



Pathways towards agroecological food systems: small-scale farmers at the centre of the transitions

Learning from participatory research and action approaches to transforming food systems

April 2017

Elise Wach¹, Santiago Ripoll², Rachael Taylor³, Seydou Wane⁴, Tabara Ndiaye⁵, Jorge Irán Vásquez Zeledón⁶, Clare Ferguson⁷, Mamadou Ousseynou Ly⁸, Mamadou Drame⁹, Julio Hector Sanchez Gutierrez, & Chris Smaje¹⁰

Context and overview

Now more than ever, evidence overwhelmingly concludes that our food systems are not currently working to nourish our populations, ecosystems, economies, or social connections. Agroecological approaches have been shown as having potential to address many of these problems in the mainstream food system, particularly when combined with concepts of food sovereignty, which localise control, and place producers and consumers at the centre of decision-making (Pretty et al 2006, Chappell and LaValle 2009, Sevilla Guzman and Woodgate 2003). However, knowing the principles and the end goals, while invaluable, is not enough. We need to transition from the food systems we currently have to the food systems we envision for future generations. Where do we begin and who should lead that process? In line with principles of food sovereignty, that transition needs to be led and owned not by outside experts or researchers but by the people most directly affected by and typically excluded from decision making within the current food system (i.e. small- and medium-scale farmers, workers involved in harvesting and food processing, cottage manufacturers and consumers across socioeconomic classes). It must also respond to the current level of globalisation of our food systems. For example, a decision to localise consumption in one country can greatly affect export-focused producers and economies in another.

In order to address these challenges, a consortium of farmer-led organisations in Nicaragua, Senegal and England along with the University of Sussex are engaging in participatory systemic research. The approach is designed to answer the overarching questions: What are the constraints to a transition of our current food system into an agroecological food system? What are the pathways for scaling up agroecological food systems which: (i) Improve food security and nutrition of small farmers and their communities; (ii) Enhance and leverage ecosystems; (iii) Contribute to healthy social relationships; and, (iv) Support sustainable livelihoods.

Based on their own knowledge and experiences as producers, a group of small and medium scale agroecological farmers in each country is engaging in an analysis of their food systems, identifying areas of research, analysing findings and, in collaboration with other relevant actors, are developing actionable strategies to transition to more sustainable and just food systems. They are also learning from the similar and contrasting challenges and opportunities experienced by farmers in the other country contexts, and reflecting

¹ Institute of Development Studies / STEPS Centre, University of Sussex, United Kingdom, E.Wach@ids.ac.uk

² Institute of Development Studies / STEPS Centre, University of Sussex, United Kingdom

³ Science and Policy Research Unit / Brighton and Sussex Universities Food Network, United Kingdom

⁴ Forum Pour un Développement Durable et Endogène (FODDE), Senegal

⁵ Forum Pour un Développement Durable et Endogène (FODDE) / New Field Foundation, Senegal

⁶ Programa De Campesino a Campesino UNAG, Nicaragua

⁷ SEED International / Land Workers Alliance, United Kingdom

⁸ Institut Sénégalais de Recherches Agricole (ISRA), Senegal

⁹ Forum Pour un Développement Durable et Endogène (FODDE), Senegal

¹⁰ Land Workers Alliance, United Kingdom

on the interconnectedness between food systems. This document provides a brief overview of our approach to this work and a summary of our activities to date.

The partners

This initiative is being undertaken by the **STEPS Centre** (Social, Technological and Environmental Pathways to Sustainability), a global research and policy engagement centre based at the **Institute of Development Studies** and **University of Sussex**; in the **UK** in partnership with the **Land Workers' Alliance** (LWA), an organization of people who make their livelihoods from producing food, fuel and fibre using sustainable methods of production; in **Senegal** in partnership with Forum pour un développement durable endogene¹¹ (**FODDE**), a non-profit organisation in Senegal dedicated to the development of communities which is integral, endogenous and sustainable; and in **Nicaragua** in partnership with Programa Campesino a Campesino de la Unión Nacional de Agricultores y Ganaderos¹² (**PCAC-UNAG**), a network of small-scale farmers dedicated to sustainable food production and farming innovation through farmer-to-farmer participatory methodologies. The project is funded by the **Daniel and Nina Carasso Foundation** and the **New Field Foundation**.

