



AGROECOLOGY AND MARKETS – STORIES FROM THE FIELD

How wide are the agroecology ripples?



Contents

EXECUTIVE SUMMARY

African mass markets as an extension of agroecology.....4

CAMEROON

An agroforestry revolution in Ebebda proves that agroecological farming is extremely profitable..... 1

ETHIOPIA

Ethiopia proves there is a vital gap in the market for fresh, organic fruits and vegetables4

GHANA

Agroecology as the most sustainable future of farming in Ghana 9

KENYA

Organic farming is not enough: agroecologists lobby for more stringent policy to protect and diversify agriculture in Kenya 12

LESOTHO

The demand for indigenous grains is on the rise in Lesotho 17

MOZAMBIQUE

Creative smallholder farmers are ushering in a new era of sustainable and profitable farming in Mozambique 21

NIGERIA

How Agroecology is changing existing food systems to sustainable food systems in Nigeria's smallholder sector 24

SENEGAL

Agroecology faces tough competition in Senegal, but women smallholder farmers lead the way with innovative solutions..... 27

SOUTH SUDAN

Food insecurity and famine wreck South Sudan, calling for a return to sustainable food production..... 31

UGANDA

With the health of the nation at risk and more cases of chemical-related injuries, champions of Agroecology wonder when the Ugandan government will act..... 34

ZAMBIA

Stories from the field: finding a market for agroecological produce in Zambia 38

Executive summary – African mass markets as an extension of agroecology

By Charles Dhewa

By African ‘mass markets’, we do not mean supermarkets and shopping malls. Mostly associated with fresh fruits, vegetables, and live animals straight from production zones, African mass markets bring together many people, irrespective of class, religion, or socioeconomic backgrounds.

What has kept the African mass food market thriving for decades, despite its many challenges, is its ability to embrace indigenous commerce principles. At the heart of indigenous commerce is a broader and more fluid definition of a market that goes beyond exchanging goods and services for money. Indigenous commerce is mostly about exchanging knowledge and well-being.

As thriving local economies, mass markets support ecologically-sensitive trading and consumption. It is not by chance that each of the articles in this publication starts with production and ends with investigating a local market.

Mass markets have long since recognised that smallholder farmers, who are in the majority in Africa, cannot produce solely for narrow value chains but are good at reflecting wider food systems. They do not exist in isolation but co-exist with traditional markets and prove that not all agricultural commodities can be traded through formal channels. That is why all African countries have dynamic mass markets stretching from rural areas to urban roadsides. Many of the markets are situated at borders where they cement cultural, knowledge, and food trading.

A QUICK TOUR OF MASS MARKETS ON THE AFRICAN CONTINENT

There is no doubt that African mass markets are as diverse as African countries and cultures. The ten stories in this publication are just the tip of the iceberg.

Beginning in the extreme western part of Africa, Senegal. In addition to the Castor market in the capital city Dakar, big weekly markets are a source of food and income in Mbawane, Missirah, Fissel, Payar, Maka Yop, and Darou Nandjigui. There is also the Sinthiou Malém market, which facilitates the supply of agricultural commodities between major urban centres from Tambacounda to Kaolack, Mbour, Banjul in the Gambia, and rural communities.

Organic production is an excellent example of agroecology, and Senegal has made headway in creating organic markets, from which some useful lessons are beginning to emerge. In Thiès, Senegal, the organic market set up in 2004 by Agrécol now sells 1.5 tons of organic horticultural products per week. Notably, organic production is slowly becoming institutionalised through Agrécol, an organisation that supports a network of 3500 households in agroecology in four different communities.

There is still some way to go, and one of the most significant challenges related to agroecology and organic production is the difficulty in enforcing and maintaining standards. Reports show incidents of using chemicals to produce commodities presented as organic in the Fissel and Casamance markets. Organic producers also raised the issue of product storage, which is one of the main weak links in family farms. Women producers are often forced to sell hurriedly in local markets rather than having the time to reach more lucrative organic marketplaces.

Meanwhile, in other parts of the continent, the lack of a market for agro-ecologically produced commodities is an ongoing challenge. In Uganda, organic commodities find their way into the Gulu city market, Kalerwe in Kampala, and many other markets across the country, mixing with non-organic produce.

Otwee market in the Amuru district is one of the major economic hubs in Uganda. In Otwee, trader Ms. Hope Namutoro fails to distinguish between chemical-free products and agroecological products. She adds that most of her suppliers have openly confessed that they use chemicals to boost their crop's yield. As a concerned and healthy conscious trader, Ms. Namutoro feels the government should enact a law that prohibits the selling of agricultural chemicals that are harmful to the environment and contaminate food.

Many countries still struggle to bring agroecology to the forefront of policymaking processes. However, Uganda is lucky to have political leaders who are vocal in favour of the practice. The leader of the opposition in parliament, Ms. Betty Aol Ochan expressed concern that the government had failed to protect citizens against unhealthy food by supporting conventional farming in place of agroecological agriculture. She lamented that much emphasis is going into industrial farming, which she referred to as a 'death trap' for the nation. It demonstrates the importance of getting policymakers, like members of parliament, on the side of agroecology advocacy. No one will simply hand over a market to agroecology without the backing of politicians and policymakers.

A similar story in East Africa sees many agroecological commodities and non-agroecological commodities compete for the same consumers in Piassa Atikilt Tera, the largest fruit and vegetable market in Ethiopia's capital Addis Ababa. Alongside the burgeoning mass market is a horticulture start-up called Green Path Ethiopia, which has created the opportunity for farmers to earn better income by exporting certified organic avocado products. Established in 2015, the company is the first certified organic fruit and vegetable producer working with over 150 smallholder farmers. This initiative shows possibilities for formalising agroecology markets.

Down in Southern Africa, Lesotho's Ha-stoplo food market in Maseru creates viable markets for traditional drinks like motoho and tomoso, and khemere. The market is characterised by some semblance of order in that vendors must be certified by the Maseru City Council Health Department and the Ministry of Agriculture and Food Security. Such processes are critical in maintaining food standards.

MASS MARKET SYSTEMS ARE AN INTEGRAL PART OF LOCAL AND REGIONAL TRADE

Almost every African country has a mass market bigger than the manufacturing or food processing sector combined. All mass markets are under local authorities, who often do not understand the nature of diverse agricultural commodities even though they must create appropriate by-laws.

Given that markets are about governance, politics, and institution building, it is essential to thoroughly investigate management and institutional issues, especially those that control and oppress smallholder farmers. It is the role of all agroecological stakeholders to ensure appropriate markets are built so that farmers are not continuously kept in a subsidiary position through poor market channels.

What makes African mass markets an extension of agroecology is their ability to cater to diverse commodities produced without excessive industrial chemical inputs. By providing space for smallholder farmers and low-income consumers to trade and access food, these markets close inequality gaps promoted by industrial value chains, which only benefit a few well-to-do actors, excluding those at the bottom of the pyramid.

Contrary to industrial food systems promoted in much of Africa, mass markets show that agriculture is not just about yields but understanding the entire food ecosystem. While industrial agriculture focuses more on moving smallholder farmers from farm to factory, local markets recognise that food security and nutritional resilience is not all about turning agriculture commodities into manufactured products. Mass markets are about inclusiveness, equality, and collective empowerment.

Emerging from the stories is the fact that African agricultural policies put more emphasis on formal markets like supermarkets and processing companies. Nevertheless, lack of policy, financial, and infrastructural support has not prevented the growth of African mass markets. There is no longer any doubt that African mass market systems deserve more respect in rural development because they build on local capabilities that bring people together across chasms of conflict. More importantly, balancing the social and profit incentive makes these markets inherently sustainable without need for foreign assistance. While most donor money has gone into agricultural production, most mass markets demonstrate that they can function without donor funding or support from the government.

MASS MARKETS AS PATHWAYS FOR DECOLONISING AFRICAN AGRICULTURE

More importantly, mass markets hold strong cultural and social power too. They create impactful pathways for decolonizing African agricultural knowledge that has been undermined by industrial Western agriculture for decades. In the smallholder sector, food is a human right and not just a commodity. African mass markets are therefore appropriate vessels for liberating African agriculture from neo-liberalism, which focuses mainly on economic growth at the expense of social and environmental sustainability.

African mass markets tend to have the same major characteristics except for a few cultural differences. Every Small and Medium Enterprise (SMEs) in Africa is part of the mass market. We cannot talk about food sovereignty without mentioning the role of mass markets on which the majority of people depend on their income and food. These markets have demonstrated their relevance during the COVID-19 era by strengthening rural-urban linkages. Mass markets have been the main avenue through which rural people move food to their relatives in cities who have lost employment and other income sources due to the COVID-19 pandemic.

This call to action from AFSA includes supporting and protecting informal channels like mass markets through which commodities, food, and knowledge move democratically. In as much as African policymakers are embracing industrial agriculture and agribusinesses, including formal food retailing, the growth of mass markets is a strong signal that most populations cannot depend on corporate food systems.



An agroforestry revolution in Ebebda proves that agroecological farming is extremely profitable

By Léger Ntiga

In Cameroon, it is known to all that “the earth does not deceive”. With this in mind, many Cameroonians have begun returning to cultivating fruit trees in the past decade. One of them is agricultural engineer, Maurice Bineli. After a career at the Ministry of Agriculture in Yaoundé, he is trying his luck in business after deciding that “life could be simpler” if he started working the land. “The most difficult part was convincing my wife Albertine to leave Yaoundé to settle in my native village. But we got over that hurdle and we are now living off our hard work,” says Maurice Bineli, surrounded by his family.

HIS 14-HECTARE FAMILY FARM IS IN EBEBDA, A SMALL VILLAGE 80 KM NORTH OF YAOUNDÉ

“I benefited from these ancestral lands which I inherited from my parents,” Bineli says, “as an agricultural engineer, I knew how to grow, maintain and harvest. But I still had to do market research to sell the produce — this is where I called upon the expertise of Albertine who studied business and worked as a commercial executive.”

He stands on his farm, a cap pulled down over his head, surveying his land which stretches as far as the eye can see with cocoa trees, fruit and citrus trees, and a banana plantation.

