



Nature, Farming & Food: How we value our land

19–20 June 2025, University of Oxford

BES 2025 symposium summary

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1. Introduction

The BES’s 2025 symposium explored the prospects for sustainable transitions across the food supply chain. The event, entitled *Nature, Farming and Food: How we value our land*, was co-organised by TABLE, the Agile Initiative and the Leverhulme Centre for Nature Recovery, each based at the University of Oxford. The symposium brought together academics, campaigners, and policymakers for two days of lively discussion around a series of interrelated questions related to the future of food and farming.

The programme was organised across four interdisciplinary thematic sessions: Valuing Farming, Valuing Biodiversity, Valuing Food and Valuing Knowledge. Each theme included an invited keynote, paper presentations and posters. Submissions ranged from ecological evidence regarding agroforestry’s impact on pollinators in England to ethnographic reflections on potato production in the Himalayas. Despite the breadth of the subjects and perspectives, key themes emerged throughout the symposium which are brought together in this summary document.

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2. Ecology and Evidence

a. The evidence: what do we know we know?

The symposium offered a range of evidence-led assessments about how we can reduce the ecological and broader environmental impacts of agriculture. This included results from on-farm trials produced by **Ben Woodcock** from UKCEH. Ben's research showed how in-field buffer strips in arable systems can enhance ecosystems services whilst improving yield. Although profitability is affected, Ben argued that this could and should be offset via agri-environment schemes. This need for ambitious agri-environment schemes was also demonstrated by **Andy Gill** from the Office for Environmental Protection. Andy summarised work produced in conjunction with the RSPB that modelled the likelihood of different configurations of environmental farm payments achieving the government's statutory targets around nature recovery. The research shows that 'broader' and 'shallower' agri-environment schemes aiming at high-uptake and low commitment are less likely to create a pathway to meeting biodiversity targets than 'higher-tier' approaches.

Agroforestry may be one such way of altering land use patterns within farms to enhance biodiversity whilst potentially creating alternative income streams for farmers. **Ellen Knight** from the University of Reading set out evidence which shows that the taxonomic & functional diversity of bee species within agroforestry sites increases as trees mature.

The symposium program also recognized the need for interdisciplinary research. Land manager decision-making about what to grow, where and how was a recurrent topic. The fact that such decisions are highly mediated by both public policy and the market was also repeatedly acknowledged. **Tatiana Chapman** of the RSPB explored this key social scientific moment in depth. Tatiana's research examined how the 'biospheric' and 'altruistic' values of farmers compete with egotistical goals, prospective material gains and social forms to affect agricultural practices. The research concludes the need to improve the economics of nature-friendly farming whilst simultaneously enhancing the biospheric values of the farming community via, for example, resourcing and supporting farmer networks.

Alison Smith from the University of Oxford, acknowledged that in some circumstances a move to more nature-friendly or agroecological farming will affect yields. Alison's work modelled the land use and biodiversity impacts of different agricultural scenarios. Changing farming methods alone will not be sufficient to address the issues facing the food system, reductions in food waste and dietary shifts will also need to occur to meet all our societal objectives. This connection between farming, ecology and diet was an intended focus of the symposium and the evidence in this space was set out further by **Juan David Sáenz Henao** from the OECD.

KEY POLICY RECOMMENDATION

Maintain and enhance agri-environment schemes, particularly those offering 'higher-tier' or landscape-level options. This should include funding and research to enhance uptake of agroforestry systems, including both silvopasture and silvoarable options.

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b. And what does nature know?

Many of the presenters at the symposium advocated for a shift towards ‘agroecology’. Interpretations of agroecology vary, however many advocates emphasis it as an approach which farms *with* nature or harnesses natural processes to farm efficiently, effectively and ecologically. In this direction, **Gareth Morgan** of the Soil Association set out modelling for a ‘nature-friendly diet’ farmed according to organic principles and therefore not relying on external inputs like fertilisers or herbicides. Instead nitrogen-fixing legumes like beans or the manure of herbivores are harnessed to facilitate productive farming systems. Agroecology emphasises the need to change both production and supply chains within the food system. Accordingly, Gareth’s modelling demonstrated the need for a diet richer in pulses, nuts, seeds and fruit and vegetables.

