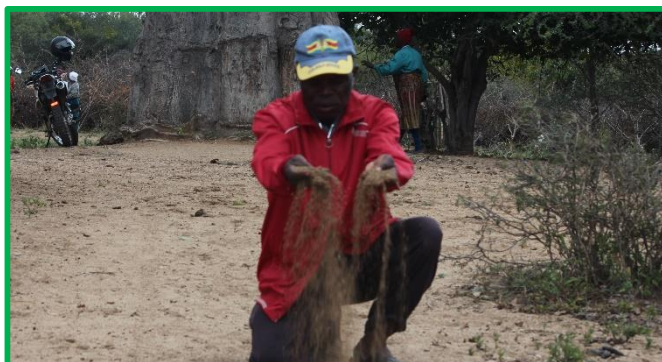




Strategically engaging smallholder farmers in finding alternative sustainable ways of soil regeneration to gradually substitute the use of toxic chemicals which are threatening the arability of our soils.

Throughout this whole quarter (April-June 2022), we have been focusing on soil regeneration in smallholder agriculture. We have been putting soil regeneration activities at the forefront of our interventions because



Farmer from Gudyanga demonstrating the impact of HLLM on the soil

we understand that the current health status of our soils is not the best that we can have for improved production and productivity. Soil health is very critical because it significantly determines the performance of smallholder agriculture. With most of Zimbabwe's soils being sandy and inherently infertile; realizing a marked increase in our production will be a very difficult task. We believe that, this is not the time for us as smallholder farmers to respond by putting more and more loads of chemical fertilisers in our soils.

Unfortunately, such measures are very expensive and might not sustainably fertilise our soils because some of the chemicals contained in these fertilisers paralyse microbial activity in the soil.

The continued application of toxic chemicals like synthetic fertilisers and herbicides poses the lives of some beneficial microbes that

reside in the soil to severe danger. Microbes play a very crucial role in the growth of the plant. Microbes and plants have always grown in perfect opus. In future, this may cause the soil to lose its arability and turn into a desert. Therefore, we urge you to be responsible stewards of your land and environments.

“Healthy soils, healthy plants, healthy people”.

You can read more on microbe contribution to plant growth promotion on this link <http://organicbiotech.com/soil-enzymes/>

SOIL REGENERATION ACTIVITIES IN THE LRPs

Fambidzanai is offering technical support to ActionAid Zimbabwe’s farmers and extension agents in the Local Rights Programmes across Zimbabwe. Our field officers, Mr. Crispin Dungeni, and Mr. Jacob Ndlovu have been moving across the LRPs demonstrating simple & chemical-free soil fertility management methods that smallholder farmers can adopt using resources within their vicinity. The farmers

were being trained to make different types of composts, dig fertility trench beds and make simple non-toxic liquid fertilisers. The picture gallery below shows the field officers engaging farmers in practical lessons on various organic soil fertility management techniques such as thermal composts.



Farmers in the Local Rights Programmes going through some training on different organic soil fertility management methods

NEWLY LAUNCHED RADIO PROGRAMME IS HINGED ON SUSTAINABLE SOIL FERTILITY MANAGEMENT & PROTECTION ISSUES

Brot für die Welt

LIVE ON RADIO

Tune In
As we discuss how we can use Agroecological approach in addressing climate-induced hazards and shocks that are affecting our food system.

LIVE ON 103.1 FM
103.8 FM
107.5 FM

Share and Tune In!

EVERY Tuesday AT 7pm - 7:20pm

fpc_online Fambidzanai Permaculture Centre
fpc_online Fambidzanai Permaculture Centre

TUNE IN TODAY!

The media has not been left behind in our soil regeneration interventions! We are working with a community radio station from Mutare which is called Diamond FM on Tuesdays & Thursdays in a programme called The Farmer's Guide. The programme was designed to expand extension services on soil regeneration through such platforms like the radio. Farmers practising organic methods of soil regeneration were given a chance to share their experiences in using organic fertilisers like bokashi in their fields with the other farmer listeners.

The School of Agroecology Coordinator Mr. Shepherd Kudakwashe Mudzingwa has been presenting several issues on organic soil fertility management techniques every Tuesday from 7pm to 7.20pm.