BREAKING THE MOULD AND MAKING BANANAS THE FLAGSHIP

On the choice to make bananas their flagship product (about three tons are produced every year), Mr Bineli tells us: “When the idea came to me to create this farm, it was a question of setting up a palm grove as it was fashionable at the time. But I remembered that oil palm impoverishes the soil. So, I quickly redid a study of the project and opted for the banana tree which has the advantage of being particularly rich in water. From this point of view, even in times of drought, it feeds fruit trees and cocoa trees with its abundant sap. That is why between the furrows you see these orange, mandarin, lemon and avocado trees. For real harmony, it is necessary to prune regularly because all these plants want to feed equally on the sun.”



Though early days were tough, Bineli says the results were swift. He was joined on the project by Vandelin Mbenda, another agricultural engineer.

“I was immediately seduced,” Mbenda jokes, “in addition to the local markets and those of Yaoundé, we had Gabon and Equatorial Guinea to sell our crops to. I encouraged him and we set to work.”

Our production system is based on seasonal products,” explains Mbenda. “From September to November, we harvest cocoa. During the same period, we also have tomatoes. Next to it, the mandarins are beginning to ripen. From January to March is the great period of citrus fruits. From April, we have the first tomato harvest. But all year round, we have all varieties of bananas at our disposal. We sell our produce at the markets, especially the fruit market in Yaoundé.”

COMPANIONSHIP AND SUSTAINABLE LAND MANAGEMENT

Sustainable and effective farm management has been an essential part of the project. Bineli and Mbenda’s first task was enriching the soil which had long remained fallow. Using their shared experience, they developed an effective manure-making process by burying organic matter in the earth to ferment.

Uneaten fruit that falls off the trees is not left on the ground either but also buried under dead leaves where it slowly decomposes to provide fertile, free, and natural compost. A technique that not only prevents the proliferation of insects on rotten fruit but also enriches the soil.

The dead leaves from banana trees also help fertilise and provide structure to permanently waterlogged soil. In this way, the land’s resources are not exhausted because they are renewed naturally, without chemical inputs harmful to human or soil health. In this way, the family farm helps to protect the rich biodiversity of this region of Cameroon.

To combat pests and disease, trees were positioned so that if one fell to disease, it could not contaminate its neighbour. Therefore, the technique consisted of interspersing trees of different species to prevent the spread of diseases, which are specific to certain varieties.

“It is a totally viable and balanced ecosystem, where the use of pesticides, which are harmful to health, are unnecessary: this is called companionship. However, this technique requires learning. You have to know which plant promotes the growth of another, and which one hinders it,” explains Albertine Bineli.

SOLAR POWER IS NOT ONLY ECO-FRIENDLY BUT RELIABLE TOO

To sustain the necessary energy for rural operation, Bineli acquired a solar panel. The energy is created in a simple, continuous, and always environmentally friendly way. It is an investment that allows the family to power the computer and telephone and stay in contact with the outside world.

As well as selling fresh fruit and cacao, the farm produces fruit juice consumed locally, the sales of which have been growing year on year. To preserve it, the fruit is processed in an artisanal way (drying oven techniques, for example) with tools and maintenance which are very low intervention. On the strengths of this profit, Maurice plans to process the surplus mangoes he produces in abundance. They predict that the juice market could bring in 2 - 3 million CFA per year.

A HOLISTIC WAY OF LIVING AND WORKING, FOR ALL THE COMMUNITY

What started as a small farm with six people, led by the Binelis and Mbenda, is now a huge operation that employs 50 permanent employees and a further 50 temporary workers.

“We are launching a green revolution,” says Bineli. He has based the farm’s ethos on President Ahidjo’s 1975 goal to achieve food security and sovereignty to Cameroonian farmers.

All the workers are encouraged to take excess fruit from the orchards home to their families. Bineli tries to provide milk and eggs for them too. It is an important part of creating a healthy and varied diet for himself and his family and his employees.

The holistic approach to farming is growing their reputation as a responsible and superior fruit farmers in the surrounding area and even in Yaoundé.

We got to know Ms. Bineli by chance. She came to offer us fruit four years ago in Yaoundé at the fruit market,” Maryline Ntsa, a fruit vendor tells us. During the exchange, Albertine Bineli had explained the working approach of the farm and encouraged Maryline to visit. “We decided to make the trip,” she continued. “We had a huge surprise. As vast as it is, this farm does not use chemicals. Yet you’ve never tasted banana or oranges like it.”



Maurice Binelli shows off his abundant banana trees, the primary source of his farm's income



Ethiopia proves there is a vital gap in the market for fresh, organic fruits and vegetables

By Abebe Haile

International markets are crying out for sustainable, organically certified produce and Ethiopia's smallholder farmers could hold the key. Agroecology experts are working alongside farmers to scale-up operations, increase profits, while also protecting the local biodiversity.



Traders prepare for a busy day at market

Due to COVID-19, Piassa Atkilt Tera, the largest fruit and vegetable market in Ethiopia's capital, Addis Ababa, has relocated to Jan Meda. When past kings ruled, this space was historically used for military parades and traditional sporting games. In the present day, major activities are usually limited to religious ceremonies and sports tournaments such as the annual cross country championship. But today, it is the busiest and most crowded place in the city.

Life starts at Jan Meda as early as 3 am with traders unloading produce from all over the country and sometimes even from neighbouring Sudan. They open crates full of tomatoes, onions, and potatoes packed in sacks. They must finish preparing before trading begins at dawn.



Piassa Atkilt Tera now located in Jan Meda.

Mezmure Melaku, 46, is a licensed wholesaler with over 20 years of experience in the industry. Starting as a clerk at a local fruit and vegetable shop, he gradually built up his own business and became an onion distributor. He buys produce from farms located all over Ethiopia, some as far as the Oromia and Afar regions, and sells them here.

“Most of the time, it is local agents in the production areas who buy the vegetables and send them to me. But sometimes, if I have the time — and especially in the low production season — I go to the farms and directly buy from the farmers and do the shipment myself,” explains Melaku.

Normally, I start selling around 5:30 am. I have customers who work as retailers in their own local shops. I also supply fresh vegetables to supermarkets and hotels. They always come early to get better products or call to place their order for picking up later,” Melaku says.

Most wholesalers like Melaku pack up by 8 am, allowing retailers to take over the market. They are joined by women who set up small stalls, selling vegetables bought from smaller markets or grown in their backyards. Young people sell fruits in wooden carts.

Unofficial figures say that there are almost 300 legally licensed retailers in the marketplace and more than 5,000 illegal traders operating in the mix. With shoppers keen to find a good deal, the market remains crowded until 1 pm and is the most convenient and popular place for the city’s residents to get affordable, fresh fruits and vegetables.

PRICES ARE THREE TIMES CHEAPER THAN OTHER URBAN MARKETS, DRAWING CUSTOMERS FROM ALL OVER THE CITY

Alem Teklu, a mother of three, visits often. Even though it takes two taxis to reach the market, she prefers to come here for the low prices.

“I always come here, once every two weeks at least, with the plan to buy basic commodities. Amazingly, sometimes the price of produce in my local market is three times the price compared to here. You can get everything here at better price,” she explains.

There are quality products and different varieties to choose from,” says Simene Hailu, who buys supplies for his hotel from the market. As a hotel owner, carefully selected, consistently high-quality produce is a priority to him.

“The same produce may come from different places and their quality and price varies accordingly. For example, I always buy tomatoes that come from Meki, in the Oromiya region, the price is higher but they are so tasty. Pepper from the commercial farm called ELFORA is expensive but big and very spicy which is good,” Hailu explains.

Buyers come to Piassa Atkilt Tera for many reasons, but the overriding factor is value for money. For the poor and low-income city dwellers like Alem Teklu, it is the reason many will travel across the city to visit.

“For me, it does not have to be first rate,” explains Teklu, “if it looks good and clean I buy it. I consider the products’ shelf-life to avoid those which are easily perishable. But, I take my time to look for the cheapest price so I can buy as much food as I can.”

TRADERS NOTICE A RISE IN INTEREST IN HOW AND WHERE THEIR PRODUCE IS GROWN

The wholesaler, Melaku, prides himself on long-standing customers who return because they trust the quality of his produce. However, he has noticed that new customers ask where and how the vegetables are cultivated; they do not want produce grown by polluted waters.

Mitiku Tefera, a horticulture expert at the Ministry of Agriculture, says the existing market chains do not provide an opportunity for a direct relationship between producers and consumers. Many conscious consumers are concerned because they do not know how their food is being grown. Even traders are often clueless.

“A culture has developed in which the quality of the product is mainly measured in terms of appearance and place of origin,” Tefera notes.

“For example,” he continues, “soil fertility should be important. A product grown on sandy soil does not have same quality as others. But consumers are buying vegetables and fruits based on the products looks without going into further detail.”

Speaking with Mezmure Melaku, this appears to be true. The wholesaler confesses that he knows little about the environment his produce is grown in, and simply looks for good texture, colour, and shape.

MANY BELIEVE TURNING ORGANIC OR EVEN JUST CERTIFYING AS ORGANIC IS TOO EXPENSIVE AND TOO COMPLICATED

Mitiku Tefera argues that the market has neither the culture to assess better food quality nor the capacity to pay for that quality. Widely available nutritious, organic vegetable production would require a whole infrastructure overhaul, including introducing technology, more manpower, and better farm management systems. Naturally, these requirements come with higher premiums. As priority is given to product availability and cost, the current market culture encourages producers to focus on productivity, relying on agro-chemicals and non-sustainable farming methods.

Experts explain that farmers buy expensive imported seeds to grow a variety of vegetables sold in mass markets, use synthetic fertilisers and pesticides, and other chemical inputs to increase their harvest. Pesticides are widely used, especially in tropical areas such as the Rift Valley, where vegetables are grown three times a year. Lowland areas, such as Afar and Somali, use less fertiliser but rely on other agro-chemicals instead.

Often it is the smaller producers who are achieving more organic produce. “Most farmers grow fruits in their backyards, using only animal manure as fertiliser,” explains Tefera. “These are organic by nature, though not certified and not considered organic in the local marketplace.”