The importance of aligning farming systems with broader environmental processes was also reinforced by **Vincent Walsh’s** talk of RegenFarmCo. In his talk describing his work in collaboration with an upland farmer in Yorkshire and Yorkshire Water he emphasised the centrality of recognising and adapting to existing hydrological realities when designing agricultural systems. Hydrological features also reoccurred in research presented by **Nick Prince** from the National Trust. Using archival research about field names, Nick argued that in many cases the land ‘wants to become wetlands’ and that we should move away from resisting such processes in the interest of nature recovery. This is particularly the case, Nick argued, when local conditions and habitats may not align neatly with national targets around the creation, for example, of wood pasture.

However, such reduced intervention approaches were questioned in comments made by **Ken Giller** of Wageningen University and Research following a screening of the Dutch documentary *Hooiland*. Ken observed that the community-led restoration of wetland on former pasture demonstrates the need for human intervention in landscapes to ensure they create a diverse ecological niche. In the case of the film this meant ensuring that the land does not revert to alder or willow but rather retains a mosaic of pools and grasses suitable for birds like curlew and plover.

Each of these perspectives involved different understandings of what constitutes ‘nature’ and ‘the natural’ within food systems and ecological research. This philosophical question has practical real-world implications, if few agreed and definitive answers.

KEY POLICY RECOMMENDATION

Diversity is key within farms and across the agricultural landscape. Design policies and knowledge exchange infrastructure to promote farmers’ ability to grow a greater variety of produce – particularly nuts, fruits, pulses and legumes.

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c. Less and better meat?

The extent to which future food systems, including those looking to emulate natural processes, should include livestock was a consistent talking point throughout the symposium. In her opening keynote, **Kath Dalmeny** of the food and farming charity Sustain introduced arguments around the need for less and better meat. This was echoed by **Anna Taylor**, CEO of the Food Foundation who echoed the sentiment when opening proceedings for the following day. Anna argued that reducing the amount of meat, especially processed meat, would not only aid emissions reductions targets but also contribute significant to efforts to improve public health.

Yet **Lisa Norton** of UKCEH set out how, if managed correctly, large herbivores can provide ecosystems services, emphasising that the most important thing groups such as the BES should be advocating for is *diversity* within farming systems. This may not be diversity in the typical sense ecologists are used to but also necessitates the production of a wide array of foods in a mixed agricultural landscape worked by a diverse and increased agricultural workforce, drawing on a plurality of knowledge and expertise.

Although there is widespread agreement regarding the externalities associated with livestock production this differs across production systems, types of animals and geography. The complexity of evaluating these realities was set out by **Alena Goebel** from the University of Oxford, whose work explored variations in Life Cycle Assessments regarding shrimp aquaculture. Future work and research are required in this space to establish priorities for agricultural change, clarity on the ecosystems services which livestock can and should provide and pathways to an equitable and just transition towards a more plant-based food system.

KEY POLICY RECOMMENDATION

Fund further ecological research and agricultural experimentation into the relationships between mixed farming systems which include livestock and nature recovery.

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3. People and Place

a. Global problems

Changing how we use land and produce food poses difficult questions about scale. Multiple presenters focussed on the global nature of the challenges present by agriculture and the food system. **Sarah Jones** summarised research conducted by CGIAR regarding global trends in agricultural land use. The model demonstrates how continuation of current trends would mean only goals for food security are met, with objectives related to biodiversity improvements and emissions reductions falling short. However, a global approach which includes diversified farming practices, dietary shifts, productivity increases and reductions in food waste will help achieve multiple targets. This reinforces two key messages echoed throughout the symposium. Firstly, there will be trade-offs in terms of the outcomes of different approaches. Secondly, we cannot rely on half measures for the level of change needed if we are to change global food production for people and nature. Solutions will be multi-faceted, interrelated and global.

