

About the Farmers' Union of Wales

1. The Farmers' Union of Wales (FUW) was established in 1955 to exclusively represent the interests of farmers in Wales, and since 1978 has been formally recognised by the UK Government, and subsequently by the Welsh Government, as independently representing those interests.
2. The FUW's Vision is *thriving, sustainable, family farms in Wales*, while the Mission of the Union is *To advance and protect Wales' family farms, both nationally and individually, in order to fulfil the Union's vision.*
3. In addition to its Head Office, which has thirty full-time members of staff, the FUW Group has around 80 members of staff based in twelve regional offices around Wales providing a broad range of services for members.
4. The FUW is a democratic organisation, with policies being formulated following consultation with its twelve County Executive Committees and eleven Standing Committees.

Biodiversity and the green recovery, including current progress against biodiversity targets

5. Whilst the FUW appreciates the scope of this short inquiry, given the remit of the Committee we would emphasise the degree to which the coronavirus pandemic has highlighted the impact of transport in Wales on greenhouse gas (GHG) emissions and local environments, and the degree to which bodies such as the Welsh Government can, when given no alternative, help reduce transport derived emissions by making alternative arrangements for meetings etc. - something which is essential given the nature of Wales' public transport infrastructure.
6. We would also draw to the Committee's attention the positive impact on nature as a result of reductions in visitor numbers to certain areas of Wales, as highlighted in the *Wildlife in Lockdown*¹ report which considered the impact of an absence of visitors

¹ <https://www.benporterwildlife.co.uk/Wildlife-in-lockdown>

(due to the 'lockdown') on wildlife on Snowdon, Cader Idris and the Carneddau, and in Cwm Idwal, Coed y Brenin, Ceunant Llennyrch and Niwbwrch/Llanddwyn.

7. The study found that that wildlife flourished during the lockdown due to fewer disturbances and less litter, with birds such as meadow pipit and wheatear in far greater abundance around paths and common sandpiper and ring ouzel nesting close to what are usually busy areas they choose to avoid.
8. The study also suggests that less litter and picnic leftovers led to fewer predator species such as herring gulls and foxes being attracted to potential nesting areas, giving breeding birds an additional helping hand during their most important time of year.shows.
9. Notwithstanding this, the FUW fully recognises the need to improve biodiversity and to reduce GHG emissions, as do other industries, while ensuring this is done with minimum economic effects and in a way which ensures impacts are not simply 'off-shored'.
10. In terms of the Welsh Government's green recovery, the FUW notes that the Welsh Government has tasked Natural Resources Wales with leading a taskforce set to accelerate a green recovery in Wales.
11. Whilst one member of the taskforce represents the Royal Society for Arts (RSA) Farming & Countryside Commission, the FUW believes it is a major oversight not to have included the representatives of those who farm and manage 90% or more of Wales' land.
12. Given this omission, the FUW is uncertain as to what plans and policies relating to a green recovery are being discussed and developed by the taskforce, and has significant concerns regarding the nature of discussions taking place in the absence of representatives of large numbers who could be affected by future policies.
13. As members of the Welsh Government's Nature Recovery Action Plan Implementation Group, the FUW remains committed to meeting biodiversity targets, and would draw the Committee's attention to the The Nature Recovery Action Plan for Wales 2020 - 21 report.
14. We would also emphasise the degree to which, while trends and indicators suggest improvements in terms of some species, and a deterioration as regards others, an accurate assessment of progress against biodiversity targets can only be undertaken when longer term trends are assessed.