Organic, naturally grown avocados from one of GreenPath Ethiopia's farms

START-UPS STEP UP TO TRAIN FARMERS ON CERTIFYING ORGANIC FOR THE INTERNATIONAL MARKET

For some time now, GreenPath Ethiopia, a horticulture start-up, has created opportunities for farmers to earn a better income by exporting certified organic avocado products. Established in 2015, the company is the first certified organic fruit and vegetable producer working with over 150 smallholder farmers

The company trains farmers on crop selection and farm management while assigning agroecologists to follow up on their work so that their produce meets European Union Organic Certification standards. Fundamentally, it bridges the missing link between global markets and smallholder farmers with conscious consumers in Europe, the US and the Middle East.

Through an intercropping mechanism — an agroecological farming system — the farmers are benefiting from the variety of crops growing alongside avocados. It is a technique that not only protects and nourishes the ecosystem but also sustains food production. In this way, farmers can grow avocados for export but also a diverse and nutritional diet for their families.

PAN Ethiopia call for an end to damaging chemicals and a return to indigenous farming techniques Pesticides Action Nexus (PAN) Ethiopia has been working with the government to reduce the social and environmental impact that comes from intensive usage of pesticides and other dangerous agrochemicals.

Tadesse Amera (PhD), Director of PAN, says that farmers are no longer applying local knowledge in their agricultural activities like they used to. He explains that the damage done to the environment has forced farmers to use harmful pesticides and synthetic inputs to create even limited growth.

“Our focus is to make pesticide chemicals the last resort to problems. Where ecologically organic farming is impossible, we are helping the farmers implement natural pest management principles integrated with their local indigenous knowledge,” Amera says.

The Integrated Pest Management project has helped smallholder farmers in the Rift Valley area produce non-toxic, healthy vegetables without pesticides that damage the natural ecosystem. Unlike their previous market value chain that involved expensive intermediaries, the farmers are now supplying supermarkets in the capital directly with high-quality produce.

“Their vegetables are being sold with 15% higher price value compared to vegetables grown with agrochemicals supplied in conventional markets and the demand is increasing,” explains Amera.

DESPITE GOVERNMENTAL AND NGO BACKING, THERE IS STILL A LONG PATH AHEAD IN MAKING AGROECOLOGICAL FARMING THE NORM

To increase productivity, Ethiopia has been implementing sustainable development strategies by introducing eco-friendly farming technologies and transferring best practice knowledge to farmers through extension workers.

According to the government and other development actors, integrated and mixed farming systems and other agroecological activities like crop rotation and intercropping, are currently seeing great success.

Yet, scaling-up means a long journey ahead. Researches note that indicated agroecological production systems need to strengthen through market management and promotion of local and ecological products such as vegetables.

It signifies the importance of more intermediaries like PAN Ethiopia in creating value for high-quality agroecological products in the country's food market systems. By doing so, they can provide technical assistance to farmers on ecological and sustainable practices and in building a better diversified and interactive market network for their harvest.



Agroecology as the most sustainable future of farming in Ghana

By Roger A. Agana

Ghana has an abundance of arable land and different food crops are cultivated across 16 regions of the West African country.

Crops including cash and food crops like maize, yam, cassava, rice, fruits and vegetables are grown on a large and small scale. Agriculture is the mainstay of Ghana's economy, with total employment at 29.26% in 2019, according to the World Bank.

This article explores the prospects of vegetable farming in Ghana through the adaptation of sustainable farming techniques popularly known as agroecology.

Local vegetable farmer uses agroecology to increase his yield without compromising quality
Ibrahim is a 52-year-old small-scale farmer from the northern part of Ghana. He has been cultivating vegetables such as onion, cabbage, sweet pepper and cucumber at East Legon along the Tema-Accra expressway in Accra since 1992.

His motivation is to produce quality vegetables for the market by applying modern agricultural practices that enable him to obtain more yield without compromising on quality.

"With quality and more yield at the back of my mind, I don't joke with land preparation," he says. "I normally allow the leaves, roots and other waste products previously harvested to remain on the land so that they decay and mix with the soil to enrich it for my next harvest."

The vegetable farmer has deployed an irrigation system obtained from China. He introduced the technology into his vegetable farming about five years ago. With it, he has connected irrigation pipes throughout his farm that supply water in the right quantities to the vegetables.

While growing cabbages, Ibrahim uses poultry manure to enrich the soil. He says that he has been mixing neem seed or leaf with hot pepper extracts and water to control aphids on the cabbages. While Ibrahim employs sustainable techniques to produce safe and healthy vegetables, he is disappointed that he cannot get premium prices for his produce.

He disclosed that extension officers from the country's Ministry of Agriculture do know about his farm and have visited occasionally.

The extension officers are aware that we are here doing this but their level of engagement with us is the down side. They come here occasionally to offer some help but not on a regular basis. They give us advice on modern ways to go about our activities.”

WHERE THERE’S PRODUCE, THERE ARE ALWAYS BUYERS

One factor that has sustained Ibrahim in his business is the ready market he gets after harvesting. He said he usually informs his customers who buy wholesale from him about the day of harvest and they then visit the farm to buy. Sometimes, he transports the produce to his customers at the markets.

We have a lot of customers who patronise our vegetables, there is no problem as far as customers are concerned. They are readily available when we harvest our products. We plan our business in such a way that customers always come over to buy when we harvest.”

He added that most of his customers are not much interested in how he produces the crops. Their joy is to see the crop size with little concern for safety during production.

Ibrahim still faces challenges in his vegetable growing business, in particular, combatting pest infestation, the high cost of fuel to pump water from a nearby dam as well as occasionally having to undervalue his produce.

DYNAMIC MARKET AND THE ROLE OF MARKET QUEENS

In order to gather insight into sustainable vegetable production and consumer behaviour towards it, it is essential to visit Ashaiman, a town located north of Tema, in the Greater Accra region. The town has over 200,000 inhabitants and is the business hub of the area.

The various food items sold at the Ashaiman market include cassava, plantain, yam, maize, millet, sorghum, rice, gari, fish, meat – oranges, mangos, bananas, tomatoes, onions, garden eggs, cabbages, lettuces, and cucumbers among others.

Fresh produce is transported from all over the country and even brought into the market from outside Ghana. Women and children dominate trading activities at the Ashaiman market, making up 80% of demographic.

VEGETABLE VENDORS NOTICE CONSUMERS ARE GROWING MORE AWARE OF FOOD PRODUCTION

Agustina Dede, 38, a retailer who sells vegetables, buys a large part of her stock from wholesalers. She adds that she takes deliveries of cabbage and onions from nearby farms too.

“This is what I have been selling for the past 18 years. It is through this business that I have been supporting my husband to care for our three children who are all in school. Things would have been a little difficult had it not been for this business,” Dede said.

The market, she emphasised, has not changed much regarding the kind of food being sold as only a few additions such as exotic mangos, watermelons and various foreign vegetables have been introduced in recent times.

On issues of food safety, she said that there have been instances where some customers have raised concerns, but she assures them that she sources her produce from the right farmers.

A cross-section of consumers confirmed that they consider the safety of produce before buying. Forty-two-year-old educationist, Eric Boakye said, “I always look out for fruits and vegetables that are healthy so as to stay healthy as well. Price is the second factor.”

LOCAL ACTORS HAVE NOTICED THE IMPORTANCE OF AGROECOLOGY

Nii Ofoe Hansen is the manager of the Ashaiman Irrigation Scheme, which manages a local dam. The dam has existed for 40 years and covers 155 hectares, 97 of which have been developed into rice and vegetable farms.

Hansen notes that the traditional practice of land preparation involved weeding and burning before planting as well as applying chemicals to the crops.

He said, “The slashing and burning destroys the soil. The use of chemicals destroys the soil. So, the best thing is to slash and turn the soil, land preparation is important in order to avoid destroying the soil structure.”

Hansen underscored the importance of practices such as proper land preparation, cultivating an improved variety of seedlings, Integrated Pest & Disease Management (IPM), well-organised water management systems and use of organic fertilisers in modern agriculture.

He highlighted the benefits that agroecology has over the traditional method of growing crops and indicated that the new process has several advantages, including boosting crop yields as well as preserving the natural ecosystem.

AGROECOLOGY AS THE WAY FORWARD

Agroecology is a holistic approach that reconciles agriculture and local communities with natural processes for the common benefit of nature and livelihoods. Among the benefits, agroecology not only produces food, jobs and economic well-being but also creates cultural, social and environmental benefits. Agroecology protects and provides ecosystem services like pollination, natural pest control, nutrient and water cycling and erosion control.

It is clear that Ghana is turning towards a more sustainable way of farming, that land management and the protection of the soil and local biodiversity is growing more important to local consumers. Customers are starting to show willing to pay that little bit more to compensate for produce that is made organically without pesticides that are historically harmful to humans and arable land.

It is essential now that integral government bodies, such as the Ministry of Agriculture, provide more generous support to the smallholder farming community of Ghana. By educating extension workers in modern, sustainable, agricultural practices, the Ministry can lead Ghana into a new phase of eco-friendly, agroecological farming and food security.



Organic farming is not enough: agroecologists lobby for more stringent policy to protect and diversify agriculture in Kenya

By Allan Odhiambo Akombo

KISUMU/NAIROBI — Until nine years ago, Jane Onyango had routinely grown maize on her one-acre parcel of land in the Kawango area of Kisumu County, western Kenya.

Season after season, she persevered with the crop despite low yields, costly chemical inputs, and increasingly erratic weather patterns.

It took a devastating drought in 2011 for Onyango to change her farming practice — dropping the mono-cropping of maize and the use of chemical fertilisers.

“The drought came with eye-opening lessons for me. My entire crop was wiped-out and I was deeply pained because I invested KSH 3500 in DAP [Diammonium phosphate] fertiliser alone,” says the 51-year-old mother of five.

“And when I looked back at the previous years I realised I wasn’t doing something right because I kept on planting the same crop and using costly fertiliser yet my harvests barely exceeded two bags of maize,” she adds.

Frustrated by the low yields due to the changing weather patterns, heavily degraded soil, and costly fertiliser, Onyango opted to take a break from planting just maize and try other crops such as millet and green grams.

“Surprisingly, I had an impressive harvest of five bags of millet within the first season of rotation from maize yet I didn’t even use fertiliser at all. This was my turning point... I now rotate the crops I grow and my soil is healthier and my harvests are better,” she says.



Aphline shows off her produce on her farm

Onyango also took up using cow dung manure for farming — which she gets for free from her herd of four heifers and supplements with droppings from her chicken coop. She further grows *Leucaena* trees on her parcel of land, whose leaves provide shade to her crops and act as fodder for her livestock.