Seb Dunnett's presentation of IPBES's work on the nexus between biodiversity, food, health and climate reinforced this need for interlinked global solutions. IPBES's report in this area foregrounds the multiple benefits which adopting agroecology can have in this regard. Yet global advocacy for approaches like agroecology require a recognition of how application of agroecological principles will look different in different contexts and articulate with local economic and cultural conditions. This was emphasised by **Anna Elise Stratton's** work on 'revalorizing rurality' in Mexico and India. Anna's work asserted that, through engagement and research, 'common ground' solutions can be found. However, **Csilla Hudék** of Lancaster University set out an analysis of global research in food systems which served as a reminder of the need to translate and communicate findings and action plans in ways beneficial to local communities and diverse audiences, rather than exclusively through English language academic publications.

Finally, **Anant Jani**, of the FEAST Consortium, contextualised the need for dietary transitions which also benefit the ecosystems to acknowledge the global nature of the food system and the corporations which play a significant role in determine what we eat and where it is grown. The way these systems are shaped also contributes to dietary and nutritional health issues across the world which can be best adopted through changes in diet which will require change to the food system in the United Kingdom and beyond.

KEY POLICY RECOMMENDATION

Fast track implementation of existing policies intended to limit the import of foodstuffs associated with illegal deforestation made possible in England through the Environment Act 2021.

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b. Local solutions?

In tackling these environmental and nutritional issues produced by a global food system, locally developed and led solutions have emerged in diverse geographical contexts. These approaches look to harness situated knowledge and community action to bring power back to food producers and consumers in ways that will be both ecologically and socially positive.

Janie Bickersteth offered insights from an organisation local to where the conference was taking place: Good Food Oxfordshire. Good Food Oxfordshire champion short supply chains which bring people closer to the farmers who produce their food and the ecosystems that are created as a result of this food production. Janie argued that local procurement will be vital to ensuring that agroecologically produced food has a route into local markets.

Yet adopting context-specific and locally backed sustainable farming practices is not always straightforward. **Lucy Jenner** of the University Edinburgh demonstrated results from research in Scotland around farmer-decision making, showing that the adoption of tools designed to offer bespoke approaches for sustainable farming using data-led tools is limited by farmers' preference for on-the-ground knowledge and peer to peer learning.

Trinity Ndlovu of the James Hutton Institute and **Kathrin Meinhold** of Weihenstephan-Triesdorf University of Applied Science both discussed similar issues in very different national settings. Trinity spoke to a project oriented towards fostering agroecological farming in the Philippines. She argued that in valuing food as more than a commodity, agroecology can help foster local food systems which produce diverse and culturally appropriate foodstuffs. Diversity was also an emphasis of Kathrin's talk, which reviewed the potential of fruit production in the Cerrado to create livelihoods in ways which do not cause deforestation, but rather agroecological approaches to forestry management rooted in local knowledge.

Returning to the UK context, however, **Roz Savage MP** spoke to the audience about local political solutions that could be sought, particularly championing citizen's assemblies via the Climate and Nature Bill she has been attempting to take through parliament, a bill which the BES supports.

KEY POLICY RECOMMENDATION

Bring together nationally-held environmental data with local knowledge via local Land Use Frameworks to ensure land use change is both community backed and evidence-led.

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c. Old and new knowledge

The tensions between global analyses and local solutions highlight the importance of different types of knowledge that shape different approaches to agriculture and land use. These conversations were often influenced by understandings of ‘old’ knowledge, associated with, for example, longstanding farming practices and ‘new’ knowledge as typified by novel land management techniques or data led approaches. The legitimacy of different forms of knowledge was recognised, however what were also key were outcomes. Further exploration of how different types of knowledge, for example ecological science and farmer-led change, can work together to deliver on the ground.

The ethnographic research presented by **Shradha Lama** of the University of Cambridge typified the tensions different knowledges create. Shradha emphasised how even putatively sustainable discourses about farming, such as those associated with organic production, can be seen as an imposition on traditional forms of knowledge.

