AGROECOLOGY – The future for farming and food systems in Africa

An African peoples' contribution to the Ecology Commission of the Vatican Covid-19 Task Force

SEE

In Africa, like much of the global south, agriculture[1] is a mainstay of the economy and provides a livelihood and living space for the majority of its people. Agriculture is an important entry point for interventions that can potentially deliver an array of benefits, including improved food and nutrition security, environmental benefits and resilience to climate change. Agriculture also plays an important role in community cohesion and culture. The way that agriculture is considered through policy, funding and implementation has a profound impact on the shape of food systems, nutrition, social justice and the environment.

> *"Seed forms an integral part of all ceremonies including weddings and funeral. Groundnuts, bambara nuts, maize and cowpeas are cooked together and some placed on the grave of the deceased while the rest is consumed by mourners."* Chikankata, Zimbabwe.

The development of agriculture policy in Africa is not farmer led. A recent policy study[2] concluded that most AU policies were largely driven by donor influence, conditionality from structural adjustment programs (SAPS), and multinational agribusiness companies. There was little or no consultation to get the views of women, smallholder farmers, pastoralists, fisherfolk, and consumers impacted by these policies.

This approach is embedded within a 'Green Revolution' logic that assumes that widespread use of hybrid and GMO seeds and chemical inputs will lead to greater yields, increased income and food security. However, the narrow focus on maximising productivity fails to recognise the multifunctional roles of food producers as stewards of natural resources, and keepers of the social fabric. This has resulted in blindness to the negative impacts of this model on nature[3], biodiversity, health, social justice and resilience to shocks and pandemics.[4]

> *The seed they sell in the shop comes from other countries. It's very expensive and requires artificial fertiliser. Without it you won't harvest anything. This hybrid seed that they call 'good seed', you can't plant it this year and save seeds for next year. So the next year you go to the shop and buy the same seed and the same fertiliser. You make no profit; you just accumulate debt.* Issa Msumari, Farmer, Tanga, Tanzania.

Under these neo-liberal policies, farmers are told they must commercialize their agriculture, and focus on monocrop production of commodity crops, often for export into global market systems. FAO's 2020 Africa food security report[5] finds that a fifth of the population – 256 million people – remains hungry in Africa. The report finds that falling commodity prices are a major driver of hunger and food insecurity, often leading to currency depreciation and staple food price inflation as well as lower government revenues available for social sector spending. Rural women, the main producers of food are the poorest and least well nourished.[6]

COVID-19 has shown us the folly of reliance on this industrial model, as long food supply chains break down, urban dwellers return to rural areas, and local food markets are closed.

In South Africa, with the continent's most industrialised food system, 90% of maize - the staple food - is genetically engineered. Despite promises that GMOs will feed Africa's growing population, after 20 years of GM maize consumption 46% of South African households are still hungry, one in five children are stunted, while over 50% of women are now either overweight or obese.[7]

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[1] In this paper the term 'agriculture' is used to encompass pastoralism, fishing, wild harvest, hunting and communal use and management of natural resources and ecosystems (wetlands, forests, savannahs etc.)

[2] AFSA (2017). *A Study of Policies, Frameworks and Mechanisms Related to Agroecology And Sustainable Food Systems In Africa*. https://afsafrica.org/wp-content/uploads/2018/09/agroecology-policy-eng-online-single-pages.pdf

[3] https://ipbes.net/global-assessment

[4] IAASTD http://wedocs.unep.org/bitstream/handle/20.500.11822/7862/-Agriculture%20at%20a%20crossroads%20-%20Synthesis%20report-2009Agriculture_at_Crossroads_Synthesis_Report.pdf?sequence=3&isAllowed=y

[5] FAO, ECA and AUC. 2020. *Africa Regional Overview of Food Security and Nutrition 2019* http://www.fao.org/3/ca7343en/CA7343EN.pdf

[6] https://unstats.un.org/unsd/gender/downloads/WorldsWomen2015_chapter8_t.pdf

[7] https://www-cdn.oxfam.org/s3fs-public/file_attachments/hidden_hunger_in_south_africa_0.pdf

JUDGE

Laudato Si calls out the injustices and challenges facing agriculture in Africa: loss of biodiversity (39), industrial agriculture (51), digitalisation (47), land grabs (93), peasant rights (94), sustainable agriculture (71), oligopolies (134), mono-cropping (145), and profit motivation (195).[8]

While industrial farming claims to have raised yields, it has done so at great cost, with extensive soil damage, huge biodiversity loss, and negative impacts on food sovereignty. Global food systems generate one-third of all greenhouse gases and account for 75% of all deforestation. Global corporations promote highly processed junk food, loaded with fat, salt and sugar, resulting in both under-nutrition and obesity, creating a market for food supplements and lifelong sales of drugs to treat diet-related ailments like diabetes.

What is becoming clearer now is that the source of COVID-19 is strongly linked to the activities of the industrial food system.[9] The expansion of monocrop farming into previously undisturbed ecosystems has breached their boundaries and led to the crossover of zoonotic diseases from animals to humans. Factory farming of livestock has led to weakened immune systems and more virulent disease transmission.

Meanwhile, African agriculture has a huge potential to feed its peoples, to lift those in need out of poverty, to improve the environment, and ensure people have healthy, nutritious and culturally appropriate food. How? By transitioning to agroecology – the sustainable future of farming in Africa.

> *The future of agriculture is not input-intensive, but knowledge-intensive. We need the integrated approach that agroecology can offer.* FAO Director-General José Graziano da Silva.

