# Working Together for Agroecology Transitions



This brief is for actors and organizations that seek to support agroecological transitions and enable the social transformations that are required for agroecology to thrive. This brief explains how Agroecological transitions are complex multi-scale processes that unfold in the communities and territories of food provisioners, and involve social, political, economic, ecological, spiritual and cultural dimensions. It lays out some helpful tools for fostering reflection and informing program design and planning.







**Images:** (Top Left) Lepcha farmers in NE India sharing knowledge at community seed bank; (Top Right) CCRP Participatory Action Research FRN in Bolivia; CCRP Farmer-led Agroecology in Burkina Faso.

# The Power of Agroecology

Over the past decade the practice and thinking on agroecology has surged. A spectrum of local innovation, emblematic cases and global interest in agroecology has crystalized into a growing paradigm and vision for food systems change. Agroecology is an approach to agriculture and food systems that involves systematizing and learning from Indigenous knowledge, based ecological natural processes. Agroecology seeks to heal and sustain land communities, reduce dependencies on external inputs and imported food.



Image: Participatory workshop in Mexico on agroecology and coffee farming

The evidence of the multifunctional benefits of agroecology is substantial, and

agroecology has been found to boost biodiversity, increase productivity, create ecological resilience, improve soils and reduce energy and resource use. It has also been shown to provide diverse and nutritious dietary offerings and to support the process of community building and women's empowerment. In this context, agroecology is increasingly viewed as necessary, viable, and possible, especially as the limitations and destructiveness of 'business as usual' in agriculture have been laid bare.

Although agroecology has its detractors, there is a growing critical mass who believes it to be crucial to the future of food systems, and there is now an emphasis on how to get from here....to there. We now turn to the question of: *How can we systematize the processes of transition and transformation for agroecology, in order to learn from, better understand and build more just and ecologically sound food systems?* 

# What are agroecological transitions?

Territories are in a constant process of transitions, including wider changes related to ecological, political, economic and other factors working at multiple scales. Agroecological transitions are strategic processes of collective action to achieve more socially just and ecologically sound food systems. They are guided by a normative commitment to intentionally foster change towards food systems that reflect the principles of agroecology (figure 1). These normative aims are in tension with the mainstream approaches to rural and agricultural development, which, predominantly rely on market and technology-driven approaches, which typically violate many of the principles of agroecology. In this regard, agroecological transitions are not only technical and practical projects, but are also contested social, political and cultural change processes (Rosset and Giraldo 2018).

HLPE's  13  Principles of Agroecology	Recycling	Co-creation of knowledge (embracing local knowledge and global science)  Social values and diets  Fairness	
	Reducing the use of inputs		
	Soil health		
	Animal health and welfare		
	Biodiversity	Connectivity	
	Synergy (managing interactions)	Land and natural resource governanc	
	Economic diversification	Participation	

Figure 1: HLPE's 13 Principles of Agroecology. Reproduced from Anderson & Bruil (2021).

Whereas early work on agroecology focused on transitions in farming practices, today's emphasis is also on transition beyond farming practices and food production spaces. It is generally accepted that agroecology transitions need to occur within wider food systems -- including policies, societal norms, food environments and consumer cultures -- all of which can enhance or hinder transitions. Agroecological transitions are thus complex, multi-actor and ongoing processes of change that unfold in territories, and are often led by communities. *They can be both* "Slow or fast" where "the transformation process is rarely linear. Blockages, feedback, and circularity are key dynamics" (Global Alliance, 2019:47). There is no single linear monolithic transition unfolding in any one place. Indeed, the large-scale transformation of food systems that many proponents of agroecology call for are actually many transformations at once. These can include varied combinations of collective action, research studies, cultural shifts, policy changes,

educational initiatives, activism and network building as interventions that can contribute to transformation in complex, dynamic, and often contradictory ways.

