
Community led food and agricultural research: reflecting on experiences from Africa

Agricultural research requires a profound paradigm change if it is to face the multiple crises caused by arrogant notions of human superiority. **Liz Hosken** considers how community-led research can serve to transform the whole food and farming system.

In one of the Ugandan community dialogues that I took part in, we asked a participant how they understood the idea of research. They replied, *"it's when people come with notebooks and ask questions to help them count and measure things - it can be plants or soils or seeds."* For these communities, research is something that 'educated' people do. As to what was done with the information the researchers gathered, they were not sure.

It has not always been like this. The enormous diversity of cultural foods we enjoy today were developed by communities - largely by women farmers - through careful observation and selection, since the dawn of agriculture. Their ecological literacy enabled them to domesticate crops from the wild and further develop and enhance the traits they were seeking, from taste to resilience, from aroma to how easily they could be stored, to feed the family and for cultural ceremonies.

As Dr Melaku Worede, who set up Africa's first Gene Bank in Ethiopia, says, *"the rich genetic diversity that we see across the planet did not occur by chance. Farmers have played a key role in creating and maintaining this diversity by domesticating and breeding plants to adapt to the conditions under which they were farming. They breed within the context of the varying landscapes*

and seasons, and with a multiple of characteristics and criteria to meet the needs of the family and community. Traditional farmers know what they are doing."

Since the Second World War, the push for 'economic recovery' has systematically undermined farmers by the commercialisation of what was held in the commons for millennia - knowledge, skills, seeds and farming practices - shared within and between communities and generations. As farmers nurtured new traits in their seeds, they shared and exchanged them alongside the knowledge that is inextricably embedded in the cultivation of seed diversity and farming practices. This was a joyful practice that further enhanced the diversity of seeds, crops, knowledge and cultural food systems that were highly adapted to local ecological and climatic conditions.

The current situation in Africa

Across the planet, farming communities have been demoralised and fragmented by ongoing pressures to 'modernise' from the aggressive agro-chemical industry and their allies. The Food Sovereignty Movement, La Via Campesina, emerged more than two decades ago to build solidarity amongst farmers in resisting this pressure. In Africa our priority is to enable the bio-

cultural systems to weave back together again wherever possible.

The deskilling of communities through the corporate enclosure of the knowledge and skills that are traditionally held communally, is undermining their seed and food diversity, confidence, and the control and resilience of their farming systems.

In another community gathering in Uganda in early 2017 Praxcida, a small-scale farmer, explained that government extension agents tell them that their traditional seeds are primitive and that they need to use modern hybrids and chemical inputs so that they can produce more to sell to the market. She said hesitantly, *"we prefer our traditional crops because they taste so much better, and with the changes in climate we find those of us who still have traditional varieties harvest more food. The cassava which the government gave us, for example, rots in the soil before we can eat it. Yet many of us give in to the government and have lost our traditional seeds."*

By the end of this community dialogue the farmers agreed that even if the government continued to give them 'foreign seeds' as they call them, and chemical inputs, they now had the confidence not to use them. They agreed that the chemical inputs were killing the soil and *"making it thirsty"*. They

committed to continue meeting regularly to recover and share their traditional varieties and to bulk them up so they could share them with others.

This is the story of communities across Africa, although not many have the support to regain confidence in themselves.

Research for what and by whom?

In Kenya, Teresa is also a small-scale farmer. She remembers the diversity of crops she grew up eating, but now most people plant the crops promoted by the government, and they depend mainly on maize. After a series of community dialogues reflecting on why and how things had changed, Teresa, together with other women in the community, began to recover their traditional crops through talking to the elders who remembered them. Sometimes they had to go deep into the rural areas to find an elder woman who they heard might have a particular variety of sorghum or millet that had all but disappeared.

Theresa says: *"As we began to rediscover these seeds, I started to experiment by growing our indigenous crops such as green grams, cowpeas, millet and sorghum in one field, and in another plot, some distance away, I planted the government seeds. I watched carefully ... I harvested four bags of government green grams and six bags of our indigenous green grams. I found indigenous crops do better when there is less rain, and government crops need pesticides, which don't help to produce more, but cost more. And indigenous green grams taste so much better and are easier to store and sell."*

There are two issues here. Firstly, the corporate appropriation of the inherently collective farming practice of cultivating a diversity of crops, is stripping farmers and agriculture of the very conditions to deal with climate disruption. This is an ongoing battle to reclaim control of the farming system.

The other issue is the conception of 'research' born in the context of reductive thinking and industrialisation. Today, in order to be accepted as valid, research has to meet certain standards established by academia, and has to be done within a certain timeframe, because of funding or an objective that

has to be achieved such as an academic qualification. In our experience these conditions make it hard for research not to be extractive - getting information from farmers within a certain period as defined by the research objective or the project funding. Even when the aim is to be participative, it is hard to get away from these constraints.

