

The Collective Transition Process:

Organising Communities Toward Agroecological Objectives



Learning objectives:

Identify some of the blockage points and a possible platform for broadening support for agroecology in Pakistan

Identify key aspects for organising the peasants and the wider public around agroecology

1. Introduction

For many countries in the world constantly facing the impacts of climate change, transitioning to agroecology is an imperative for survival. No other than the UN Special Rapporteur on the Right to Food, Olivier de Schutter, has underscored the role of agroecology in tackling food security and the need for smallholder farmers to be at the centre of food security strategies. A fundamental shift in our present agricultural model towards complex, multifunctional systems that thrive within diverse social and ecological contexts is necessary, if we are to feed the current global population. With number of hungry people in the world currently approaching one billion, industrial agriculture is no longer viable, as are food imports from volatile world markets.

Agroecology is a logical alternative as it embodies centuries of traditional agriculture encompassing various philosophies and schools of practice (ecological, no-tillage, organic, regenerative, sustainable, etc.) anchored on a solid interdisciplinary scientific discipline. It resonates with the global clamour for healthy and sustainably produced food, efficient and reliable food system, and equitable production and consumption pattern. Its viability as an alternative is backed by the experience of a burgeoning peasant movement across the globe that continue to practice agroecology in different social, political and ecological contexts. Unfortunately, despite gaining traction in international processes, there is still very little progress with governments reorienting their agriculture and trade policies, or committing fiscal infrastructures in support of agroecology.

In this module, we identify some of the constraints to its wider adoption and diffusion (especially among smallholder farmers living in marginal or resource-poor areas) and possible technical, institutional and political solutions to overcome them.

2. Understanding and overcoming the blockage points

Mainstreaming agroecology (i.e. integrating it within the formal discourse on agricultural development) require a good reading of the policy constraints and “political blockage points” that prevent the necessary broad support for its adoption as an agricultural development agenda. We call it political blockage points because they are essentially political persuasions driven by economic interests of the agribusiness industry and the ruling elites. Take for example the idea of increasing cultivated areas devoted to agroecological practices to enhance sustainable food production. It may be an ideal policy direction for Pakistan, but can it really be done? Perhaps, but the chances may be slim. If at all, it will not come easily since it will be a radical change with huge political and economic implications.

The Government of Pakistan, like any government working closely with the agribusiness industry through public-private partnerships, will not jump into the agroecology bandwagon just because it is a rational alternative and that some UN agencies endorse it. Pakistan has been supporting the industrial agriculture approach for the longest time since the Green Revolution, contributing more than a fifth of the country's GDP and employing 44% of its labour force. This industrial approach has made the country one of the world's top producers of some important agricultural products like wheat and cotton, making agriculture the main source of foreign exchange earnings. Why would it suddenly change course and “downscale” to agroecology that it has practically no experience with? It would not be a tussle for the government to compare the economic viability of agroecological approaches against the efficient, large-volume oriented industrial approach; the neoliberal

economy that feeds on global trade versus food sovereignty networks that thrive on community-controlled localised economy.

There are at least three major blockage points that hinder government adoption of agroecology as a policy and development agenda.

1. The perception that small-scale is inadequate. The prevailing notion about agroecology is that small-scale, family farm operation, which is the opposite of agribusiness, can neither be productive nor economically viable. This notion comes primarily from those who have been conditioned to believe that small-scale operation is synonymous with low-output, low-yielding production system. On the contrary, FAO's 2014 SOFA (State of Food and Agriculture) report estimated that there are approximately 500 million family farmers in the world who produce 80% of the world's food.¹ Rosset (2000) in his study of small-scale farming systems found that smaller farms, which typically mix and integrate different crops, are anywhere from 200% to 1,000% more productive per unit area than large monoculture farms. This is because farmers in smaller farms tend to maximise the space resulting to more complex farming system that gets more total production per unit area, as rows of crops are combined to produce something useful to the farming household.²

There are numerous examples of centuries-old agroecosystems across the globe – sometimes referred to as socio-ecological production landscapes (SEPLs) or globally important agricultural heritage systems (GIAHS) – that not only prove to be productive and economically viable but most importantly, climate resilient, food secure and sustainable (see box below). Are these systems capable of churning out agricultural exports and thus foreign exchange earnings? Any productive and economically viable system should be capable of that, but its important to note that these agroecosystems were not established for such objectives, nor structured to supply the global market the way industrial systems do. The perception that small-scale is inadequate is essentially anchored on the erroneous assumption that the standards of adequacy, efficiency and productivity befitting industrial agriculture can also be applied to small-scale agriculture. This needs to be challenged, in the same way that the parameters of food security, productivity, resilience and sustainability should be rewritten to reflect the total systems output of an agroecosystem across its spatial and temporal scales.

