Transforming the Farm Input Support Programme (FISP) to diversified agroecology practices in Pemba District, Southern Province, Zambia

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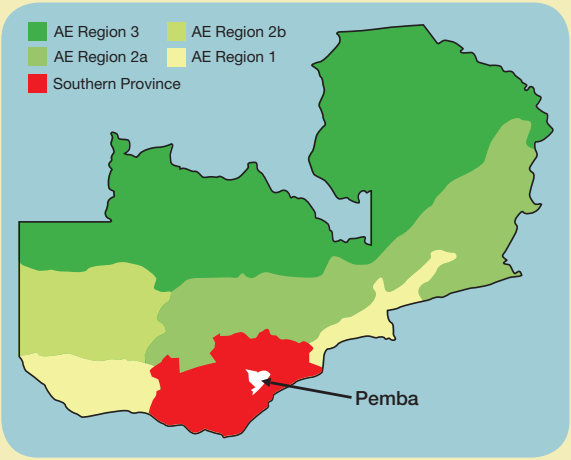
ZAAB
Zambia Alliance For Agroecology & Biodiversity

Kasisi Agricultural Training Centre
Promoting Sustainable Organic Agriculture

REPUBLIC OF ZAMBIA
MINISTRY OF AGRICULTURE
KANCHOMBA FARM INSTITUTE

Introduction



This briefing highlights key issues raised at a farmer exchange and learning event held in July 2019 at the Kanchomba Farm Institute in Pemba District, Southern Province. The district lies in Agroecological Region I, with hot and dry conditions. Rainfall is generally less than 800 mm per annum. The area has been affected by severe droughts in recent years. The overall objective of the meeting was to share and exchange ideas on transitioning the current farmer input support programme, which is heavily biased to chemical fertilizers and hybrid maize seeds, to a smallholder support system for diversified agroecological farming.

Context

Food and farming systems are changing rapidly in Zambia as a whole and in the Southern province in particular. Climate change is intensifying drought and high temperatures in Southern Province. Zambia is experiencing biodiversity loss as trees and forests are being cut down for large scale agriculture and mining, and fewer crop varieties are being planted as farmers are pushed into producing standardised crops and varieties for income. Buyers control the markets, and farmers are not getting fair prices. This has resulted in loss of nutritional quality and diversity in farming households and communities. The farm input support programme (FISP) encourages farming systems that depend on hybrid seed, synthetic fertilizers and chemicals and increasing the size of land for production. The FISPs have not only created farmer dependency on multinational corporations and government subsidies but also takes up a big portion of the national agricultural budget, but with little benefit for farmers after many years.

> "In the beginning, they were giving us that fertiliser for free. But when they saw that our soils were degraded and we were hooked on fertiliser, now we must buy that fertiliser and we are completely dependent on it. The same is happening with chemicals." AGNESS KAFUNGA, ZAMBIA WOMEN AND GIRLS FOUNDATION

Farming then and now

Then	Now
More rainfall and trees	Less rain, uneven distribution, trees are cut
Organic soil fertility management through the use of manure	Synthetic fertilizer and pesticides
Seed saving and reuse, open pollinated varieties (OPVs) of maize, sorghum, millet	Hybrid maize, less or no seed saving and reuse
Production for household and community use	Production for income
Government marketing support – price stability, big volumes	Private sector markets – changing prices, small quantities to local markets
Longer and healthier lives, diverse diets, indigenous and local crops, food security, food preservation, medicinal plants and natural remedies, breast feeding for 2 years	Illness and shorter lives, Western diets with less diversity, food shortages, medical drugs from outside, bottle feeding
Respect for elders and indigenous knowledge	Belief that knowledge from outside is better

"In the old days rural farming communities used to visit a relative in town, and carry food for those in the urban areas, now its vice-versa. People get whatever they can from the towns and give it to those in the rural areas." MARY SAKALA, RURAL WOMEN'S ASSEMBLY

What is sustainable organic agriculture / agroecology?

Some people talk about sustainable organic agriculture (SOA), others about agroecology, and others about permaculture. They mean the same thing. They are based on the earth-caring practices of our ancestors.

