



## CTDT Steps Up Agroecology in the Operational Areas



*A lead farmer demonstrating how to make tea manure to other farmers during the training on AE practices in Chikankata*

Community Technology Development Trust (CTDT) has stepped up efforts in the implementation of agroecological practices in Chirundu, Chikankata, Shibuyunji and Rufunsa districts. Based on the findings that were collected during a community mapping exercise in Chirundu, Machavika area, from a sample of 176 farmers practiced more than 3 AE practices.

Several agroecological models which included crop residue retention, Green manure cover crops, interplanting (legume with a cereal), agroforestry (cropping through the use of trees such as *Gliricidia sepium*), mixed cropping (planting more than two plants in one field), improved fallow through the use of Pigeon peas, use of tea manure, Bokashi, compost/manure and other bio-fertilizers were rolled out.

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Noel Chalimbwa is one of the farmer facilitators from Shibuyunji district who were trained in sustainable organic agriculture (SOA) practices. Mr. Chalimbwa prides in being a role model farmer who practices what he teaches to other farmers. He shares that he has seen a lot of benefits especially improvement in soil organic matter which in turn gives him good yields. "The goodness I have seen with this is that my crops are always healthy and always gives me good yields, I usually use bokashi and intercropping. With the rising prices of fertilizer, bokashi has really helped me because I make it myself. The other benefit of these organic fertilizers is that it replenishes the soil," he said.



*Noel Chalimbwa sharing his experiences on AE during the training in Shibuyunji.*

"I first learnt about SOA from Kasisi Agriculture Training Center (KATC) where CTDT took us for training and I have since been using it for three years; I have trained other farmers who have testified the benefits they have seen in these practices. Crops produced with bokashi are very tasty and nutritious with good vitamins," he added.

Agnes Mweemba also a farmer from Kayanga Farmer Field School (FFS) in Shibuyunji was trained by Noel Chalimbwa. Agness has also been using the practices after receiving the training. "I learnt about bokashi from our colleagues who received the training from KATC. They came to teach us at the FFS; we immediately went to try it. We make gardens and apply the bokashi on our vegetables and also in our fields. What we have seen is that they are cheap because we use materials readily available on our farm," she said.



*Agnes Mweemba sharing her experiences during the AE training*

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Chief Agriculture Research Officer, Kennedy Muimui thanked CTD for organizing such a workshop and for recognizing that ZARI breeders as well as extension officers can play a critical role in advancing the PPB work.

"I am very confident that this team here will deliver; our role as breeders is to change the agriculture sector by coming up with varieties that are better adapted, nutritious and preferred, because of that, we feel our small-scale farmers should be empowered to improve the varieties they are working with so that they can have them in their hands and be able to continuously utilize them for their sustenance which does not make sense to multi-national billionaire seed companies around the world".

## Training of Trainers for ZARI Breeders on FFS PPB Approaches

In 2022, the CTD made headway in moving towards institutionalizing Participatory Plant Breeding (PPB) through the farmer field schools (FFS) approaches with national breeding programs. In December 2022, a Training of Trainers (ToT) workshop was conducted for Zambia Agriculture Research Institute (ZARI) breeders, agronomists, technicians and researchers. The workshop was designed to train a core team of facilitators, consisting of breeders and other technical staff from ZARI, on PPB and FFS approaches for purposes of mainstreaming in national programs.

ZARI breeders and technical staff from the cowpea, beans, maize, groundnuts, sorghum and millets team including the government extension staff were part of the team that was trained. Breeders have become cognizant of the fact that farmer involvement is very important in determining the traits of a variety of their choice.

In his closing remarks, CTD director, Charles Nkhoma said that workshop put a lot of emphasis on capacity building and that there will be more trainings to come for the facilitators to grasp concepts of PPB FFS approaches. He further added that NGOs work on project basis and hence can only establish a limited number of FFS within a given time frame but ZARI being a government entity can transform the PPB FFS approach into a program and establish as many FFS as possible.

"We would like to emphasize that setting of objectives has to be done together with farmers and the breeder as a guide to advice farmers; sometimes farmers would want traits that are not possible to achieve, the breeder has to guide on what is possible while the farmers have to take up the many responsibilities," He said.

