on sustainability, ensuring long-term support from government and the potential for upscaling. The strong commitment of farmers towards labour (family or hired labour) was vital in farm preparation, nursery preparation, transplanting, ferrying the manure to farm and broadcasting, harvesting period and sorting for quality to storage. Another key success factor was ensuring



A video show centre for Mr. Emmanuel as an alternative source of income the result

that the costs were covered to disseminate knowledge and skills to farmers, especially good agricultural practices, postharvest loss, marketing and storage.

## What do farmers say?

Mr. Emanuel Sali from Mwamakaranga village and Mrs. Veronica Richard from Ichongo village are among smallholder farmers engaged in Paddy production. Before 2020 they were using both improved seeds and local seed in rice production. Due to unreliable rainfall and poor agricultural practices, average production levels for both varieties were 20 bags from 2 acres. These yields were not sufficient to meet the household needs for food and sell the excess for other family needs that require cash.

After three years of cultivating the drought tolerant Malamata and using agro-ecological production methods, yields increased to 15 to 20 bags per acre. Mr Sali reported that this enabled him to purchase 15 acres of land, diversify his income through building a a house and Hall for commercial purpose and is now capable of paying school fees for the children.

Similarly, Mrs Richard reported that after three years 's of increased production, the family has been able to purchase four oxen and build a house from selling Malamata rice. Further, the family is able to pay school fees and ensure enough food for household consumption.



Four Oxen was purchased by Mrs, Veronica after gain income from rice production.

## How the Community Empowerment Project was implemented

The activities that were carried out under this initiative are briefly described below.

# Community mobilization and forming farmers' groups:

30 farmers' groups were established in Mwamakalanga, Ichongo lyabusalu, and Bukamba villages in Shinyanga District Council to simplify training for farmers and discussion with the community.

# Seed identification and market demand:

Farmers and extension staff sat together and identified the existing seeds (local and improved) and conducted an assessment of the market demand (good quality, aromatic, sticky white grains). Moreover, farmers selected resilient seeds for food security and income. Malamata variety was selected as the best for the environment as it fitted all characteristics and was suitable for the area.

# Training on seed multiplication and storage:

In August 2020, TIDO conducted training on how to select, multiply seed, and store seeds for other farming seasons.

# Training in good agriculture practices in maize, rice, millet, and other cereal crops:

Farmers learnt about farm preparation and the preparation of composite and animal manure, as well as conservation agriculture using cover crops like Mkuna and Canavalia.

## Attending the national Seed fair at Dodoma organized by PELUM Tanzania:

Farmers from all parts of Tanzania attended the national seed fair to exhibit their local seeds. Farmers from Shinyanga used this platform to learn more about the local seed and knowledge from other areas.

#### Organising seed fairs at village level:

This activity enabled farmers to display their local seeds and exchange between themselves. Farmers shared local knowledge on how to sort and select seeds from their harvest, and how to store seeds through the use of botanical pesticides like Tephrosia Vogeli (UTUPA), and neem leaves (Mwarobaini).

## Demonstration plots on local seeds performance:

In each village demo plots on good agriculture practices were established for farmers to learn. Farmer-to-farmer learning visits were also conducted for the best farmers to be visited by colleagues from the same village or neighbouring villages.

### Key Lesson

The establishment of local seeds fairs and participation of farmers at different levels - villages, wards, districts, and national - helped smallholder farmers to gain more experience and courage to speak about local seeds and utilize them. Local seeds are important agricultural resources, showing resistance against climate shocks, excellent adaptation to local conditions and are preferred for their taste and cultural identity. They are key resources to attain food and income security.

There is some recognition of this in national government, evidenced in a statement made by

the Director of Crop Development in the Ministry of Agriculture, Mr Nyasebwa Chiwangu in 2022 when he said "We have released a lot of varieties, but have we considered the community priorities? like aroma, good taste, nutrition content, and others as it was done before by our ancestors? Currently, new varieties of rice neither taste nor aromatic. The Kyela Varieties¹ are going to be extinct, and we produce more varieties with high productivity only." Now is the time for policy and decision-makers to create a good environment that formally acknowledges and supports the production and rights of local seeds across the country.

#### CROPS4HD

This document is an output of the CROPS4HD project (<a href="www.crops4hd.org">www.crops4hd.org</a>): a consortium of SWISSAID, FiBL, and AFSA supported by the SDC and LED. CROPS4HD has three major components: production, market and policy advocacy.

AFSA, which is responsible for advocacy, is a broad alliance of civil society actors involved in

the fight for food sovereignty and agroecology in Africa. Its members represent small-scale farmers, pastoralists, hunters/gatherers, indigenous peoples, faith-based organisations and environmentalists from across Africa. It is a network of networks, currently with 37 members operating in 50 African countries.

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#### WHO IS AFSA?

AFSA brings small-scale farmers, pastoralists, fisherfolk, indigenous peoples, faith groups, consumers, youth and activists from across the continent of Africa to create a united and louder voice for food sovereignty.

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<sup>&</sup>lt;sup>1</sup> Kyela in Mbeya Region in the Southern Highlands of Tanzania is famous for paddy production