Unravelling research

As Dr Melaku says, *"farmers have acute knowledge and capacity to observe and work within the complex dynamic of soils, seeds, wild biodiversity and climate."* He insists that those working with farmers need to take the lead from farmers, and may be able to 'top up or add a bit' to build on the

"[the way forward]... is through building 'affectionate alliances' with communities in a process of taking back control of their knowledge, practices and decision making"

farmers' priorities. This requires an ongoing collaboration with farmers. It is a process, not a time bound project.

Ethio-Organic Seed Action (EOSA) in Ethiopia, led by Dr Regassa Feyissa who has been inspired by Dr Melaku's work, trains 'technical' people, mainly geneticists and agronomists, to do research in this way. Their joint objective, agreed with the farmers, is to enhance diversity in order to increase productivity and climate change resilience. This is the opposite approach to industrial agriculture, which strips diversity from the field in a drive to extract endlessly from the soil and the farmers for corporate profit.

In the case of Praxcida's and Teresa's communities, it is the women who lead the research in exploring what diversity they used to have. These women find the people with a 'lost' seed variety, and learn from them about the variety. They go on to multiply the seeds and

share them with others. They control the process, and those accompanying them respond to the farmers' priorities, providing encouragement and tips where appropriate. This too is an ongoing process as it takes time for the farmers to regain confidence in their traditional knowledge, seed diversity and farming practices, and to resist the pressure from government and other external forces.

This means that the purpose of research, if it is to truly serve the transformation of the food and farming system, is not singular but manifold. In this way, it can regenerate ecosystems, farming systems and community cohesion to deal with climate disruption and the pressures to adopt 'foreign seeds' and inputs. Crucially, it leaves a resilient legacy for the next generation.

Community-led Research

There are some basic guiding principles which have evolved over the years in accompanying communities in their research to revive their traditional knowledge and practices. These include:

Recognising that indigenous knowledge systems are holistic and include a dynamic relationship between the world of humans, Nature and spirit (the ancestral domain). A healthy farming system depends on a healthy ecosystem. Through observing the practice of seasonal ceremonies using seeds and other sacred materials at sacred natural sites, the connection between the three domains is maintained. Seed and food is produced for the family to eat, for communal ceremonies which play a vital role in nurturing community cohesion and the ancestral relationship with the land.

Knowledge is understood to develop through practice and is willingly shared for others to explore for themselves. Rural communities are traditionally highly eco-literate, being able to read the dynamics between the climate, the moon cycle, the constellations and the behaviour of animals, plants, insects and birds, in indicating what seeds to plant when. This complex knowledge develops over decades of practice and cultivating a relationship with seeds, the land,

biodiversity and the wider ecosystem. Through this, communities learn the ecological laws of the land of which they are a part.

The research process takes place through restoring the traditional community practice of meeting regularly to analyse, reflect and transfer knowledge between generations. Given the breakdown of community cohesion and the loss of confidence in their traditions, these 'community dialogues' as we call them, are spaces for communities to learn from their elders and to revive their knowledge and practices. Research is understood as a practice which communities have had for generations, and is revived through the dialogues too. It is a reflective, empowering process that builds collective knowledge and understanding.

Those who accompany this community-led research process encourage and support the community to take the lead in deciding what they want to explore and revive. They can 'top up' with information so that communities can make informed decisions about issues that are foreign to them, like the story of the origin of pesticides; or augment their agro-ecological knowledge, or introduce useful tools such as eco-cultural mapping and calendars. Those practitioners who engage with communities in this way

become passionate advocates because they learn so much, including how to think holistically.

Women in most farming cultures are the main custodians of seed diversity and biodiversity and traditionally play an important role in the ceremonies and governance systems. As Teresa demonstrates, women tend to have a profound relationship with seeds and farming and enjoy researching into different varieties and sharing their findings. Rural women in Africa, and elsewhere, have been severely undermined by the colonial and globalisation processes and their traditional knowledge and role is poorly understood or recognised.

Conclusion

Unmasking research as currently understood requires a profound paradigm change. It is part of the systemic transformation required of us to face the multiple crises caused by our hubristic ideas of human superiority. As we are seeing, it is not through 'counting and measuring' to extract endless amounts of 'objective' information that we will understand the complexity of the living systems of which we are a part, nor is this information changing our behaviour.

In our experience it is through building 'affectionate alliances' with

communities in a process of taking back control of their knowledge, practices and decision making; linking up with others to resist corporate control; and nurturing regenerative food and farming systems. By 'de-professionalising' research it becomes part of the collaborative process of living consciously, participating with each other in observing the cycles and laws of Nature which govern our food and farming systems and building resilience in the context of climate disruption and corporate domination.

Liz Hosken co-founded The Gaia Foundation, based in the UK. During the first decade of Gaia's work Liz spent many years in the Amazon, where she was "initiated" into indigenous ways of seeing the world, which resonated with her own. Together with partners and indigenous communities, they developed a methodology for accompanying communities to revive their indigenous knowledge and practices. When Liz returned to her continent she was inspired to share these lessons and search for ways to restore Africa's rich cultural, spiritual and ecological heritage. Liz now teaches the philosophy and practice of this approach, which is rooted in experiential learning and Earth Jurisprudence.