“I reverted back to traditional farming methods and I must say things are becoming better. I don’t have to bother with expensive fertiliser anymore and rotation of drought resilient crops has solved the problem of poor harvest due to erratic weather patterns,” she says.

Like Onyango, several other farmers in Kawango village practice various agroecological farming methods— mainly pressed by the quest to counter the adverse effects of climate change.

Kisumu County has a relatively warm and humid climate, with temperatures averaging about 23 degrees celsius with predominantly sandy and clay soil. However, both temperature and rainfall have become erratic, thus affecting crop yields.

Aphline Ogonda practices rotational inter-cropping of bananas, pumpkin, brachiaria grass, and sweet potatoes with vegetables such as collard greens and maize on her farm in Kawango village. She uses cow dung manure to boost her crops.

“The pumpkins and sweet potatoes are my preferred crops during the shorts rains and dry season because they thrive in such weather and I am guaranteed some food for my family and a little surplus for sale in the market,” she says.

“The bananas and brachiaria grass are also useful during the dry period because besides the fruits, the leaves supplement food for my cows.”



Dorothy on her farm in Kawango

She also uses wood ash to drive away aphids from her crop of vegetables. Ogonda sprinkles the ash over the vegetable plants instead of spraying them with pesticides, causing the aphids to dehydrate and fall off.

Another resident of Kawango village, Dorothy Otieno, grows drought-tolerant cassava and pumpkin on her small parcel of land and harvests rainwater for household use and watering her collard greens during the dry season.

“When rains became more unpredictable I had to become smart and take up new methods that would sustain my farm,” she says.

Surprisingly, unlike the global trend where produce from agroecological farming practices has special markets and costs more to compensate the labour, the farmers in the Kawango area don’t seem to enjoy such privileges.

A spot check at the local Holo open-air market shows that produce sells at regular prices without considering the farming methods involved or health and safety benefits.

“When you bring your produce here for sale the buyers are not bothered by how it was produced. To them food is food and will not pay extra coin because you didn’t use fertiliser during growing. Try invoking standards here and you will remain stranded with your produce” says Phillip Otieno, a fresh food vendor.

Some 21 kilometres away in Kisumu, Kenya’s third-largest city, a similar fate awaits many farmers and traders with stocks of ecologically produced foods.

For example, there is no special treatment for ecological farming in the Oile market within the city's Central Business District.

"We still don't have systems for produce exclusively grown ecologically. All that comes here is sold uniformly," says one of the traders, who only identifies herself as Nya Ahero.

This is replicated in most parts of rural Kenya, where the concept of agroecological farming is yet to take root as a specialised and premium form of agriculture.

Interestingly in the Kenya capital, Nairobi, organic farming -- which is a semblance of ecological agriculture though it doesn't consider the entire ecosystem -- is fast taking root and even has special markets where the produce attracts premium prices.

At the Kids Ventures market in Nairobi's Garden estate, health-conscious buyers — mainly the elderly and the middle-class — frequently pass by to stock up on organic fruits, vegetables, and cereals.

In these specialised markets, organic produce costs up to 30% more than conventional foodstuffs, but customers are happy to pay because of the perceived health benefits.

"The dangers of farming with chemicals are known and I would not wish to consume foods grown using chemicals when I have an option to buy safe and naturally produced food," says Diana Kerubo, a regular customer at the Kids Ventures market. "I am not bothered by the extra cost because it compensates for the high safety standards by the farmer."



Traders line the street at Oile Market

The Kenya Organic Agriculture Network (KOAN) has actively promoted organic farming and even created the Kilimohai Organic Certification Mark, which is the approved standard for all organic produce and processed products.

The lobby is also pushing for a national policy on organic farming through the Agriculture, Livestock, and Fisheries Ministry, which has already marked it as a priority area in its revised short-term strategic plan.

However, experts urge for deeper sensitisation on agroecological farming over that of organic farming since it has the potential for a more significant impact nationwide.

“Most people can’t differentiate between organic and agroecological farming and this should be taken up even at a policy level,” says Jorim Okoth, an agronomist. “Ecological farming looks a lot like organic farming but takes things further by taking into account the entire ecosystem. Basically agroecological farming tracks after the entire natural life cycle.”

Prof. Hamadi Iddi Boga, the Principal Secretary of the State Department for Agricultural Research in the Ministry of Agriculture, Livestock, and Fisheries, says Kenya is pursuing a holistic policy on smart agriculture.

“Climate-smart agriculture is what we are pushing. There are individual initiatives on organic agriculture or what people call agroecology but there is no policy yet,” he says.

Ecological farming is primed to save Kenya’s agriculture, which is increasingly threatened by climate change. The Kenya Agricultural and Livestock Research Organisation (KALRO) — the premier national agricultural research institution — estimates that 98% of the country’s agriculture is rain-fed, exposing erratic and extreme weather, including prolonged droughts and flooding.

Agroecology boosts food security through improved farm productivity and safeguards the environment by limiting the use of chemical inputs. Further, it restores food sovereignty to local farmers, allowing them to create sustainable, profitable livelihoods that will last their lifetimes and their children’s too.



The demand for indigenous grains is on the rise in Lesotho

By Francis Mukuzunga

Small-scale grain producers in Lesotho have increased their output over the past few months due to the high demand for indigenous and home-grown foods.

At Maseru's main bus stop, Ha-Stopo, there is the biggest food market in Lesotho. Here hundreds of vendors who source food from all corners of the country, including South Africa, sell directly to the public boarding taxis and buses.

There is a section dedicated to selling traditional and indigenous foods grown either in the villages or at peri-urban plots on the outskirts of the capital. One such farming area is Sehlabeng, which is situated on a plateau that overlooks Maseru, 30km away.

Villagers at Sehlabeng supply the vendors in Maseru with small quantities of indigenous grains such as red or white mabele (sorghum), poone (yellow maize) and a local variety of linaoa (sugar snaps). Crops barely need chemicals or fertilisers to help them grow, and local farmers say they require minimal intervention, as championed in agroecology practices.



Indigenous grain stall at Ha-Stopo

The farmers have found a ready market with vendors at Ha-Stopo as the demand for such food has increased as more and more people become interested in low intervention foods.

To certify as organic, vendors must gain approval from the Maseru City Council health department and the Ministry of Agriculture and Food Security through its regional office.

LOCAL VENDORS CHAMPION INDIGENOUS FOODS FOR THEIR NUTRITIONAL VALUE AND ABILITY TO BOOST IMMUNE SYSTEMS

One such vendor is Tlalane Rasebonang, who is a 54-year-old single mother. She buys all her grains from the villagers in Sehlabeng in bulk and processes half of them through grinding, while the other half is sold whole after packaging. She prefers red and white sorghum as dried it provides highly nutritional content for most traditional meals while the ground grains are used for cooking porridge and making traditional drinks.

Rasebonang also has a selection of traditional beans grown in village gardens that she says are popular with customers. In addition, she sells green vegetables such as rape, cabbage, and spinach which she recommends her customers to cook with the grains to provide highly nutritious meals.



Tlalane Rasebonang waits for customers at her indigenous food stall in Ha-Stopo

She says she sees a trend in people trying to be more health-conscious since the outbreak of COVID-19 earlier this year. Many have turned to traditional foods as a result. Rasebonang is a personal advocate for indigenous foods. She also encourages people from all walks of life to eat more of them as they are high in nutritional value and “guard against some well-known diseases.”

Rasebonang makes a comfortable living from her food stall, situated in one of the streets by the busy bus stop. She was able to send her son to secondary school and now university, through proceeds made from the stall. The monthly profits have also allowed her to build her own house at Sehlabeng.

“I started this business in 2004 after being laid off from the textile factories where I was working because of ill-health. I have never looked back since as the business provides me with all my needs,” she says.

FEMALE BUSINESS OWNERS USE INDIGENOUS GRAINS TO KEEP TRADITIONAL FOOD AND DRINK CULTURE ALIVE

Rasebonang also supplies her grains to other vendors in the area, who cook or process the food on site. 35-year-old Matooke Sehloho makes two types of traditional drinks, motoho, made from the mixture of sorghum powder, tomoso (a traditional kind of yeast), and sugar and khemere, a highly refreshing drink made from ginger, water, and sugar.

Both drinks are packaged in 500ml and 1-litre plastic bottles supplied from certified manufacturers and promoted by the health authorities. Motoho is sold warm in winter months or cold in summer while khemere is best sold chilled.

Sehloho says her drinks have become very popular with customers, particularly the taxi drivers and members of the public who buy directly from her roadside stall at Ha-Stopo.

“I work at the stall every day from Monday to Saturday and I have managed to help my husband support our two young children as well as putting extra food on the table at home,” she says. Her income is not constant because of the changes in seasonal demands. Nevertheless, she enjoys her business, expanding it to sell boroto and leqekoane — traditional breads — to go with her drinks.

Locally and sustainably grown potatoes are fighting to outshine South African imports

Further down the Ha-Stopo market are the potato vendors. Most of the potatoes sold here come from commercial farms across the border in South Africa. However, locally grown potatoes have also found a niche with vendors here.

Maelamo Siuoa has been in the potato selling business for over ten years selling all types of tuber. He has found profitable business during the current season by selling potato seed, imported from South Africa to the farmers in Lesotho.

“I sell a Mondial potato seed variety that is specially developed for the harsh climatic conditions in Lesotho as it can withstand little or no rain at all. Local farmers like to buy this seed so that they can grow potatoes for local consumption,” he says.

The Mondial seed potato is considered one of the best in the market as it has better disease resistance and produces more ton per hectare than any other variety. The waxy potatoes are also popular with food vendors and locals alike at Ha-Stopo because they maintain their shape after boiling or frying.

Siuoa said he is one of the fortunate farmers who can go across to South Africa to buy the seed in bulk to repackage and sell them locally as he has a special permit to do so. He also has a farm in Thaba Tseka district, about 250km from Maseru, where he also grows and supplies potato seeds to local farmers.



Siuoa showing his wares at his potato stall

He says the Agricultural College has facilitated permits for farmers who wish to purchase specially adapted seed varieties from across the border. The same agricultural institution also supplies the farmers with indigenous crop varieties that go along with the soil and climate in Lesotho. As well as selling the seed potatoes, he also offers advice to the farmers on how they can grow the potatoes and increase their yields.

