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Food Research Collaboration

Who means what by agroecology

And why it matters

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This series of Policy Insights provides opportunities for experts from academe and civil society to highlight gaps and opportunities in emerging food policy. The aim is to put detailed, specialist knowledge into the public domain at this critical time.

Food policy in England is in a state of flux. The UK's departure from the European Union opened the way for clean-sheet approaches to agriculture and trade, and required the UK to take responsibility for many areas of food regulation previously overseen by the EU. Evidence of the food system's adverse impacts on climate and habitats has prompted urgent calls for food policy to reverse these trends. And Covid's consequences have shown where the system lacks resilience – for example in ensuring food supplies for the vulnerable.

In July 2021, the Independent Review for the National Food Strategy, led by Henry Dimbleby, produced a comprehensive analysis of the state of the UK's food system, and a set of recommendations – but the report was advice, not policy. A White Paper will follow, outlining the Government's own intentions and proposals. Legislation – whether an omnibus 'Food Bill' or a patchwork of measures to augment existing policy – may then be brought forward to implement the plans.

While policy is developed, there are opportunities for improvements and course-corrections. We hope these Insights will help to inform that process. If you would like to contribute, please contact the Food Research Collaboration.

Introduction

The final report of the Independent Review for the National Food Strategy, entitled *The Plan*, introduced the term 'agroecology' into the UK's mainstream policy discussions[1]. The report, published in July 2021, recommended that agroecological farming methods should be used alongside intensive agriculture and *no* agriculture in a 'three-compartment model' for land use that would enable England to continue to produce enough food while also achieving targets for carbon sequestration (to help tackle climate change) and environmental regeneration. The recognition thus given to agroecology was seen by some as a signal that at least part of what the term denotes might become public policy in the UK in the near future. But like many expansive and exciting ideas, agroecology has the capacity to mean different things to different people. This report looks at some of the term's many meanings. It explains how the careful way it is used in *The Plan* leaves out aspects seen by some to be integral to the idea – and why this disappoints some campaigners.

Evolution of an idea

Around the world today, the most commonly recognised definition of agroecology is that of the Food and Agriculture Organization of the United Nations (FAO), which has defined agroecology as "an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems," adding that "it seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system"[2].

The FAO definition is underpinned by 13 principles, ranging from nutrient recycling and input reduction to 'co-creation of knowledge' and 'social values and diets'[3]. Most people would recognise the first two as being firmly within the remit of farming (they are things farmers can do something about). The latter two extend the idea more widely, invoking society, values and culture. This raises difficulties for some people. Should farmers be responsible for changing the world? Should policy-makers tell people what values they should have? For those who critique the concept, trying to harness so many ideas together is problematic and reduces the likelihood of successful implementation. But for those who support it, the inherently holistic understanding of agroecology is precisely its strength, because the issues raised are systemically linked, and cannot be tackled in isolation: integrating them together is the only way to secure successful implementation.

'An integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems'

In fact, despite the ubiquity of the UN definition, there has been significant debate over the core objectives of agroecology. The term has been used since the 1920s, originally denoting the academic study of the ecology of agriculture, with ecology defined as the relationship of living things to their environment and to each other, or its scientific study[4]. Some, including the UN's former Rapporteur on the Right to Food, Olivier De Schutter, in his 2010 report, keep to this original definition[5].

However, as the term agroecology has become more widely used, the definition has evolved at a rapid rate. A leading academic on the topic, Steve Gliessman, tracked usage of the term in his paper *Defining Agroecology*. This shows that it had expanded to encompass the ecology of the whole food system by the late 1990s, and, by the early 2000s, there was increased focus on agroecology's political objectives[6]. Gliessman summed it up as follows:

> *"Agroecology is the integration of research, education, action and change that brings sustainability to all parts of the food system: ecological, economic, and social. It's transdisciplinary in that it values all forms of knowledge and experience in food system change. It's participatory in that it requires the involvement of all stakeholders from the farm to the table and everyone in between. And it is action-oriented because it confronts the economic and political power structures of the current industrial food system with alternative social structures and policy action. The approach is grounded in ecological thinking where a holistic, systems-level understanding of food system sustainability is required"[7].*

Another leading thinker on the issue, Miguel Altieri, from University of California Berkeley, advocates for a strong political centre within agroecology and stresses the role of activism. In his publication *Agroecology: Key Concepts, Principles and Practices*, he defines agroecology as:

> *"a science, a practice and a movement. It is based on scientific and traditional knowledge. It is a science that bridges ecological and socio-economic aspects. It can work at various levels – farm, community, national, regional and so on... Agroecology needs to be built from the bottom up, especially through social movements in rural areas. There is a need to create alliances between rural and urban communities. Agroecology is a pillar of the food sovereignty framework which promotes the provision of land, water, seeds and other productive resources to small farmers and landless people, along with economic opportunities"[8].*

This political core has been present within agroecology for decades, but has expanded over time. Considering its evolution in a separate paper, Gliessman traced the roots of agroecology back to the aftermath of the Green Revolution in 1970s Mexico, which saw a rise in monocultures and loss of traditional foodways and farming methods[9]. One response to the Green Revolution was an explicitly political manifestation of agroecology to combat the marginalization of rural and indigenous producers, which extended to become a field of study and activism spanning from farm to table. This more politically motivated understanding of agroecology spread across Central and South America, most notably through the creation of the international organisation La Via Campesina (which advocates for the rights of land workers and indigenous peoples), and then across the world.