Biodiversity and rewilding in the context of the future of land management policy proposals

15. Whilst the concept of 'rewilding' has been found to have as many as twelve definitions², it can in broad terms be described as the restoration of ecosystems to a point in time where human influence was not present or was negligible. As such, in the longer term rewilded areas would have no human-based ecological management and large 'keystone' species - most notably predators - would be introduced where they no longer exist.
16. The charity Rewilding Europe defines the concept as "...*letting nature take care of itself, enabling natural processes to shape land and sea, repair damaged ecosystems and restore degraded landscapes.*"
17. The concept of restoring environments to the state they were in prior to the arrival of humans raises a number of concerns and questions from an ecological point of view, for example:
 - a. Humans are, by definition, a species of animal which invariably plays the role of a keystone species in ecosystems, in one form or another
 - b. In many, if not most habitats around the globe this role has been played by humans for thousands of years, whether through hunting and gathering, pastoralism or agriculture
 - c. The notion of restoring habitats to their pre-human-arrival states oftentimes no account of changing climate
18. For example, Steven Corry, Director of charity Survival International, which works with tribal and indigenous peoples around the globe to protect them against racism, land theft, forced development and genocidal violence, stated in a recent webinar³ that:

"The concept of wilderness simply doesn't exist. Areas like the Amazon rainforest are managed landscapes [which have] been managed for thousands of years... There is no landscape 'untrammelled by man'⁴ except possibly glacial terrain. The whole idea of wilderness and the way it's taken this great spurt with the idea of rewilding is deeply corrosive to the scientific reality and the real relationship between humans and nature."
19. For example, in the context of Wales, charcoal fragments indicate that woodland clearance through burning was the first human impact on the Cambrian Mountains around 7500 BC⁵ (Wiltshire & Moore, 1983), with a subsequent transition to the more widespread open conditions, typified by grass, heather and sedge, which persist to

² [Reintroducing rewilding to restoration – Rejecting the search for novelty](#), Hayward *et al.* (2019)

³ FUW webinar: Land use, conservation and cultural clearances - lessons for Wales and the UK from around the world (October 2020)

⁴ US Wilderness Act (1964)

⁵ Palaeovegetation and palaeohydrology in Upland Britain, Wiltshire, P., & Moore, P. (1983)

the present day⁶, while agriculture is believed to have arrived in Wales some 3,900BC⁷.

20. As such, by the time the Romans arrived almost two thousand years ago much of Wales would have been similar to what Royal Commission for the Ancient and Historical Monuments of Wales archaeologist Dr Toby Driver describes in his 2016 book *The Hillforts of Cardigan Bay*:

21.21.

“Ceredigion in the Iron Age was not a dark, forested landscape with hillforts rising above a dense blanket of wild woodland. On the contrary, agriculture and widespread clearance had already transformed the landscape during the Bronze Age or even earlier...the prehistoric farming regime along Cardigan Bay is likely to have been mainly pastoral, with sheep and cattle predominating...”

22. So just as the negative and sometimes destructive impacts of changes in agriculture must be acknowledged, the degree to which habitats and species in Wales have come to rely partly or fully on humans and agriculture must also be recognised.

23. Evidence of this reliance, and the degree to which abandoning agricultural activity can and invariably does have negative impacts on species and ecosystems, is common:

- a. A 2014 review by the Stockholm University’s Resilience Centre of 276 studies of the impacts of farmland abandonment found that while some areas saw increases in biodiversity, most did not - especially in Europe, an impact attributed to traditional farming having created a wide range of habitats for species that struggle or disappear when human intervention ceases⁸
- b. Analysis by the charity Plantlife⁹ has shown that *“...more than half of all wild plants need regular management or disturbance to thrive; 611 (39.6%) species will decline within a decade if the land on which they grow is simply abandoned and 127 (16.4%) will decline within 1-3 years. Moreover, of 112 Critically Endangered and Endangered vascular plant species, 84 (75%) will decline or even disappear if land is abandoned. Land abandonment and undermanagement is now identified as one of the major threats to sites where Red Data List plants grow and to open habitats in the UK and Europe.”*
- c. In Portugal’s Coa valley, an area once used for grazing cattle and pigs as well as cork and honey production, activities which supported a mosaic of

⁶ The Role of Grazing animals in the Cambrian Mountains, Joyce, I., (2013)

⁷ The Tale of the Axe: How the Neolithic Revolution Transformed Britain. David Moor (2016).

