

## **Professor Michael Winter – Written Evidence (LUE0038)**

### **1. Introduction**

1.1 The Committee's questions posed in its call for evidence are wide ranging. Rather than address every question, I have selected some specific issues that are rather more detailed than some of the big ticket issues such as competing land use priorities and drivers of change on which the Committee will undoubtedly receive much evidence. The context in which land use has risen so sharply up the public agenda is important. In 2009 Sir John Beddington, then the UK's Chief Scientific Adviser coined the term 'The Perfect Storm', envisaging a global crisis emerging by 2030, arising from population growth increasing demand for food, water and energy; and all this happening in the context of climate change. Some progress towards tackling these issues has been made by the investment in science and technology that Sir John called for, though perhaps more so in some other countries than in the UK. But the perfect storm has become much more complex as a result of Brexit, COVID and the war in Ukraine. Brexit, in particular, unleashed a lively debate on future land use in England. Following decades of incremental change under the EU's Common Agricultural Policy, Brexit opened up the opportunity for far-reaching and radical change. Alongside the work undertaken in Defra and its ALBs and elsewhere in Government, considerable energy has been expended by industry bodies and a wide range of pressure groups calling for particular changes. In a career of over 40 years, I have found the last five years to be unprecedented in terms of the volume of material and the range of voices on land use issues. And yet, without wishing to disparage the commitment and hard work of so many people, the level of debate has not always been as evidence-led or detailed as it might have been. In my view some important issues and areas of research have been neglected and/or sidelined. I wish to highlight just two in this submission: *scale* and *land occupancy*. There are of course other issues that I could have referred to, and more detail is available on the issues that I have chosen to highlight. My focus is primarily on rural/agricultural land.

### **2. Scale**

2.1 In the various calls, either for a land use strategy/framework or for particular land use changes, the question of scale needs addressing more centrally. The term 'multifunctional', for instance, may be applied at different scales: field, farm, local, regional, national, perhaps even global. And the scale that is assumed by different advocates of multifunctionality will have profound implications on which policy, market or management

changes they advocate. The point is best made by exaggeration. If we take, say, five different key requirements from rural land – biodiversity, carbon storage, energy production, food production and recreation – and we seek to apply the objective of multifunctionality to a single field of 50 acres of Grade 1 land we rapidly run into problems. We might seek to sub-divide the field but that will produce areas that are sub-optimal in size and lacking in economies of scale. There are some possible synergies of course, but only with significant costs to one or more of our objectives. We might combine biodiversity, carbon storage and recreation through the re-creation of flower rich grassland and some tree planting but at the cost of a massive reduction in food production potential – a few beef or sheep instead of arable crops. The area for biodiverse grassland might be halved to allow for solar panels but that will reduce the recreational potential over the whole area. Seeking multifunctionality at this scale is self-evidently wrong but what the correct scale might be is not at all self-evident. There are some farms that can have multiple functions and land use outcomes as a result of their size, varying land types and, indeed, business aspirations and strategic objectives. There are many more where that will not be the case.

2.2 The question of scale has led to serious debate about what farming systems are most appropriate in the context of land use pressure and the urgent need for nature recovery, often summed up as land sharing versus land sparing. In land sharing, farmland is expected to deliver for both nature and food production typically through what is now often termed agroecology<sup>1</sup>, seen by some as the quintessential multifunctional farming system. However, there is compelling scientific and modelling evidence that land sparing, whereby some land is intensively (but sustainably) farmed thereby potentially releasing land for nature, can have better overall results for both nature and food production than the alternative land sharing approach. Although, as Finch et al observe “to deliver conservation outcomes, any shift toward land sparing must, however, ensure yield increases are sustainable in the long term, do not entail increased negative effects on surrounding areas, and are linked to allocation of land for nature”<sup>2</sup>. This approach broadly has been adopted by Henry Dimbleby in the National Food Strategy with its three-tiered model for rural land use. But the question of scale is not entirely resolved by proponents of land sparing or the three-tiered approach. In particular, by focussing on food versus biodiversity, other demands on land with very different scalar implications can be neglected. Notable among these is

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<sup>1</sup> See: Finch, T. Gillings, S. Green, R. Massimino, D. Peach, W. and Balmford, A. (2019) Bird conservation and the land sharing-sparing continuum in farmland-dominated landscapes of lowland England, *Conservation Biology*, 33(5), 1045-1055.