“What I always recommend is that small-scale farmers around Maseru plant this type of potato seed as they can make up to three cycles of harvests during the planting season. Best of all, this variety is so easy to grow as it does not need pesticides or fertilisers as it grows naturally,” he says.

LOCALLY GROWN CROPS HOLD THE KEY TO FOOD SECURITY IN LESOTHO

All in all, it has been a season of opportunity for local smallholder farmers, like those in Sehlabeng, as demand increases for locally sourced foods in the face of closed borders.

Agroecologists have proven time and again that indigenous crops are more likely to withstand climatic hazards and thrive in local soil. They also provide nutritional value often lacking in chemically enhanced yields, which is vital in a global health crisis.

As COVID-19 looks set to impact the agricultural industry for many months to come, food sovereignty is once again at the forefront of the conversation. Relying on international aid and inputs makes Lesotho vulnerable should the country face another lockdown.

The market at Ha-Stopo proves a demand for fresh produce that is locally grown, with organic pesticides and low intervention. Smallholder farmers in Sehlabeng show that the execution is possible, and further, profitable too.



Creative smallholder farmers are ushering in a new era of sustainable and profitable farming in Mozambique

By Charles Mangwiro

CHOKWE, Mozambique — Sporting a blue golf t-shirt, a multicoloured apron, and jeans, Fatima Matavele looks nothing like a stereotypical African farmer as she examines plants at her rural home in Chokwe, some 250 km north of the Mozambican capital, Maputo.

Fatima, a single mother of four, produces yoghurt from under-utilised fruits such as African medlar and baobab fruit. The former has a pleasant apple-like flavour and is native to the southern and eastern Afrotropics. Baobab fruit comes from the tree of the same name, known more colloquially as Africa's 'Tree of Life,' and is the only fruit in the world that dries naturally on the branch.

39-year-old Fatima dropped out of school at a young age and was unsure of her prospects. Now she is the owner of a successful yoghurt company, a role that has given her prominence in the community. Going against the trend that shows more and more young people abandoning rural agriculture to find work in the cities, Fatima left city life for better prospects in the countryside.

"With prolonged drought and uncertainty over how long coronavirus will last, I have no intentions whatsoever to go back and live in the city again," she explains. She adjusts her gloves, standing among knee-high jars of baobab fruit, before a table scattered with milk bottles and vanilla cream.

Fatima Matavele first learnt about working with wild fruits and milk from her science teacher in the fifth grade. She bought a stove and pots nearly two years ago for just \$128. In a good week, she makes the same amount in only five days.

The government wants to increase local agricultural production and cut international imports. Smallholder farmers account for the vast majority of Mozambique's agricultural sector, with some 3.2 million smallholder farmers accounting for 95 per cent of the country's agricultural production.

As the central agriculture district, Chokwe has 31,000 farms, with each farm averaging 2.1 hectares of land. They primarily produce agricultural products such as corn, cassava, cowpea, peanut, sweet potato, and rice.

In Mozambique's southern province of Gaza, the government plans to increase rice cultivation by 60 per cent in the next 2020/2021 agricultural season, hoping to produce up to 10,000 metric tons and cut imports.

The administrator of the district, Eseu Muianga, says that the aim is to supply the entire southern region of the country, which is food insecure due to adverse climate change factors such as prolonged droughts, cyclic cyclones, and irregular rains.

"The district of Chokwe is Mozambique's bread basket. Alongside other vegetables such as tomatoes, carrots, onions and potatoes, we are betting on rice production which always gives us space to produce fresh vegetables after every harvest. So this means we will not stop production during intervals," Muianga says.

CORONAVIRUS HAS OPENED UP UNEXPECTED OPPORTUNITIES FOR MOZAMBIQUE TO BECOME MORE SELF-SUFFICIENT

Despite the effects of the global coronavirus pandemic, the Chokwe district has seen a window of opportunity. It intends to reclaim its status as the nationwide food supplier after years of struggling under a crippling 16-year civil war.

Currently, the rice deficit in Mozambique estimates at 315,000 tonnes, and rice is now the most strategic crop in the government's Five-Year Economic Plan-(PES 20-24), approved early this year by parliament.

"Coronavirus is teaching us lessons and Chokwe has the capacity to produce rice and vegetables that is why at the moment other activities are underway such as assisting rice producers, with a view to increasing productivity in the neighbouring districts of Manjacaze, Bilene and Xai-Xai," Muianga said in an interview in Chokwe.

FEMALE SMALLHOLDER FARMERS AND ENTREPRENEURS ARE LEADING THE REVOLUTION

Fatima Matavele is just one of a growing band of successful farmers leading the way. She hopes that her non-traditional farming business will help improve agriculture's image in the country in a big way.

Currently, she buys milk for pasteurising from farmers in her village to produce yoghurt, which she mixes with medlar or baobab fruit before shipping it to the capital, Maputo. However, Fatima's goal is to build a yoghurt factory and export fresh, flavoursome yoghurt to neighbouring countries such as Eswatini, South Africa, and Zimbabwe.

Her business was one of the examples praised by the Mozambique president in his recent visit to Chokwe district. His trip coincided with an official delivery of various agricultural inputs, such as tractors and motorcycles for extension workers, to assist the 80,000 family sector producers enrolled in the World Bank-backed sustainability program.

"We need to empower the farmer so that they have the knowledge, the means and the culture to grow in a profitable way. This means professionalisation," said President Nyusi. "That way, the artisanal farmer is not a subsistence farmer, but a leading figure in agriculture."

Referring to Fatima Matavele, personally, the President commended creative thinking. “Let’s have a business mentality, a mentality of taking the product to the consumer and then going and meeting the consumer. It’s not the consumers who have to come to us,” he said.

While young people flee to the city, tired of the struggles of agricultural life, Fatima proves that subsistence farming is not the only option. She hopes to encourage young people to think outside the box, to take the indigenous farming knowledge of their parents and grandparents, and channel it into innovative, modern farming projects.

How Agroecology is changing existing food systems to sustainable food systems in Nigeria's smallholder sector

By Ruth Tene Natsa

Agroecology is slowly picking up traction in Nigeria but there is still some confusion on its benefits and the ways in which it can be implemented. Smallholder farmers are open-minded about investing in their farms and their future but often lack the resources to make this a reality.

SMALL-SCALE FARMERS CAN SEE THE RESULTS OF AGROECOLOGICAL PRACTICES BUT DO NOT HAVE THE TRAINING TO MAINTAIN THEM

Joshua Tanko is an ugwu (fluted pumpkin) farmer, based in Warri, southern Nigeria. For Tanko, who uses both fowl droppings and organic fertilisers to boost his farming practices, all he wants is a good harvest because there is always a market when there are supplies.

He says he earns between \$1,100 and \$1,300 every harvest and between \$6,600k-\$7,800k annually. "I do not know if the farming method I use can be called agroecology because, I use both compost (fowl droppings) and chemical fertilisers (mostly urea) and they both work fine for me," he explains. However, Joshua is confident that organic compost gives him a fresher, greener harvest, but he does not have the systems in place to make it readily available, which he finds stressful.

"I began farming vegetables over five years ago and I can say it is highly profitable with a ready market at harvest. I farm ugwu, which is widely used in the eastern and southern parts of Nigeria. These days, everybody in Nigeria eats ugwu because it is very healthy and encourages good blood pressure."

His farm spans two hectares, and while vegetable farming has been a good investment, sometimes he is challenged by inclement and unfriendly weather. Pumpkins do not thrive in too much rain or too much sun and like many smallholder farmers, Joshua struggles with the effects of climate change which brings long droughts and heavy rains.

The COVID-19 lockdown brought new challenges too, as selling in the markets became prohibited. Often produce was sold at cost price to avoid a total loss.

On agroecology, he says, “I have heard about it, but I am not sure if I know much to say. If I have the opportunity, I really would love to learn about [agroecology], especially if it’s cheaper and more profitable. I know that using fowl droppings gives me better yield, the leaves are always greener and fresher, so I know using any natural process will aid my farm.”

FARMERS CALL FOR THE GOVERNMENT TO FULFIL THEIR PROMISES OF AGRICULTURAL SUPPORT

Emmanuel Daniel, a cereals and crop farmer with over ten years experience, says there is a viable market for agroecology and, indeed, any sort of agricultural practice that will improve yield and combat food insecurity.

There are still some challenges, such as erratic weather causing prolonged droughts, which require watering crops artificially. Emmanuel wishes there was more generous support from the Nigerian government.

“We have had people come from the government, mostly from the ministry of agriculture, we will register our data but nothing has come out of it. They have promised us fertilisers, cash supports and even training on safe agricultural practices, but we are yet to see those promises fulfilled”.

Luckily, the demand for ugwu is still high, and when he can successfully harvest them, there are always traders to buy. Yet Emmanuel is keen to expand his business and increase his yields with safer, more agroecological practices, and he hopes he will receive much-needed support soon.

TRADERS DO NOT FEEL CONFIDENT IN THEIR UNDERSTANDING OF DIFFERENT FARMING SYSTEMS

Ngozi Dibia, a ugwu trader, agrees that the ugwu business is booming.

“The market is full now because of the rains, but now the rains are finishing, they are becoming more scarce. People buy lots of ugwu because everyone uses them — for vegetable soup, ogbono, egusi...”

When asked if she considers how the ugwu are grown when selecting her wares from farmers, she shakes her head. “So long as they are fresh,” she says, going on to say, she doesn’t quite understand the nuances of different farming techniques.

Her lack of understanding on the matter is a reality for many traders across Nigeria. It shows that education on agroecological farming’s nutritional, ecological, and economic benefits is still much needed in the area.

AGROECOLOGY ACTORS EXPLAIN WHY GOVERNMENTS NEED TO INVEST IN A MORE SUSTAINABLE FUTURE

Meanwhile, lawyer and coordinator for the Food Sovereignty Program Friends of the Earth Nigeria, Mariann Bassey-Orovwuje defines agroecology as vast, diverse, and multi-dimensional. It works in harmony with nature, using cultivation techniques and breeding programmes that do not rely on chemical fertilisers, pesticides, or artificial genetic modifications.