Many actors seek to make interventions in processes of transition to promote a particular kind of direction or pathway. Agroecological transitions are not determined by one 'transition initiative', program project or consortium of actors, but rather unfold in the wider ecosystem of actors and processes in a particular place. This means that those who are endeavoring to contribute to processes of agroecological transitions should do so humbly and reflexively (box 1) and consider their own position and potential in changemaking, as a part of a broader set of relationships in community, territory and beyond. Intentional collective action can increase or decrease the likelihood of directions and outcomes, and

Reflexivity refers to the examination of one's own position, beliefs and practices during the process of agroecology transitions and thinking about how this influences the process itself. It calls on individuals and groups to examine themselves and their process in order to continually adapt and continually improve their ways of working.

sustained or repeated, concerted efforts make desired transformations much more likely.

This is where an intentional and ongoing commitment to collective action for agroecological transitions can advance transformation over the long term. When actors work together reflexively to track and adaptively tailor collective action over time, the potential to contribute to transformative change increases. To be effective, this requires a *careful focus on the process of fostering transition itself*, and on centering agroecology, its principles, and its focus on bottom-up participatory processes to guide collective action.

# Contributing to Agroecological transitions Through Intentional and Reflexive Collective Action

Agroecological transitions emerge through collective action, and according to the principles of agroecology, are driven by the agency of food producers and people living in territories. In this context, approaches to enable transitions should also be based on principles of participation, using a bottom-up approach rather than a top down one. The voices and priorities of food producers, and especially youth, women, Indigenous peoples and others in the territory, should guide transitions and the actions taken to animate them.

Agroecology is generally based on principles or elements that need to be adapted to local context, as opposed to the adoption of prescribed technological packages. In specific territorial contexts, these principles must be implemented in a way that reflects the social, political and biocultural context and knowledge of place and the priorities and needs of the people living in that place. Specific work (research, learning, action) on different issues, such as soil health, pest management, access to land, gender equity, agricultural biodiversity, are best carried out in the service of the needs emerging from these bottom-up territorial processes. For example, box 1 shares how a Brazilian NGO iteratively developed an approach to their work on agroecology transitions, thus creating new opportunities for women to become protagonists and to contribute towards addressing inequity in the food system.

Box 1 – Responding to emergent issues in agroecology transitions. Centering women as innovators in Brazil.

For over 15 years, AS-PTA, a Brazilian NGO, had been supporting family farmers in developing agroecological innovations. But despite successes, a patriarchal culture remains dominant both within the families and in farmers' organizations in the state of Paraiba. This made women's knowledge, practices and importance for the farm household invisible. It became clear that the inequity between men and women was a barrier to the full implementation of agroecology across the region.

So AS-PTA started to work with rural women in Paraiba. Step by step, the women built a collective identity: 'women farmer-innovators in agroecology'. They accomplished this through meeting, exchanging and reflecting on their realities and work. Making their knowledge visible and explicit motivated many women to expand their experiments with agroecology, subsequently creating new markets, an income, greater respect for themselves, and finally standing up for their rights and their desire to further amplify agroecology.

Women came out of isolation—in many cases, connected to domestic violence—and into positions of leadership. The key step here was unearthing and organizing the wealth of knowledge of agroecology held collectively by women, which is often diffuse, fragmented and undervalued, even by the women themselves.

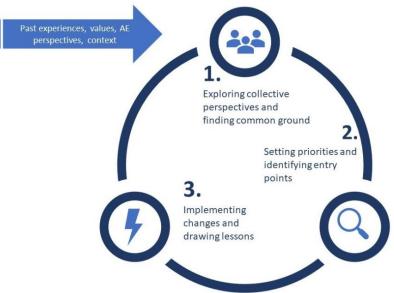
Source: Galvão Freire (2018); excerpted from Anderson et al. 2021

## Our Approach

The Agroecology Support Team in the CCRP promotes an approach that focuses on the process of collective action for agroecological transitions. This means that while we think tools (such as research, policy interventions, etc.) are vital to agroecological transitions, we consider the process itself—the dialogue and collective action among key actors, decision-making, moments of inclusion, observation and learning, posing of new questions, building of a collective voice—to be the crucial force behind transition. It is through a deep engagement in these collective processes that researchers, along with farmers, policy-makers, educators and other actors can most effectively contribute to agroecological transitions.

