



# Tir Dyfodol: Imagining a Future-Fit Rural Landscape

Report for: WWF Cymru

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## Contents

|          |  |                  |
|----------|--|------------------|
| <b>1</b> | <b><u>In this Report .....</u></b>                             | <b><u>3</u></b>  |
| 1.1      | Introduction & Background.....                                 | 3                |
| 1.2      | Rural Wales: A brief snapshot.....                             | 4                |
| 1.3      | Imagining the Futures? .....                                   | 6                |
| 1.4      | The Framework: Actionable, Context-aware Principles .....      | 8                |
| 1.5      | This Report.....   | 9                |
| <b>2</b> | <b><u>The Context .....</u></b>                                | <b><u>10</u></b> |
| 2.1      | What Might we expect? .....                                    | 10               |
| 2.2      | Implications .....   | 14               |
| <b>3</b> | <b><u>The Principles .....</u></b>                             | <b><u>16</u></b> |
| 3.1      | Our Approach.....  | 16               |
| 3.2      | Indicative Principles for Managing our Rural Landscape .....   | 16               |
| 3.3      | From Principles to Workability .....                           | 21               |
| <b>4</b> | <b><u>The Implications .....</u></b>                           | <b><u>23</u></b> |
| 4.1      | For Futures Thinking .....                                     | 23               |
| 4.2      | For Spatial Planning.....                                      | 25               |
| 4.3      | For Skills and Capabilities.....                               | 26               |
| 4.4      | For Policy Implementation, Integration & Durability .....      | 28               |
| 4.5      | For Financing .....  | 30               |
| 4.6      | For Civic and Democratic Structures .....                      | 32               |
| 4.7      | For Science and Evidence .....                                 | 33               |
| 4.8      | Conclusions.....   | 33               |
| <b>5</b> | <b><u>The Path to 2030 .....</u></b>                           | <b><u>35</u></b> |
| 5.1      | Framing the debate .....                                       | 35               |
| 5.2      | Agreeing the Principles.....                                   | 36               |
| 5.3      | An Audit of Institutions & Policies .....                      | 37               |
| 5.4      | A Programme for Legislation .....                              | 38               |
| 5.5      | New Toolkits & Analytical Structures .....                     | 39               |
| <b>6</b> | <b><u>The Immediate Next Steps.....</u></b>                    | <b><u>40</u></b> |
| 6.1      | Better Spatial Planning and Land Management .....              | 40               |
| 6.2      | Creating markets .....   | 44               |
| 6.3      | Tir Dyfodol. Towards a Responsible and Resilient Rurality..... | 49               |
| 6.4      | Recommendations.....   | 50               |

# **1 In this Report**

## **1.1 Introduction & Background**

The world, Wales and the communities within have begun a deep transformation towards different ways of living. This transformation is required in response to the multiple ways in which current systems of economic production, intermediation and consumption are driving climate breakdown, ecosystem collapse and species extinction – and indeed deep social division and dysfunction.

Transformations will happen within discrete but inter-related systems – industry, energy production, food, transport and housing to name just a few. In every case, transitions are complex, messy, unpredictable and constrained, with progress dependent on the invention and application of technology, finance and resource, systems-knowledge and prediction, and (critically) social acceptance. This is true of rural activities that are in the forefront of the climate and nature emergencies – both in terms of their importance for the environment and the ways in which the changing environment challenges their own viability.

These challenges are especially stark in Wales, with an overwhelmingly rural landscape that is dominated by the production of a small number of farmed and forestry commodities. This rural production – of red meat, dairy, and softwood for example – is challenged by changes to the climate that bring new diseases, unpredictable and damaging weather, new regulations and market conditions, and the loss of the actual landscape. Meanwhile the impacts of production on local ecosystems require deep changes in farm and forest management. These changes themselves require a more outcome-focused, intelligence-driven and holistic approach that is shared by all stakeholders.



This is not the end of the story. As well as changes to the climate and nature, we face a world which is more economically volatile and unpredictable, where even before Donald Trump's 2025 tariffs, trade and supply chains were fragmenting. We thus cannot rely upon resources gathered from overseas – energy and food for example<sup>1</sup> – to support the wellbeing of people in Wales. Land must therefore do more for us. To go beyond traditional production of animal products and fibre to support, for example, a far wider range of foodstuffs, energy production, and wellbeing-enhancing recreation activities as well as helping make urban areas more flood resilient. All this at a time when we are required to protect and enhance biodiversity in these same places.

Some of this change is happening already, but in a contingent, contentious and piecemeal manner and nowhere near fast enough. We need a better approach.

## 1.2 Rural Wales: A brief snapshot

This transformation is necessary for not just the planet and local nature, but for rural economies and communities. The current settled use of land across Wales is not delivering the benefits for nature, climate and people it should. Table 1 illustrates this point by combining the Welsh Government's Input-Output Tables for Wales with published information on employment and emissions.

