Farmers' viewpoints on transitions to agroecological systems

ORC was contracted in 2017 to work jointly with the Game and Wildlife Conservation Trust (GWCT) to undertake a study for Scottish Natural Heritage (SNH) on behalf of the Land Use Policy Group (LUPG). The chair of LUPG, Rob Cook, wrote in his forward that it is more important than ever that we understand the motivations, attitudes and experiences of those who have successfully adopted more sustainable agricultural practices and systems. Here ***Susanne Padel*** *reports back on the results and conclusions of the study.*

LUPG commissions research and advises on rural land use matters such as agriculture and woodlands. We were asked to look at the question of how farmers decide to enter into transition to a more agroecological approach to farming and how they experience the process. We chose a case study approach, centred around face-to-face, semi-structured interviews, involving the principal farmer and, if possible, other members of the farm household. The report highlights the importance of social and behavioural factors in land management, particularly the need to encourage and support farmers to redesign their businesses according to agroecological principles.

The case study farms and approach

Fourteen farmers in England, Scotland and Wales were recruited through contacts with organisations engaged with agroecological practices, such as organic farming, agroforestry, pasture-fed livestock systems and conservation/integrated agriculture (mainly in the form of direct drilling). The fourteen farmers were socially distinctive: most farmers had sought out opportunities for travel, research and personal development and all are members of networks associated with sustainable agriculture and have engaged in a process of transition. Interviews were conducted by Oliver Rubinstein of ORC and Amelia Woolford from the Allerton project of GWCT between January and March 2017. All the farmers were very willing to share their experiences. We asked the farmers to tell us their story of how their farm had changed under their management and prompted them to talk about their motivations, opportunities and key challenges. We analysed the answers to look for common trends and observations and we also compared them with two theoretical models of farmers' decision-making: the Triggering Change Cycle, which was developed based on organic conversion experiences[1], and the Efficiency Substitution Redesign (ESR) model[2], which has been widely used in the context of agroecology (e.g. [3,4]).

Farm types
5 mixed farms
4 mainly arable farms
3 dairy farms
2 farms with horticulture
1 upland beef & sheep

- Small (<10ha) and large farms (>300h); 3 female farmers
- Earlier and more advanced stages of transition
- Recruited through organisations that support agroecological practices

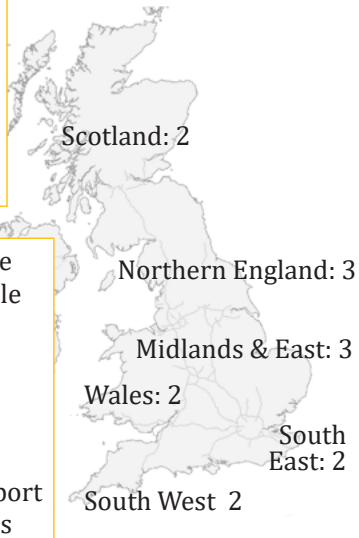

Figure 1: The case study farms

Table 1: What triggered the change?

Taking over the business (11 farms)
Succession (6) and new business (5)
Securing the long-term viability of the business (5)
Contact with other inspirational farmers/ professionals (8 farms)
Through farm visits or study tours (5)
Attending a course (3)
Concerns about soil health (7 farms)
Low yields and weed problems
Structural farm changes (9 farms)
Integrating livestock (6)
Taking on more land (3)

Sometimes a lengthy period of time elapsed before people experienced their personal 'click' moment, that made them change. This could either be a change in the way they 'saw' issues (for example weeds) – or it could be a change in circumstances (e.g. a new collaboration, additional land or livestock). The farmers reported as key triggers or motives for change: taking over the business; contact with other inspirational farmers or professionals (6 of the 14 farmers had been Nuffield scholars); concerns about soil health; and structural farm changes. Some were also attracted by the premium prices from quality labels (e.g. organic) or agri-environment grants, but this appeared to be a secondary motive. For example, two farms that started with direct drilling and one that started with pasture-fed farming also took up organic farming. Overall, half of the farms we spoke to took up another approach, once the first steps had been taken. One farm added agroforestry to direct drilling etc., another to organic farming. And along with practical changes on the farm can go a change in the farming identity, which is helped by meeting other like-minded people.