The activist said agroecology is built on traditional agricultural practices using research, technology, and existing indigenous knowledge, while at the same time ensuring that farmers are in control of all aspects of food production. Using ecological agriculture, farmers produce abundant, healthy food sustainably.

“Agroecology is a complex system that includes natural and exact sciences and human intervention and seeks the improvement of existing food systems towards sustainable systems.

“Agroecology is based on a holistic approach and system-thinking. It has technical, social, economic, cultural, spiritual, and political dimensions. It is grounded in the human rights framework. It, therefore, uses the human rights lens, including the right to adequate food and nutrition, the rights of farmers, the rights of peasants and agricultural workers, the rights of women, the rights of indigenous peoples — including their right to self-determination, and the rights of local communities over their territories, lands, waters, ecosystems and genetic resources.”

She said agroecology emphasises, mainly local, technology, innovations and inputs that are knowledge-intensive, low cost, practical for small and medium-scale producers, and locally available, including on the farm or range itself in an integrated or mixed-farming or pastoral system.



Agroecology faces tough competition in Senegal, but women smallholder farmers lead the way with innovative solutions

By Faydy Dramé

“The cooperative Sell Sellal of Enda Pronat pays me between 700 and 750 CFA francs [\$1.30] per kilogram of carrot compared to 500 CFA francs [\$0.90] in the market,” says Coumba Guèye, a producer from Keur Matar Guèye. Not all her colleagues in healthy and sustainable agricultural production in the Niayes area are so lucky. Agroecological products are not easy to sell in the markets. They are more expensive compared to those from conventional farms and it is a handicap for this agricultural sub-sector, which today includes 26,000 actors.

In the south of the country, Marie Augustine Djiba produces organic rice and vegetables in Thionk-Essyl in the region of Bignona. Involved in organic farming since 2006, she continues to barter her rice crops for millet or livestock, if necessary. However, some of her market gardening crops are sold at the conventional market. She deplores the lack of consumer awareness on the benefits of agroecological products here.

“We are obliged to always explain to customers that our vegetables taste better and can be kept for more than a week in the open air without changing their taste,” Ms Djiba explains.

Ndèye Fall, another organic farmer, has only the local market in Mbawane to sell her vegetables alongside products “soaked in pesticides and chemical fertilisers”.



Marie Augustine on her farm in Thionk-Essyl

“Without labels, consumers can’t tell the difference. Unfortunately, we sell at the same price,” she explains, sadly.

There is the same disappointment for Thioro Guèye, an organic vegetables farmer from Mbissao. Rather than sell her crops at low prices to bana-bana (middlemen traders), Guèye prefers to come and sell at the Castor market in Dakar where she is forced to sell at the same price as non-organic products.

However, she still believes the sacrifice is worth it, although she laments the lack of adequate storage facilities to protect their goods from rain, wind and sun.

YEAR LONG DEMAND FOR PRODUCTS THAT ARE SEASONAL IS CREATING A BARRIER FOR FARMERS PRACTICING AGROECOLOGY

It is one thing to convince consumers to go exclusively for agroecological products; another is to be able to keep up with certain demands.

“How can we always have the products that satisfy customers?” asks Abdou Rahim Ba, director of the agroecological farm “The Four Paths” in Toubab Dialaw. Agroecology encourages crop rotation as well as seasonality, which frustrates some consumers who want the same thing all year around. Such a situation can drive away regular consumers. “This is the case in the winter period when some crops such as lettuce and beet are not easy to produce naturally,” says Aida Dieng, a member of the Organic Consumers Club of Thies, and a regular customer of the weekly organic market in Thies.

LACK OF REGULATION SEES A RISE IN FAUX ORGANIC PRODUCE

Customer satisfaction depends on respect and trust of production standards. The attitude of some “cheating” producers concerns Yacine Diouf of Fissel and Marie Augustine Djiba of Thionk-Essyl in Casamance.

“Some of our colleagues cheat by using chemical inputs. But even in small quantities, informed customers can tell by taste and shelf life,” they tell us.

Worse still, there are rumours that other merchants label non-organic products as organic or add extra components such as honey or palm oil to increase the quantity. These women are worried about how the actions of a few, will ruin the reputation of hundreds of hard-working agroecological farmers like themselves.

“There are many traders in conventional markets claiming to sell organic products,” says Rokhy Bodian, an organic trader and member of the “We are the Solution” movement in Casamance. According to Ms Bodian, these traders use the label ‘organic’ as a reason for purchase and not as a commitment to a certain type of farming.

Such behaviour is hindering the selling of agroecological products because customers who come to the market have no real indicators of how to distinguish between organic or agroecological produce and conventional agriculture products.

SUFFICIENT STORAGE FACILITIES COULD CHANGE THE GAME FOR FEMALE SMALLHOLDER FARMERS

The issue of storage is one of the weakest links between family farms and consumers. Women producers claim to suffer losses due to inadequate storage as they are often forced to sell their fresh produce quickly at local markets at a loss.

“Without conservation infrastructures and niche markets for organic products, we lose part of our profit,” explains Sagar Guèye, a Mbawane producer.

“They work on a ‘just-in-time basis’, which means harvesting, going directly to local markets or those in large urban centres,” confirms Karfa Diallo of Enda Pronat, an organisation that supports organic producers in Niayes area to sell between 30 and 35% of their crops in itinerant markets in Dakar.

CREATING PRODUCTS FROM FRESH PRODUCE HAS GIVEN SMALLHOLDER FARMERS IN FISSEL A COMPETITIVE EDGE AND ANOTHER STRING TO THEIR BOWS

Yacine Diouf, a producer Fissel, explains that at the beginning of their adventure, the 25 families in her community suffered from the lack of coordination and planning of their activities.

“We were all producing the same crops at the same time and also finding ourselves at the local market at the same time [as our neighbours]. This created an abundance of supply and our crops were selling at low prices or rotting,” recalls Ms Diouf, who has been involved in agroecology since 2006.

The Fissel Community Group for Family Self Development (Recodef) has reversed the trend. “By planning the production our offers are more diversified in the market and the selling prices are more competitive,” says Diouf.

As local markets are not conducive to selling at attractive prices, more and more women producers are turning to processing to make up the shortfall. If they do not have access to processing facilities, they will dry their crops instead or package and sell products bought from colleagues.

The “Saf Sell” broth — a recipe of garlic, onion, bell pepper, green onion, ginger, and spices — developed by Diouf is an example of the valorisation of market garden products. The broth is packaged in bottles for 500 and 1000 CFA francs (\$1.72) and is very popular in the municipality. Organic market garden producers have taken an interest in it, and Diouf says she has trained 320 women in the municipalities of Fissel and Thiakar to produce this organic soup.

MAKING OPPORTUNITIES NOT JUST WAITING FOR THEM

After years of underpricing their produce in local markets, women smallholder farmers in Toubab Dialaw have begun organising a market dedicated to agroecological products. With the participation of 104 women producers trained by the farm, the market welcomes between 800 and 1000 people each month.



Nafissatou Manga Niang cooking in the kitchen at Tikaara

A similar project which was set up in Thiès now sells 1.5 tons of organic horticultural products per week. “We have 7 permanent saleswomen since the creation. About 40 regular customers visit the market and 15 to 20 orders are delivered every weekend,” says Assane Guèye, Director of Agrécol Sénégal, an organisation that supports a network of 3,500 households in agroecology across Mbour, Thiès, Kaolack and Kaffrine.

In 2005, the Women’s Network for Organic Agriculture and Fair Trade (REFABEC) created an organic restaurant called “Tikaara” in the city centre of Thiès. Today the restaurant sells between 20 to 30 dishes per day for 1200-1600 CFA francs (\$2-2.50) per plate. The manager, Nafissatou Manga Niang, says that their mission is to “contribute to the sale of the crops of the members of REFABEC and to educate people to consume local and organic.”

The president, Melissa Ndiaye Niang, adds that REFABEC has also set up a processing unit and a store to sell the final products. But just like fresh, organic produce displayed in local markets, these processed products also suffer from the same prejudice since they are typically more expensive than their non-organic counterparts.

COLLECTIVES AND COMMUNITIES LEAD THE WAY

In the meantime, Agrecol is betting on the Organic Consumers’ Club. Made up of about 50 members, the club’s activity is limited to purchasing and raising awareness among the population, especially women, about the virtues of agroecological products.

Progress may seem slow for now and at times, the lack of markets frustrating but it is clear that something is shifting in Senegal. Consumers are growing more open minded and willing to know how and where their food is produced. Through the perseverance and creativity of these female communities, change is certainly on the horizon.

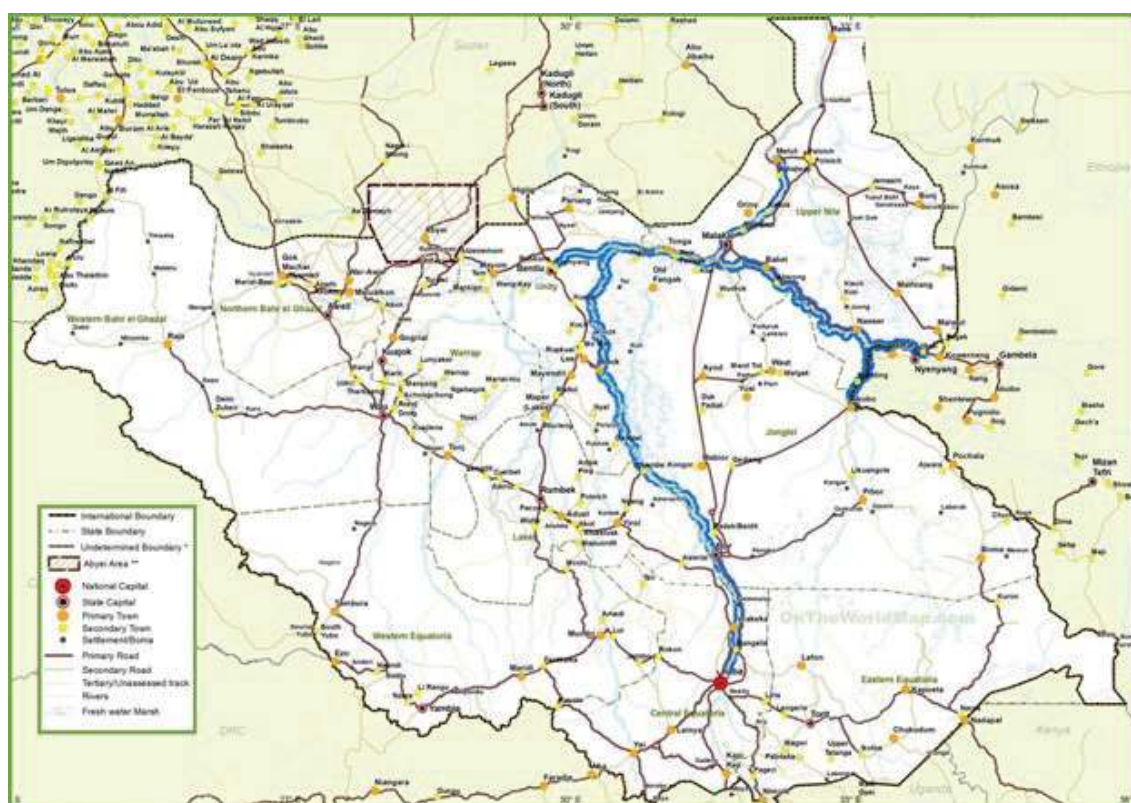


Food insecurity and famine wreck South Sudan, calling for a return to sustainable food production

By Pach Ayuen Pach

The Republic of South Sudan has a population of over 12 million people, 80% of whom live in rural areas, with only 20% residing in urban centres.