To this end, we have articulated a process-oriented, action-reflection approach to agroecological transitions (figure 2), where three mutually reinforcing phases cycle iteratively over time. This approach is intended to help guide actors who seek to come together to take collective action for agroecological transitions.

Phase l: Exploring collective perspectives and finding common ground: With intention of working collectively to support agroecology transitions, different actors come together through dialogues, leading to shared understandings, common vocabulary and the beginnings of a vision for agroecology transitions. The question of who is, or should be, involved in the agroecology transition in the territory is key. Important actors in this context are food producers different backgrounds, genders, castes, sectors and classes, as well as supporting actors in research, government, civil society and media. It is vital to consider power dynamics in this,



**Figure 2**: We use a process-oriented, action-reflection approach to agroecological transitions characterized by iterative cycles of transition. Adapted from Caswell et al. (2021).

and other, stages. Who is at the table? Who is not, and why might they be excluded? Consider whose voices most dominant, and who is less able to have voice in the group dynamic and address these power asymmetries early on considering the intersecting dimensions of power (e.g. gender, class, etc.).

Phase II: Mapping Out a Change Process: People work together to collectively analyze the context of the territory in order to deepen the understanding of the barriers to agroecology and to identify how to enable agroecology in a particular place. Participants analyze the current situation, identifying the key assets for agroecology in the territory, along with the knowledge and skills brought by local people and allied actors and institutions. This process often involves using participatory approaches to map out the history of the territory and the current availability of social, cultural and material resources for transition. This stage may involve identifying exogenous changes and drivers that may influence the local situation and identifying enabling and disabling factors for agroecology in the region to build a collective understanding of the state of play ad a vision for agroecology transitions. This collective context analysis can provide a baseline for ongoing evaluation. From this analysis and vision, actors can recognize and define problems, prioritize efforts and find entry points in the form of tangible interventions/projects

(which might focus on a particular issue such as soil health), while always tying specific action to the longer-term vision, goals and processes of transition.

**Phase III**: Action and Learning: Trying out ideas, tools and/or practices—implementing, observing, and collectively reflecting. As with participatory action research (PAR), the agroecological transition is full of steps forward, steps back, and steps sideways, as diverse actors learn to work with one another based on equity and inclusion. Action becomes a topic for reflection and reflection orients subsequent action. In this stage an intentional process of documenting, monitoring and evaluating action can form the basis for further decision making, and to track change over time.

## Applying Transition Frameworks in Transition Processes

The last five years or so have produced a diverse set of one particularly powerful tool to help inform agroecological transitions—transition frameworks based on principles and stages of transition. Frameworks may be learning tools, communication tools, or measuring tools, and they are often a combination of all three and thus used across all three phases of the process.

One widely adopted framework was developed by Steve Gliessman (2015), which originally consisted of three levels, mostly representing a biophysical perspective, and primarily at the farm level: (1) minimizing the use of conventional inputs, (2) substitution of conventional inputs with alternative inputs, and (3) system redesign upon a new ecological basis. Gliessman's framework evolved (Gliessman, 2015) to incorporate two additional levels that go beyond the farm level and include changes in values and the construction of local circular economies (4), and finally shifts in policies, institutions and cultures – from the local to the global (5) - for transformations toward sustainability (table 1 & figure 3). This framework is perhaps most useful to help see a the possible steps and directions of a transition process, and focus attention on the need to emphasize transformative aspects of agroecology (levels 3, 4 and 5). Biovision's ACT (Agroecology Criteria Tool) combines Gliessman's levels with the FAO's 10 elements to help actors evaluate transition processes using these frameworks to identify strengths, weaknesses and areas for further work.

TAPE (Tool for Agroecology Performance Evaluation) was developed by FAO to measure the multidimensional performance of agroecological systems across different dimensions of sustainability. It focuses on the household/farm level but also collects information and provides results at a community and territorial scale. The tool was designed to remain simple and to require minimum training and data collection. TAPE is meant to **provide evidence to policy makers and other stakeholders on how agroecology can contribute to sustainable food and agricultural systems,** but can also be used by groups to facilitate a self-diagnosis and **assessment of their system's level of transition and performances,** as well as offer a **baseline of agricultural sustainability for project design, monitoring, and evaluation**. It has the potential to guide agroecology transition and to support the design of research and development programs, as well as rural advisory services and extension.