Some examples of GIAHS:

Mountain rice terrace agro-ecosystems

These are rice terrace systems carved out of mountains with integrated forest use or combined agroforestry systems. Examples are the agroforestry vanilla system in Pays Betsileo, Betafo Mananara in Madagascar; the Ifugao rice terraces in the Philippines. These systems include agricultural components like rice-fish culture or rice-fish-duck systems involving diverse rice varieties and fish species, as well as integrated forest, land and water use systems found in East Asia and the Himalayas.

Multiple cropping/polyculture farming systems

These are plantings of numerous crop varieties in combination with agroforestry, characterized by ingenious micro-climate regulation, soil and water management schemes, and adaptive use of crops to deal with climate variability. These practices are heavily dependent on the rich resources of

1 FAO, 2014. *The state of food and agriculture 2014: Innovation in family farming*. Retrieved from <http://www.fao.org/3/a-i4040e.pdf>

2 Rosset, P. 2000. *The Case for Small Farms, an interview*. Multinational Monitor, Vol. 21, Numbers 7 & 8. <http://www.multinationalmonitor.org/mm2000/00july-aug/interview.html>

indigenous knowledge and the associated cultural heritage e.g. maize and root crop-based agroecosystems developed by the Aztecs (Chinampas in Mexico); *waru-waru* systems or *suka collos* in and around Lake Titicaca in Peru and Bolivia (Incas in the Andes region).

Understory farming systems

These are agricultural systems that use combined or integrated forestry, orchard or other crop systems that utilise the understory environments (i.e. the areas under canopy) to provide earlier returns, diversify crops and products and make efficient use of land and labour. These practices are common in the tropics, e.g. in taro-based or root cropping systems, planted along with other endemic plant varieties from local genetic resources. These are common in Papua New Guinea, Vanuatu, Solomon Islands and other Pacific small island developing countries.

Nomadic and semi-nomadic pastoral systems

These are the rangeland/pastoral systems based on adaptive use of pasture, rangeland, water, salt and forest resources, through mobility and variations in herd composition in harsh non-equilibrium environments with high animal genetic diversity and outstanding cultural landscapes. They include highland, tropical and subtropical dryland and arctic systems such as Yak-based pastoral management in Ladakh and the high Tibetan plateau in India and China; highly extensive rangeland use in parts of Mongolia and Yemen; cattle and mixed animal based nomadic pastoral systems, such as that of the Maasai in East Africa; reindeer-based management of tundra of the Saami and Nenets in the temperate forest areas of Scandinavia and Siberia. The landscapes formed by these systems often provide habitats for wild species including endangered species.

Ancient irrigation, soil and water management systems

These are the ingenious and finely tuned irrigation, soil and water management systems most common in drylands, with a high diversity of crops and animals best adapted to such environments: (i) the *Qanat* ancient underground water distribution systems allow specialized and diverse cropping systems in Iran, Afghanistan and other central Asian countries with associated home gardens and endemic blind fish species living in underground waterways; (ii) the oases of the Maghreb in the deserts of North Africa and the Sahara; (iii) traditional valley bottom and wetland management such as the water management systems in Lake Chad, the Niger River basin and interior delta e.g. floating and flooded rice systems; and (iv) other ingenious irrigation systems of the population in the Bamileke region, Cameroon; Dogon tribes country in Mali, and Diola country in Senegal; as well as the village tank system in Sri Lanka and India.

Complex multilayered home gardens

These agricultural systems feature complex multilayered home gardens with wild and domesticated trees, shrubs and plants for multiple foods, medicines, ornamentals and other materials, possibly with integrated agro-forestry, swidden fields, hunting-gathering or livestock, such as the home garden systems in China, India, the Caribbean, the Amazon (*Kayapó*) and Indonesia (e.g. East Kalimantan and Butitingui).