⁸ Farmland abandonment: threat or opportunity for biodiversity conservation? A global review. Queiroz *et al.* (2014)

⁹ PlantLife Position Statement: Rewilding (July 2019)

habitats, land abandonment has resulted in much of the valley becoming overgrown with scrub and forest¹⁰

- d. A long-term grazing experiment¹¹ on the Glen Finglas estate in the Scottish Highlands, studying the impact of intensification (tripling sheep numbers), abandonment (removal of sheep) and grazer diversification (partial replacement of sheep by cattle) found that increased grazing and, to a lesser extent, the introduction of cattle had a greater positive impact on species diversity compared with the removal of sheep
- e. The RSPB's 2018 *State of Birds in Wales* report acknowledges that *"...curlews show a preference for habitats with lower vegetation densities and only moderate rush cover...livestock densities have also greatly reduced compared to historic levels. Therefore, it is highly likely that habitat conditions will have deteriorated for curlews over recent decades."*
- f. In Japan, where around 2,700 km² of rice paddies have been abandoned, ecologists have associated a steady decline of insects, birds, amphibians and plants with the growth of invasive vines and bamboo¹⁰
- g. In the Moor House Upper-Teesdale National Nature Reserve, scientists have been excluding sheep from areas by fencing them off since 1953, with more than eight areas enclosed and undisturbed for what is now more than 50 years, yet studies of the soil and vegetation in those areas have shown that very little has changed¹⁰
- h. Efforts to conserve the large blue butterfly in Britain by fencing off areas of heathland and preventing the grazing of sheep failed, such that by 1979 they were extinct in the UK. It was later discovered that this action had accelerated their decline, since the caterpillars of the large blue butterfly live as brood-parasites in the nests of a certain species of red ant (*Mermica sabuleti*) which is particularly sensitive to temperature and humidity and can only survive in grazed areas which are exposed to the warmth of the sun

¹⁰ The Call of Rewilding, New Scientist (13th October 2018)

¹¹ Long-term impacts of changed grazing regimes on the vegetation of heterogeneous upland grasslands, Pakeman *et al.* (2019)

24. These constitute just some examples of the observed and measured adverse or negligible impacts of removing human - primarily agricultural - interactions with landscapes where they have long been an intrinsic part of ecosystems, and the experience of many FUW members in terms of falls in species numbers as a result of participation in agri-environment schemes which require reduced management, in particular reduced sheep grazing, very much echoes such scientific observations.
25. A key argument made by many of the proponents of rewilding is that agricultural communities are unviable, and that a rewilded landscape would provide greater economic benefits for indigenous populations through tourism.
26. For example, when Rewilding Britain applied for funding from the Endangered Landscapes Programme in order to establish its “first landscape scale” project, which would have covered some 240 square miles of Mid Wales, the organisation stated that “...*the wider area...also faces economic crisis and uncertainty, post-Brexit. With low incomes, high dependency on subsidies and insufficient employment, local communities struggle to keep young people in the area...Core areas will support well-managed, low-impact tourism and recreation and will be extended over time where possible...Surrounding buffer areas will sustain a range of productive enterprises of high nature value, such as low impact continuous-cover forestry, harvesting of natural products, and value added meat production and fishing.*”
27. The economic sustainability of such rewilded areas, where tourism must effectively replace key traditional incomes, is highly questionable; for example, George Monbiot claimed in his 2013 rewilding book *Feral* that “...*farming in Wales contributes just over £400 million to the economy...‘wildlife based activity’ generates £1,900 million*” while failing to acknowledge that the original source of this figure, ‘*Wildlife Economy Wales’: An Economic Evaluation Scoping Study (2007)*, states that “*Category 3 (and particularly agriculture-related) activities contribute the greatest proportion of wildlife related output, 64.9%*”.
28. Whilst a paucity of economic data for rewilded areas makes direct economic comparisons with agricultural areas difficult, it is perhaps worth noting the employment figures associated with Yellowstone Park - an area dedicated as a “*public park or pleasuring-ground for the benefit and enjoyment of the people*” under the US 1872 Act of Dedication, where traditional Native American interactions with the environment dating back 10,000 years or more were effectively removed by eviction, force and intimidation.

