The future is in favour of agroecology, the world will not be habitable without it. Everything else that is convention will fail because it does not work with nature. Julius Astiva, Master Food Forest Farmer, Ebubayi Kenya

There is an old saying: if your food becomes your medicine, your medicine becomes your food.

The agroecological training has enabled me to improve my production of rice, beans, maize and vegetables. I am proud to eat healthy.

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WHY IS LAND SO IMPORTANT?

The inclusion of land as a production factor by neo-classical scholars underscores the importance of this scarce resource. However, this conception of land is very limited as it views land from a purely utilitarian angle. Land has a myriad of dimensions, including the cultural and the religious. On land, we build houses to protect us from the natural elements; we grow crops to feed our families; we graze our animals as a source of livelihood.

On land, water flows and is stored for current and future use; wild plants grow, and their fruits are gathered for food; wildlife and micro-organisms thrive as part of the complex global ecosystem.

The Alliance for Food Sovereignty in Africa continues to research and document the changing nature of land use and tenure systems and how these affect smallholder producers’ lives. The gradual commodification of Africa’s land, corporates and elites ‘grabbing’ the most productive land, and agricultural policies that promote industrial farming are the greatest tragedies of Africa’s food system today. AFSA stands for land reforms that are inclusive and gender-sensitive, that respect customary ownership systems, incorporate indigenous knowledge systems and promote agroecological food production that regenerates soil health.

AFSA supports community voices striving to influence land policy to become community land rights friendly. AFSA promotes the transition to agroecology as the vehicle for food sovereignty and a formidable response to the climate crisis. Our sacred duty as AFSA members is to use evidence-based advocacy approaches to achieve our vision of Africa: sufficient in diverse, healthy foods produced through healthy methods; where communities control and manage their seed production and exchange systems; where agroecology is the predominant method of food production.

We can achieve this through collaborative work with key stakeholders, including smallholder farmers, fisherfolk, pastoralists, hunter-gatherers and state and non-state actors in influencing policy at all levels of governance.

Chris Macoloo, Ph.D. (Cantab.), FCCS
Chair of AFSA Board & Africa Regional Director at World Neighbors
AGROECOLOGY
ON THE GROUND

Food insecurity is a very real threat to many across the continent of Africa. The climate crisis and destructive farming practices are challenging African farmers’ ability to produce enough healthy food. The seasonal rains on which farmers depend now fail to materialise or fall in heavy storms that wash away soils and seeds.

Encouraged to emulate the global North’s practices, African governments pressure farmers to grow a single crop using imported chemical fertilisers and toxic pesticides. These aggressive methods are expensive, high risk, and dangerous to the health of farmers and consumers. Longer-term, they lead to broken ecosystems, infertile soils and reduced resilience to climate hazards.

This collection of stories from the ground demonstrates the benefits of agroecology, a more thoughtful, more holistic, more natural way of farming, working with nature – not fighting against it. Communities are reviving infertile land, conserving indigenous plants and wildlife, and recreating a balanced, thriving ecosystem.

Sustainability is a recurring theme. Agriculture that tears through resources and destroys the very land it harvests from is neither sustainable nor responsible. Nor is the “one size fits all” technology approach. The most successful agroecology models adapt to the local context, terrain, and indigenous traditions.

Tanzania’s hillside farmers show how digging terraces to create beds and building trenches to harvest rainwater prevents run-off and soil erosion. Likewise, farmers in Zimbabwe who previously struggled to find a sustainable water source now have water in such abundance that they can grow rice.

Projects in Kenya and Togo have been turning to agroecology to restore soil fertility, making sustainable, organic inputs such as bokashi. Farmers learn to produce them quickly and efficiently on-site using low-cost, locally available materials. Consequently, these bio-fertilisers are cost-effective, rich in nutrients and naturally free from toxic chemicals dangerous to soil and human health.

Agroecology is a social movement that strives to make sustainable farming accessible to all. Inspiring work with more vulnerable social groups restores dignity and independence to those who have struggled to provide for their families. By securing land rights, teaching sustainable land management or agroforestry skills, initiatives across Uganda, Kenya and Senegal show that access to the right education and support means that no one is left behind. These ten stories show how agroecology nurtures soil health, conserves biodiversity, and restores dignity to Africa’s small-scale food producers.
BRINGING THE SOIL BACK TO LIFE

Our life on earth depends on the life and health of our soils.

All living things in the soil interact in a complex food web. Plants use the sun’s energy, water, and carbon dioxide from the air to produce their food — sugars and carbohydrates — while also feeding the soil’s microbes. In return, these microbes maintain soil health and make minerals, nitrogen, and water available to plants. In this way, plants feed the soil, and the soil feeds plants in a symbiotic exchange.

Industrial agriculture tends to treat soil as an inert medium for growing plants rather than as a complex living system maintained by billions of organisms.

Chemical fertilizers, poor farming practices and climate change have damaged the soil and left much farmland barren and unproductive. Healing the soil is a crucial step on a farmer’s journey with agroecology.

The next few pages showcase four communities using agroecological practices to restore soil fertility and rejuvenate their farmland.

- Women farmers in Togo make natural bio-fertilizers from local materials like rice husks, cow dung, ash, rock dust and molasses. Bringing their soils back to life effectively and cheaply, this enables them to produce healthy, nutritious food to feed their families.

- In Tanzania’s highlands, building terraces is hard work, but, working together, communities have harnessed a vital, sustainable source of water and prevented landslides and soil erosion.

- In Zimbabwe, 500 farming families have revived arid lands into rich, abundant food forests, using indigenous knowledge and local resources to conserve precious rainwater and renew their sacred bond with the earth.

- Ugandan farmers find that minimal tillage, green manures, and crop diversification enable them to grow two crops a year instead of one.

Agroecology is a people-centred system of sustainable agriculture, combining indigenous knowledge with cutting edge science, making the best use of nature to create healthy communities, and empowering a social movement that resists the corporatization of agriculture.
BIOFERTILIZERS IMPROVING LIVELIHOODS IN TOGO

Agroecological training on biofertilisers improves women’s livelihoods in Togo.

In the Plateaux region of Togo, the natural richness of the soil means that farming is the primary livelihood of those who live there. In the Kpélé Prefecture, in the south-west, the relatively mild climates and good rainfall should make it perfect for agriculture. However, the farming communities have witnessed a slow deterioration in soil fertility and yield quality in recent years.

Poor soil quality means poor harvests and many living in poverty

For some time now, Kpélé has been witnessing land and soil degradation due to inappropriate agricultural practices, the use of chemical fertilizers, climate change and deforestation. Since 2004, Young Volunteers for the Environment (YVE), alongside the African Institute for Economic and Social Development (INEDES) and the National Institute for Agricultural Training, has been working with rural communities in Kpélé to combat these effects. The aim is to restore the land to the community through sound, sustainable agroecological practices that will improve the socio-economic situation of local people, particularly women’s groups.

50% of the Togolese population live in poverty. In rural areas that figure rises to as high as 74% — the majority of whom are women.