"We have heard about the FFS approach but have not incorporated it in our work, we could have done a bit

of it, the challenge is now on us to see how we use this concept and tie it to plant breeding which is participatory," He said.

Mr. Muimui further added that breeders see a lot of diversity working on the ground and that there is an urgent need to take stalk of all this country's diversity.



Beans Breeder, Kennedy Muimui giving his closing remarks at the end of the ToT



### Assessing the Food and Nutrition Status of Machavika Village Through Participatory Approaches

One of the most important tasks in project management is measuring project progress; in doing so, different tools are used to assess projects. The community mapping is one of the tools that CTD T employs to assess its projects.

CTDT has in the past four years been conducting the community mapping in Machavika village of Chirundu District. The mapping aims to assess the community's adoption rates for traditional seed, agroecological practices and measures dietary diversity to measure the progress of food and nutrition security within the community. The mapping creates a platform for reflection on food and nutrition security of the community and hopes to transform mindsets and practices that would lead to food and nutrition security.

The approach is participatory with the community taking the leading role in probing conversations for reflection from amongst themselves on food and nutrition related issues considering other processes and agreements made. The process usually takes four days, on the first day, a smaller group consisting mainly of 30 community members that review the community map, dietary diversity and the crop diversity which was then is presented to the whole community the following day.

The second day of the meeting is attended by the whole village to validate the findings of the small groups which had gathered the previous day. During the process, the community develops an action plan for the following year to improve on the areas



Sandra Ntangale, community health volunteer leading the farmers in assessing the community's dietary diversity using the dietary wheel.

they have found to be lagging behind.

In a review process of 2022, Machavika village results showed improvements in its' food and nutrition security. The community now appreciates agroecological practices because of the evidence seen from those practicing it as compared to the previous years. Cases of malnutrition have steadily reduced which is mainly attributed to having a wide variety of foods from all the seven food groups.

The number of households consuming food from all the seven food groups was shown to have improved from the 24-hour assessment that was conducted during the process. The number of households having enough to eat



Selina Mbofana , FFS member in Chirundu sharing on the cooking demonstrations they conduct.

throughout the year increased from 15 out of 164 to 60 out of 176 of households accessed in 2021 and 2022 respectively. The lean period of the community was reduced from five months to four months.

The uptake of agroecological practices such as intercropping with legumes in the community still has challenges as there are still issues in accessing legume seed.

One woman shared that ever since she joined the programme , participating in different activities especially cooking demonstrations has helped her household's nutrition status to improve.

" There are crops like cowpea that I never used to enjoy eating until after I visited my relative from another village and saw how well she had prepared it. When I came back, I learnt the same thing from the cooking demonstrations that were conducted here. I never knew I would enjoy cowpea until I learnt other cooking methods that improve the taste of foods that we didn't like consuming," Selina Mbofana.



## Rufunsa District Indaba on Climate Change; A Call for Climate Financing

In the past few months, CTDT, with the support of Akina Mama wa Afrika, has been implementing the Voices for Just Climate Action (VCA) project. The project wishes is to amplify the voices of communities in order to advocate for climate-resilient food production systems that consider the limitations of seed and water in Rufunsa district.

CTDT has mobilized a group of 18 community members, including women farmers, representatives from the Ward Development Committees (WDCs) representatives from Chieftainess's palace, representatives from people with disabilities, youth representatives, and like-minded Civil Society Organisations (CSOs), to form the District Climate Change Committee(DCCC).

In November 2022, CTDT facilitated the District Climate Change Committee (DCCC) to conduct a climate change forum with key government stakeholders in the district. The aim of the meeting was to discuss ways to include climate financing in government initiatives at the district level. The attendees included the Council Chairperson, the area Councillor, the Constituency Development Committee Chairperson, members of the Ward Development Committee, farmers, the district environmental planner, members of the DCCC, and staff from CTDT.