Agroecology refers to cultivation techniques and breeding programmes that do not rely on chemical fertilisers, pesticides, or artificial genetic modifications. Using agroecology, farmers produce abundant, healthy food sustainably. Agroecology is a people-centred system of sustainable agriculture, combining indigenous knowledge with cutting edge science, working with nature to create healthy communities, and empowering a social movement that resists the corporatization of agriculture. It presents alternative solidarity food marketing systems that support fair relations between consumer and producer.

Agroecology Is Diverse – like nature. It's Productive – increasing yields and incomes. It's Resilient to climate change, and puts carbon back in the ground. It's Efficient - recycling resources, less inputs, less waste. It's Culturally Appropriate – local innovations and solutions.

Agroecology shows how agriculture does not exist as an isolated entity but as part of an ecology of contexts. It makes a strong connection between culture and food production. It is an integrative discipline that recognises the relationship between plants, animals, humans and the environment – the ecology of food systems.[10] FAO illustrates the holistic, interlinked and interdependent nature in the 10 Elements of Agroecology.[11] Agroecology provides a set of principles that farmers apply at any scale to reboot the land's ecosystem to make it work efficiently and self-sufficiently.[12] The High Level Panel of Experts of the UNCFS have shown that agroecological approaches are superior to others in terms of food and nutrition security.[13] An analysis[14] of 50 case studies of agroecology in Africa[15] showed their strong contribution to meeting the ambition of the SDGs, with increased access to safe and nutritious food, higher productivity and incomes, sustainable production systems, and increased biodiversity.

> *My own experience in Zimbabwe is testament to the fact that agroecology underpinned by agrarian reform can be a fundamental pillar of sustainable development.* Elizabeth Mpofu, General Coordinator, La Vía Campesina.

[8] Refer also to the following link: https://www.cidse.org/2018/11/08/joint-reflection-on-land-in-africa/
[9] http://www.ipes-food.org/_img/upload/files/COVID-19_CommuniqueEN.pdf
[10] https://afsafrica.org/wp-content/uploads/2019/07/know-agreocology-a-media-guide-for-journalists-and-communicators.pdf
[11] http://www.fao.org/agroecology/knowledge/10-elements/en/
[12] https://www.cidse.org/wp-content/uploads/2018/04/EN_The_Principles_of_Agroecology_CIDSE_2018.pdf
[13] http://www.fao.org/3/ca5602en/ca5602en.pdf
[14] https://www.ileia.org/2016/09/22/agroecology-contributes-sustainable-development-goals/
[15] https://afsafrica.org/case-studies-agroecology/

ACT

In Africa, we see food as a right, not a commodity. Food defines our culture and heritage. It is a source of nutrition and health, a medicine, a ritual, a celebration, a river of knowledge, a symbol of our spirituality.

"Newly weds are often given a gift in the form of assorted seed to go and start their new home."

- COVID-19 accentuates the need for a complete transformation of our food systems. It's time for us to recognize that agroecology is the future of farming in Africa. To achieve this, food producers need access to land, seeds, water, credit, and local markets. This requires supportive policies, financial incentives, and local market opportunities.
- Agroecology is a Science, a Practice and a Social Movement. We need research to focus on sustainable food solutions, with farmers and researchers working hand in hand. We need investment to grow agroecology, with more training and extension services, farmer to farmer learning and exchange. Producers and consumers need to come together, and use their power to change the way that food is produced and supplied.
- We call upon governments and policy-makers to recognize and value the huge potential of agroecology to sustainably increase food security and food sovereignty, reducing poverty and hunger while conserving biodiversity and respecting indigenous knowledge and innovation. We call upon development partners to refocus their resources towards agroecology. We call upon researchers to refocus their studies towards agroecology.
- Governments should urgently rethink their approach to agricultural development, reverse their attachment to industrial farming systems and refocus on a more holistic, sustainable and culturally appropriate model if we are to break free from the impending threat of further pandemics attacking our people.
- Governments should rethink their focus on commodity-based agriculture. Reorienting farming to depend on international commodity markets will only increase farmers' vulnerability when the system around them collapses, as it is doing now. The impact on those farmers who are locked in to the international commodity trading regime is incalculable.
- Governments should support and develop the concept of territorial food systems.[16] A territorial approach revives rural areas through linking them with nearby urban areas, stimulating the rural economy, improving infrastructure, and localizing governance. This kind of development will increase our resilience against future shocks and pandemics.

Agricultural biodiversity is the source of resilience in our food systems. Farmers and other food producers need to be able to rely on their own diverse resources rather than waiting for monocrop seeds and inputs to come from far away. Biodiverse practices are being promoted by the Church, such as the Jesuits in Kasisi Mission in Lusaka, Zambia, where agroecological training is provided to local communities.

"In summary, increasing the resilience of the food system through agroecology and diversification is an effective way to achieve climate change adaptation (robust evidence, high agreement)."

IPCC, 2019: Special Report on Climate Change and Land (SRCCL), Ch5 p51.

In a world threatened by man-made climate change, by global pandemics, by environmental degradation, by hunger and poverty; in a world committed to ambitious sustainable development goals, and phasing out fossil fuels; now is the time to call a halt to business-as-usual food systems, and boldly begin the journey towards agroecology – the future of farming in Africa.

[16] https://www.righttofoodandnutrition.org/files/Watch_2016_Article_4_eng_Territorial%20Food%20Systems.pdf