



**FARM AFRICA**

# Seeds of change

**Focus on  
Tanzania**



## For small-scale farmers in eastern and central Tanzania, resourcefulness is a way of life.

Season after season, they adapt to changing weather and market conditions, experimenting with new ideas and technologies to protect their harvests and incomes.

Farming here is not for the faint-hearted. Erratic rainfall plays havoc with harvests. Rising fuel prices are driving up costs of transport and production. Mains electricity, where it exists, is not only costly but unreliable, making it hard to use machinery efficiently for irrigation, milling, processing and storage. These challenges hamper farmers' potential, limiting their incomes, food security and resilience.

In this update you'll meet some of the inspiring farmers Farm Africa is working with to find solutions.

### Grow-your-own energy

From Kilosa district in Morogoro region, eastern Tanzania, Menas,

Mwanaidi and Godfrey update us on the progress of the Powerfarm, a clean energy pilot project hosted by the HIMANA farming cooperative.

The project, funded by Innovate UK, led by Aegis Energy and delivered in partnership with Farm Africa and others, is trialling an integrated system that uses solar, wind and biogas energy to generate reliable, low-cost, clean electricity for rural communities.

This power will be transformational for the coop's 500 farmers, enabling them reliable access to the milling, processing, storage and transport services they need to market their crops. The coop has already switched to electric vehicles and aims to achieve full energy self-sufficiency in 2026.

### Beating drought, improving nutrition

In the Dodoma region of central Tanzania, we catch up with farmers who took part in a previous Farm Africa project that equipped farmers with skills and market connections to tap into the rising market for sorghum,

a drought-resilient crop new to the area. Damaris and Yohana update us on how it's going.

They also share their experiences with our latest NOURISH project. Funded by Norad and led by SNV in partnership with Farm Africa, the programme supports farming households at risk of food insecurity and malnutrition to use climate-smart agriculture to grow a variety of nutritious foods.

Fellow NOURISH participant Suzana shares her experience of taking part in a Farm Africa project for the first time.

Together, these stories show what farmers can achieve when they gain access to the right partnerships, technology and knowledge. From generating clean power to overcoming droughts to improving food security, their success highlights the lasting impact that your support can deliver.

“My hope for the Powerfarm project is that we'll be able to gain income because the electricity will be reliable so the machines will be able to work throughout the day.

“And also, we'll be able to use the money we've been using to buy electricity for something more productive.”

**Mwanaidi**

Member  
HIMANA farming cooperative

With her new drought-resilient kitchen garden, Damaris is growing vegetables for the first time.



# The new power generation

Rising energy prices are challenging everywhere, but for farmers in Tanzania, where only 7% of the population have reliable grid electricity, costs are compounded by supply disruptions.

That's the experience of HIMANA Agricultural Marketing Cooperative Society in Kilosa District. The coop provides milling, pressing, storage and transport services for approximately 500 local farmers. Their machinery is powered by grid electricity.

"Electricity cut-offs here can happen three times per day," says Godfrey Ngololo, secretary of the coop. "That stops all activities, there's no processing, no business being done, there's nothing."

That downtime is costly. So, too, are the polluting fossil fuels used to power vehicles.

To economise, farmers undertake long, exhausting journeys on foot or by bicycle. "To reach my farm, I walk," says farmer and coop member Mwanaidi Maisala. "It takes up to four

hours." In a land where the sun sets at 6pm, that's half the day gone before work even begins.

Transporting produce from field to market is also expensive, yet selling direct from the farm is no solution. "Buyers do not want to go to the farm," explains Menas Yapesa, the coop vice-chairperson. "They want the produce delivered to the collection centre. You get a better price there."

## The lightbulb moment

But wait. Farmers have sunlight, wind and animal manure in abundance. What if they could generate their own power?

That is the vision of the Powerfarm.

This pilot initiative aims to integrate solar, wind and biogas technologies to provide a reliable, renewable energy solution for off-grid communities in rural Tanzania. The green energy generated will allow farmers to charge electric motorbikes and cargo vehicles, power agricultural processing tools and water pumps and switch to smoke-free cooking.

"This is a new technology for us. We are very happy to use it."

Menas  
Vice-chairperson, HIMANA Coop



The cooperative is already generating enough electricity to charge an electric cargo vehicle and motorcycle.



The Powerfarm will use solar, wind and biogas energy to produce clean electricity for the cooperative.

The project is led by Aegis Energy with funding from Innovate UK and the UK and British High Commission Tanzania, and implemented in partnership with Farm Africa and a number of technology-providing partners.

Identifying the HIMANA coop as a host location for the project was easy.

"Because of the services they offer and their frequent power failures, it was obvious they would benefit," explains Farm Africa field officer Ng'walu Chopeta.