Below sea level systems

These agricultural systems feature soil and water management techniques for creating arable land through draining delta swamps. The systems function in a context of rising sea and river levels while continuously raising land levels, thereby providing a multifunctional use of land (for agriculture, recreation and tourism, nature conservation, culture conservation and urbanization) e.g. polder or dyke systems in the Netherlands; *Kuttanad* wetlands in Kerala, India; floating gardens in Bangladesh and South Asia.

Tribal agricultural heritage systems

These systems feature the various tribal agriculture practices and techniques of managing soil, water and/or a combination of cropping systems that integrate indigenous knowledge systems e.g. *Seethampheta* in Andhra Pradesh, the *Apatani* rice fish culture, the *Zabo* system, the *Darjeeling* system in the Himalayas, and many other systems in India.

Source: FAO-GIAHS, <http://www.fao.org/giahs/giahs/agricultural-heritage-systems/en/>

2. The perception that agroecology is more philosophy than science. Another misconception about agroecology is that it is more a philosophy for doing agriculture and operate on traditional beliefs than scientific principles; that its “success” is largely based on anecdotal evidence than scientifically quantifiable metrics. This perception is typically espoused by hard-nosed academics who have not done much fieldwork or community

immersion, and are preoccupied with the hierarchy of knowledge. They are the ones who usually end up being used by the agribusiness industry to counter any burgeoning movement that threatens their existence. Interestingly, for many practitioners of agroecology, it makes little sense how much of a science or philosophy it is. For them, agroecology is a way of life where philosophy and science converge and reinforce each other to harness a more holistic form of knowledge.

Agroecology is an applied interdisciplinary science drawing from the theoretical foundations of the natural and social sciences, at the same time it incorporates traditional ecological knowledge (TEK) as part of its holistic approach. TEK is a composite of knowledge-practice-belief that includes practices of managing ecosystems and biological diversity to secure flow of natural resources and ecological services to people who depend on them.³ While there is a science behind agroecology, it is important to acknowledge that much still need to be done in collating, standardising and systematising the body of scientific evidence around its practice, for which a cohesive framework of analysis is necessary.

3. The perception that agroecology is a radical leftist agenda to challenge the establishment. Linked to this is the notion that the radical left is anti-modernisation and anti-development. This perception mostly comes from those in the mainstream who are constantly fed with agribusiness propaganda, and are oblivious to the science and practice of agroecology. They usually lump together the anti-GMOs and the pro-agroecology movement because of their inability to filter through the nuances and realities of social and political movements. While the two movements are linked, they are distinctly different. Many in the anti-GMOs movement are anti-corporate, anti-capitalist, pro-democratic ideals who challenge not just the technologies but the structures by which these technologies are imposed. They are more politically motivated and oriented. On the other hand, many in the pro-agroecology movement are practitioners of alternative brands of agriculture who struggle to challenge and replace the industrial agriculture model so that they can pursue food sovereignty. They are more motivated by the ideals of autonomy and self-determination.

Because the movement behind agroecology is composed of small farmers, forests dwellers, fisherfolks, indigenous peoples, peasants, pastoralists, and other marginalised sectors known for their militant struggles, agroecology has become associated with the radical left. It does not help that the movement is also prominently identified with La Via Campesina whose political activities often overshadow the science and practice of agroecology. It is important to recognise the diversity behind the agroecology movement – many of them organisations who are into sustainable agriculture, organic agriculture, permaculture, ecological agriculture, etc., but they are virtually coalescing into the umbrella of agroecology – that it is impossible to associate it only with LVC. A real cause for concern is not whether agroecology is driven by leftist agenda or that it challenges the establishment, but that it is being appropriated now by the agribusiness industry as their agenda – the very same industry that the agroecology movement want to debunk and replace. Seed and agrochemical companies are rebranding their products as *ecological*, bankrolling summits and conferences on climate-smart agriculture, and even professing that GMOs are the perfect solutions to food insecurity in the context of climate change.