Anderson et al.'s approach encourages a focus on the wider context within which farms are located, and identifies six "domains of transformation" (figure 4) within which strategic action is required to enable agroecology transition. While it is not always possible for any one actor to simultaneously work across all of these domains, the framework can help actors situate their work in relation to these wider domains that are crucial for affecting transformation in food systems. For example, someone working in the domain of knowledge (e.g., a farmer or academic researcher) on a particular topic (e.g. soil health) should also consider how the other domains (e.g. access to land/soil) are implicated and work together through collective and transdisciplinary approaches with actors working to affect change. This is especially possible when different actors working in different domains of transformation come together to strategize and create synergies and alignments to affect greater change.

# Perspectives on Agroecology Transitions – No. 3

		Role of Agroecology's 3 Aspects		
Level	Scale	Ecological Research	Farmer Practice & Collaboration	Social Change
1. Increase efficiency of industrial practices	Farm	Primary	Important- lowers costs & lessens environmental impact	Minor
2. Substitute alternative practices & inputs	Farm	Primary	Important- supports shift to alternative practices	Minor
3. Redesign whole agroecosystems	Farm, region	Primary- develops sustainability indicators	Important- builds true sustainability at the farm scale	Important- builds enterprise viability & societal support
4. Reestablish connection between growers & eaters; develop alternative food networks	Local, regional, national	Supportive- interdisciplinary research provides evidence of need for change & viability of alternatives	Important- forms direct and supportive relationships	Primary- Economies restructured; values & behaviors changes
5. Rebuild the global food systems so that it is sustainable & equitable	World	Supportive- Transdisciplinary research promotes the change process & monitors sustainability	Important- offers the practical basis for the paradigm shift	Primary- World systems fundamentally transformed

**Table 1** - Gliessman's five levels of agroecological transition.



**Figures 3 & 4** - Left: Biovision's ACT tool builds on FAO's 10 elements of agroecology and Gliessman's levels of sustainable food systems. Right: Anderson et al. (2019) argue that agroecology transformations require addressing issues of power, control and governance and centers collective action for systemic change across six different domains of transformation.

## Perspectives on Agroecology Transitions – No. 3

These different transition frameworks can help to identify the scale and scope of change that is desired, where things currently stand, and identify the opportunities and entry points to pursue change. Proponents of transition should strive to take a politically informed approach to create a process of local or territorial appropriation, through participatory engagement and/or modification of the chosen framework. This process should connect with the priorities of territorial actors involved in transition processes. Frameworks can help identify and confront the factors in a territory that are limiting transformations, and to nurture those that are enabling agroecology. In some cases, one or another part of a framework "fits well" with the priorities of local actors, and in other cases, it is the multidimensional aspect of the framework that "brings it all together" and helps people identify where they want to take their process.

# The Territorial Approach: At the interface of culture and ecology

The territorial perspective has been highly relevant for agroecological transitions and transformation. Territory refers to place *and* people, including the culture and knowledge that has been built in relation to the biological and ecological processes of living nature. Territory is important because it represents a local dimension that includes communities and traditions, as well as the natural resource base. Territories are not (only) delineated by administrative boundaries. Rather, they are generally

defined by a range of circumstances and context-specific factors: spatial, geo-physical and environmental conditions, political and administrative structures, history and cultural identities. Key aspects of a territorial approach include a focus on harnessing local strengths, rights to land, seeds and waters, inter-sectoral development, the recognition and celebration of local identities, sovereignty over "development processes" and solidarity and democracy (Wezel et al. 2015).

A territorial approach to agroecology allows for holistic perspectives that consider interlinkages among the three dimensions of sustainable development— social, economic and

Territory refers to place and people, including the culture and knowledge that has been built in relation to the biological and ecological processes of living nature.

environmental—and the possible **tensions and trade-offs** between these dimensions and across different sectors. In other words: in the territory, farm-level land-use decisions that involve ecosystem functions (i.e., pollination and watershed management) are connected to other factors beyond the farm, upstream or downstream, in the landscape or territory.