This is because farmer’s themselves are always producing new knowledge to adapt to changing environmental conditions and market circumstances. **Tom McVeigh** spoke about his experience as a young farmer and highlighted the ways which on-farm experimentation help drive farmer decision making. Tom is looking to diversify production on-farm, including integrating hazelnut and walnut production. Yet these diversified farming practices require the development and sharing of both new agronomic knowledge and supply chain infrastructure.

Yet changes in agricultural approaches that require new knowledge and experimentation can be slow. **Zoe Lipkens** from the University of Leicester discussed her efforts to convince farmers to adopt paludiculture methods and rewet fields to grow berries, lettuce, or other produce. The environmental impacts of paludiculture can be highly positive in terms of emissions reduction and habitat creation but many farmers were reluctant to engage. Zoe highlighted the importance of collaborative approaches that build trust over time.

Paludiculture, as with all farming, is context specific and about what is right where. Such decisions are often informed by local and embedded ecological knowledge. However, they connect with broader systems of agricultural policy and international markets. Enhancing local knowledge and decision making with tools at scale must be explored, particularly where these tools might connect positively with wider policy frameworks to drive change. **Enya O’Reilly** presented JNCC’s work on spatial prioritisation which harnesses existing ecological knowledge in the form of spatial data to assist local decision-making on land across the country.

These discussions around knowledge come together distinctly in ongoing conversations about regenerative agriculture. **Mei Casal** from the WWF presented their work on regenerative dairying, which draws together economic and ethnographic research to make a clear case that integrating regenerative practices into English dairying can improve both ecological and economic outcomes.

KEY POLICY RECOMMENDATION

Invest in infrastructure for knowledge exchange networks which bring together farmers and ecologists at the local level.

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4. Conclusions: Systemic Problems, Contested Solutions

Tony Juniper, environmentalist, writer and chair of Natural England, closed the conference with an invited keynote address. Echoing previous speakers, Tony highlighted the structural nature of the connected issues within the food system that create negative outcomes for the health of people and nature. Tony offered a call for cultural change associated with food, land and conservation, and suggested some ways that the environmental sector could go about delivering on that objective. Firstly, he called for investment in genuinely interdisciplinary research agendas. This should include socially oriented work such as through behavioural economics, arguing that such using approaches are being used to sell more junk food and should therefore be turned back on themselves. This connected to Tony's next suggestion about the need for consistent and clear communication of science, via diverse channels ranging from peer-reviewed journals to tabloid newspapers. Finally, Tony argued for the need to build on these pathways for research and communication by building strategic coalitions using evidence and data, particularly between the scientific community and the world of advocacy and campaigning.

Yet the difficulties in communicating evidence-led visions of food systems change were highlighted in our panel discussion session during the Valuing Knowledge Theme. **Nusa Urbancic** of the Changing Markets Foundation, **Emily Lewis-Brown** of HESTIA (University of Oxford) and **Jen Dodsworth** of the Agile Initiative (University of Oxford) discussed the challenges associated with building the kind of coalitions Tony went on to promote. Firstly, the amount of disinformation and competing interests in food systems discourse means that getting evidence-based science heard can be a challenge, particularly given how many people engage with information about food via social media. The difficulties of building trust between scientists, policymakers and land managers were also highlighted, given how societal priorities around what constitutes food security and environmental resilience are changing in the 21st century. Nevertheless, there was optimism on the panel, however, this was also connected to a belief that only through developing collaborative and cross-sectoral approaches could 'win-wins' be found.

The symposium gave a platform to a range of voices from different sectors and disciplines related to the food system. Despite the optimism created by sharing ideas and global insights from across the food chain, the prospects for the sorts of changes that are seemingly required can seem distant. In addition, the possibility of win-wins can seem remote given the conflicting interests of actors involved in the food chain and the reality that, despite ecological loss and public health impacts, the food system is working as intended for key actors within it. Convening and enabling different groups will, however, be vital to developing and championing the type of solutions envisioned by researchers, advocates and land managers. Fortunately, this symposium showed there is an ambitious interdisciplinary community committed to making that happen.

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