‘At the beginning of the project, we were not very motivated. But as soon as the ginger germinated and we saw the very green colour of the leaves, we understood that the soil was alive again; and our production was very good despite the lack of water.’ - Dokli Massa, farmer from Kpélé

Restoring soils impoverished by the use of chemical fertilisers and boosting the harvest is the primary motivation behind the project. The end game is improving the living conditions of women in rural areas by providing support to women’s groups in income-generating activities.

Replacing chemical fertiliser with biofertiliser

Over time, chemical fertilisers no longer act as efficiently as they initially promise. The first uses are deceptively effective, but slowly they degrade the soil, stripping it of crucial nutrients vital to crop health. Crops grown using chemical fertilisers tend to retain chemical residues, which leads to health problems.

YVE promotes and trains young farmers in cultivation methods that allow for stronger yields with less soil fatigue and greater soil regeneration. Bokashi is a popular and effective biofertiliser. It is made by collecting locally available materials such as soil, rice husks, cow dung, bran, charcoal, ash, rock dust and molasses, and fermenting them over ten days to create a powerful nutrient-rich organic fertiliser. The use of the bokashi saw a significant increase in quality of produce.

Bokashi: cheap, sustainable and effective

The project works alongside several women’s groups in the area, providing training in agroecological practices which improve soil quality and fertility. So far more than 200 women have been supported by the project and many have found success in the use of bokashi. One farmer experimented with two plots of land, one with bokashi and one without. Both crops grew, but the one with bokashi grew faster.

‘With biofertilizers, the crop keeps longer while with chemical fertilizers it rots quickly. The agroecological training has enabled me to improve my production of rice, beans, maize and vegetables. I am proud to eat healthily. Rose, farmer from Kpélé.

The result: independence and food security

The project’s aim is simple: to restore arable land simply and organically and by doing so, improve the socio-economic situations of thousands of rural families. Several factors have contributed to the success of the project, including the commitment of group members and the fact that, unlike chemical fertilizers, the production of biofertilizers and biopesticides does not require a lot of money. The response to the project has been overwhelmingly positive, with farmers relieved to find self-sufficiency in the practices and greater food security for their communities.

ACKNOWLEDGEMENTS

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Soil and water conservation practices strengthen harvests in Tanzania highlands.

Makete, in the south-west of Tanzania, is a district crossed by both the Livingstone Mountains and the Kipengere Range. Much of the landscape is hilly and at high altitude, providing diverse temperatures and heavy rainfalls.

Despite the challenging terrain and climate, agriculture is the primary livelihood of those who live in the area. Local small-scale farmers grow wheat, potatoes, pumpkins, and beans. Besides traditional crops, some grow fruit trees such as peaches and apples for extra income, others grow bamboo for making the famous local wine, Ulanzi.

High rainfalls in mountainous agricultural regions trigger a need for intervention to help farmers confront food insecurity and restore and protect their soil.

Agriculture and land use officer Mr. Simon Mbilinyi (first on the left) demonstrating to farmers in Nkondo Village on how to make terraces (Picture by Ezron)

A simple solution to heavy rainfall

However, intense rainfalls cause excess water to run through and off the arable land, damaging harvests in its wake and causing extreme soil erosion and degradation.

In a bid to combat these effects and make the land more manageable, the Department of Agriculture for Makete enlisted six villages — Luwumbu, Utanziwa, Nkondo, Matenga, Ilungu and Mlengu — to take on new agroecological practices that could rehabilitate the farmland. The plan was to implement measures that would primarily ensure food security and secondly generate greater incomes for these local farmers.

Trenches catch rainfall on the hillsides

The project focuses on utilising the heavy rainfalls to the farmers’ advantage. By building Fanya Chini terraces — long ditches that curve across the top of the farmland — farmers can catch the rain before it floods their crops. The ditches then allow water to seep gently into the soil to increase soil moisture. To fortify the terraces, border grass is planted along the ridges to reduce erosion and slow the water; also providing fodder for livestock.

On the primary farmland, bench terracing — cutting steps into the hillside to create level beds — maximises the amount of land available for cultivating crops. Intercropping is vital here, and incorporating legumes alongside other crops improves soil structure and fertility.

“Before the project, we used to cultivate beans; however, almost half our crops were eroded by strong runoff due to heavy rainfall each year. Since the introduction of bench terraces, we have not experienced crops being washed away.”

— Aidani Santa, Luwumbu

success is the greatest motivation

“At the beginning it was difficult to prepare the terraces, but then the whole family came out and worked together because they were sure of the benefits, and they know that once done it is not something we need to do repeatedly.” — Filipo Mashak, Nkondo

Creating the terraces and ridges is hard work and time-consuming. It is not an easy endeavour and does not make the project very attractive to the average farmer, who already works long hard hours. However, as the yields of those involved began to accelerate, the project started to attract more and more attention.

With success evident, project leaders began to address the specific needs of each community. Once the first stages were underway, field officers invited community leaders to the agriculture department to share their experiences and challenges. It allowed room to adjust the project according to each village’s needs, which motivated more farmers to adopt the practices.
Opportunities to grow if funding can be found

However, insufficient funding has limited the number of farmers that the project can reach. So for now the scope is restricted, but the field officers have faith that the scheme could be much more widely adopted. The landscape in the Southern Highlands of the country is similar, and the same techniques could prove vital to improving food security there too.

“We have seen the improvement of soil in terms of structure and the level of fertility. The yield has improved almost double the previous amounts; farmers can utilise the land which before was deemed unsuitable due to soil erosion from runoff. These interventions have improved their lives significantly.” — Mr Simon Mbilinyi, Agricultural Field Officer

Working with nature, not against it

The project has proven that hilly terrain should not be a barrier to food security and viable agricultural livelihoods. The significant success of simple practices such as terraces and ridge cultivation has dramatically improved yields and created greater environmental stability.

By working with nature and managing the land more sustainably, farmers take back control and gain their independence while protecting and improving their soil, preparing their land for many fruitful harvests to come.

Beans grown in the field containing pears trees using bench terraces in Miengu village-Makete (Picture Simon Mbilinyi)

BRINGING LIFE BACK TO THE LAND IN ZIMBABWE

The Shashe farms in the Runde catchment area of Zimbabwe extend across three villages. Since 2010, over 500 families from the region have worked alongside ZIMSOFF (Zimbabwe Smallholder Organic Farmers Forum) and AZTREC (Association of Zimbabwe Traditional Environmental Conversationists) to revive arid cattle-ranching land into rich, abundant food forests.

At the beginning of the project, the farmland of Shashe was suffering from soil degradation caused by poor livestock management. Cattle trampled land bare, making it susceptible to land erosion during the rainy seasons and without protection from the sun in the dry seasons. Compounding the issue is the effects of climate change such as prolonged droughts, leaving the farms in chronic need of water management to feed crops and livestock.

Endogenous development is development motivated from within a community, using indigenous knowledge and local resources.

The nutrient cycle

Using methods based on research by ecologist Allan Savory, ZIMSOFF and AZTREC wanted to address how managing livestock in specific ways could make them an asset to the land rather than a burden.