The approach: Integrating Participation, Complex systems thinking & Deliberative Processes

In each of the three countries, the partners are engaging in **farmer-led participatory systemic research** based on principles of systems and complexity science and aligning with values of participatory approaches. Based on their own knowledge and experience, diverse panels of small and medium scale farmers are undertaking an analysis of their food systems, identifying areas of research, analysing and debating research findings and, in collaboration with other relevant actors, are developing actionable strategies to transition to more sustainable food systems. In addition to findings and strategies for each country, the process is leading to insights about the challenges and opportunities faced by small-scale farmers across the different contexts. Below we provide more detail about the different facets of this project.

- **Defining directions:** The focus of the project intentionally moves beyond food production to consider food systems, which include consideration of distribution and access to foods and resources, farmer and consumer health and nutrition, and the social and community aspects of food (including enjoyment, fulfilment, dignity, etc.). What exactly does this mean? In order to identify pathways toward agroecological food systems, farmer panels must first have a clear understanding about the food systems that are desired, not just for themselves and other similar producers but for other actors involved in and affected by food systems. In line with the principles of agroecology and food sovereignty, this must be context-specific and cannot be defined by outside experts. At the beginning of the inquiry, farmers reflect on and agree¹³ core aspects or principles of sustainable food systems. In fact, farmers in the UK decided it was important to work towards 'regenerative,' rather than 'sustainable' food systems. The definitions of desired food systems can be returned to throughout the initiative as people change their perspectives or understandings.
- **Mapping (complex) food systems:** Farmers engage in a process of reflection (including peer interviews) on the factors that have enabled or constrained them personally in contributing to the realisation of desired 'agroecological food systems', as they have defined them in ecological, economic, social and nutritional dimensions. This leads to a systems mapping process (Burns and Worsley 2015, Burns 2012) in which farmers identify the issues (political, economic, cultural, environmental), actors (organizations and individuals) and the dynamic interrelationships between them that might enable or constrain the realisation of regenerative food systems. Large-scale 'messy maps' are first developed, followed by 'distilled maps' in which farmers focus in on a few key areas and clarify the linkages between issues. While one may never understand the entire system, the mapping process often uncovers key relationships, patterns and mental modes that have the potential to significantly shift or maintain certain outcomes (Senge 1990, Meadows 2008). This mapping process moves people away

¹¹ In English, Forum for endogenous sustainable development

¹² In English, Farmer-to-Farmer Programme at the Nicaraguan Farmers Union

¹³ Throughout the entire project, consensus is aimed for in a way that incorporates and allows for disagreements and diversity. Thus, core principles on which everyone can agree are used for defining desired food systems, but some aspects may remain unresolved or disputed. These can be returned to throughout the process.

from linear conceptions of food systems towards conceptions of food systems which are non-linear, dynamic and related to issues outside the direct realm of food and farming (Leach et al 2010, Ericksen et al 2010).