'The ecology of agriculture, with ecology defined as the relationship of living things to their environment and to each other, or its scientific study'

This understanding of agroecology seems to have moved a long way from 'the ecology of agriculture' to challenge the dominant economic model of the entire food system. It aims to establish a more socially just food system at a global and local level and focuses on creating fairer conditions for agricultural and food-production workers. For example, the report *Agroecology: The Bold Future of Farming in Africa*, written by The Alliance for Food Sovereignty in Africa in 2016, defined agroecology as being rooted in a desire to achieve food sovereignty, conserve indigenous knowledge and combat the negative externalities of industrial agriculture[10].

What *The Plan* says about agroecology

Instead of using the UN definition, *The Plan* created its own, which is conspicuously more like older (and narrower) definitions than recent ones. The glossary at the back of *The Plan* defines agroecology as "the application of principles from ecology (i.e., the study of relationships between living organisms) in farming, with the goal of achieving balanced growth and sustainable development".[11] The use of the term "sustainable development" could be interpreted as a reference to the UN's Sustainable Development Goals (SDGs), the 17 shared goals to tackle inequality, poverty and environmental degradation at a global level. The UK Government signed up to the SDGs in 2015, and subsequently, they have framed much of international development policy. This reference within *The Plan* could reflect an aspiration of the team behind *The Plan* to see this approach adopted as Government policy. Similarly, the use of the term "balanced growth" could link to the theory of "inclusive growth"[12], which recognises that economic growth must be experienced through all socio-economic groups to succeed and that many communities have felt 'left-behind' despite the economic recovery from the 2008 crisis. The inclusive-growth model has

been roundly supported by the OECD and the IMF [13] and has gained increased traction through the pandemic.

However, the use of the term within the text itself does not always match the definition given in the glossary. There is a clear emphasis that agroecology is something that is happening on-farm, rather than part of a wider systemic shift. *The Plan* suggests that agroecology is synonymous with 'nature-friendly farming' or 'high nature value farming', going on to say "encouraging more of this kind of nature-friendly farming – sometimes called agroecological farming – must be part of the plan for restoring the UK's struggling wildlife"[14]. Nature-friendly farming is defined by the Nature-Friendly-Farming Network as being a type of farming that protects nature: "We believe that nature friendly farming is not only better for nature, but is also the most productive and sustainable way of getting food from our land"[15]. This definition does not contain any elements of inclusivity or social justice, so *The Plan*'s assertion that it is a version of agroecology suggests that is how the report wants agroecology to be understood. *The Plan* also says that agroecology "overlaps with organic principles but covers a larger variety of farms"[16]. Again, while elements of on-farm organic practices are shared with agroecology (for example, nutrient cycling), there are no social requirements within organic certification. That said, *The Plan* does acknowledge that "the terminology is unsettled and each of the categories is blurry at the edges"[17].

'A science, a practice and a movement'

The Plan also states that agroecology is less productive and less efficient than conventional farming. It says, "agroecological farming produces lower yields than modern intensive farming" and (for example) that "it could never produce enough meat to cater to our current appetite for beef and lamb"[18]. For supporters of agroecology, this is the wrong argument. The point, they say, is that some intensive yields are only achievable by imposing a steep (mostly hidden) cost to the environment, so the cheap abundance they provide, of meat or anything else, is inherently unsustainable. Agroecologists make the case that the policy focus should be on productivity rather than yield, employing a definition of productivity that recognises the full costs of production, particularly to the environment[19]. Such a shift in understanding would see agroecological farms stack up better than conventional ones, where the focus is on yield to the detriment of other considerations.

Importantly, *The Plan* recognises the historical and ongoing discrepancies in public funding for research and development for agroecological versus conventional farming. It says, "It is crucial that Defra [takes] a farmer-led approach, and backs innovation across the full spectrum of regenerative farming: not just high-tech new ideas (important though these are), but also the agroecological methods that have been starved of investment up to now"[20].

