

The Times and Climate are a-changing

Given that unpredictable and extreme weather events are now with us for the foreseeable future, if they can teach us anything, it's we need to get "climate smart" and build in a more resilient strategy towards managing the landscape, especially around water catchments. Climate change is the single biggest threat facing the survival of humans in the long-term and flooding is the most immediate serious threat to UK citizens living on flood plains. We may not be able to control the weather but we can take try to mitigate the causes of climate change and the effects of it. You can't really address climate change without looking at farming and forestry systems and the way we have been treating soils in the past.

Firstly, we can take steps to mitigate the amount of carbon, methane and nitrous oxide we emit. A third of CO₂ in the atmosphere today was originally in the soil. We began losing this bank of soil carbon when we began ploughing and deforesting. In addition, over-grazing and the over-use of synthetic nitrogen fertilisers degrade soils and are released into the atmosphere as nitrous oxide (NO₂). Both practices are contributing factors to flooding and climate change. Over-grazing reduces soil infiltration rates and NO₂, like methane, is a much more effective gas at trapping heat than CO₂.

To reverse this process, we need to adopt methods and systems of sequestering carbon and protecting the soil, whilst still producing food and timber. It's not a binary argument. It doesn't have to be either culture or nature and it's not as if we don't have the technical know-how to do this. We know that organic and perennial agriculture sequesters a lot more carbon than conventional farming as does moving animals around to graze rotationally and that tilling itself releases more carbon. The CAP needs to encourage these practices. Farming doesn't have to be less productive as a result either. In Australia they practice pasture cropping where annual crops are seeded into perennial pastures. The Organic Research Centre (ORC) states that farm "productivity can be increased by 30-40% when trees and arable crops are grown in combination" using agroforestry (AF) systems. We also know that trees are the greatest land-based contributor to climate. They provide oxygen, shade, shelter, purification of air and water, production and maintenance of soils, slow run-off and capture water and silt to alleviate flooding, as well as provide wildlife, biodiversity and timber benefits. Most farmers are well aware of this but are constrained from adopting alternative practices under Countryside Stewardship in England. Unlike Wales, Scotland and N. Ireland, the CS scheme is inflexible and doesn't contain any mechanisms to support AF systems. Farmers can apply for the woodland creation grant but the requirement is to plant 400 trees or more per hectare, whereas AF systems require densities of between 70-200 trees per hectare. The ORC is urging the Secretary of State to include AF as an option under CS on a similar basis to hedge-planting or as a stand-alone woodland option. This would definitely be a move in the right direction.

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