- **Deciding areas of inquiry:** Based on the issues mapped and the discussions undertaken in the mapping process, farmers collectively identify and agree areas of inquiry or mini-research initiatives that have the potential to give useful insights and understandings for how to move towards more regenerative food systems. By farmers setting the research agenda, we seek to address one of the most significant and over-looked sources of bias in research: the research questions that are asked and not asked (Ioannidis 2005; Greenhalgh and Russell 2009). In each country, 3-6 research questions are identified.
- **Collaborative research:** Research is led by farmer-led or community-based organisations with support from IDS. This approach aims to enable grassroots organisations to develop their capabilities to engage in research processes. These processes have included primary and secondary research, and have been primarily social science research in this project given the timescales and resources available. However, natural science research would also fit very well within this approach.
- **Analysing and deliberating findings:** Farmer panels are presented with the research findings through a mixture of written reports and oral presentations. This is followed by presentations by key 'witnesses': individuals who can provide interesting perspectives on an issue, because of their personal experience or expertise. Witnesses have included people involved in establishing alternative marketing approaches, planning officers, ministry officials, academic researchers and farmer activists. During this process, there is ample time for farmers to critically engage with, question, clarify and challenge the perspectives of the witnesses. Afterwards, farmers revisit their systems maps (adding in new issues and changing linkages based on their new understandings), revisit their research questions (editing their phrasing and focus with their new understandings) and discuss and debate the implications of the research findings and the perspectives of the witnesses. We have chosen to use a deliberative process¹⁴ because the nature of our research questions requires discursive and critical analysis of issues by farmers over time. The best-known examples of deliberative processes are 'citizens juries',¹⁵ which entail a random sample of ordinary citizens who are selected to deliberate on matters of public significance. However, because we do not aim to reach a 'yes / no' decision but rather facilitate critical analysis which needs to be dialogic, we have decided that a deliberative panel comprised of a purposeful selection¹⁶ of small-scale farmers is most appropriate for this project.
- **Developing strategies and partnerships:** Based on their new and refined understandings, farmer panels identify actions and strategies for moving towards more regenerative food systems and engage in participatory ranking and voting to decide on focus areas (e.g. increasing access to land for agroecological farmers; improving networks for knowledge sharing about alternative markets). An emphasis is on high impact but feasible actions that they themselves would be involved in realising. Concepts from systems thinking such as 'leverage points' are used: identifying relatively feasible actions that could have a disproportionate effect on the rest of the system (Meadows 1997, 2008). Farmer panels also identify individuals with whom they would like to partner for realising these strategies and/or whom they would like to influence based on Actor-network theories (Wielinga 2012). We narrow down to about 12 'change agents' per country. A workshop is held to bring together farmers and 'change agents' or allies in order to jointly develop concrete actionable strategies for moving towards more regenerative food systems.

¹⁴ For an overview of deliberative processes, see Carpini et al 2004

¹⁵ See for example, work with 'farmers juries' <http://pubs.iied.org/pdfs/G02530.pdf> and <http://www.excludedvoices.org/democratising-agricultural-research-food-sovereignty-west-africa>

¹⁶ The purposeful selection will aim to include a meaningful diversity of small farmers; because of the small size, it is noted that the panels are not 'representative samples' of the farming population, but aim to represent key segments of farmers which are relevant to the overall research question of the project.

Overview of progress to date

Since its launch in January 2016, the project has made significant progress in each of the three countries. The project uses a staggered approach to implementation, based on considerations of seasonal availability of farmer participants. All of the workshops have been completed in Senegal, with follow-on activities identified and currently led by participants and additional stakeholders. In Nicaragua and the UK, two of the three workshops have been completed respectively and plans are being developed for the third workshop in Nicaragua to take place in May 2017, and in the UK in July 2017. In summary, the following activities have taken place:

- Establishment of farmer panels in each country
- Participatory Systems Mapping workshop in Senegal, Nicaragua and the UK to analyse opportunities and constraints and identify research priorities
- 15 micro-research projects completed in Senegal, Nicaragua and the UK through collaborations between IDS, FODDE, PCAC and LWA
- Deliberative workshops held with farmers in Senegal, Nicaragua and the UK in which research findings have been collectively analysed, discussed and debated, leading to the development of actionable strategies and the identification of allies and 'change agents' to take them forward collaboratively
- Country-level 'change agent' workshop held in Senegal to collectively develop action plans for delivering strategies
- Country-level policy engagement outputs currently being drafted for Senegal

The progress to date for each of the three countries is summarised below.

Summary of activities in Senegal

In Senegal, a farmer's panel was established, a systems mapping workshop led to the identification of five micro research projects, a deliberative process took place and a country-level change agent workshop also occurred.