Herding cattle through the land rather than keeping them in the same location limits the damage and allows the animals to graze only the most nutritious parts of the plants, which provide them with a good source of energy and protein. What’s left is trampled into the soil, which helps increase soil nutrients.

Manure from livestock is also a cost-effective and unlimited source of biofertilizer. To boost the manure’s nitrogen content and kill weed seeds, families decompose the manure in a sealed pit for a whole season before applying it to their crops.

Heaped kraal manure before further decomposition in sealed pits Photo by N Mudzingwa
“Mulches are reducing evaporation and germination of weeds on my crops, leaving more water for plant use. I am encouraged to practice mulching because it is helping me to achieve better results even during dry periods of the year.” Mr A. Mutsenhure, a local farmer

Managing the soil as a living soul

Robust and nutrient-rich soil is vital to a healthy ecosystem. Adequate soil cover serves many functions, such as preventing wind and water erosion, building soil structure, and managing water resources. One of the initiative’s priorities was to reduce regular tillage as this process breaks down soil aggregation, reducing its ability to protect itself.

By prioritizing soil protection and enriching it with locally available organic materials, the project’s families noticed considerable growth of micro-organisms in the soil.

Where there is water, there is life

Fertile soil cannot function without adequate water, and water management is the core focus of the project. Insufficient soil moisture can result in low yields, so managing water is critical to vibrant food forests and healthy soil throughout the year, including the dry seasons.

Techniques include up-land and down-land water conservation. Up-land refers to constructing stone walls and building terraces to hold back running water during the rainy season. Down-land involves digging contours and dams to catch the water. These methods allow the soil to become soaked with groundwater; intercropping and fruit tree integration is then used to protect the earth from direct sunlight reducing evaporation.

Excess water is dammed and contained to last through the dry seasons, allowing crops in the field, and vegetables in the gardens, to grow to maturity all year around.

Over time, farmers observed that water-loving plants were emerging from the soil without being cultivated. Proof that a vast, dormant variety of indigenous crops were already in the ground, just waiting for the right conditions to germinate.

Other farmers had such success with harvesting water that they could begin growing rice in adjacent fields. A whole world of possibilities was opening up due to sustainable land management changes.

Conservation is more than just “taking care of nature.”

While food sovereignty sits at the heart of the project, it is intricately linked with indigenous seasonal ceremonies and rituals. The relationship between the natural world, the social world, and the spiritual world is of the utmost importance. Local folklore warns time and time again of the misfortune that befalls those who do not respect the earth, water, wildlife and trees.

Local and spiritual leaders worked with the farmers’ organisations to identify sacred sites, wetlands, and woodlands and to protect them with bylaws. Also, rain-making ceremonies were presided over by traditional institutions such as chiefs and spirit mediums. They have been a significant bonding experience for the local communities, improving social cohesion.

“What water means to the soil’s life is what blood means to a person’s life. We don’t allow water to just run through our fields; we keep every drop of water. We harvest rainwater which flows from the road and, as it rains, into the contours that we have built.”

Mrs E. Mavedzenge, local farmer

Agroecology is a spiritual connection to the land and to nature, through whatever faith we may hold.

“This is a farming initiative that was previously not possible in this area because of infrequent rainfall. Now local solutions have found the answer by simply seeing a threat as an opportunity.”

Mrs L Nago, a local farmer

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Agroecology is a spiritual connection to the land and to nature, through whatever faith we may hold.
RESTORING COMMUNITY FARMLAND IN UGANDA

KAFSCUL (Karamoja Agro-Farm Systems Consults), a private organization in Uganda, has been working with small-scale farmers in Jie County to improve soil fertility and make farmland more resilient to adverse weather conditions.

Water and food security of agro-pastoral communities in the area are under threat. Flash floods, erratic rainfall, and an ongoing battle with crop pests have made steady and healthy crop growth difficult. As a result, food shortages are causing acute malnutrition, and conflicts regularly arise amongst neighbouring communities fighting for arable land resources.

As a last resort, many turn to the forests for charcoal and wood to sell as an alternative but unreliable source of income that is grossly detrimental to the local ecosystem. Consequently, many in the farming community rely entirely on food aid and subsistence agriculture.

Agroecology fosters shared decision making

Women in the community still struggle with gaining influence, but the project is determined to promote and maintain shared decision-making. The aim is to break down patriarchal cultural norms that confine women to domestic roles.

Through the assistance of local women’s organizations, women farmers are gradually gaining the authority to organize and invest in their family farms. By mobilizing some of its most undervalued workforce and advancing gender equality, agroecology is creating greater community resilience.

Further, sustainable land management has encouraged the farmers of Shashe to get creative and to see “a threat as an opportunity”. To lift their community out of poverty by protecting and nurturing their greatest assets: their soil and their water.

Agroecology as a solution

Land degradation is a severe problem in Uganda, especially since 90% of the population rely on agricultural livelihoods. Poor farming practices such as monocultures, overgrazing, and deforestation are compounding the problem. Inadequate or non-existent systems for harvesting limited resources like rainwater mean they are in short supply. Areas like Karamoja report heavy rain causing floods and run-offs that erode the soil and damage crops — an issue that agroecologists know they can resolve through sustainable land management.

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Further, sustainable land management has encouraged the farmers of Shashe to get creative and to see “a threat as an opportunity”. To lift their community out of poverty by protecting and nurturing their greatest assets: their soil and their water.

Agroecology is all about supporting farmers to be creative in their own situation, rather than being lackeys in an industrial food chain. Agroecology is always creative. It cannot be otherwise. Without this creativity it can’t move forward.

ACKNOWLEDGEMENTS

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Seeing crucial and life-saving opportunities go to waste, KAFSCUL wanted to establish a knowledge hub and farmer innovation learning centre. It is a resource for the local farmers and provides vital training for government extension workers, implementing sustainable land management teaching at all levels.

Karamoja became the spearhead community of the initiative. KAFSCUL saw an opportunity to collaborate with vulnerable families to enhance their resilience to the adverse effects of climate change and improve food nutrition and security. The key focus was on the promotion of sustainable land and water management.

In KAFSCUL's demonstration field garden, the focus is on improving the soil's physical and chemical properties to counter the past damage. Minimal tillage is key, as well as the use of green manures and crop diversification. The results: a boost in soil fertility that has allowed a second crop every year—something that has never been seen before in Kotido District.

Rainwater collection and crop rotation revitalizes farmland

Crop rotation is another essential element since the monoculture approach to farming has led to severe soil infertility in the district. 95% of households grow sorghum along with maize and millet, and they dominate the production system. Cultivating the same crop on the same land season after season makes it susceptible to pests and disease and diminishes crop production and productivity. The use of crop residues, crop rotation, and green manure has significantly increased the maize yields from year to year.

Once crop production was on the rise, it was important to control the damaging effects of excessive rainfall. Water harvesting is, therefore, at the heart of the project. Farmers learn how to dig contours and retention ditches at strategic points across their land. During rainy seasons these prevent run-off which causes soil erosion. Instead, the water is captured, then some of it allowed to filter slowly into the soil while the rest is collected for later use. The installation of standby tap water systems then provides a tool for distributing collected water during dry periods.