<sup>2</sup> Ibid. p1045

recreational access, where provision close to where people actually live is important. This should certainly modify any type of land sparing approach. But how, at what scale and who decides?

2.3 The Food Farming and Countryside Commission (FFCC) in their oral evidence to the Committee appear to favour a county approach to their suggested land use framework (LUF). The FFCC is trialling the approach in Devon and Cambridgeshire. There are three reasons why this might appear a sensible scale of operation. First, a county is likely to offer a range of land types and capabilities so that it is possible to envisage at that scale a complex of land uses that provide for biodiversity, carbon storage, energy production, food production and recreation. Secondly, a county will have a combination of urban and rural population and it seems reasonable to cater for their recreational/access needs at this local level. Thirdly, the FFCC emphasise the importance of participation by local populations and stakeholders and this is clearly a more realistic aspiration at a sub-national level. However, it is hard to see how optimum land use can be determined at a county scale when the demands on the land operate at national and global levels. How are the stakeholders of Devon and Cambridgeshire to know what contribution to food or energy needs their county should be making? There is a real danger that locally determined land priorities, whilst they might meet local people's aspirations, will not fully cater for what is needed nationally.

2.4 Of course, the same scale problem potentially applies to national level deliberations too. If a national land use strategy were to be produced it would have to confront the potential impact of choices we make about our land use to the trade we conduct with the rest of the world. The dangers are clear. If we reduce our food and /or energy production to encourage nature recovery and recreation, potentially we will import more food and energy and relocate some of the negative environmental costs (externalities) to third countries. The Government's 25 Year Environment Plan is explicit on this matter. It aims to "*avoid improving* our domestic environment at the expense of the environment globally." Excellent work is taking place on this topic by JNCC in developing an indicator of the global environmental impacts of a country's consumption<sup>3</sup>.

2.6 Some argue that we can avoid exporting externalities through a combination of the reduction of food waste and changes in diet, in particular a reduction in the consumption of dairy and meat products. In other words, we could reduce food production in order to divert land to nature recovery or nature friendly farming systems and, through behavioural change in the food chain and by consumers, avoid increasing our dependence on food imports. Of course, this is logical but

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<sup>3</sup> [Environmental impact of UK supply chains \(jncc.gov.uk\)](https://jncc.gov.uk)

behavioural change of this magnitude could not be accomplished easily or quickly. It is salutary to note that it took forty years for the proportion of the population who smoke to decline from 50% to 20% (in 2013). Behaviours around diet and food waste are much more complex than smoking. Neither a land use framework/strategy nor incentives to encourage agroecological farming systems should be developed ahead of resolving food chain and consumption issues.

### **3. Land Occupancy**

3.1 Nearly all desirable land management practices require medium to long term planning and investment scenarios. Woodlands and nature recovery take time, as does building up carbon in the soil. Rotational farming practices run in cycles of 3-4 years or longer, investments in buildings and fences and the like will be assessed on a return on investment over 10 or 20 years. In short, rural land management is a long-term business and in the case of well-established rural estates, planning scenarios of decades are used. However, within the farming industry there has been a trend over the past two decades towards short-term land occupancy arrangements either through Farm Business Tenancies (FBTs) or through less formal arrangements such as seasonal sales of grass keep or letting a contract for a single specialist crop. This is not inherently a bad thing. It can play to the strengths of specialist producers, with the machinery or livestock necessary for particular systems. Nor do short term arrangements necessarily preclude long term investments by responsible land owners. However, in many cases short-term occupancy arrangements are not conducive to long term, sustainable management. Often the short-term occupier has little incentive to think beyond the returns available from maximising production for one or two seasons.

3.2 There are three strong drivers of this practice. First, the Basic Payment Scheme under the CAP has helped facilitate often older farmers to hold on to their land when others are effectively farming the land. Secondly, there are Income Tax advantages to land owners who no longer wish to actively farm, to use share farming, contract farming, partnerships, seasonal leases, and licenses to demonstrate continuing trading activity when in practice they may take no risk and lack significant management control. Thirdly, there are potential Inheritance and Capital Gains tax advantages to consider. For those who decide to let out their land, often larger landowners, 100% Agricultural Property Relief (APR) from Inheritance Tax is available even on short-term lets. There may even be an incentive to buy more land for short term letting as Capital Gains Tax due on the proceeds of sale of non-farming assets may be used

to purchase land to be rolled forward, thus deferring the payment of the tax.