While research in Nicaragua and in the UK was primarily secondary research, in Senegal primary research was also undertaken. This included qualitative surveys and focus group discussions with producers in Casamance, interviews with people working for groups and organisations that are promoting the use of agroecological practices in Senegal, a market survey of agroecological food products available for purchase in Casamance, and a review of literature. Specifically, the five research projects undertaken were:

1. *How can existing diversification be best utilised to support improved nutrition?*
2. *What is the existing knowledge of agroecology amongst local communities and how do farmers define the concept of agroecology?*
3. *What strategies of communication are most effective at triggering change when promoting agroecology?*
4. *How can access to the factors necessary to improve production be increased?*
5. *What are the capacities of existing agroecology organisations, which could inform capacity building in other organisations?*

The research in Senegal faced challenges as a result of minimal experience among the research team using qualitative research. IDS worked to build the staff capacities in qualitative methods and research design throughout the project. While the research projects identified useful findings, which served as a strong basis for the subsequent deliberations and development of strategies, overall the quality of research and reports could have been improved with additional time and engagement from FODDE research staff. In terms of the workshops, feedback was overwhelmingly positive from farmers and from staff at FODDE and the New Field Foundation: workshops were seen as opening up new understandings and framings of issues in order to move forward in a more effective way, and a number of participants and staff were deeply moved in their personal lives by the process.

Discussions during the farmers' jury deliberative panel resulted in a range of ideas of potential objectives, strategies, goals, actions and change agents to be identified. Seven themes for these ideas emerged for discussion during the change agent workshop. These themes were: 1) Establishing agroecological restaurants and cookery schools; 2) Better integrating nutritional education in organisations and communities; 3) Advocacy to government to promote traditional seeds and secure supply of seeds; 4) Promotion of agroecology through

designated shops, local markets, and fairs; 5) Promotion of agroecology through broadcast/videos/book of songs and poems by traditional oral communicators; 6) Securing an improved supply of ecological inputs; and, 7) Network building and farmers' jury continuation.

The project has resulted in an action plan, which includes specific activities to be completed within 18 months following completion of the project. There are commitments of action from a range of stakeholders including producer organisations, governmental ministries, non-governmental organisations, public media, cultural institutions, nutritionists, researchers, and a local restaurant. Members of the farmer panel are continuing to meet to carry forward this plan and the momentum of the project. IDS is also working with FODDE to finalise policy briefings and other outputs to communicate the findings of the process with relevant stakeholders in Senegal.

Summary of activities in the UK

A diverse panel of small-scale farmers met in July 2016 to map the issues and relationships constraining and enabling the spread of agroecological approaches, defined not just as ecological production but also considering the livelihoods and wellbeing of farmers and consumers. This mapping was undertaken based on interviews conducted within the group about their own experiences as farmers. Following the mapping of interconnected issues – their causes and consequences – the panel of farmers identified areas of research and evidence required in order to better understand or validate their assumptions about how food systems could be effectively transformed. The following four areas of research were identified by the UK farmer panel:

1. *What policy tools (e.g. subsidies, taxation, tenancy legislation, etc.) could promote increased access to land for agroecological farmers? What can we learn from other countries and contexts in terms of alternative systems to promote access to land for sustainable farming?*
2. *What can we learn from the experience of True Cost Accounting, Triple Bottom Line, and other forms of social and environmental accounting to ensure the contribution of agroecological farmers is valued appropriately?*
3. *How do and to what extent do subsidies affect the cost of food?*
4. *What has led some local councils to develop good sustainable local food strategies, and what have these entailed?*