In his speech, Council Chairperson Kennedy Mialoni stated that the government is aware of the impact of climate change, particularly in the agricultural sector. This is evident from the recent occurrences of flooding, drought, high temperatures, and pest invasions on crops, which have led to a loss of local crop diversity. "Government is alive to the effects of climate change hence has come up with various projects including the creation of the Ministry of Green Economy and Environment to

focus on climate change mitigation and adaptation to help communities cop with its effects," He said.

CTDT director, Charles Nkhoma in his welcoming remarks stated that the impacts of climate change are mostly felt by those on the grassroots and hence communities should be part of the decision makers in climate change conversations. "What we are doing in Rufunsa is experimental and hopefully other districts can learn; what we did was try and organize ourselves at district level to participate more in the decision making in the discussions regarding climate change that we hear technocrats talk about in the media," he said.

The DCCC called on the CDC to consider allocating 20% of the Constituency Development Fund (CDF) funds towards financing climate change projects by the grassroots. Representing the community, the DCCC chairperson stated that the initiative will be functional in the district if there is financial support for climate change activities. "Our focus is on our agriculture, we must make sure we look at agriculture in its entirety so that the farming systems we introduce are structured in a way that is adapted to the climate change situation," He said.

Constituency Development Committee (CDC) Chairperson, Bishop Mambo said that the DCCC has a long way to go with a lot of work to do especially in curbing the vice against the cutting down of trees. "You need to know your WDCs and the councilors, actions need to be taken quickly, and the effects of climate change are visible like we have seen our crops being destroyed. Let's work together, ourselves and the government utilizing the CDF to better the communities," he said.



## A Growing Movement for Farmers Rights

The SKI farmer's rights campaign and seminar was hosted by the Zambia Alliance for Agroecology and Biodiversity (ZAAB) and the University of Cape Town (UCT). CTD T participated in the campaign and the seminar that was attended by participants from Zambia, Zimbabwe, Malawi, and South Africa with some other guests coming from Senegal, Kenya, Sweden, Italy, Switzerland, and Norway.

During the campaign, visiting farmers from Malawi and Zimbabwe accompanied by other Zambian farmers from Shibuyunji, Monze and Chongwe visited CTD T farmers in Rufunsa on a learning visit to the Rufunsa Community Seed Bank(CSB). The farmers toured the Rufunsa community seed bank and farmers from Rufunsa shared their experiences on CSB management with their counterparts.

Rufunsa District Commissioner (DC), Richard Mabena dropped by to greet the visiting farmers. He expressed his happiness for the great work that Civil Society Organisations (CSOs) are doing in fostering the promotion of local seeds which he described as life giving seeds. "These other seeds, the hybrids



*Erika Malupande Rufunsa youth sharing recipes for Zambian local food plants during the exchange visit*

which we are buying have no value; what I get from the gankata is good. We are forgetting our traditional seed and what will happen is that our children will not know the value that they have to offer," he said.

The DC recognizes that farmers have the right to keep their own seeds. He encouraged farmers to be good ambassadors of local crops and not be cheated by seed companies. "I normally grow these seeds because they are tasty and nutritious; velvet beans for example is not only good for our fields but you are also able to process it and make milk and make coffee from it," he said.

At the end of the campaign, the farmers came up with a number of demands which were addressed to their respective governments, Civil Society Organisations (CSOs), Common Market for East and Southern Africa(COMESA), African Union (AU), United Nations (UN), Southern African Development Community (SADC), development partners, and the SADC genebank.

The demands made included; Local seeds to be recognized as seed through policies and laws; technical and financial support for community and district seed



*Zambia and South African farmers displaying their demands on banners during the start of the farmers rights seminar in Lusaka*

banks in each country must be given; support for more farmer-to-farmer connections and learning at local, national and regional level; training and extension services on agroecology; support for an open market to sell traditional seed and crops; agroecology to be incorporated in school and college/university curriculum; domestication and implementation of the International Treaty For Plant Genetic Resources For Food And Agriculture (ITPGRFA); farmers' indigenous seed and knowledge are protected; farmers are included in decision making on any laws which affect them; government subsidy programs, like Farmer Input Support Programme (FISP), are redirected to finance agroecology; government to reject UPOV-91 and say no to Genetically Modified Organisms (GMOs).