3 Fikret Berkes, Johan Colding, and Carl Folke, 2000. Rediscovery of Traditional Ecological Knowledge as Adaptive Management. *Ecological Applications* 10:1251–1262. <http://www.fws.gov/nativeamerican/pdf/tek-berkes-2000.pdf>

The potential of agroecology to take root in the field as the default agricultural practice and in government policies as a development agenda, depends on addressing the technical and political blockage points mentioned above. It would need an enabling framework for farmers to use these practices, especially those who are transitioning from monoculture – how different patterns of agrarian transitions affect access to land, availability of labour, localisation of agro-food industry, and so on. This includes institutional or policy framework on agriculture, environment, land ownership, seed industry, trade, or the food system itself. It also means addressing several policy constraints like inadequate research and extension support, lack of incentives (including payment for ecosystem services), insecure land, and agricultural and trade policies that favour the localisation of agro-food systems. Peasant and small farmers cannot do all this by themselves. They need the support of government institutions and the broader public, to procure all the possible technical, institutional and political solutions to overcome such constraints.

3. Organising ourselves and the wider public

As a framework for re-establishing productive, resilient and sustainable agro-ecosystems in Pakistan, agroecology needs a strong movement behind it to propel its objectives forward. This means broad and wide support for agroecological practices on the ground reinforced by policies that incentivise the transition from monoculture to multifunctional agriculture. The more farmers shift to agroecology, the better chances of building a movement behind and around it. At the same time, support from decision-makers, authorities, opinion makers, is crucial to convey the viability of agroecology as an alternative framework for agricultural production at various scales (village, province, country) where the food system is also targeted to be reoriented and restructured. This means that we need to organise ourselves first before we can organise the wider public. But how do we do it, what steps do we need to take, where do we start?

A good starting point is to look back and reassess one's identity. How do PKMT and Roots identify themselves in the communities? Is PKMT a peasant organisation? What type of peasants – small holder, landless, slave labour peasants? What about Roots – is it an NGO? Is it an NGO that works with women youth, elders, etc? It might sound silly that you have to ask yourselves these questions at this point when you have already spent so many years working in the communities with your chosen sector. But it's also true sometimes that how you see yourself in the community is not how the community sees you – and it changes over time without you knowing – and it is this disparity in perception that often lead to poor assumptions and wrong expectations of one another. A basic tenet in community organising is having the right knowledge of the sector, from this knowledge come your assumptions, from your assumptions come your expectations. You then organise the community according to these knowledge, assumptions and expectations.

We know that in the peasant communities in Pakistan, the social, political and economic statuses of individuals vary. Some are better and have more resources, while others are poorer and have less power. With this stratification comes community leaders, animators, facilitators – key people who play distinct roles in the community. And then there are the ordinary followers, and the outcasts who are either disinterested or neglected. We can assume that to be cost-effective and time-efficient, it is best to course through the organising process through these key people in the community. We can expect that through them, we will get our knowledge, message and values across the rest of the community. This is why its important to clarify our identity and the identity of our target community. If you simply say we'll organise peasants, then what kind of peasants,

because there are many types of peasants, and they have differing interests, way of thinking, and visions of the future. The point is: it will be impossible to organise “everybody” in the community unless we organise ourselves first. Organising ourselves means properly identifying our roles, what we are capable of, and prioritising the people we need to reach out to most in the community.

Agroecology is a big concept; organising communities to adopt agroecology entails much work and requires not just skills in community organising but knowledge of agroecology itself – the science, the practice and the movement. One has to have near-expert knowledge or experience to be able to explain agroecology confidently and convince farmers of adopting it as a system. But where does one get such human resource? In its current absence, it needs to be built from the ground up. This is where the idea of forming a pool of farmer trainers comes in. The pool can be composed of farmers or non-farmers for as long as they have the capacity to absorb the knowledge and pass it on to others. PKMT and Roots should invest on them to attend trainings or short courses about agroecology, do exposure visits to agroecological farms, subscribe to useful materials (like journals, or email list-servers), etc. It would be best if the pool is composed of natural “educators” – those with the skill to sift through information, generate knowledge and facilitate learning, even without college degree or formal teaching experience. Perhaps the young people in the community can be tapped for this?