## Power in practice

Solar panels and wind turbines on the Powerfarm are already generating enough power to charge an electric cargo vehicle and motorcycle, which farmers now use to transport their produce to market.

"Anyone can come and request transport," Godfrey adds. "Then the cooperative will assign a driver."

The newly complete anaerobic digestion system will produce biogas in a few weeks. At that point, the combined capacity of the three systems will produce

enough reliable, affordable electricity to enable the cooperative to run their processing machinery through grid power interruptions, as well as powering electric vehicles.

"I'm expecting to greatly reduce our processing expenses and gain much income for the cooperative," says Menas.

The surplus income will be reinvested. Plans include new processing machinery, another electric vehicle and a larger warehouse. "We have a lot of customers!" laughs Mwanaidi.

## Kilosa District

Left to right: Menas, Godfrey and Mwanaidi, members of HIMANA cooperative.



# Planting sorghum, harvesting opportunity

With climate pressures mounting, Damaris, from drought-prone Dodoma region, knew she needed to farm differently. Five years ago, when she heard Farm Africa was seeking farmers interested in growing sorghum, a high-value drought-resilient crop not commonly grown in her area, she didn't hesitate.

Farm Africa equipped farmers with the skills and market connections they needed to produce sorghum profitably, passing the baton to the farmers in 2024. Today, the crop has become a widely grown, profitable mainstay.

"I estimate 80% of farmers in the area are now growing it," says Farm Africa value chain officer Veronica Yesaya, "people are telling me their lives have changed completely just because of sorghum."

## Turning knowledge into profit

"I started producing seeds and supplying them to other farmers. I still produce seeds now."

Alongside producing sorghum seed for planting, Damaris produces sorghum

grain to sell herself, timing her sales to maximise profits. "Last year I managed to sell for 1,500 Tanzanian shillings per kilo. I didn't sell when there was a high supply, I sold in March and that's why I got such a good price. I had been trained by Farm Africa on how to use hermetic bags to store grains and keep them in good condition."

## Building market connections

A key legacy of Farm Africa's project was securing an agreement with Tanzania Breweries Limited, a major buyer of sorghum, to purchase in bulk from village selling stations. The set-up has been a game changer for these remote farming communities with limited access to transport. Damaris is the negotiator for her village.

"I have a selling station here. Other farmers, after harvesting their sorghum, bring it here so I can sell it for them. I negotiate the price for everyone and share the money."

In the 2024/2025 growing season, she negotiated on behalf of almost 400 farmers, selling around 500 metric tonnes in total.

**"People are telling me their lives have changed completely just because of sorghum."**

Veronica  
Farm Africa Value Chain Officer, NOURISH

◀ Veronica (left) with Damaris.



Damaris with husband Frenkie and the youngest members of the family.

## Boosting production and nutrition

Through Farm Africa's current NOURISH project, Damaris continues to unlock opportunities.

"I obtained a seed planter through the project. They connected me with a supplier who was giving women the opportunity to buy equipment for half the price. Last year, I produced 18 bags, each bag was 100kg. Before using the planter, I only was getting five bags on the same land. I also rent the planter to other farmers."

She has also learnt to use drip irrigation to produce drought-resilient varieties of vegetables, which have improved her family's nutrition as well as provided her with a source of income.

## Managing success

With multiple income streams, financial management is essential. "I do all of the bookkeeping myself. I learnt how to do it through training during the sorghum project. I make a note of the costs, then I know exactly how much I have earned."

## A more secure future

"Before Farm Africa I used to only have a small house, but now I have managed to build a new house. The children are now going to school or getting technical knowledge in industry. They've managed to get there because of the money I'm earning. It's made a big change to our lives."

📍 Kongwa District



# Outsmarting malnutrition

It's easy to assume that farming families have ready access to fresh, nutritious food, but for farmers like Suzana from the Dodoma region, the reality is more complex.

After repeated droughts, her area faces acute water scarcity. On her farm, a two-hour walk from her village, she's limited to growing grains that can survive the low rainfall.

In her village, where households share a single well on rotation, there's little water available to grow fresh produce. "You have to wait six or seven days for your turn to go, then carry it back," explains Suzana. In the heat, with no refrigeration, storing fresh produce is also difficult.

Until recently, fresh fruits and vegetables have been in short supply. "We didn't eat vegetables that often, so I used to get sick, dizziness, cracking

of the lips and skin," she recalls. Vegetables were sometimes dried for preservation, but using a cooking method that depleted their nutritional value.

Over the past two years, through the NOURISH programme, Farm Africa has been working with communities like Suzana's to find climate-smart solutions to these challenges.