RECOGNISING THE CONTRIBUTION OF THE SCHOOL OF AGROECOLOGY STUDENTS



One of the farmers who are working with Farai Gumisai in regenerating soils in Chisikaurayi, Chimanimani

As you well know, FPC is offering a Diploma in Agroecology certificate in affiliation with the Bindura University of Science Education (BUSE). The programme is mainly targeting our local extension agents. We are working with the government of Zimbabwe in ensuring that all extension agents in Zimbabwe are trained on agroecology. By capacitating the extension officer, we have utmost belief that, the officers will cascade the knowledge and the skills down to the farmers in their respective communities. In a few years, the impact of the officers that have been trained is already becoming noticeable in many communities that they are working in.

We were impressed and astonished by the rate at which communities are heeding to agroecology, especially in matters of soil fertility management, and water harnessing. We visited some of the students who are working with communities in agroecological interventions.

VISITING FARAI GUMISAI IN CHISIKAURAYI VILLAGE, CHIMANIMANI

Farai Gumisai is a field officer at Towards Sustainable Use of Resources Organisation (TSURO) Trust, one of the organisations that have been doing incredible work in terms of soil regeneration in Chimanimani. He did his Diploma in Agroecology with Fambidzanai Permaculture Centre in 2021. Under TSURO Trust, Farai has been working with the Chisikaurayi community in Gudyanga in a programme called Holistic Livestock and

Landuse Management (HLLM). The programme focuses on soil regeneration using livestock.

After impacting one of the fields near the water source a few months ago, the community has established a community garden where they are growing tomatoes, broccoli, cauliflower, and a number of other horticultural crops.



The new horticulture project roars to life after the soil impaction that was done by the livestock on this land.

MAI BOFU ATTESTS THE VIABILITY OF AGROECOLOGY IN SOIL REGENERATION

The 2021/22 agricultural season was not one of the best seasons for most smallholder farmers across Zimbabwe. Some of the farmers in the areas that lie in agroecological regions 4 and 5 did not manage to harvest anything.

Mrs. Bofu (pictured below) is a smallholder farmer from Chisikaurayi village, Chimanimani district. Her area is one of the several areas that were affected by last season's erratic rainfall. Despite the protracted dry spells, she experienced during

the past season, she managed to harvest a few grains for her family. She attested that the agricultural approaches that they have been employing in their fields are proving to be very beneficial. She said, “We started by impacting our fields using our livestock. We then dug water harnessing structures, swales, in our fields. Our soils are now fertile, and we

are also able to harness the little water that we receive because we have been taught several ways of doing so by Mr. Gumisai”. Despite the drought, Mrs. Bofu managed to harvest more than 20 bags of grain, including traditional grains such as groundnuts, Bambara nuts, sorghum and millet.



Mrs. Bofu shows some of the grains she harvested from her impacted fields

VISITING RUFARO CHIHAKA IN TAWONEZVI VILLAGE, GUTU



Rufaro Chihaka, one of our graduate Agroecology students shares a lighter moment with the Tawonezvi villagers while standing in front of their newly made thermal compost

Rufaro Chihaka is one of the government of Zimbabwe's agriculture extension officers who were trained in agroecology by Fambidzanai. She works with smallholder farmers in Tawonezvi village, in Gutu. Tawonezvi lies between region 4 and 5, which means, on average the area receives little rainfall of not more than 450mm

annually. Besides the poor rainfall, sandy, and infertile soils of Gutu can no longer vibrantly support plant growth. The farmers are closely working together with Ms. Rufaro Chihaka their extension officer in several soil regeneration activities that mainly include, thermal compost and bokashi making.

