

Environment and Sustainability Committee

Inquiry into Sustainable Land Management

Comments by Ray Woods BSc

Summary

The human use of land should provide quality food, enhance and not diminish biodiversity (including the genetic resources) of the planet, create landscapes of quality and character to foster well-being and not be dependent on diminishing, finite resources.

1 The above desired outcomes cannot be delivered by the current agricultural model. It is dependent on significant inputs of phosphate—a rapidly diminishing and finite material that cannot be artificially created and cheap nitrate fertilizers that can only be created using large quantities of energy. Current cropping and growing techniques are inimical to most wildlife. The intensive use of fertilizers and dense concentrations of livestock causes nutrients to leak out into the general landscape, altering and generally diminishing any pockets of wildlife that survive in the farmed landscape.

2 Plant nutrients should be more carefully husbanded. Phosphates are widely wasted by over application. We need to start now to plan for a future agriculture less dependent on artificial fertilizers. Many wild ecosystems remain productive even in areas of low phosphate by the evolution of plant/fungus and bacteria relationships that ensure the efficient recycling of nutrients. These fungi and bacteria live within and between the plant cells and are described as endophytes. Few current crop plants take advantage of this relationship. Research should be stimulated to develop low nutrient input cropping systems using endophytic fungi and bacteria. This work is unlikely to be undertaken by industry since without the ability to patent species it is difficult to see how the cost of research can be recouped.(We have seen a similar failure of a capitalist based economy to develop the use of bacteriophages as an alternative to antibiotics. Only research in China has proceeded). Endophytes also offer considerable potential as an alternative to pesticides, fungicides and some forms of genetic modification.

3 The few remaining areas of land unaffected by artificial fertilizers such as some SSSIs and nature reserves need to be carefully protected to conserve the genetic diversity of these specialised endophyte-based relationships.

4 Whole farm nature reserves such as the Radnorshire Wildlife Trust's Gilfach Reserve will become increasingly important as reservoirs of endophytes.

5 The establishment of a detailed monitoring programme of the biodiversity of these few agriculturally improved sites and their comparison with the results of monitoring more intensively managed farms might alone permit the disentanglement of the impact of a changing climate as opposed to land use on biodiversity and so offer a more certain measure of sustainability.

6 Organic systems of agriculture have been frequently held up as more wildlife friendly than conventional farming. Whilst there is evidence from research on arable farms, no work has been undertaken as far as I can detect on upland stock farms. Weed control by regular topping rather than sporadic spot treatment with herbicides may result in such farms supporting less wildlife. It is therefore not clear why the Welsh Government is financially supporting the conversion of stock farms to organic systems. This should be examined.

7 The Common Agricultural Policy apparently pays on average each farmer in Wales £54,000 per annum. There appears to be no audit of the benefits accruing from such support. Whilst in theory the receipt of this money should ensure there should be little additional environmental damage, in practice to "save" money there is inadequate policing and very few prosecutions occur. I have met a number of people who once reported infringements but so little happened and their relationships with near neighbours became soured to no effect, they no longer report infringements.

In contrast the over-vigorous policing of grazable areas by some Welsh Government offices has done little to encourage landowners to develop or conserve wildlife habitats.

8 The ESA's and Tir Gofal provided a well-targeted mechanism for supporting the rural community whilst also delivering a wide range of environmental benefits. Glastir has yet to prove such benefits and should be urgently reviewed. Money should be transferred from Pillar 1 to Pillar 2 to fund agricultural support

mechanisms that deliver more for the taxpayers of Wales in the way of biodiversity, improved landscapes, better access and soil and water conservation.