Key to the potential for agroecological transformation is a systems lens, and a theory of change that maps out the interplay between all actors in the food system: producers, distributors and consumers, other land users (e.g., private sector), and the key institutions in a territory (e.g., markets, educational institutions).

# Box 2 – Prosuco and Yapachuris: Collective action as the basis for healthy territories and agroecology transitions

The NGO PROSUCO, which is part of the Andean Community of Practice of the McKnight Foundation's Collaborative Crop Research Program (CCRP) since 2005, aims to generate, mobilize and strengthen resources, local knowledges, and scientific knowledge to solve rural problems and needs in Bolivia (PROSUCO, 2022). PROSUCO has led several projects that promote participatory action research (PAR) to connect farmers with researchers through "dialógos de saberes," or knowledge dialogues using the "Yapuchiris Model." Yapuchiris are farmers that oversee a predictive system to assess environmental fluctuations derived from climate change. Their role is vital to plan the agricultural calendar. The model is inspired by the Aymara ancestral community role of the Yapuchiri, equivalent to a wise person or elder, who used to inform the community when to harvest, anticipated rains, droughts and frosts, and advised on how to improve crop production (La Razon, 2013). The project has been successful, and after an important process of reflection, and bearing in mind work done in the communities, PROSUCO has created the hypothesis that: without "collective action" of the entire community it is not possible to have a healthy territory and achieve an agroecological transition. In 2022, PROSUCO received funding for another three years, and in this new phase, they aim to promote collective action around four environmental functions of the communal territory: cover crops, water, agricultural biodiversity, and soil.



Photo credit: Jules Tusseau

# Perspectives on Agroecology Transitions - No. 3

# Contributing to transitions

This brief provides a synthetic overview of agroecological transitions, presenting a three-phase approach and several agroecology frameworks that can help to give structure to collective planning processes. Given the centrality of farmers and farmer organizations in agroecology, anyone seeking to support agroecological transitions, should start with **existing initiatives and networks of farmers**, as a place to accompany and offer support to ongoing processes of change in territories. In this context, clearly mapping a long-term change process and outlining the roles of supporting actors – including researchers, activists, communications specialists, educators and consumers – can realize the gains more rapidly, making the goals of food system transformation more attainable. In this way, agroecology can harness its potential as a practice, a science and a social movement by bringing these actors together in collaboration and allyship towards more sustainable and socially just food systems.

#### References

- Anderson, C. R., & Bruil, J. (2021). *Shifting Funding to Agroecology for People, Climate and Nature*. ActionAid, Cultivate, & Agroecology and Livelihoods Collaborative (ALC). <a href="https://www.actionaidusa.org/wp-content/uploads/2021/12/Shifting-Funding-to-Agroecology.pdf">https://www.actionaidusa.org/wp-content/uploads/2021/12/Shifting-Funding-to-Agroecology.pdf</a>
- Anderson, C. R., Bruil, J., Chappell, M. J., Kiss, C., & Pimbert, M. P. (2019). From Transition to Domains of Transformation: Getting to Sustainable and Just Food Systems through Agroecology. *Sustainability*, *11*(19). <a href="https://doi.org/10.3390/su11195272">https://doi.org/10.3390/su11195272</a>
- Biovision. (2021). Agroecology Criteria Tool. Accessed online on April 19, 2022. https://www.agroecology-pool.org/methodology/
- Caswell, M., Maden, R., McCune, N., Méndez, V.E., Bucini, G., Anderzén, J., Izzo, V., Hurley, S.E., Gould, R.K., Faulkner, J., & Juncos-Gautier, M.A. (2021). *Amplifying Agroecology in Vermont: Principles and Processes to Foster Food Systems Sustainability*. White Paper. Agroecology and Livelihoods Collaborative. University of Vermont: Burlington, Vermont, U.S.A.
- Galvão Freire, A. (2018). Women in Brazil Build Autonomy with Agroecology. *Farming Matters*, *34*(1), 22–25.
- Giraldo, O. F., & Rosset, P. M. (2018). Agroecology as a territory in dispute: between institutionality and social movements. *The Journal of Peasant Studies*, 45(3), 545-564. https://doi.org/10.1080/03066150.2017.1353496
- Gliessman, S. R. (2015). 3<sup>rd</sup> Agroecology: the ecology of sustainable food systems. CRC press.
- Global Alliance for the Future of Food. (2019). Beacons of Hope. Available at: <a href="https://futureoffood.org/wp-content/uploads/2021/02/BeaconsOfHope">https://futureoffood.org/wp-content/uploads/2021/02/BeaconsOfHope</a> Toolkit 082019.pdf
- La Razón. (2013). Yapuchiris, armonía con la tierra. Retrived from <a href="https://www.la-razon.com/lr-article/yapuchiris-armonia-con-la-tierra/">https://www.la-razon.com/lr-article/yapuchiris-armonia-con-la-tierra/</a>
- PROSUCO. (2022). Retrieved from <a href="https://prosuco.org/">https://prosuco.org/</a>
- Wezel, A., Brives, H., Casagrande, M., Clément, C., Dufour, A., & Vandenbroucke, P. (2015). Agroecology territories: places for sustainable agricultural and food systems and biodiversity conservation. *Agroecology and Sustainable Food Systems*, 40(2), 132-144. https://doi.org/10.1080/21683565.2015.1115799