For Suzana, that support is making a practical difference across her farm, her village and at home.

## In the field

The climate-smart farming techniques Suzana has learnt from Farm Africa are strengthening productivity. The family owns five acres and rents ten more, growing sorghum - a nutritious, drought-resilient grain - as well as sunflowers and groundnuts. They also keep poultry, pigs and cows.

"Before NOURISH, we were just scattering grain from last year's harvest, not planting in lines, and not waiting for the rain. When we were planting using scattering, we were using up to six kilograms an acre.

**"Through my kitchen garden, I've managed to have vegetables throughout the year."**

**Suzana**

Mother, grandmother, climate-smart farmer



Suzana's compact, drought-resilient kitchen garden.

"Now we plough, then we wait for the rain. And we add manure. After the rain, we start planting. We use new, improved seeds each year. With the lines, we're using only two to three kilos an acre."

These changes are leading to bigger harvests of healthier, more profitable crops. "Before, the most profitable part of my farming was livestock keeping, but now my crops generate more income than the livestock."

## In the village

At home, with guidance from her project advisor, Suzana has established a kitchen garden packed with highly nutritious yet drought-resilient plants. That's crucial since she's watering by hand from her weekly supply. "Through my kitchen garden, I've managed to have vegetables throughout the year. I also

sell the extra vegetables and use the money to buy food for the piggeries."

To reduce waste and extend shelf life, she preserves the vegetables using a solar dryer provided by the project. "I use it frequently, especially when I don't have enough buyers for my fresh vegetables. People can buy them dry. It has been beneficial because we can consume vegetables that have retained the nutrients."

## Healthier meals

Suzana isn't just earning more, her family is eating better too.

"The most valuable thing I have gained is a change of mindset about nutrition," she says, "how important vegetables are and how often you should eat them. It has improved my nutrition and the children's also."

 **Mpwapwa District**



# Small farm, big future

On a one-acre farm in Kongwa, Tanzania, married couple Yohana and Farida are growing a healthy future for their young family.

"The farm is an inheritance from my father," explains Yohana. "It used to be his farm."

Growing up in a farming family, Yohana came to know Farm Africa as a trusted mentor. "Even when I was studying, I was hearing about Farm Africa from my parents," he recalls. "I was impressed by the way my parents were changing."

Inspired by their example, he too has sought training and advice from Farm Africa. Applying this knowledge, he's turning his acre into a flourishing farm enterprise.

## Diversifying income and diet

By diversifying his production, Yohana has improved his family's income and nutrition.

Alongside traditional crops like maize and cassava, he's now growing drought-resilient crops like sorghum and sweet potatoes, and high-value produce like peppers, tomatoes and papaya.



A home garden supplies leafy greens for the table. Chickens and pigs, fed on farm-grown fodder, add more income and nutrition.

"The income is good but also the food is good," says Farida. "Before, because we didn't grow vegetables or fruits, we had to buy them, and sometimes we didn't have the money, so we would have to miss them. Now, we have everything."

## Making water go further

Water is the defining challenge in Kongwa: rainfall is erratic and mains water is costly. Yohana is using climate-smart techniques to manage it.

"In the dry season I used sunken beds to conserve more water, and the plants survived," he says of his sweet potatoes. "Then, when the rains came, I lifted them up."



With guidance from Farm Africa, he has installed drip irrigation. "It has been very helpful, because it is using small amounts of water compared to before. It is saving cost and time."

## Locking in healthy soils

Heavy downpours wash away valuable topsoil, so Yohana has planted young trees among his crops to anchor the ground and slow run-off. He turns the leaves, manure and crop residues into the soil to improve its fertility and moisture retention. "It has been helping a lot," he says.

## From produce to profit

For farmers, securing sales is crucial.

"The most valuable thing I have learnt from Farm Africa is sorghum farming," he says. "Before, people were not cultivating that here. Farm Africa also connected us with an assured buyer, so we farm knowing we have the market."

Seedling sales, introduced through Farm Africa, is proving another successful venture. "I produce seedlings for fruit and forestry. It's my most profitable crop. I post pictures

of my papaya plants and people get attracted to that and come and buy the seedlings here at the farm."



## Impact

"The way I'm farming now has made a big difference for my family," says Yohana. "We've decided to invest in building a house." The family is also eating well. "A lot comes from the farm, and I'm also now able to buy meat, fish, things like that."

 Kongwa District



"The income is good but also the food is good."

Farida



“The most valuable thing I have gained is a change of mindset about nutrition. How important vegetables are and how often you should eat them.”

**Suzana** Mother, grandmother, climate-smart farmer

 Mpwapwa District, Tanzania

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Photos: Farm Africa/Bertha Lutome



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