Napier and vetiver grass species are planted at weak points to slow the flow along the edges of the contours. The grasses serve a second purpose of providing high-quality feed for cattle and livestock.

Investing in a sustainable future through conservation

Conservation strategies are integral to the training. Groups of members meet to identify local tree species that could benefit the community and create critical strategies for promoting sustainable use of natural resources.

By protecting and cultivating local tree stumps and newly sprouting shoots, farmers saw them grow to maturity in the space of two years, significantly improving the local biodiversity.

Local farmers realized the numerous benefits of caring for naturally existing vegetation. Branches from mature trees are harvested for farming activities such as support fencing; the grasses are used for nursery bed construction and mulching perennial trees. Some wood is then left for harvesting for use in the home, saving local women from walking long distances for firewood.

Agroecology is the way forward

The project has highlighted the relevance of conservation and sustainable management to enhance crop and livestock productivity and limit the effects of climate change.

Faced with rising temperatures and increasingly unpredictable rainfall, construction of water harvesting structures and irrigation systems remain fundamental for sustained crop and livestock production. KAFSCUL hopes to couple these with scaling up sustainable soil and water management practices and technologies feasible in the area.

ACKNOWLEDGEMENTS

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Monoculture is destroying Africa’s rich biodiversity. African farmers are told they must commercialize their agriculture and concentrate on growing a single crop like maize using agrochemicals and hybrid seeds. Wherever monoculture goes, loss of biodiversity follows.

Monoculture upsets the natural balance of soils. Too many of the same plant species in one field area rob the soil of its nutrients, causing soils to erode, organic matter to decline, water shortages to emerge, and biodiversity to collapse.

The loss of pollinators is closely linked to agricultural intensification, habitat fragmentation and the use of agrochemicals.

We need a paradigm shift from industrial agriculture to diversified agroecological systems. A fundamentally different agriculture model that diversifies farms, replaces chemical inputs, optimizes biodiversity and stimulates interactions between different species. Diversified agroecological systems build long-term soil fertility, healthy ecosystems and secure livelihoods. They produce diverse foods, supporting diverse diets and improved health.

The following pages showcase three communities motivated by a desire to restore biodiversity to African farmland, to see their soil rejuvenated and local wildlife return to the land.

• In Zimbabwe, an extensive biodiversity conservation project to protect woodland is inspiring a whole community. Regeneration of local wilderness has seen the return of small wildlife as well as mushrooms and herbs that were thought lost. This revival ensures the availability of fertile land, full of natural resources, for many generations to come.

• Samuel is just one of many Kenyan farmers demonstrating the effectiveness of biofertilizers on soil fertility and crop health. By refraining from synthetic inputs, he is protecting the local biodiversity from toxicity. His bees are enriching the local ecosystem while also diversifying his income.

• In Western Kenya, BIOGI is championing the concept of food forests with great success. Barren land is now luscious green, and where maize was the staple crop, fruits and vegetables of all kinds now grow in abundance.

Diversified agroecological systems are succeeding where industrial farming systems have failed.
CONSERVING BIODIVERSITY IN ZIMBABWE

By eliminating unwarranted opening of new land for farming, indiscriminate cutting of trees and bushfires, woodlands are regenerating, wild mushrooms can be harvested again and small wildlife like bushbucks are returning.

Tortoises and snakes including the much feared black mamba cobras are reoccupying their original habitats. The degraded environment and soil health is improving. But by far the most important and lasting success is the change in the mind-set of Mutseta villagers who have embraced biodiversity conservation, management and sustainable utilization of land as a way of guaranteeing availability of these resources to future generations. An agreed and signed constitution governing the collective management of the village natural resources bears testimony to this.

Context

The Manga community inhabit Mutetsa Village in Guruve District, 150kms north of Zimbabwe’s capital, Harare. This used to be a sacred place with forests that produced fruits, mushrooms, small game, caterpillars and necessities like firewood, thatching grass and bark string.

The unprecedented wave of destruction of trees and the environment due to population pressure and as people sought timber for various uses has led to a catastrophic shrinking of the wilderness.

The ever increasing population is leading to more land being cleared for planting crops.

This has led to massive degradation of grazing land which cannot meet the increased grazing pressure. Also, there is a pressing need for timber for making household items such as pestles, wooden cutlery and roofing timber.

Local manufacturing of agricultural implements such as yokes and scotch carts put a lot of strain on timber resources.

As a direct result of this overexploitation, once pristine forests and woodlands are now degraded wastelands and have lost their capacity to self regulate and to sustainably meet the communities’ needs. In many villages today, firewood is a major problem. Wild fruits and mushrooms are becoming rare. Conflicts over forest resources and land grabbing are not uncommon and cases of poaching in the adjacent forested commercial farming areas are on the rise. Furthermore, it was noted that an intense battle was raging with a neighbouring village that grabbed a large piece of Mutseta Village in the 80s and 90s and were now claiming the Manga forests in their expansionist drive.

Even to a first time visitor to the communal part of Guruve District, it is clearly evident that most of the trees and vegetation have been wiped out in the district due to overexploitation.

The Manga Hills conservancy project idea was born from the realisation that Manga Hills was one of the few remaining pockets that still had considerable trees, vegetation and biodiversity in the whole communal part of Guruve district. Consequently, during a meeting in 2015, the Manga community agreed on a framework to manage the forest in a way that sustainably meets the household and commercial needs today and in the future. The current initiative was proposed as a strategic economic intervention that engages rural communities in a mix of activities that provides food related timber and non-timber forest related products and leisure within the community.

Response

The project initially focused on preserving and increasing the density of remaining indigenous trees, other flora and fauna in Ward 8 of Mutetsa Village, gradually increasing the tree cover, flora and fauna in adjacent almost treeless neighbouring villages/wards, and in the medium term extending the realised benefits of the initiative to Guruve District as a whole.

In June 2015, nine members of the Mutetsa village community representing all resident households, under the auspices of their village head, Mr Bernard Mutseta, convened a meeting to discuss ways and means of responding to the challenges of climate change and agricultural biodiversity loss in the village and surrounding areas. The stated objective of that meeting was given as “Conservation of Manga Hill/mountain with the aim of maintaining its flora and fauna and guarding against environmental degradation.”

Main activities

- Developing a constitution for Natural Resources Conservation and Management in Mutseta Village
- Engaging local authorities to resolve the issue of land grabbing involving a neighbouring village: A written description showing that the Manga hills conservancy area belongs to Mutseta Village obtained and signed by the local chief (Chipuriro) after involvement of surrounding village heads
- Stopping indiscriminate cutting of trees
- Controlling veld fires
- Fighting land grabbing
Results

The uniqueness of this initiative lies in the fact that it combines ecosystem restoration/conservation and sustainable development so that the livelihoods of people depending on these degraded ecosystems can be sustained. The results can aptly be summarised as follows: By excluding unwarranted opening of new land for farming; intensifying sustainable agricultural activities in existing farmlands; and reducing indiscriminate cutting of trees and bushfires; woodlands are regenerating, wild mushrooms can be harvested again and small wildlife like bushbucks are returning. Tortoises and snakes including the much feared black mamba and cobras are reoccupying their original habitats. The degraded environment and soil health is improving.