Key conclusions

The importance of inspiration and social capital. The farmers' experiences highlight the crucial importance of social networks. The majority of the farmers we interviewed were motivated to engage with agroecological approaches through seeing practical examples and meeting inspirational people, in the UK and abroad. Such peer-to-peer contact opportunities with experienced practitioners of agriculture are valued but scarce. In developing support for agroecological transitions, it is important to pay attention not only to the agronomic challenges but also to social processes[5]. More could be done to support UK farmers who have made a

transition to share their experiences (for example by making short videos) and by supporting study tours to countries where agroecology is more widespread (e.g. France).

Improved access to practical information about agroecology. There is currently a lack of trusted practical and financial information regarding the transition to agroecology. This makes it more difficult for farmers to evaluate the likely risk of redesign. Information provided can come through established channels (e.g. through offering training to farmers and consultants) but also digital media, such as the Agricology Programme that ORC and GWCT are engaged with. There is also a need to introduce teaching of agroecology in agricultural education at colleges and universities, as well as to offer relevant training courses for farming professionals in continuous professional education.

Move towards supporting active and social learning rather than knowledge transfer. Agroecological transition is an active learning process, not a simple 'switch' from one way of farming to another. Each transition and evolving farming system we encountered is unique and several farmers are engaged with separate transitions. At ORC we aim to support this through our engagement with participatory research and our engagement in knowledge exchange through events, workshops and through Agricology. Trust in groups develops through mutual support, so that both positive and negative experiences from trial and error can be explored, and learning emerges from a shared interest in a problem or challenge[6].

New rules and indicators for the long term. For most farmers, economic profitability is part of long-term sustainability. A common theme emerging during the interviews is farmers seeking a long-term economic perspective on future-proofing their farm, e.g. through investment in the natural capital of soil and soil fertility. Soil improvements are relatively slow and require long-term commitment. The results illustrate that the case study farms use a variety of ways to judge their successes. Although they abandon some old rules and established norms, they are uncertain about what indicators would be more important to measure. They are looking for more long-term financial indicators, alongside indicators of soil fertility, diversity and/or animal health. In some areas such indicators do exist, for example soil quality indicators are quite well established, but these are not necessarily widely known and used. It is argued that farmers need accepted definitions, measurements and indicators of the state of resources and sustainability so that they can judge for themselves how well they are performing and how they can manage the risks to their farming business[8]. Indicators also facilitate benchmarking between businesses – which in turn builds trust and the sharing of information between farmers. ORC engages with the development of sustainability indicators, where the farmer's perspective must be considered.

Access to grants. Farmers engaging in agroecological transitions should have access to grant schemes that support the public goods delivered, both in the initial start-up phase but also in the longer term. Lampkin et al. (2015)[3] examined the public benefits that agroecological approaches contribute. These include reducing non-renewable energy consumption, maintaining or increasing biodiversity and ecosystem services, maintaining natural capital (soil and water resources) through careful management (e.g. reduced or zero tillage) and reduced use of potentially polluting inputs. This can contribute to maintaining or increasing the farm's profitability through more efficient input use, reducing costs, diversifying the range of outputs and by developing specialist markets and shorter supply chains.

- UK Governments can encourage the transition to agroecology by clearly identifying the redesign of farming following agroecological principles and practices as an important part of the future of farming, which is worthy of public support.
- Tiered agri-environment support systems can include whole-farm options, that encourage system-level change (for example organic farming) as part of mid-tier options.
- Any grant scheme criteria need to work for farmers who 'think outside the box' towards an agroecological transition.
- Support should be directed not only at agronomic changes but also at the social side of transition to agroecology as well as training and education (see above).

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