These questions were answered through secondary research combined with interviews with several key informants. Following the production of four research reports for the farmers, a deliberative workshop was held over four days in January and February 2017 in which farmers were presented evidence from eight key informants and experts in relation to the research questions. Farmers then engaged in a deliberative process, in which they will be able to reflect, question and challenge one another's ideas in real time. While areas of agreement were encouraged, the process also allowed for dissent and disagreement to be present. In other words, the group aimed for consensus without smoothing over differences. Continuing on from the deliberation, farmers revisited their food system maps (i.e. their understanding of the causes and consequences of key issues) and their core areas of inquiry (e.g. question two was reframed based on in-depth reflection of the meaning and locus of 'value'). They then identified potential pathways for change and specific organisations and individuals to collaborate with for developing and implementing concrete strategies. These pathways were prioritised in terms of (a) what was highest impact¹⁷, (b) what would be most feasible to achieve, and (c) what the farmer panel themselves as a group would want to carry forward. The following strategies were selected for the group to carry forward:

- Make the case for the 'true benefits' of agroecological farming
- Develop a clear articulation of values and objectives, including through contributing to the drafting of the People's Food Policy in the UK

'It has been really useful for me personally, not only to both clarify, and crystallise some old concepts...But also to have the chance to view some fresh ideas from new angles. And most importantly to be challenged by some altogether new perspectives.'

--Farmer participant, UK

¹⁷ High impact strategies that were not appropriate for this group to carry forward will be communicated to relevant stakeholders and organisations who would be better placed to engage in them.

- Shape the reform of British agricultural subsidies in closer collaboration with the Land Workers Alliance
- Engage with ethical investment banks to encourage better financing options for agroecological producers
- Work with planners to improve access to land for agroecological producers
- Work with and leverage the efforts of existing organisations and initiatives to spread and create alternative routes to market for agroecological producers across the UK

A larger workshop will then be held in July 2017 which these ‘change agents’ and farmers will jointly develop actionable strategies to transition towards more agroecological food systems. Possible solutions may relate to changes in local and national-level policies (e.g. through a People’s Food Policy); changes in relationships between small-scale farmers and the people they sell to (e.g. through greater use of cooperative marketing approaches); creating conditions for more people to be able to access land (e.g. through educating both planners and prospective farmers about ways to better utilise the existing planning system); and creating conditions for more people to access finance (e.g. through discussions with ethical investment banks). As the UK transitions out of the European Union, these processes and their outcomes can help ensure that the voices, needs and priorities of small and medium sized ecological producers influence the upcoming change process.

Summary of activities in Nicaragua

In Nicaragua, a farmer panel was established in March - April 2016 and the systems mapping workshop was held in May 2016. Through this workshop, the farmer panel identified the following six areas of research inquiry, each with specific sub-questions:

1. *Analysis of markets and their politics (including types of markets for conventional and agroecological production, value chains, distances between producers and consumers, the impacts of trade agreements, and government roles in the control of prices and markets)*
2. *Management of water and forest resources (including the impacts of large-scale investments in mining and monoculture (sugar cane, peanuts, etc.) on the management of water, family agriculture and agroecological practices; and the enforcement of environmental laws)*
3. *Comparison of agroecological and conventional approaches, including economic returns and environmental impacts (including short-term and long-term perspectives)*
4. *Land access and land tenure (including considerations of gender and age, land markets, migration and profit)*
5. *Youth in agriculture (including succession, knowledge, motivation and mechanisms that exist to promote the involvement of youth in agriculture)*
6. *Public awareness about agroecological products, health and nutrition (including the passive attitude in the face of poor natural resource management and the roles and possibilities for integrating agroecology into primary education)*

Research was completed for each of these six research questions—though secondary research—and then shared with farmers in advance of the deliberative workshop. A deliberative process was then held in January 2017 in which six key experts and informants presented evidence to the farmers who then discussed and debated the significance and implications of the findings. The panel identified and agreed action points and key individuals with whom they will further develop strategies. The strategies that emerged from the deliberations spanned three dimensions: changes in public policy, alliance- building, and transformations in the farm. Policy actions and alliances seek to simultaneously curtail the unsustainable practices of industrial agriculture in the country as well as protect and upscale agroecology. The deliberative workshop is currently being written up and plans are being developed for the country-level change agent workshop, which will be held in May 2017 as part of a larger national forum hosted by UNAG to promote the spread of agroecology. In this forum, the results of the participatory research and deliberation will be shared with key state and civil society stakeholders in food and agriculture. The project results will be crucial inputs for a strategy-building exercise of the Nicaraguan agroecological and organic movements.