Mr Leminice Gengezha of Mutseta Village had this to say about this initiative, “At first I was sceptical about getting our land back from Munyoro people but through community action we were able to get help from the Chief who was able to give us a written paper showing our original boundaries. We now have access to our ancestral graves which is very important in our Shona tradition. In addition, through caring for our environment and protecting the vegetation from wildfires we are now seeing certain plants, herbs and insects that had disappeared and when you are moving in the bushes you know you are not alone and the air is fresher than before.”

Quantitative changes in the number, size, density of trees and companion species including small game are clear to see when compared to adjacent similar lands. The benefits which people in Manga Hills realise include provisioning services such as food (mushrooms, indigenous vegetables, edible termites, grasshoppers and crickets) and reduced soil erosion/ increased nutrient recycling and water evaporation leading to higher water tables and streams/wells flowing and retaining water respectively much longer. Qualitative changes include improved cultural services such as spiritual (traditional and Christian places for praying and meditation) and recreational (places for relaxation and picnics).

Lessons learnt

In Zimbabwe, there is no specific policy calling for the restoration of the degraded, damaged or destroyed ecosystems particularly in communal areas where the majority (70%) of the population lives.

Besides, the role of traditional chiefs as custodians of natural resources' and heritage is undermined by laws inherited from the colonial era, which sought to reduce their power and influence on community ecological governance. It is for this reason that most of these areas are now looking like deserts and can no longer support the whole spectrum of human and animal needs. Much of government and donor resources in Africa are focused on supporting national parks and such similar places even though there is a growing realization that the world will not be able to conserve the earth’s biological diversity through the protection of critical areas alone. This case study showcases what communities at local level can do to restore the ecosystem.

Challenges for scaling up

Given the important function of forests in Zimbabwe, it is clear that communal areas require forests in order to maintain ecological and social sustainability.

Unfortunately, the growing population in communal areas has run into the limits of the available land, and thus increased the pressure placed on the communities to clear their woodlands in order to maximize short-term food production and material needs.

Lack of clear land tenure policies and enforcement mechanisms governing communal lands exacerbates the situation by creating a tragedy of the commons scenario.
Conclusion

Documenting the Manga Hills initiative showcased how much biodiversity can be conserved using simple inexpensive community based methods, and what communities can do to fight local land grabbing using Traditional Knowledge Systems. Measures stopping unnecessary opening of new land for agricultural purposes, and consolidating use and intensification of practices on existing land have seen the regeneration of a new ecosystem and landscape. However, the new landscape and ecosystem is under constant threat from people inside and outside the community who want access to woodland resources that are now almost extinct in their areas. This, coupled with vague and often conflicting laws covering land ownership and occupation is causing conflicts among villagers, with those connected to political elites wanting to grab land from those that are not connected or do not have resources to fight in court.

1. There is need for harmonising communal land tenure to avoid local land grabbing using loopholes in the laws and statutes.
2. There is need to strengthen the powers of traditional leadership with regards to ecological governance. This will help to reduce the ‘tragedy of the commons’ that is leading to serious environmental degradation and destruction of ecosystems and habitats.
3. Using agroecological farming practices could work hand in hand with ecosystem restoration.
4. Putting communities at the forefront of environmental management gives better results than top down approaches.

CHANGING THE FORTUNES OF FARMERS IN KENYA

The Organic Agriculture Centre of Kenya (OACK) saw that by providing the right skills, information and support, they could help small-scale farmers move away from subsistence farming and into thriving livelihoods that improve their local communities and the landscapes they live in.

Kangari village in Murang’a county, Kenya, has practiced mono-cropping for many years. Nearly 80% of the land and the time spent farming focuses on tea crops, which are planted purely for income but hold little additional value as sustenance to local farmers and their families.

Understandably, many smallholder farmers have turned to non-sustainable practices with the hope of increasing the yield and therefore their profit. They invest in chemical fertilisers and pesticides that claim to boost growth, and they focus solely on cash crops, neglecting the produce that could also feed their families.

In reality, what started as a quick fix has ended in a long-term decrease in yields. Agrochemical use causes environmental degradation and soil erosion. What’s more, unforeseen circumstances such as disease or adverse weather can ruin a harvest causing devastation to a farm that yields only a single crop.

Worse still, Murang’a farmers are often knowingly targeted by banks who offer them high-interest loans taken out against prospective annual incomes. When crops fail to meet anticipated levels of production, farmers are unable to repay these loans and are forced into debt.

Knowing that agroecology and organic farming practices are vital to the solution, OACK works with smallholder farmers in Murang’a. Since 2006, they have equipped farmers with agroecological practices that improve long-term soil fertility, tackle food insecurity and open up multiple sources of income to smallholder farmers.

Over-reliance on a single crop has proven detrimental to soil fertility and food security time and time again, and the consequences in Kangari are no less dangerous.

Samuel’s Story

Samuel comes from a long line of farmers. He owns two acres of farmland. 75% of which is dedicated to farming tea. On the remaining half-acre, he grows other crops and keeps some cattle and a beehive. Eager to generate as much profit as possible from his tea crop and to protect it from harm, Samuel has moved from one chemical pesticide to another. He noticed that pests soon became immune and he was forced to buy stronger chemicals. It was a growing financial burden as well as having a terrible impact on his soil.

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Seeking a better solution

On meeting a farm educator from OACK, Samuel was curious to learn more about organic farming and joined a five-day introductory course with 25 other smallholder farmers. He learnt several practical skills, such as how to make sustainable bio-fertilisers and studied the benefits of crop diversification and how to implement it.

Turning away from chemical fertilisers, Samuel began incorporating manure from his cattle into a compost fertiliser and fermenting their urine with onion and sappy plants to create organic pesticides. They proved effective both for pest control and in restoring the soil fertility which had been stripped by the synthetic fertilisers. As time went on and he experimented with different techniques, Samuel found a substantial 40% increase in his tea leaf harvest.

Samuel’s kitchen garden saves his family 700 shillings a week on food purchases, and provides a surplus to sell, earning him a further 3500 shillings a week.

Partnering with OACK, the Upper Tana Nairobi Water Fund (UTNWF) gave Samuel and his peers training on agroforestry and seedlings of Caliandra Calothyrsus which are not only great for soil enrichment but created quick and easy fodder for Samuel’s cattle.

Working with, not against, nature

His kitchen garden, intended to provide his family with a cheap, reliable source of nutritional food, was soon abundant with a rich diversity of indigenous and exotic fruits, vegetables, and root crops. Through the year, the garden yields staples and superfoods: amaranth, kale, cabbages, carrots, Irish potatoes, sweet potatoes, pumpkins, capsicums, coriander, gourds, beans, onions, maise, gooseberries, passionfruit and avocados.