In summary, *The Plan* presents agroecology as an on-farm activity that impacts the environment. It does not see it as an approach that could tackle the food system's failings (about which *The Plan* is eloquent) in a systemic way. This position conforms to that of many UK farming organisations, which also see agroecology as a (perhaps old-fashioned) method of farming in harmony with nature, but consider it to be firmly pre-farmgate. For example, the Soil Association, the UK's leading organic certifier, defines it as "sustainable farming that works with nature"[21]. Wider social and economic concerns are seen as separate from, or secondary to, the ecological focus.

What is the current status of agroecology in the UK?

Many UK-based food and farming groups reject this constricted definition. They embrace the wider and more holistic interpretation, arguing for a version of agroecology that that includes elements of social justice (particularly workers' rights, land justice and fair access to nutritious diets) alongside care for the natural environment and biodiversity. The Agroecology Comms Network, a project within the Real Farming Trust, has been trying to align the messaging to ensure consistency and amplification. However, many farming and food campaign groups, such as the Land Workers' Alliance (LWA), Real Farming Trust and Sustain, place workers' rights at the centre of their vision of agroecology while others do not. Sustain defines agroecology as "the application of ecological concepts and principles to optimise interactions between plants, animals, humans, and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system"[22] and was instrumental (in collaboration with LWA) in getting the term included in the Agriculture Act of 2020.

Similarly, the Food, Farming and Countryside Commission is an eloquent advocate for agroecology, having published a series of in-depth reports that model the potential for an agroecological shift in the UK and offer recommendations to support that transition[23]. The group Agroecology Now!, convened by the Centre for

Agroecology, Water and Resilience at Coventry University, exists to support the societal transformation seen as a necessary enabler of agroecology; its broad and lengthy definition of agroecology begins:

> *'Agroecology is the answer to how to transform and repair our material reality in a food system and rural world that has been devastated by industrial food production and its so-called Green and Blue Revolutions. We see Agroecology as a key form of resistance to an economic system that puts profit before life'*[24].

After being paused in the pandemic due to limited resources, the All-Party Parliamentary Group on Agroecology is back up and running with the goal of raising the importance of agroecological growing within the UK Parliament.

So, if agroecology has so many converts and supporters here in the UK, why was *The Plan* so wary of endorsing it?

One possible explanation is pragmatism. The system shift required to deliver a genuine agroecological future is simply too big and complicated to be seen as feasible by policy-makers and their advisers. The team behind *The Plan* were keen to present policy suggestions that were realistic and 'doable', to reduce the chances that their food strategy would end up, like many of its predecessors, gathering dust in the archives. By using the truncated definition of agroecology that minimized the 'social justice' component, they made it more acceptable to Government while still stating support for agroecology and recognising its merit.

Another possible explanation is more political. This would be that *The Plan* team realised the current UK Government would not be receptive to recommendations that were too radical – particularly if they challenged core ideas around competitive markets and freedom of choice. Indeed, the Government precluded the possibility of too disruptive a report by appointing one of Defra's non-executive directors, Henry Dimbleby, a successful businessman (albeit with a demonstrated ambition to improve the sustainability of the food system) to lead the review. His report may have disconcerted some in the Government with its thorough research and consultations and wide-ranging criticisms of the status quo, but it stops well short of suggesting that a reform might be needed that would challenge prevailing orthodoxy on, say, land rights. The terms of reference for the team explicitly ruled out consideration of social welfare.

These arguments have led some campaigners to support the view that it might be more politically palatable to focus on sub-elements within agroecology (such as fair pay, anti-slavery measures and improved working conditions), couched in the language of 'fairness' while still delivering against the ultimate social justice objective.

'The application of principles from ecology (i.e., the study of relationships between living organisms) in farming, with the goal of achieving balanced growth and sustainable development'

What does this mean for emerging food policy?

Ultimately, this might all seem academic, but it has real impacts. As the Government refines the subsidy schemes of the 2020 Agriculture Act and looks to produce a White Paper that could set the outlines (and limits) of food policy for years to come, it matters how agroecology is perceived and defined within Whitehall.

For those NGOs pushing for a switch to agroecology that incorporates elements of justice and fairness that stretch beyond the farm gate to workers, eaters, citizens and voters, there needs to be increased willingness to speak out about the importance of building a food system that is just from end to end. They need to work together, across sectors and interests, to convince policy-makers that systemic approaches are more likely to achieve food system sustainability than fragmented ones.

But perhaps it is also important to avoid letting the perfect be the enemy of the good. Taking a more pragmatic approach – as *The Plan* does – may help achieve some positive outcomes in the short and medium term, and those changes will help build evidence and momentum for a more holistic approach. More importantly, it moves the conversation forward by encouraging a wider range of stakeholders to consider agroecology, and what implementing it within a UK context would mean for the future of our farming sector. That, in itself, must surely be a positive step, regardless of which definition you subscribe to.

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The Food Research Collaboration is an initiative of the Centre for Food Policy. It facilitates joint working between academics, civil society organisations and others to improve the sustainability of the UK food system, and to make academic knowledge available wherever it may be useful.

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