South Sudan is greatly blessed with natural and human resources that include vast arable lands, forests, large amounts of freshwater, and the largest livestock in Eastern Africa. These have made the country suitable for different kinds of agronomic activities, such as food production, livestock, and oil exploration. However, as a result of prolonged civil war, the nation has long since relied on neighbouring countries for food imports.



A map of Republic of South Sudan and its national capital; boundaries and ten states' capitals. Source: World Atlas.

A SAD REALITY FOR A COUNTRY TRYING TO RECOVER FROM CIVIL WAR

Unfortunately, South Sudan's bureaucrats — mostly former liberation movement generals turned government officials — have little understanding of agricultural production, which is grossly neglected. For South Sudan to become self-sufficient and food secure, it is imperative that the government prioritise food production and other self-help schemes.

Experts suggest that all governmental agricultural merchandise such as tractors should be recalled and redistributed on food production farming initiatives. Failing to do so could put many of South Sudan's most vulnerable people at grave risk.

A MARKET IN CRISIS, EXACERBATED BY AN UNSTABLE CURRENCY EXCHANGE

In the country's capital, Juba, the local market is in the hands of foreign nationals and is deeply affected by price inflation, which impacts the US dollar to South Sudanese pound (SSP) exchange rate.

Traders restock whenever the exchange rate is favourable, and then sell their stock when the rate drops again. Some traders buy their goods in Juba then go onto to sell in Uganda instead. Today, many vendors are forced to sell at an inflated price and make minimal profits.

Foreign traders from neighbouring countries are reduced to using several informal means of money transfer because they cannot take South Sudanese currency out of the country. It is exacerbated by different prices in different markets due to weak market integration across the country, mainly due to poor roads, expensive fuel, and illegal checkpoints.



Photo: Gabriel Dau. A farm in Central Equatoria.

THE DANGERS OF DEPENDING ON IMPORTS

All staple food commodities and non-food commodities are imported from neighbouring countries, which has contributed to the dollarisation of the South Sudan local market. The rapid depreciation of the local currency has enormous implications on the purchasing power of market-dependent, lower-income households, mainly the urban poor.

Consequently, the overall slowdown of economic activities has impeded income-generating opportunities for urban families, who largely depend on non-farming activities. Essentially, the scarcity of fuel has also contributed to high transportation costs and the price of basic commodities in the market. Also, the disruption of agricultural activities by criminal activity in Central Equatoria has led to below-average production during the harvest of August 2020.

Other markets in South Sudan have also suffered from the economic crisis. The price of staple foods has gone far beyond affordability for many lower-income households, who can no longer afford to bring the food to the table.

GRAPPLING WITH CLIMATE CHANGE AND CORONAVIRUS LOCKDOWNS

“I did not cultivate enough land this year because of flooding and insecurity in my county,” says farmer, Gabriel Dau Leek. “The monthly average growth of food production — for staples such as white sorghum, wheat and maize — dramatically decreased. Prices in Juba spiked during the first weeks of the conflict, with sorghum and maize reportedly up by 60% as imports stopped and insecurity led to the temporary closure and looting of some markets,” he continued.

Another farmer, Elizabeth Ayen Mach, worries that traders are so busy taking advantage of the lockdown, that it is having a devastating effect on local people.

“Many foreign traders in South Sudan are not in the country for long, only to make a quick profit rather than bring in goods that would benefit people,” she says.

“I collect some of the harvest from farmers and sell it here in the market then share the profits with them. The government stopped farming activities in the area that I was working in and the communities did not have the capacity to cultivate large-scale farms,” says Mary Abuke Alier, who is a trader in konnyo konyo market.

“South Sudan needed more than 1 million metric tons of food to feed herself,” she goes on. “In the market here, people are grappling with several challenges including poverty and hunger because famine has been declared in several parts of the country.”

In the Jonglei and Upper Nile states, thousands have been displaced by recent flooding and the renewed conflict. Many did not receive fresh produce to sell in local markets or financial support from the government. They claim that they do not have the facilities or resources to maintain their farms during extreme weather, which makes even subsistence farming impossible.

It is clear that the Republic of South Sudan is facing yet another crisis. Indeed, it must engage in local agronomic activity to avoid dependency on foreign markets for agricultural produce. It is the best way for the country to recover from many years of mismanagement, corruption, and severely inflated prices. A transparent system that turns away from imports and focuses on local food production is the only way to end famine and set South Sudan on the path to food security.



With the health of the nation at risk and more cases of chemical-related injuries, champions of Agroecology wonder when the Ugandan government will act

By Polycap Kalokwera

From when the sun rises in the East until it sets in the West, Gulu City's market is flooded with hundreds of eager buyers shopping for fresh produce. However, with multiple traditional foods available to citizens from numerous different vendors, the competition is fierce.

A trader, Florence Akello, says that she no longer sells agroecological products because her clients don't want to spend money on them. It is a moral dilemma, but she has to make an income and follow what her customers will buy.

"We know that most of the fresh foods that we are selling in the market here — like tomatoes, cabbages, eggplants — have a high concentration of chemicals in them but it's what our clients want," she explains.

"The last time that I bought tomatoes free from chemical, they were rotten in two days and I lost over one million shillings. So, I have decided never to buy them because these improved tomatoes last three weeks since they are sprayed with chemicals for preservation."

Hope Namutoro, a trader in Otwee Market, in the Amuru district, says that she fails to distinguish between chemical-free products and agroecological products. She adds that the majority of her suppliers have openly confessed to her that they use chemicals to boost their crop yield.

"If indeed what we are selling to our clients is not healthy, it's not the local traders who should stop it. Our government should enact a law that prohibits sale of agricultural chemicals that harm the environment and contaminate our foods," Ms Namutoro says.



Fresh produce vendors at Gulu City Market

“Most of these companies who export their products or trade across borders have enough funding and exploit government agencies to develop policies that support them,” she adds with frustration.

DESPITE BEING THE CENTRE OF EAST AFRICAN FRESH FOOD PRODUCTION, MANY UGANDANS SUFFER FROM POOR DIETS.

According to the International Institute for Environment and Development, Uganda is known as the “food basket” of East Africa, supplying 72 per cent of the region’s exports.

However, today four out of ten Ugandans are not getting their required dietary intake. 16% of households are chronically malnourished, and only 4% are food secure. Simultaneously, the proportion of overweight adults continues to grow: 24% of women and 9% of men aged 15 to 49 are overweight or obese.

This lack of diversity in Ugandan diets stems from challenges in food production and accessibility and a lack of education on the nutritional value of different food groups, especially indigenous and traditional foods.

AGROCHEMICALS ARE NOT ONLY HARMFUL TO CROPS AND THE SOIL, BUT CAN BE DETRIMENTAL TO FARMER HEALTH TOO

Chairperson of Ayiwala East Small-Holder Farmers’ Group, Margaret Masudio, tells us that she used chemicals for over twelve years on her farm. She hoped to increase her yield, but it merely made her soil infertile and worse, she developed severe health problems, leading to months off work.

“I had unclear vision and would get headaches all the time. The more I used pesticides, especially in the sun, the worse the headaches got,” she says.



Hope Namutoro at her stall in Otwee Market

After learning about agroecological farming, Masudio decided to abandon agricultural chemicals. Now, she uses alternative, agroecological methods such as a natural pesticide to control worms and bio-fertilisers.

She says that since making the switch, her symptoms have faded away, and she no longer experiences headaches. However, she understands the allure of farming with chemicals and understands why some farmers are reluctant to turn away from them.

“Chemical farming is taken to be more profitable,” she explains, “it will only be people passionate about agroecology that will embrace it.”

ONE SMALL-SCALE FARMER WAS SHOCKED INTO TURNING HIS BACK ON CHEMICALS AND FINDING A NEW WAY OF FARMING

In 1997, small-scale farmer Hakim Baliraine, a resident of Mayuge, ventured into agroecological farming. He was motivated by another tragic health problem caused by agrochemicals. His close friend and colleague lost his sight and it motivated Baliraine to find more eco-friendly farming methods, but he wasn't sure of how successful the venture would be.

“My friend was the biggest tomatoes grower in Mayuge, he was using a lot of chemicals to spray his tomatoes and preserve them for a longer time till he could sell them all. Unfortunately, he had to go to the hospital where they told him it was the effects of the chemical that made him develop a lot of health complications,” Baliraine recounts.

He says he had no idea about agroecology until 2001 when he attended a training on sustainable farming.

"I have been practicing agroecology for 17 years now, however finding markets for our produce still torments us because consumers tend to fall for the unhealthy foods because their minds have been brainwashed," he says. Improved tomatoes, which tend to look more enticing and have greater longevity, are ensnaring consumers and devastating small-scale farmers' businesses.

SMALL-SCALE FARMERS SEE THE SENSE AND NOW NEED THE GOVERNMENT TO CHANGE THEIR POLICIES AND MAKE AGROECOLOGY THE NORM

Baliraine is upset that the government has ignored advocacy for healthy food because they are at the mercy of private enterprises who specialise in conventional agricultural farming and greatly benefit from uninformed consumers.