“My farming life suddenly changed as I understood how to use cattle manure and weeds to make my own fertilisers and pesticides. I’m convinced that the soil on my farm is better, going by what I now harvest.” - Samuel

Creating a buzz

Samuel found yet another stream of revenue from commercial bee-keeping. What started as a hobby many years before has developed with the help of UTNWF into a profitable business. He expanded his beehives and now harvests, packages and sells the honey locally bringing in 20,000 shillings a year. He also makes hives for other local farmers, charging between 3,500-4,000 shillings each and providing bee-keeping training.

Bee-keeping is not the only thing that brought these farmers together. Samuel belongs to a collective of local farmers and has convinced many to follow him into organic farming. Their success has led to a chance to avoid commercial loans and create friendly, low-interest loans to one another instead.

Proof that diversification is key

With a loan from his neighbours, Samuel was able to buy a dairy cow which produces manure for his farm, milk for his family and surplus to sell. His investment was worthwhile as he makes 400-500 shillings a day from the 18 litres his cow provides.

Never one to settle, Samuel’s newest enterprise is seed bulking. He has focused on cultivating varieties of indigenous crops that are more compatible with local soil and the needs of the community. In turn, he has been selling these to other farmers, boosting his income by 20,000 shillings last year, and forcing corporate seed distributors out of the loop.

In the ten years since switching to organic farming, Samuel has seen a dramatic turnaround in the livelihood of his farm and his family. With the profits from the farm, he has been able to provide his family with a healthy, nutritious diet and a stable income - enough to send his children to school.

“I have a book and a pen which is the soil and my working tools. The knowledge I have is practical and must be applied and shared with other farmers and friends for a better future.’ - Simon, Eshiruli village.

Indeed, there are still some challenges, including periods of prolonged droughts. However, ever optimistic, Samuel has tackled these head-on. With the assistance of UTNWF, he began water harvesting on his farm, building large storage tanks to catch rainwater. They have been integral in combating the dry seasons and protecting his crops.

“Bees are good and advantageous because they collect nectar from flowers in neighbouring farms and bring to me in the form of honey, without anyone taking offence.” Samuel

By making their own fertilisers and pesticides, buying and selling seeds locally, and providing one another with low-interest loans, the small-scale farmers of Muranga’a are boosting their economy and stepping away from the iron grip of self-interested commercial corporations.
AGEOCOLOGY - OUR LAND IS OUR LIFE

From Tea-Farmer to Entrepreneur

Samuel’s ability to adapt organic farming processes to the needs of his farm, combined with his ambition and creativity, shows that it is possible to reduce much of the risk that comes with farming in Kangari. He shows that there is a great benefit to commercial diversification and a conscious understanding of our dependence on nature.

Samuel is just one of nearly 16,000 farmers assisted by the OACK project. They are living proof that the move away from chemical-dependent degenerative agriculture and into agroecological practices enables farmers to become self-sufficient as well as responsible custodians of the land.

What next?

OACK is keen to raise awareness of the negative impact of industrial agriculture on Kenya’s farmland and the roles that farmers and consumers play in restoring its sustainability.

Samuel proves that smallholder farmers hold both great potential and a strong desire to move from subsistence farming to prosperous livelihoods that support the local agriculture and economy. Combining indigenous knowledge with the right training, farmers and their families can contribute and thrive on the landscapes they entirely depend upon.

Now agroecology actors and proponents must come together to drive this transformation. By working with farmers, community leaders and policymakers, it is possible to develop farmer centred policies that turn away from chemical dependent agriculture to sustainable practices that foster resilience, independence and dignity to farmers across the continent.

ACKNOWLEDGEMENTS

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MODERN FORESTRY AND FOOD FORESTS IN KENYA

The holistic gardening project in Emuhaya, Western Kenya, is attracting local and international acclaim. Bio Gardening Innovations (BIOGI) is equipping smallholder farmers to break away from monocultures and create thriving, overflowing “food forests” on their farmland.

Maize, the staple crop of Vihaga and Kakamega counties in Kenya, is harvested twice a year with agrochemical farming techniques. However, as a growing population encroaches on the land, bush-clearing and aggressive farming practices are becoming the norm.

The side effects are numerous. Soil exhaustion is common, to the detriment of the quality of each harvest’s yield. Farmers are rarely self-sufficient, relying on third parties to provide costly chemical fertilisers and pesticides. Further, the risks of monocultures are numerous, and it gives little diversity to the diets of the farmers who grow it.

Partnering with the Tudor Trust and Pangea, BIOGI sought out local farmers who had already shown some interest in agroecology. Combining these farmers’ indigenous knowledge of the land with permaculture methods, they embarked on a project to turn maize fields into food forests.

Growing a food forest

A food forest is much like a natural, wild forest: vibrant, green, and full of life. From the canopy to the floor are many, complex layers of plants and wildlife that live harmoniously with little human intervention. The food forest mimics this natural phenomenon but with crops and trees that are useful to Kenyan farmers both as cash crops and a source of food.

One of the features of these forest gardens is the swales-on-contour which are used for water harvesting. These great ditches are dug two feet deep along the curve of a slope and designed to catch excess water. It then drains or leaks slowly back into the land. It is a simple yet highly effective way of retaining water and preventing soil erosion.

Vetiver grass, with its tough, penetrating roots, are planted as a natural barrier along the edges. Water-loving plants like arrowroots and cocoyam thrive on the swales, as well as sweet potato and pumpkin which also provide good ground coverage. Banana and papaw trees assist by stabilising the lower banks.

“Had it not been for the swales on my farm, my house and crops would have been swept away by the rains. I pride myself in embracing care for my soil because I now have more diverse food for my family”

Mary, Mulimani village.
Everything serves a purpose

The result? A mosaic of crops across the farm. Vegetable gardens and fields are planted in thoughtful combinations. Cassava grows with mixed beans, and pumpkins nestle beneath the maize. The diversity is integral to restoring soil fertility and encouraging the return of native wildlife and insects.

Nothing serves a single purpose either. All elements of the farm must have multiple uses. Animal droppings and fallen leaves are collected and fermented to make Bokashi compost. By making organic fertilisers on-site, there is no need for outside resources, and the nutrient-rich compost is instrumental to soil amendment.

Women farmers lead the way

Ruth, a farmer from Emmakunda village, is one of the leading partner farmers in the project. She became interested in sustainable farming after repeated crop failures and ineffective chemical inputs. Before she was selling bananas for 200 KES, now she makes 800 KES.

“I see wealth in the soil and realised we were not giving enough attention to natural fertility. The training and visits to other farms have motivated me to work even harder. I have now improved my vegetables and main crops with new customers buying my indigenous vegetables.” - Ruth, Emmakunda village

Healthy, diverse crops: a source of vitality

Permaculture models work two-fold. They manage and conserve the land while yielding an abundance of biodiverse, indigenous foods. Such produce provides nutritious, balanced diets to the farmers and their families, increasing their health and their wellbeing.

The food forest is something to behold. From the fruit-laden trees to the roaming livestock, and the rich, fertile soil below, everything is teeming with life. BIOGI’s approach requires little cultivation or intervention since nature is allowed to take over. The beauty of the swales, alongside the abundance of luscious green, has attracted interest from abroad - lending prestige to the lead farmers.