3.3 Alongside, the difficulty of securing long term land use change these arrangements reduce the amount of land coming to market thereby adversely affecting prospective new entrants. It remains to be seen whether the phasing out of BPS by 2027 will have an impact that outweighs the taxation advantages of holding on to land. Another uncertainty is whether the recently reported high demand for land from corporate buyers for planting trees for carbon credits might provide an incentive for more land sales. An important recent twist in the long running debate on taxation and land is work by Jeremy Moody showing how the higher levels of ELM (nature recovery and landscape recovery) may take land outside of agriculture thereby removing important tax relief, potentially a major disincentive to farmers contemplating ELM other than the Sustainable Farming Incentive (SFI).

3.4 Estimating the extent of short-term land occupancy arrangements is notoriously difficult, as they are not fully captured by the Defra June survey. In a survey I undertook 15 years ago I estimated nearly 25% of the agricultural area of England and Wales to be covered by FBTs (10%), contract and share farming (6%), and other short term arrangements (7%) such as grass keep sales<sup>4</sup>. Without doubt, the figure has increased very significantly since then as more farmers have sought to expand to spread their fixed costs and others to retain their land but reduce their own farming operations. The CAAV provides a valuable annual survey of land occupation though it is partial as it based on transactions handled by CAAV members and therefore excludes informal arrangements<sup>5</sup>. Average lengths in their 2020 survey were 3.4 years for new FBTs and less than 2 years for contract farming arrangements with 98% of grazing arrangements being for less than 1 year.

### **3. Conclusions**

3.1 Although very different, these two topics encapsulate some of the difficulties we face in addressing land use challenges. The question of scale helps to shine a light on some of the assumptions and potential trade-offs that underlie differing positions on what kind of land use change is required. We need to decide what scale is the most appropriate for considering land use futures and what trade-offs we are content to

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<sup>4</sup>Winter, M. and Butler, A. (2008) *Agricultural Land Tenure in England and Wales, 2007*, University of Exeter CRPR Research Report No 24.

<sup>5</sup> CAAV (2021) *The Annual Agricultural Land Occupation Surveys for Great Britain 2020*, Gloucestershire.

make, particularly in the global context, before any land use framework is formulated.

3.2 The land occupancy question needs addressing because how our land is occupied has a great influence on how it is used. Current arrangements give rise to some perverse incentives, especially with regard to the need to foster long-term management, and might potentially reduce incentives to adopt nature recovery schemes. However, any changes to either taxation or land tenure regulations would need to be scrutinised carefully to understand any other perverse outcomes, particularly anything that might undermine the ability of family farmers to pass on their farms to successors<sup>6</sup>.

3.3 I wish briefly to highlight two 'unknowns' that could be potential game changers with regard to some of the issues I have highlighted in this submission. The first is the unknown long-term implications of the war in Ukraine for patterns of trade and economic activity. Already the war has increased the importance of food security in our thinking about land use and this could become much more marked in the months ahead. It is a stark reminder of how geopolitics and global trade intersect and how we cannot view our land purely in terms of internal domestic concerns.

3.4 Secondly, there are many potential technological changes that could alter our current perception of high and competing demands on our land resource. As recently as the 1980s, there was much talk of land surplus and the need to find alternative uses for land in the UK. Why? Because our use at that time of fossil fuels directly and indirectly in agricultural production (and other sectors of the economy), coupled with a set of CAP incentives, had encouraged historically unprecedented levels of production. Much of the pressure we face today is because of the correct ambition since then to move away from that model, whether that be growing biofuels or recovering nature. New technologies that might alleviate some of these land pressures include new sources of energy such as hydrogen and new ways of producing food (such as vertical farming and algaculture) or radically increasing output in existing systems (for example through gene editing).

3.5 It follows from highlighting these unknowns that any land use framework or strategy needs to have flexibility at its heart and not be too prescriptive.

**Professor Michael Winter**  
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<sup>6</sup> See Winter, M. and Lobley, M. (2016) *Is there a future for the small family farm in the UK?* Report to The Prince's Countryside Fund, London: Prince's Countryside Fund. ISBN 978-902746-36-7