Main practices of SOA / agroecology

Use local resources

Organic soil fertility management through the use of readily available and cheap resources, such as animal manure, green manures, agroforestry, etc

Biological/natural pest management

Diverse farmer seed

Intercropping, mixed livestock and crop farming, agroforestry

Permanent ground cover (e.g. mulch, crop residues, green manures), water harvesting

Farmer to farmer learning and sharing

"Methods of intercropping are very important. You have vegetables between the cereals, for instance, planting the onion into the cereals. That smell of the onion chases away the pests. There are many different plants and flowers you can use to deter the pests from entering the field." AGNESS KAFUNGA, ZAMBIA WOMEN AND GIRLS FOUNDATION

Farmer seed

"In the past, seed was passed from farmer to farmer, it was not bought, it was given for free for everyone to multiply. 75% of seed is still accessed through this farmer seed system. But the big companies are threatening this system. The formal seed system is controlled by SeedCo, Dekalb, Zamseed, and Syngenta, and seed is sold in the agro-dealers. You have to buy these seeds every year and they need chemicals to grow. The practice of keeping indigenous varieties – of how to grow, select the seeds, store, and prepare our local foods – is part of our culture. But this is being lost. Seed is our identity. Losing our local seed is like losing who we are." JULIET NANGAMBA, CTDT

Characteristics of the farmer seed system:

- Seed is never bought, it is always exchanged.
- It is easy to get the seed, it is accessible within our community at the time when we need it, not just when government provides subsidies.
- It is diverse – there are many different varieties and types of cereal, vegetable and tree crops.
- This seed has been in our communities for so many years and through natural selection has become well adapted to our local conditions and is able to cope with the changing climate.
- These seeds are managed by women. Why? Because women are responsible for, and understand, food and nutrition at the household level even when there are no markets.

"We should not wait for the government to bring us seed or go to the shops to buy that seed. We must have the seed at home with us." JULIET NANGAMBA, CTDT

"Converting to SOA takes time and effort, but you can begin on a smaller section of the field and then expand over the seasons as you learn and share."

BRIAN CHAVWANGA, KANCHOMBA FI FARM MANAGER

Participants visited the SOA demo plot at Kanchomba Farm Institute (FI), and the fields of Hami Moleya, a farmer in the area. The Kanchomba demo plot, which is run in partnership with KATC, is meant to showcase different SOA practices suitable to the conditions. The first step is building soil organic matter and phasing out use of synthetic fertilizer. In the beginning, the maize out-performed the sorghum but by January, due to the prolonged dry spell, the maize dried up while the sorghum picked up, completely outperforming the maize. Beans and sorghum were intercropped. Sunhemp grew so well it covered the entire plot and there was total suppression of weeds. For the planting season starting in 2019, crops will be rotated so that where there was a cereal, there will be legume. Based on the lessons and experiences from the demo plot, Kanchomba FI has embarked on a process of converting the rest of its farm to SOA.

In her garden, Hami Moleya explained:

"From my mother I learnt about residue management, and not burning. I also learnt about how to naturally improve the organic matter in the soil by burying grass.. You can see the ground is soft. I had to dig out the entire portion of this plot, burying residues, grass, manure and ash into the soil. So now wherever I make a bed, the soil is already fertile ... I lost my husband in 1997, and since then I have involved myself in this garden and been able to support all my children and household food security, and sell a lot for cash. I spend most days here, people call me Mrs Garden because I am always found here in the garden, everything happens from this place."

FARMER'S VOICE

"This must be scaled up. We must be able to duplicate what is here in all the camps. The FI can provide the technical assistance but farmers can manage to do this themselves and then this can be showcased to even more farmers."