Farmers are finding fame as they lead their farms to renown

The project caught the attention of the University of Wisconsin, who now sends its forestry students to Kenya every year. The students review the site and learn from the local farmers. Village-wide exhibitions allow local farmers as well as administrators and policy-makers to visit and see the farm in motion. There is a chance to present their findings and sell seeds and other permaculture resources.

How taking a risk, and trusting indigenous knowledge, has paid off

Such publicity is a powerful tool since finding farmers who are willing to participate in the project has proved tricky.

The idea behind food forests is simple, but the project takes time and patience, a luxury many local farmers feel they cannot afford. The model involves - and invites - a certain amount of experimentation too, a further cost that many find too risky.

However, as confidence in the theory and evidential success in the practice grows, more farmers are joining the movement. BIOGI has worked with 2000 smallholder farmers so far. Peer learning and collaboration are crucial, and master farmers like Ruth lead the farmer-to-farmer interactions. They hold regular meetings, share seasonal changes and results as well as the most effective agroecological methods.

With the spotlight on Emuhaya, it is an opportunity for smallholder farmers to take the lead in a more global conversation on agroecology. To show how they have confronted food insecurity while restoring and protecting biodiversity. And how they have provided their families and communities with a sustainable, healthy, prosperous future.

ACKNOWLEDGEMENTS

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Agroecology is sometimes described as a science, a practice, and a social movement. At the heart of this social movement is a growing solidarity among small-scale food producers - peasants, pastoralists, fisherfolk, indigenous peoples, women, men, youth. Together they struggle against injustice - in the food system, land governance, and access to resources. Together they stand up for human rights - of the marginalized, the oppressed, the voiceless.

The next few pages showcase three initiatives defending the rights and amplifying the voices of vulnerable communities.

- In Kenya, RODI is taking on the challenge of prisoner rehabilitation by breaking down social stigma and upskilling prisoners in agroecological practices. They can return home with dignity and make a valuable contribution by passing on the new skills to others in their communities.
- Women farmers are the mainstay of the agricultural workforce in Uganda, yet they are the ones with the least control of their land. Amplifying women farmers’ voices is proving an effective way to tackle gender inequality and promote agroecology, helping small-scale farmers take back power over their land.
- In Senegal, women make up the vast majority of the fish processing industry. However, chronic overfishing is making their livelihoods worryingly unstable. ADEPA is confronting food insecurity by supporting the creation of viable and sustainable businesses through aquaculture.

The struggle for social justice and inclusion is challenging, but these examples show that agroecology helps communities move in the right direction.
REHABILITATING PRISONERS IN KENYA

Agricultural communities in Kenya are rehabilitating prisoners through agroecology in a bid to reduce reoffending and revive local independent coffee farms.

Kenyan prisons are full of the young and the poor. It is no surprise when you consider the high levels of unemployment and the criminal means to which many turn to survive.

Trapped in a vicious cycle of poverty and crime, former prisoners are often left stigmatised by society and as many as 40% will re-offend.

Kenyan NGO, RODI (Resource Orientated Development Initiatives) has been tackling this issue with its Restorative Prisoner Rehabilitation project that teaches prisoners practical skills in agroecological practices.

Why sustainable agriculture is key

Agriculture is integral to Kenya’s economy, contributing 27% to the GDP. As a vital source of nutrition, health and income, it is the livelihood of many communities. However, much of the arable land is suffering from soil erosion and acidification from years of chemical fertilisers, leaving crops yields low and susceptible to disease.

By collaborating with Kenya Prisons Service, RODI saw a unique opportunity to combat these problems by educating inmates from the agricultural workforce with environmentally sustainable practices.

Jidraph's Story

In 2007, Jidraph was sentenced to 12 years in Neri Maximum Security prison where he signed up to RODI's Sustainable Agriculture and Food Security program. Jidraph learnt valuable skills in organic farming, including coffee management and improvement, and making compost and biofertilisers.

In 2015, after a successful appeal, Jidraph returned to his small coffee farm in Mukurweini. However, he found that his community rejected him, his wife was long gone, and his quarter-acre of coffee trees was overgrown.

Undeterred and equipped with his newfound knowledge, Jidraph focused on soil health and rejuvenating his farm. He treated his land with natural soil fertility products such as vermi-compost, biofertilisers, soil amendments like Bokashi, and organic pesticides.

Within seven months, Jidraph’s production costs fell by 80% as his farm became a self-sufficient biofertiliser factory. Unlike his neighbours, he no longer relied on imported fertilisers from Western countries at exorbitant prices.

RODI has seen the rate of reoffending reduce from 40% to 6% amongst those involved in the program.

Thriving — Not Surviving

It became clear that these agroecological practices weren’t merely a way of keeping costs down, they were also allowing the farm to thrive. The biofertilisers had a liming effect on the soil, causing a reduction in plant toxicity and reviving microbial life as well as improving the nutrient and moisture retention.

Jidraph’s coffee yield grew and grew. In 2016 he was gathering 1.75 kg of cherry per tree but by 2018 that yield was 13 kg, an improvement of 95% when compared to neighbouring farms.

By 2018, Jidraph’s trees were yielding twice that of his neighbours.

“I thought he was crazy,” said Jidraph’s older brother. “I saw him making plant concoctions and applying them on his coffee trees, only to be surprised when it flowered two times before mine!”

RODI has many farmer trainers like Jidraph who are not only back in the fold but also training other people.

By collaborating with Kenya Prisons Service, RODI saw a unique opportunity to combat these problems by educating inmates from the agricultural workforce with environmentally sustainable practices.
A Bright Future for Mukurweini

While in prison, Jidraph also completed RODI’s leadership program which taught him to train other farmers in agroecology. After his success, many were keen to learn from him and he showed his community how to produce organic fertiliser at the village level using locally available resources and labour.

By teaching others, Jidraph found a natural pathway back into his community while also creating greater food security and increased incomes for local smallholder farmers.

Challenges Ahead

Despite considerable success, the project still faces some challenges. The ongoing issue of changing weather and the effects of climate change are ever prevalent. Poor weather in 2018 resulted in one of Kenya’s worst coffee production levels in fifty years. However, despite these climatic challenges, agroecology can help farmers like Jidraph remain resilient.

Success in driving down reoffending

Since its implementation, RODI has reached 150 coffee farmers and 135 young people and has seen a tangible drop in recidivism amongst its former prisoners.

By focussing on personal growth as well as sharing vital agroecological skills, RODI has identified a way of tackling an issue that has stumped governments for years.

Most importantly, they show that communities have the solutions to the challenges confronting them and that the key lies in helping them identify and mobilize the resources around them.

WOMEN RECLAIMING LAND RIGHTS IN UGANDA

Amplifying the voices of women farmers is proving an effective way to help tackle gender inequality and promote agroecology, helping small-scale farmers take back power over their land.

In the Adjumani and Amuria districts of Uganda, women are responsible for 75% of agricultural labour. Only 30% have rights over the land that they farm.

Male ownership of property is culturally ingrained in these communities. Women only have secondary rights through their male family members, which are often lost through circumstances out of their control, such as the death of a husband or a family dispute.