For facilitating learning, an important consideration for the trainers would be to use the medium that is most accessible to the community, and can be done by farmers themselves. This is to ensure that they can own the process eventually. It's good to consider video as this can overcome the literacy barrier, but this requires electricity, which may not always be present in the community all the time. So it would be good to explore as much options and tools as possible, like use of illustrations, maps, photos, posters, etc. Once we've organised ourselves, it is time to reach out to the wider public, those we want to mobilise support to make it more possible for us to switch to agroecology. Specifically, we want to reach out to the following sectors who will have tactical and strategic bearing on our pursuit of agroecology. It does not mean that we have to be friends with them, or agree with their deep-seated culture and politics. We engage them so that they can support us.

Consumers: We need to raise the awareness of the general public about the dangers of chemicals and why they need to support ecologically produced products. The poisonous nature of agrochemicals and the possibility of contaminating agricultural produce are good starting points for engaging the general public. The bottom-line here is that agroecology is a much better system of producing food.

Local/state/federal governments: We need to engage the government at its different levels; what we cannot get from the federal government, perhaps we can get from the state or district level. We need to get their support for the production of healthy and sustainable food. This could come in various forms: incentives for farmers producing traditional wheat varieties; lower lease for agricultural lands that will be used for agroecological production; free use of government lands for community seed banks, etc. We should think of many other ideas to propose to government that would incentivise the shift into agroecology.

Agricultural research institutions and universities: We should think about this more strategically in the context of building our trainers pool, and beefing up our understanding of the science of agroecology. They may not be aware of it, or maybe they only know about the science, but not the practice or the movement behind agroecology. So on the one hand, we want to engage them (or at least some people from these institutions and universities) to help them refocus their attention, and get them to look more into the

science of agroecology. On the other hand, because they have the wherewithal to do research, we want them to help us gather evidence of the viability of agroecology as a production system and natural resource management regime in Pakistan. This way, we help them as they help us, build a better understanding of agroecology in Pakistan.

Religious leaders: This may be a long shot, but could be worth a try. Imagine an imam extolling the virtues of agroecology. It might then be worth exploring dialogues with religious leaders to get them on the sides of the more ecological, more environmental path of religious existence. A good conversation point would be Pakistan's *Halal Standards* and why GMOs should be considered *haram* and ecologically produced ones as *halal*.

Landlords: Again, this might be asking for the moon. We cannot tell the outcome unless we try it. We should assume that landlords, thought they may have bigger economic interests than peasants, are also rationale being and can understand reason. They want to make profits from the use of their land, so do the peasants. If agroecology can be productive and profitable, will the landlords rent their land for crop-sharing arrangement with peasants? Since the benefits of agroecology can be sustained for a long time, will they be willing to split the profits with the peasants in a more equitable way? With a solid alternative to the current production system, it should be possible for landless peasants to negotiate a fair deal with the landlords.

4. Developing a mechanism for outreach and platform for agroecology

We should define “outreach” to mean *a way to influence others toward supporting our objectives*. We don't want to do outreach simply to share information. We want to influence their thoughts and actions in support of our agroecological objectives. In this sense, we should consider a two-pronged approach. One is to reach out to other like-minded groups to open opportunities for collaboration whether on advocacy campaigns or joint research. Another is to reach out to the wider networks (who may not necessarily think like us, but tackle the same agricultural and environmental issues as we) without sacrificing our political beliefs. This may include agricultural experts who can help in the research and training, agricultural institutions who may be able to provide some traditional seed varieties or free laboratory services for soil testing, etc.

A strategy for pulling all these together, is to develop a platform for exchange on agroecology. It will be a space for different groups and individuals (who share a common analysis of Green Revolution and industrial agriculture) to work together or complementarily with each other, in promoting agroecology in Pakistan. It will be a forum for challenging the government's usual thrust for modernising agriculture, and the strong corporate lobby that drives policies in support of industrial agriculture. It will be an open workspace where groups can collaborate and analyse current trends on agroecology, initiate researches, formulate campaigns and advocacies, share experience, mobilise resources, plan mutual exchanges and learning visits, find new contacts and useful networks, or learn funding directions and opportunities – without the pressure of having to agree on a common or single political line.

“The Collective Transition Process: Organising Communities Toward Agroecological Objectives” was researched, written and developed by **Vlady Rivera** for **Roots for Equity** as part of a training module series on agroecology. For comments and questions, contact: rivera.vlady@gmail.com