Next Steps

In the coming months, the partner teams will complete the work packages in each country and will also aim to secure funds and support in order to bring together a selection of farmers from each of the three countries for a summit in which farmers will be able to compare and synthesize the similarities, differences and interrelated

challenges and opportunities for agroecological farmers across the localities. To date, the Christensen Fund has expressed a commitment to partially fund such a summit.

Due to the success of the project to date, and the value it has brought to farmer participants, partner organisations and the overall assessment of its contribution towards transitioning towards regenerative food systems, the project team is interested to continue this work in the UK, Senegal and Nicaragua as well as expand the project to other countries. At present, our intention for the next phase of this work is to focus particularly on issues related to young people in agriculture, given the interesting dynamics of some youth finding agriculture unattractive (e.g. successor farmers) and others enthusiastically looking to get started (e.g. first generation farmers) yet encountering major structural constraints to do so across countries with varying types of land and food use systems.

More info

For more information about the project, including research and workshop reports, please visit the project page on the IDS website, <http://www.ids.ac.uk/project/transitions-to-agroecological-food-systems> or contact Elise Wach at E.Wach@ids.ac.uk.

References

- Burns, D. 2012. 'Participatory Systemic Inquiry', in IDS Bulletin Special Issue 'Action Research for Development and Social Change' 43.3: 88–100
- Burns, D. and Worsley, S. 2015. Navigating Complexity in International Development: Facilitating Sustainable Change at Scale. Rugby: Practical Action Publishing Ltd
- Carpini, M.; Cook, F. and Jacobs, L. 2004. 'Public Deliberation, Discursive Participation, and Citizen Engagement: A Review of the Empirical Literature, Annual Review of Political Science 7: 315-344
- Chappell, M. and La Valle, L. 2009. 'Food security and biodiversity: can we have both? An agroecological analysis. Agriculture and Human Values 28:1, 3-26
- Ericksen, P., Stewart, B. Dixon, J. Barling, D, Loring P., Andreson, M. 2010. The value of a food system approach. In: Ingram, J. Ericksen P, Liverman D., editors. 2010 Food Security and Global Environmental Change. London: Earthscan
- Greenhalgh, T. and Russell, J. 2009. 'Evidence-based Policy Making: A Critique', Perspectives in Biology and Medicine 52.2: 304-18
- Ioannidis, J. 2005. 'Why Most Published Research Findings are False', PLOS Medicine 2.8
- Leach, M., Scoones, I. and Stirling, A. (eds) 2010. Dynamic Sustainabilities: Technology, Environment, Social Justice. London: Earthscan.
- Meadows, D. 1997. 'Places to Intervene in a System: Strategic Levers for Managing Change in Human Systems,' Whole Earth Review Winter 1997
- Meadows, D. 2008. 'Leverage Points: Places to Intervene in a System' in Thinking in Systems: A primer. Sustainability Institute.
- Pretty, J., Noble, A., Bossio, D., Dixon, J., Hine, R., Penning de Vries, F. and Morison, J. 2006. 'Resource-Conserving Agriculture Increases Yields in Developing Countries', Environmental Science and Technology, 40.4: 1114-1119
- Senge, P.M. 1990. The Fifth Discipline. New York: Currency Doubleday.
- Sevilla Guzmán, E. and Woodgate, G. 2013. 'Agroecology: Foundations in agrarian social thought and sociological theory.' Agroecology and Sustainable Food Systems 37(1):32–44.
- Wielinga, E., Zaalmink, B.W., Bergevoet, R.H.M.; Geerling-Eiff, F.A.; Holster, H.C.; Hoogerwerf, L.; Vrolijk, M.; Teenstra, E.D. (2008) Networks with free actors. Encouraging sustainable innovations in animal husbandry by using the FAN approach (free actors in networks). Wageningen UR.

This project is undertaken with support from