With limited knowledge of the law, women farmers are vulnerable to both corporate land-grabbing and domestic violence. In turn, they are less likely to apply the sustainable agroecological practises that ensure greater food security.

Many turn to short term solutions that produce food faster. They reject indigenous crops in favour of new seeds and chemicals that create a lower yield, are detrimental to the soil and are less resilient in the face of climate change.

In the Adjumani and Amuria districts of Uganda, women are responsible for 75% of agricultural labour. Only 30% have rights over the land that they farm.

Chandiru Janat was one of the beneficiaries of the GALS in land rights model in Amuria district, Orungo Subcounty.

A community-led solution

Eastern and Southern Africa Small Scale Farmers Forum (ESAFF) has been working with Oxfam to implement a community-led initiative in the Adjumani and Amuria districts of Uganda to educate and equip women farmers to ensure secure access to their land.

The Gender Action Learning System (GALS) in Lands Right Model has a multifaceted approach that is deeply rooted in community relationships to empower women small-scale farmers to identify the key challenges and advocate for themselves in the community and the courtrooms.

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The initial stage works as a reference for local farmers to identify the constraints of gender inequality in land rights and how, by overcoming them, they increase the opportunities for greater food security for their entire household.

In the second stage, small-scale farmers examine strategies for addressing land rights challenges by examining the causes of inequality and making a personalised plan of action.

Lastly, farmers are encouraged to create coalitions and land mapping institutions which are instrumental in allowing women farmers the chance to build connections with other stakeholders such as local, religious and traditional leaders.

The process of land registration was one of my biggest challenges because the procedure was difficult and too corrupt, but I’m thankful for this training because it helped me map the various people I’m supposed to meet up to help me with the process without asking for any money”. Chandiru Jane Amuria District.

“I got the opportunity to attend a training on the GALS in Land Rights Model, I involved my husband and it was an eye-opener for the both of us. He realised my rights as his wife, and our first priority was to register and process our land title.” Angua Lucy, Adjumani District

“A bright future for all

By gaining secure land tenure and food sovereignty, local farmers are increasing their agricultural production, resulting in better incomes that boost the local economy.

Most importantly, it’s providing long term security for small-scale farmers and their families.

So far, ESAFF has trained 60 small-scale farmers as champions in the GALS in Land Rights Model who, in turn, have supported over 400 households. Not surprisingly, 65% of those beneficiaries are women.

At the forefront of the agricultural sector, women farmers are instrumental in protecting their land and promoting agroecological farming. By taking the lead in addressing their land rights issues, they are tackling gender equality head-on and securing prosperity for both their families and their communities.

Raising awareness of land rights issues and advocating for greater protection for women farmers is integral to the project. Both districts have been creative in their approach by using storytelling, songs and dramas to influence local people and policymakers.

Importantly, there has been considerable success in men to men dialogues. By increasing male engagement - from family members to local leaders - the communities are breaking down the cultural norms about land ownership that are harmful and widely held.

“Creating a vision - and then a call to action

ACKNOWLEDGEMENTS

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Lucy showing the Vision Road Journey one of the GALS methodology tools which was one of the pathway to achieving their vision as a family

Akwiror Sarah from Amuria district presenting the freehold agreement of land allocation she obtained together with her late husband

“The title had my name as his wife together with all our children, both the boys and girls. I can say this land belongs to us as a family. I can use it to farm without fear.”
However, these women are vulnerable to precarious livelihoods as overfishing is causing dwindling fish supplies. Many do not have alternative sources of income nor the facilities to invest in seeking new fishing grounds or methods. Access to fishing operations on the high seas is rarely available to women, who are not welcome on the boats. Neither can many stay away from the family home for long periods as they have children and other domestic responsibilities.

A more sustainable and efficient method of fishing is therefore integral to bolstering the community’s struggling economy and stabilizing the women’s financial security.

Kayar, on the west coast of Senegal, is an artisanal fishing community with livelihoods in canoe fishing, artisanal processing of fish products and fish retail. The processing side of the sector — gutting, smoking, and filling cans — is mostly occupied by women, who make up 85% of the processing industry.

Experienced fish-farmers lead training

The initiative is designed to be hands-on, and trainees visit established fish farms to witness a working project in action. It is here that they learn how to construct the ponds as well as make fish feed from leftover braised fish residue and local horticultural products, making it cost-effective and eco-friendly.

Access to enough fish feed remains the biggest challenge as fish farming relies on it but teaching farmers to produce it sustainably at low cost is key to solving the issue. Profitability is at the heart of aquaculture and fish farming.

Environmentally harmful practices are replaced with eco-friendly alternatives

The women are taught about climate change and the impact the fishing sector has on the environment. Fish processors regularly use the leaves and branches from the Casuarina (Ironwood) trees nearby to braise and smoke fish, which has led to severe deforestation over time. Part of the scheme involves replanting new trees where the old ones have been removed, restoring and protecting the local biodiversity.

Women fish farmers lead the industry into a more sustainable future

The success of the project has attracted strong support from other artisanal fishing professionals and small-scale farmers in the region, many of whom wish to begin fish farming in their fields. These farmers and the women in the project share tips and stories through a WhatsApp support group, enabling more peer-to-peer learning.

Without a doubt, the project’s greatest strength is promoting gender equality by making women the principal actor in the scheme. By increasing the dignity and independence of one of the fishing sector’s most vulnerable groups, the project becomes a gateway to a more robust economy and a more equal society.

With tools that will combat food security and grow small businesses, the fisherwomen of Kayar are leading the way to more environmentally sustainable livelihoods and a healthier fishing sector.

Acknowledgements

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‘The future is agroecology — the world will not be habitable without it. Everything else that is convention will fail because it does not work with nature. Agroecology helps us use one stone, our land, to kill many birds such as improving soil, ending hunger, increasing income and combating climate change. This practice will succeed because it aligns itself to how nature works.’

Julius Astiva, Ebubayi village

‘I have a book and a pen which is the soil and my working tools. The knowledge I have is practical and must be applied and shared with other farmers and friends for a better future.’

Simon, Eshiruli village

At the beginning of the project, we were not motivated. But as soon as the germination of the ginger, the very green colour of the leaves, we understood that the soil was awake; and our production was very good despite the lack of water.

Dokli Massa, Togo

We have seen the improvement of soils in terms of structure and the level of fertility, yield has almost doubled the previous amounts. Farmers are able to farm land which before was deemed unsuitable due to soil erosions from runoff. These interventions have improved their lives significantly.

Simon Mbilinyi, agricultural field officer, Tanzania

After training with BIOGI, I know the value of my land. I was approached by my former employee for a good job and refused because I know there is a future and better livelihood on my land.

Herbert Mutoko, farmer, Emmalindi, Kenya

I learned how to make better use of this waste by making compost. There is a clear difference between this field and the one in which I used only chemical fertiliser.

Alidou Sanni, farmer, Benin

We have seen the improvement of soils in terms of structure and the level of fertility, yield has almost doubled the previous amounts. Farmers are able to farm land which before was deemed unsuitable due to soil erosions from runoff. These interventions have improved their lives significantly.

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