### Additional Resources

#### Agroecology:

- Nyeleni Declaration of the International Gathering on Agroecology. Click here.
- Agroecology Grassroots Solutions to Global Crises (Video, Agroecology Fund)

## Perspectives on Agroecology Transitions – No. 3

 Agroecology – voices from social movements. Multimedia resources available in three languages:

English: Short film - Long film - Accompanying publication

Français: <u>Version courte du film</u> – <u>Version longue du film</u> – <u>Publication associée</u>

Español: Película corta – Película larga – Publicación asociada

- Méndez, V.E., Bacon, C.M., and Cohen, R. (2013). <u>Agroecology as a Transdisciplinary</u>, <u>Participatory</u>, and <u>Action-Oriented Approach</u>. Agroecology and Sustainable Food Systems 37(1), 3-18. doi: 10.1080/10440046.2012.736926.
- HLPE Report on Agroecological and other innovative approaches.

#### **Agroecology Principles and Principle Frameworks**

- FAO's 10 Element's of Agroecology
- CIDSE's Agroecology Principles
- See this special issue for an academic treatment of principles-based approaches in agroecology

# Colophon

Written by: Colin R. Anderson, Nils McCune, Gabriela Bucini, Ernesto Mendez, Amaya Carasco, Martha Caswell, Sydney Blume and Faris Ahmed.

Created with the support of the Collaborative Crop Research Program of the McKnight Foundation

**Suggested citation**: Anderson, C.R., McCune, N., Buccini, G., Mendez, V.E., Carasco, A., Caswell, M., Blume, S., & Ahmed, F. (2022). *Working Together for Agroecology Transitions*. Perspectives on Agroecology Transitions – No. 3. Agroecology and Livelihoods Collaborative (ALC), University of Vermont.

About the Agroecology and Livelihoods Collaborative: The Agroecology and Livelihoods Collaborative (ALC) is a community of practice at the <u>University of Vermont</u>, which utilizes an approach grounded in <u>agroecology</u>, <u>participatory action research</u> (PAR) and <u>transdisciplinarity</u>. The ALC approaches agroecology by integrating ecological science with other academic disciplines (e.g. agronomy, sociology, history, etc.) and knowledge systems (e.g. local, indigenous, etc.) to guide research and actions towards the sustainable transformation of our current agrifood system.

**About the CCRP Program:** The Collaborative Crop Research Program (CCRP) is a program of <a href="the McKnight Foundation">the McKnight Foundation</a> that has funded agricultural research since the 1980s. Working in three regional <a href="communities of practice">communities of practice</a> (CoPs) in Africa and South America, CCRP projects generate technical and social innovations to improve nutrition, livelihoods, productivity, environmental sustainability, rural vibrancy, and equity for farming communities. CCRP engages in local, regional, national and global processes to support agroecology transitions.