29. A 2018 report on the economic contributions of National Park visitor spending found that visitor spending supported 7,354 jobs around Yellowstone Park in 2017, equating to 0.8 jobs per hectare of national park - a figure which is around a quarter of the number supported by agriculture on Welsh farmland.
30. In a similar context, it is also worth noting the comments of ecologist and author Dr Ogada Mordecai speaking in a recent webinar about the impact of conservation bodies in Kenya¹²:

“When you find people who are specialists in producing livestock at the moment and you remove livestock from the scene, you’ve disempowered them and you’ve created dependency [on tourism], which is the aim of conservation right now.”

“The coronavirus crisis we are currently going through has ruthlessly exposed the myth that tourism is a valid basis for conservation. There are no tourists coming now, and the indigenous communities who retained their livelihoods like pastoralism or agriculture are doing fine, but those who have found themselves in these microcolonies called wildlife conservancies are suddenly relying on relief food handouts.”

31. While the FUW does not undervalue the economic importance of activities on Wales’ wildlife reserves (which are generally very different in nature to the types of reserves and parks established on continents such as Africa), the economic scalability of these or any other enterprises is questionable to say the least, and expansion of such areas above a relatively low threshold would simply serve to dilute existing economic benefits per unit area.
32. Given that rewilding is often associated with increases in tree cover and afforestation - primarily deciduous forests in the context of Wales and the UK - it is worth noting that the GVA of forestry and logging is around £73/hectare for all Welsh woodland and £149/hectare if only coniferous forestry is taken into account. This compares to a GVA for Welsh farmland (excluding farm woodland) of £212/hectare.
33. Similarly, around 0.6 people work in the forestry and logging industry for every km² of Welsh woodland (1.2/km² if only coniferous forestry is taken into account) compared with around 3 people working on farms for every km² of Welsh farmland (excluding farm woodland).

¹² [The Eco-Fascist History of Conservation](#) (June 2020)

34. Given that the overwhelming majority of economic activity relating to forestry and logging in Wales occurs in forestry plantations, and that the value of deciduous timber is generally close to, or below the cost of extraction, it is fair to assume that the GVA per hectare of deciduous woodland is currently around to zero - notwithstanding the brief economic benefits derived from planting and fencing.
35. As such, while the creation of large conifer plantations on what is currently Welsh farmland might on average replace *some* of the economic and employment benefits of agriculture, the natural or artificial creation of deciduous forests on such areas would have a significant negative overall impact in terms of economics and employment.
36. The Welsh Government has highlighted¹³ that 43% of those working in Wales in the ONS 'agriculture, forestry and fishing' category - which is predominated by agriculture - speak Welsh. This is the highest proportion for all work categories, with the second highest being education, at 27%.
37. The Welsh Government has also pointed out that four of the top six counties in terms of the proportion of people speaking Welsh are also four of the top six counties in terms of the proportion of the population employed in agriculture, forestry and fishing¹³.
38. By comparison, the proportion who speak Welsh in the 'accommodation and food' category - which might be equated to the tourism industry - is 16%, compared with an overall Welsh average for all employment categories of 17%.
39. This demonstrates the clear relationship between the use of the Welsh language within Wales' agricultural sector and the degree to which moves such as rewilding that undermine the sector would be extremely damaging to the Welsh language.
40. As such, the evidence shows that future land management policy proposals must recognise the interdependency between agriculture and biodiversity, and that agriculture and family farms must remain economically viable in order to ensure the ecosystems, species, landscapes, economy and culture of Wales survive - principles highlighted by the FUW previously to committee. Moreover, such objectives would be severely compromised by any attempts to rewild areas, while also undermining the ownership and control of Welsh land by Welsh residents in favour of outside influences.

¹³ Agriculture in Wales, Welsh Government (2019)