

How can forestry and wood processing help deliver a Green Brexit and a more sustainable society in the UK?

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Michael Gove's speech '*The Unfrozen Moment - Delivering a Green Brexit*' makes an interesting read. There are powerful, ambitious, messages about fishing and agriculture, but perhaps most noticeable from a forestry student's perspective, is what is missing. With forest cover in the UK totalling just 3.17 million hectares, 25% less than the EU average, it is perhaps unsurprising that Mr Gove failed to mention sustainable forest management in his speech. However, I believe forestry and wood processing have a vital role to play in delivering a sustainable future for the UK and the world as a whole.

Wood – be it timber, wood fibre, or in other forms, such as those produced in biorefineries – is a renewable resource. Unlike oil, coal, or minerals, trees are replantable and as long as we manage forests and woodlands in a socially and environmentally sensitive manner, and replant harvested areas as appropriate, we will be managing this resource sustainably. While the creation of materials derived from mining and the extraction of oil (such as plastic, steel and concrete) are known to damage the environment, the growth of trees and generation of wood captures and stores CO₂ from the atmosphere. The wood processing industry, including the use of new biorefinery technology, as well as more traditional methods, has the potential to become a key industry in the UK. Wood can be used widely in construction, and products of wood fibre and cellulose could eventually replace fossil-fuel based products such as plastics. Such technologies could significantly help deliver on targets such as climate change and pollution in a post-Brexit Britain.



Timber buildings not only use less fossil fuels in production, compared to buildings constructed using concrete and steel, but also act as carbon sinks for the duration of their life. (Image: Consultancy.uk)

In addition to the well-known effects of trees in the capture and storage of carbon dioxide, the potential for trees and woodlands to be used for local environmental benefits should also be embraced. In towns and cities, the presence of trees and urban forests can help increase property value, regulate temperature and pollution, and enhance people's mental health. In both urban and rural areas, trees can make a significant contribution to flood alleviation and slope stability. A prime example of this is the A82 'Rest and be thankful' in west Scotland which was shut for over a week in October 2018 due to massive landslips following heavy rain. The Forestry Commission have recently released details of a new native woodland scheme which will help stabilise the slope, and schemes such as this should be adopted more widely across the UK to help reduce landslide and flooding risks and to deliver a wide range of other environmental and social benefits.



New woodlands could improve slope stability and reduce run-off, helping to protect people and infrastructure. (Image: BBC News/BEAR)

Measures such as these will require large increases in woodland cover and these increases will mean more land 'converted' by forestry. This is often where the forestry sector comes into conflict with other land uses such as agriculture. But agroforestry and other integrated systems have the potential to deliver multiple benefits for both farmers and the wider environment. The government's pledge of 'public money for public goods' may be welcomed by some, but many farmers will see it only as the death knell for existing subsidies on which they already depend. While diversification into forest management and wood processing may be the furthest thing from farmer's minds, it could provide them with a lifeline in a time of uncertainty, and an excellent opportunity for further integration. Existing studies

show that integrating trees and woodlands with farmland can increase yields and improve stock health, while productive forests and woodlands can be actively managed to provide a much-needed economic supplement in the face of reduced profits and withdrawn subsidies. Furthermore, as we have already discussed, trees and woodlands can produce just the 'public goods' that the government is seeking to subsidise, thus sustainable forest management could deliver a win-win for farmers and the environment.



One example of an integrated agroforestry system practiced in the United States. (Image: USDA)



Integrating forestry and agriculture wouldn't require wholesale uptake of fully-integrated agroforestry systems, but could also include a mixture of 'pure' land uses – such as in the image above. The key in both systems is diversifying land use. (Image: The James Hutton Institute)

Such changes in land management practices could be hugely beneficial but will require improved government policies and incentives to be met by a shift in thinking from land managers. The former could be in part be facilitated by a flexible system of grants and subsidies providing financial support for a diverse range of woodland creation and management options; the latter may prove more challenging. Currently, British society does not connect with forestry in the same way as it does with farming, and for a truly successful uptake of land-use integration, cultural changes will be necessary. In many Nordic countries, farmers have both woodland and farmland, however at a recent meeting of young professionals I put the question of diversifying income to a young farmer who was concerned both by forest expansion and the instability of his livelihood. In response, he matter-of-factly stated: 'I think if we're having to plant trees, we're doing something wrong.'. In order to deliver the multi-purpose benefits that forestry can provide, we firstly need to raise awareness of these benefits, and to start breaking down cultural barriers such as these.

Modern forestry clearly has advantages – for the environment, for rural and urban societies and the for the economy. Some of these benefits are hidden and many need more promotion. There are also many challenges, and Britain's exit from the European Union will undoubtedly be a difficult and uncertain time. However, there is a huge opportunity to be harnessed here – an opportunity to improve the way we spend our taxes, and to get the best from our limited resource of land. If we are going to provide 'public money for public goods', let's give some of that money to something that's truly sustainable – to an industry which delivers social, economic and environmental benefits. I firmly believe that forestry is that industry.

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