"Most of the extension workers employed by the government don't understand agroecology and, in most cases, don't want to help us whenever we reach out to them. Besides the government doesn't promote agroecological agriculture so there is no policy supporting it unlike conventional agriculture," Baliraine continues.

"Just imagine," he adds, "if all the effort and resources our government has been putting on conventional farming were channeled into sustainable agriculture. We would have comparative advantage in the international market and the entire world will rely on Uganda for agroecological produce."

POLITICIANS ADD THEIR VOICES TO THE DEBATE AND CONDEMN INDUSTRIAL AGRICULTURE

Leader of the political opposition, Betty Aol Ochan agrees that the government has failed to protect citizens against unhealthy food by concentrating on supporting conventional farming rather than agroecological farming. She adds that much emphasis is being put on industrial agriculture, something she refers to as a 'death trap' for the nation.

"Food security is about availability of food to feed the growing population but beyond that we need healthy citizens and this can only be attained when the government supports sustainable farming. We need to produce and market healthy food but unfortunately this is not being taken into consideration by the different government interventions," Aol said.

Hakim Baliraine believes a beneficial change would be amending policies over traditional seed certification, which limits smallholder farmers but is easily navigated by corporate enterprises. It means that independent farmers are struggling to trade seeds with limited resources, while commercial businesses have the necessary framework to navigate the requirement.

He joins opposition leader Aol in criticising the government for focusing solely on wealth creation at the expense of its citizens' health. In the meantime, he hopes more farmers will join him in agroecological practices that are not only profitable long term but help protect the local biodiversity and, most importantly, provide consumers with non-toxic, fresh, healthy produce.



Stories from the field: finding a market for agroecological produce in Zambia

Timothy K. Phiri

There are many agricultural approaches practiced and adopted worldwide, and each of these has its own agenda and mission. On the African continent, agroecology has slowly taken root in various countries. However, as a concept agroecology is still relatively new to many, and some may even practice it without knowing it.

This article explores the story of three farmers operating at different links in the agricultural value chain in Zambia. It investigates their experiences as farmers and vendors and their perceptions of agroecology and the markets that currently exist for agroecological and organic produce in Zambia.

“Food grown organically is not just food, it is medicine as well”: Alfred Hamaku Himoonga, Headteacher and Pastoralist, Kapiri Mposhi.

Alfred Hamaku Himoonga is the headteacher at the George Ndashe Primary School in Kapiri Mposhi in Central Province, Zambia. Like many small-scale farmers, Alfred is an active farmer and pastoralist alongside being in formal employment. He is also the Chairperson for the Kawale Permaculture Group.



Alfred Hamaku Himoonga with two of his calves



Greens and Grains in Kabulonga, Lusaka

Alfred started his farm in 1991 but only started practicing sustainable and organic farming methods in recent years. He was introduced to the eco-friendly farming methods by an NGO called KEEP. As part of his farming, he has a keen interest in rearing cattle as he considers it part of his cultural heritage.

Asked why he decided to move away from conventional farming methods, he explains that the first reason was that organically produced food was a healthier alternative.

“Food that is grown organically — grown the right way, is not just food but medicine as well,” he says. He further explains that using local seeds like ‘Gankhata,’ a local variety of maize, means he spends very little on inputs. He added that in the 2019 farming season, the price of hybrid maize was far greater than the cost of Gankhata, so the growth of local and organically produced crops was quite lucrative.

When it comes to his cattle, he explains that he raises his animals by letting them roam the grasslands making sure they are grass-fed. However, he still feeds the calves, whose movements are mostly restricted to nearby the farm. As a consequence, mother cows don’t go far either, preventing disturbances to neighbour farms. The quality of the meat from these animals is high, which means he can sell them for greater prices.

Nevertheless, Alfred struggles to find the right market for his produce. Most local customers do not want to pay the steeper prices, no matter how high the quality. Delivering the animals to urban centres that have the right clientele comes with its own challenges of transportation.

He believes the best way to combat these issues would be establishing butcheries owned by cooperatives in urban locations. That way, pastoralists would have greater control over production and the selling and marketing of products. He pleads with stakeholders in government and NGO circles to assist with providing markets for free-range meat.

Asked on his thoughts on the difference between organic farming, agroecology, and permaculture, he explains that, “though the origin of each ‘school of thought’ was different, they all share the



Annemieke de Vos by her vegetable stand

same aim of trying to help the farmer gain from a better relationship with the environment.” He adds that “when one examines the good practices in each of those approaches it can be seen that most of the practices are methods that our ancestors used but we have made the mistake of abandoning in our current generation.”

“If we don’t play our part in taking care of nature, it is only us who will suffer in the long run”: Annemieke de Vos, founder of Greens and Grains, Kabulonga, Lusaka.

Annemieke is a Lusaka-based farmer that has grown vegetables organically for a while. However, through the years, one element remains constant: the challenge of finding a good market for the produce.

She has tried to get big supermarkets to sell the produce, but they all said the same thing — that there would be no market for organic produce. Under pressure to get creative, Annemieke started selling and distributing weekly boxes of seasonal veggies to various clients interested in organic vegetables. The positive response encouraged Annemieke to establish an outlet in Kabulonga called Greens and Grains. “I basically said to myself, let us see if Lusaka is ready for products produced with an eco-conscience,” she states.

“The idea is to stimulate people to think about what they eat and why they eat it. I believe very strongly that what you eat is what you are,” she says. “If people invest in good and healthy food, even if it means paying just a little more, that investment pays high dividends in the long term towards their personal health.”

She further explains that “the majority of my clients buy organically produced products because they want to lead a healthy lifestyle and keep illness at bay.”

Others have various ailments and know first-hand the value of consuming healthy food and its ability to fight disease. She is aware that her clientele is limited and needs to increase to include indigenous black Zambians who often cannot afford organic foods.



Various organic vegetables and fruits on display at Greens and Grains

Greens and Grains likes to look at the bigger picture by reducing, reusing, and sorting its waste. For example, customers are encouraged to bring jars for their honey, reducing packaging and, most significantly, single use plastic. The shop also offers compost manure, biogas stoves, and organic oats manufactured by Kasisi Agricultural Training College.

Annemieke believes the multitude of products has attracted customers to the shop. She emphasises that as a business, they try to give the customer more flexibility and options in terms of products and how they can be bought and delivered.

She emphasises that giving customers the power to choose is essential in growing the organic lifestyle brand. Greens and Grains also offers a steady supply of traditional (cultural) vegetables like Bondwe (Amaranth leaves), Chiwawa (pumpkin leaves), Kalemula (cassava leaves), and Lumanda, among others.

Asked about her perception of organic farming and agroecology, she explains that both views take care of the environment as an important aspect of taking care of people. "It is important to take care of the biodiversity of the soils and the environment as this is critical in insuring that the soils have the nutrients necessary for wholesome healthy foods. The slow natural growth of crops without the pressure for them to grow too fast means they are more in tune with the soils and take up nutrients that not only makes them healthier but also gives them a better taste."

She further states, 'that we need to work closely with nature to survive in the long term, but the problem is we feel nature can take care of itself-which it can indeed, but if we don't play our part in taking care of it, it is us who will suffer and not nature.'

"Don't feed the plants, feed the soil and let that feed the plants": Royd Michelo, agroecological farmer, Nkhondola Village, Chongwe.

Royd Michelo is an agroecological farmer from Nkhondola Village in the Kapete area of the Chongwe District. He has been practicing agroecology for the last four years and gives the experience a glowing recommendation.



Michelo examining the manure in his Goat Kraal

“Prior to embarking on my agroecology journey I was just a farmer who grew a single crop — maize, and was satisfied with harvesting 200-300 bags every season.” To Royd, it was all about being the farmer who produced the most bags of maize in his community. However, this was all in vain as he saw no real development or progress.

“It was only after my encounter with agroecology that I saw tangible benefits to my life as farmer. Agroecology introduced me to farming with a purpose. The crops that I started growing offered my family nutrition, medicine, adaptability and resilience to the effects of climate change.”

In the past, his only goal was to growing as much maize as possible, now, his mind-set has changed through agroecology.

“My aim was no longer to feed and grow the plants, but to feed the soil and let the soil feed the plants! That was a huge paradigm shift for me,” he explains.

Royd saw an immediate reduction in his outgoings since the price of the local seed, Gankhata, was five times that of the hybrid seeds sold through the government’s Food Reserve Agency (FRA). The knowledge he acquired through Zambia Alliance for Agroecology and Biodiversity (ZAAB) and the Seed and Knowledge Initiative (SKI) paid instant dividends for him.

Apart from growing crops, agroecology taught Royd to rear farm animals such as chickens, goats and pigs.

“Farm animals are the recycling units of organic fertiliser on the farm. Without the animals, producing one’s own organic fertiliser becomes a very difficult task.”

He explains that animals on the farm are also vital for diversification of operations as the dependency on crops alone becomes risky in years when the rains doesn’t fall favourably. Asked about government support, he explains that the government is turning to agroecology, albeit at a slow pace.

“The government will eventually have no choice but to join in the cause full-time as it is the only way to effectively fight climate change and attain nutritional diversity through crop diversity.”



Michelo checks on the manure in his pig pen

On the issue of markets for agroecological produce, Royd explains that markets for the products are not a problem as long as each farmer is not working in isolation. If the farmer is in touch with various stakeholders in the agroecological space, the market for produce is always available.

“In fact the market demand out-paces the supply because currently very few farmers are practicing agroecology or organic farming. What is key for farming communities is working together and forming associations and co-operatives that make the transition of products from the farm to the market much easier.” he says.

CONCLUSION

There is real enthusiasm for agroecology, organic farming, and permaculture in the smallholder sector of Zambia. The only challenge lies in the fact that these approaches are perceived as new and are yet to go mainstream.

To do so, Zambia must release the hold that conventional farming and the agrochemical industries have on the agricultural sector and, more importantly, the market spaces which are flooded with cheaper mass produced products.

The creation of new and stable markets for farmers in agroecological produce should be one of the key priorities addressed by all major stakeholders moving forward.

Alliance for Food Sovereignty in Africa

Email: afsa@afsafrica.org • Website: www.afsafrica.org

