

Dr Keith Kirby – Written Evidence (LUE0013)

For 33 years, until 2012, I worked as Forestry and Woodland Officer with Natural England and its predecessors (English Nature, Nature Conservancy Council), dealing with policy and implementation issues arising from forestry and conservation practices across GB, but with a primary focus on England. I was also involved in bringing ideas around rewilding into the work of English Nature and Natural England from 2000 onward. Since 2012 I have been a visiting researcher in the Department of Plant Sciences, University of Oxford (although this submission is written in a strictly personal capacity) looking at long-term vegetation change and continuing my interest in the development of rewilding. My previous career frequently involved dealing with the impacts of land-use change on biodiversity and hence my interest in responding to this call for evidence.

Pressures and Challenges

1. There are a wide variety of competing claims on the use of land, all of which are legitimate in principle but there is no overarching framework/strategy to indicate what should determine the balance at anyone point. For example:

- There are strong Government commitments to increase the levels of tree cover in England, but should this be mainly for production forests, conservation woodland, or carbon sequestration etc; different priorities would dictate somewhat different distributions and make up of the new woodland created.
- There is a lot of interest in 'rewilding' and 'nature recovery networks' but these will almost certainly mean reduced quantity of food production from areas that go into such regimes; yet at the same time, the war in Ukraine will probably lead to increased food prices (if not shortages of some products) so should we in Britain be taking land out of high production?

2. The above also applied in the past – and hence conservation of habitats and species lost out to intensification of farming; timber production was favoured over conservation in the state forests created in the 1960s and 70s. However climate change adds another dimension in that we are very likely to have to change the type of farming, the type of forestry, our conservation priorities over the next 50 years; major life-style changes may also be required, such shifts in diet, that will in turn impact on what we need to produce from our land.

3. These may mean that much more radical and rapid changes in our landscapes are likely to happen than most people are used to. The changes may need to be of the scale that happened between c.1950 and 1980 with farming and forestry intensification, but of a different sort; and done in a way that does not lead to the unintended negative consequences of that period of change, that we are still living with today.

Managing change

4. Market mechanisms cannot be relied on to solve these questions because there are not free markets for some of the goods and services that, as a nation, we want/expect the land to provide (which also include other things not mentioned above such as adequate supplies of clear water, areas for recreation, areas for energy production etc).

5. One approach has therefore been to produce land suitability maps, for example agricultural land classification maps, maps showing high conservation areas, maps showing soils with peat or other forms of high soil carbon that should not be planted. The assumption is that if these are overlain the best options for any parcel of land will fall out. However these tend to be useful only at a fairly broad scale.

6. At the detailed land-holding scale there are often local factors (whether there is an access road; what the land-owner is interested in; whether the managers have the skills to take on the 'best' land use) that become the deciding factors in land-use change: so one farmer plants a new wood, but their neighbour under apparently identical conditions, continues with intensive arable. In addition there is no guarantee that even if you could allocate each piece of land to its ideal use the aggregate outcomes for farming, forestry and nature conservation etc would be what the nation needs. There will be places where it might be better, from a national perspective, for second or third best choices to be used. Maps cannot by themselves solve that question.

7. Parallel to analyses of what might be potentially useful/desirable land use change, there could therefore be some sort of regional/local discussions about what sort of landscapes people want, guided by some national indications of what levels of change might be needed. An analogy (albeit it has not perhaps got as much acceptance as hoped) is with government-targets for house-building in different counties. A national programme of discussions on '*The countryside in 2050*' could perhaps provide the focus and support for land-use change in general in (say) a county, within which individual landowners would make their decisions.

8. Some level of top-down steer is needed to inform these discussions, to try to reduce the levels of Nimbyism: at present it is too easy for (say)

conservation groups to pay lip-service to the need for more production forestry, but then only contribute ideas on where native woodland of little commercial value should be planted; for farmers (say) to accept that some areas might be rewilded, but then argue against it happening in their particular county. This is where a combination of land suitability maps and overall national targets for different land uses would be useful. All groups need to be trying to produce an acceptable overall solution at the county/regional level, which is inevitably not going to be ideal for every particular interest, but which does overall meet the national need.

Farming and land management

9. There seems likely to be some rolling back of the tendency towards increased specialisation and intensification of farming practices over much of the country. This could mean lower levels of production overall (albeit perhaps higher quality food) and hence higher prices. Land-use change needs therefore to be integrated with social policies to ensure that this does not increase inequality through lower income families having to cut back more in quantity or quality of food.

10. The aim of ELMs should encourage moves to less intensive land-use, depending on levels of uptake. The risk is that schemes become too complicated and prescriptive and this puts land-owners/managers off using them. The result is a much smaller number/extent, albeit of higher quality change. There does become a point where this increase in quality is not enough to offset for the overall loss of quantity. This may be more of an issue in future, because of climate change and potentially unexpected outcomes. For example at the start of the Knepp Rewilding Project there were internal discussions in English Nature (as it was then) as to whether it would be better to put the limited money available that could be used to support it into a smaller area of traditional conservation management.

Nature, landscape and biodiversity

11. Both over- and under- management of land has the potential to threaten the condition and extent of habitats and species populations in the short to medium terms (10-30 years), while in the longer term climate change (30 years +) will be the biggest factor leading to a reshaping of our landscapes. Therefore managing land-use change in the next 30 years towards that which will be able to cope with future climate is critical. Nature-based solutions, nature recovery strategies and biodiversity net gain should all help in the necessary transitions, but only if we are clear where we expect to get to, taking account of our external as well as internal environmental footprint. It would be wrong to develop (say) native-only woodland solutions for carbon sequestration in Britain, if

this results in increased timber imports that have a worse carbon outcome in the exporting country.

12. Ideally we should be moving towards new patterns of land-use which maintain at least as rich a wildlife in terms of habitats and species as we have now (or better as we had a 100 years ago), but these patterns may not be the same composition or extent of habitats as 100 years ago. This requires the conservation sector to become more flexible and innovative in its approach to the whole countryside (including urban areas) not just focussing on habitats and species distributions as we have known them for the last 100 years.

Environment, climate change, energy and infrastructure

13. If the net zero target is to be delivered then more radical changes in the whole of society as well as in land-use will be needed than are currently being prepared for. We might also need to consider short-term crisis changes to buy time for more desirable changes to come in. So, focussing on forestry again, more encouragement for conifer-broadleaved mixtures to increase the immediate carbon uptake and production, with the aim of making the broadleaves the longer term crop with higher biodiversity and landscape value.

Land-use planning

14. See earlier comments in paras 4-8. Top-down guidance on the scale of change needed is desirable, but this must be integrated with more local, bottom-up processes that work out how such change is implemented.

15. It is always tempting for governments to look to institutional change to deliver big ideas, but such re-organisations almost always end up wasting time and staff effort on the change process itself for years, sometimes decades. I suspect the current suite of institutions and organisations (statutory and non-governmental) could find ways of working together to deliver the land-use changes needed if they are given the overall direction and responsibility to do so.

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