THE ZIVANAYIS COMMEND BOKASHI BIO-FERTILISER



Mr. & Mrs. Zivanayi of Tawonezvi village are both convinced by the impacts of bokashi in their fields

Mr. & Mrs. Zivanayi are both smallholder farmers in Tawonezvi village, ward 35, Gutu. After getting training on bokashi making from Ms. Chihaka, the couple set aside a small plot where they applied the bokashi organic fertiliser to see whether it works with their soil or not. The experiment turned out positively, they saw that the bean field where they applied bokashi had very healthy plants which were not easily affected by pests or diseases. Seeing the impressive results, the two decided to apply the fertiliser in the other fields, but it was a bit late, the change was very slight. Mr. Zivanayi jokingly said, “Bokashi ndinoibhiga”, which means, I am fully convinced by the results of this

fertiliser. He also said, “Now that I know that I have this knowledge and experience about using bokashi, next season, I will make sure that I apply it in all the fields”



Rufaro (centre) showing some of the materials they use in making the bokashi bio-fertiliser



Some of the grains the Zivanayi family harvested as a result of the bokashi impact in their fields



Mr. Zivanayi & Rufaro standing in front of the bokashi making room at Mr. Zivanayi's homestead

THE LAUNCH OF THE STRATEGIC PARTNERSHIP AGREEMENT 2 PROJECT IN MBIRE DISTRICT



Partners & stakeholders gathered at Lower Guruve Development Association conference hall for the launch of the Strategic Partnership Agreement 2 project in Mbire

On the 4th of May 2022, FAMBIDZANAI, in partnership with ActionAid Zimbabwe, and with support from DANIDA, facilitated a district inception meeting for the launch of the Strategic Partnership Agreement phase 2 project which shall span from this current year (2022) to 2025. The overall objective of the project is to ensure that by 2025, young people, especially women, know their role and are taking steps to influence an enabling environment for the implementation of feminist and green economic alternatives that will improve their livelihoods and resilience to climate change-induced shocks and stresses.

The meeting was attended by representatives from various government departments, including the District Development Coordinator Mr Maruta, other senior local government officials and key ministries in this project such as the Ministry of Youth, Sports, Arts and Culture, and the Ministry of Women Affairs, Small and Medium Enterprise Development. The purpose of this important gathering was to share insights and ideas on intervention approaches to be employed in the implementation of the project.

The strategic objectives of this project are to ensure that;

1. Young people, especially women, and marginalised people enjoy fundamental rights through improved access to well-resourced programmes and public services

2. Young people, especially women and marginalized people enjoy improved sustainable livelihoods through climate accountable governments and alternatives that build climate resilience
3. Young people, especially women and marginalized people are resilient to shocks and enjoy their right to protection in fragile situations, disasters and protracted crises

THE BASIC STEPS TO FOLLOW WHEN MAKING BOKASHI BIO-FERTILISER

Bokashi is an organic fertiliser, which is made by fermenting organic matter either by aerobic or anaerobic respiration. Bokashi contains a lot of nutrients and it serves as a rapid working fertilizer, Madeleine *et al* (2005).

Material Requirements:

- 1 bag of poultry manure (Nitrogen-rich material)
- 1 bag of wheat/sorghum bran (Carbon-rich material)
- 1 bag of charcoal (small pieces 1-2 cm)
- 1 bag sugar cane trash
- 2 litres molasses
- ½ bag of Bokashi or compost (containing microorganism that facilitates the fermentation)
- 2 bags of clean soil
- Water

Preparation

- Cut all the materials into fine pieces and put them into piles.
- Dissolve the molasses in water (20 l); heating may make it dissolve easier.
- Spread out a layer of one of the materials: Use one third of the quantity of the total recipe (1 bag in this case) for one layer.
- Water the layer with the molasses solution. Use a watering can until the entire surface is wet and not drenched.
- Put another layer of a different material (1/3 of the quantity) on top of the first layer.
- Water this layer too with the molasses solution.
- Continue this process until all the materials are used.
- When you have one heap of the moistened materials, turn the heap over again to increase the mixing of the materials.
- Finally make a heap of about 50 cm high.
- Cover the heap with sacks or mats. Do not use plastic because the air will not pass.
- Turn the heap over, every 12 hours. Do it in such a way that the material, which was on the outside, ends up in the inside and the other way round. If the heap is very hot, turn it over a few times to lower the temperature. After one day the mixture will be brown, and when taking away the cover you probably see fungus growing.
- After the third day take the cover off the heap in order to let the mixture dry. The color will change from brown to greyish. The heap will have a sweet-sour smell. Continue to turn over the heap every 12 hours, to let it dry more quickly.
- The aerobically prepared Bokashi is ready for use after 5-7days
- Application and storage is same as that of compost



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