Lessons from Chikankata

"In 2011, we **organised ourselves** into two groups for our own trainings. We started learning from someone's house. We learnt about seed multiplication, we came together as farmers and **picked seed from amongst ourselves, shared, exchanged and planted**. All the seed from Chikankata was brought to one place. When we saw that there was some seed that had been lost, CTDT helped us to find those seeds from somewhere else. There were 19 seed growers who worked to grow seed for a **seed bank** that we have amongst ourselves in the community. Since 2012, because of the seed bank, we have relied on this seed and have not had to buy seed. Through **demonstration plots** and sharing knowledge and skill, we teach ourselves how each and every seed grows." FIVENT HANGANDU, CHIKANKATA FARMER

"Sustainable organic agriculture is environmentally friendly. We do not introduce harmful chemicals into the soil or pollute the water. It is acceptable to our local culture. Just as we won't introduce harmful chemicals into the soil, in the same way we won't introduce things into our communities that are harmful. Sustainable agriculture involves a lot of effort and planning, but as time goes on, it is more fruitful and more profitable. There is a lot of indigenous technological knowledge we have. In agroecology we tap that knowledge and put our ideas together with science."

BRIAN CHAVWANGA, KANCHOMBA FARM MANAGER

"I think this practice is showing us we need to stop asking help from government. Even without FISP we are able to grow our food and crops. If we embrace SOA we will no longer be relying on FISP every year." JORAM HAGWENA, FARMER

What can we do next?

Farmers

- **Identify elders** in the area and learn from their knowledge and skills, especially to pass this knowledge onto the younger generation – how to protect the land, conserve water, to grow, store and prepare our traditional food.
- **Seed** sharing, collecting and storing, local seed banks, promote and sell local seed at seed fairs and agricultural shows.
- **Conserve local** fruits and trees, traditional vegetable and cereal seeds.
- **Work in groups** with others who are interested, share.
- Traditional leaders and local authorities to allocate **land to women**.
- **Schools** as sites for agroecology production.
- Involve **youth** at household level on agroecology, include them in exchange visits.

"We should tell our friends what we have learnt here. I have a special seed, and so do others, so then we should gather our seed from the different women as we go back, and share that seed. If we find we don't have enough, we plant in one field and multiply and share with each other." FARMER'S VOICE

Government

- Support **seed multiplication** of local varieties.
- **Recognise farmer seed systems** and give certificates to local seed growers.
- Use some of the funds from FISP to **support Ministry of Agriculture (MoA) farm institutes and extension officers**, so that they are better able to meet farmers' needs.
- **Extension officers should be trained in SOA** so that they can support farmers in agroecology.
- **Early warning systems in local communities on rainfall** patterns.
- Support **market development** for diverse crops.

NGOs

- Support **farmer to farmer exchanges, demo plots and field days**.
- Assist farmers on how to multiply **seed**.
- Share **water** harvesting and conservation techniques.
- Provide **training in agroecology**, biological pest management.
- **Documentation and feedback** to farmers and local MoA officials to assist to coordinate efforts.

"We farmers have become the agents against nature. Our farming practices are destroying the earth. So if we take these more sustainable practices, we will become agents to protect the earth, not destroy it, and produce healthy food." BORNFACE HANGALA, ESAFF ZAMBIA

A multi-stakeholder dialogue

Kanchomba Farming Institute (KFI) in Pemba District hosted the field visit and dialogue together with Kasisi Agricultural Training Centre (KATC), Zambia Alliance for Agroecology and Biodiversity (ZAAB) and African Centre for Biodiversity (ACB).

Fifty-eight participants included farmers from field schools and cooperatives in the district, KATC, ZAAB, Rural Women's Assembly (RWA), East and Southern Africa Farmer's Forum (ESAFF) Zambia, CTDT, Schools and Colleges Permaculture Programme (Scope), Zambia Women and Girls Foundation, Caritas, Conservation Farming Unit, ACB, Kanchomba Farm Institute, Ministry of Agriculture (MoA) Pemba District Agricultural Coordinator (DACO) and Senior Agricultural Officer (SAO), extension services and agronomists.

"The first time you use chemicals, the weeds will die. But after some time the weeds become resistant and now we have super-weeds. We can never deal in the long term with weeds by using herbicides. The problems will just become worse in the long term." FARMER'S VOICE

"Every year the government gives us fertilizer, but then it finishes and we are left to ask again with nothing to show for the so-called subsidy. The original design of FISP is that farmers can only get support for three years and then farmers are weaned off. So, after three years, when there is no more free fertilizer and free seed, is that the end of our farming? We rather need support that is an investment in our farms and businesses, so that we become independent and our farming sustainable."

DANIEL KALALA, KATC

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