**Table 1 - The Welsh Economy in 2019**

|  | <b>Agriculture</b> | <b>Other Primary</b> | <b>Manu-<br/>facturing</b> | <b>Utilities</b> | <b>Cons-<br/>truction</b> | <b>Private<br/>services</b> | <b>Public &amp;<br/>other<br/>services</b> | <b>All Industries</b> |
|--|--------------------|----------------------|----------------------------|------------------|---------------------------|-----------------------------|--|-----------------------|
| Gross Value Added (GVA)                            | £415m              | £250m                | £10,525m                   | £2,161m          | £3,678m                   | £26,541m                    | £18,435m                                   | £62,005m              |
| GVA/job (£)  | £16,058            | £70,957              | £71,553                    | £105,226         | £21,290                   | £49,843                     | £37,706                                    | £44,571               |
| CO2e/job (tonnes)                                  | 221.8              | -165.1               | 75.1                       | 476.2            | 7.6                       | 7.3                         | 0.8  | 22.7                  |
| CO2e per £1m output (tonnes)                       | 3.7                | -0.9                 | 0.3                        | 1.8              | 0.2                       | 0.1                         | 0.0  | 0.3                   |
|  |                    |                      |                            |                  |                           |                             |  |                       |
| Percent of Welsh GVA                               | 0.7%               | 0.4%                 | 17.0%                      | 3.5%             | 5.9%                      | 42.8%                       | 29.7%                                      | 100.0%                |
| Percent of Welsh Employment                        | 1.9%               | 0.3%                 | 10.6%                      | 1.5%             | 12.4%                     | 38.3%                       | 35.1%                                      | 100.0%                |
| Percent of Welsh Industry Greenhouse Gas Emissions | 18.2%              | -1.8%                | 35.0%                      | 31.0%            | 4.1%                      | 12.4%                       | 1.2%                                       | 100.0%                |
| Percent of Welsh land area                         | ~85 - 90%          | ~15%                 | -                          | -                | -                         | -                           | -  | -                     |

**Sources:** Input Output Tables for Wales; Labour Force Survey; Business Register & Employment Survey; Farm Business Survey; National Air Emissions Inventory.

Note: Authors' own elaboration, approximations throughout..

<sup>1</sup> <https://www.theguardian.com/commentisfree/2025/mar/11/disaster-enough-to-eat-britain-prepared>

Economically, the main land use in Wales – agriculture – had (in 2019) the lowest value added per job (including mixed income) of any broad industrial sector, less than half the Welsh average and contributing 0.7% overall (after accounting for support and subsidy). It employed around 2% of the Welsh workforce on between 85-90% of Wales' land. For context, its aggregate gross value added, at £415m, was similar to that of basic steel production or water supply and sewerage and around a quarter the size of the tourism industry. Other primary industries (forestry, fishing and mining) perform better than agriculture in terms of GVA per job, but they are far more capital intense. In aggregate terms, other primary activities – forestry fishing and quarrying – are economically unimportant for Wales (under half-of-one-percent of employment and value added).

Meanwhile, agricultures' climate/employment footprint was, at 220 tonnes per job, some ten times higher than the Welsh average. This means 18% of territorial industrial emissions emerge from the sector. The most GHG-intense production industries in Wales were agriculture (3.7 tonnes per £1m output), fishing and aquaculture (3.2 t/£m) and energy supply<sup>2</sup> (2.9t/£m). Overall, the non-agricultural primary sector is GHG-positive, at least as currently reported, due to the sequestration enabled by Wales' woodland.

Agriculture does not perform well in terms of the wellbeing of many people involved in the sector. Inherent volatility and regular economic shock, as well as the sector's longer-term uncertainty are problematic. Further issues occur when farmers' own pride in their perceived societal and environmental contributions go unrecognised<sup>3</sup>. Suicide rates for skilled agricultural professions are much higher than the Welsh average<sup>4</sup>. Meanwhile, workers in UK agriculture, forestry and fishing are more likely to suffer workplace accidents than in other industries, with the risk of workplace fatality some 21 times higher<sup>5</sup>.

Farming in particular provides an important socio-cultural framework for rural Wales, and for Cymraeg, with over 40% of workers estimated to speak Welsh, and with industry-related shows, events and societies important elements of social fabric<sup>6</sup>. The intersection of farming support schemes and the maintenance of the language has been recognised by the Welsh Language Commissioner<sup>7</sup>.

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<sup>2</sup> Authors' own estimates from published data.

<sup>3</sup> <https://www.sciencedirect.com/science/article/pii/S0743016725000889#sec5>

<sup>4</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/adhocs/13674suicidebyoccupationenglandandwales2011to2020registrations>

<sup>5</sup> <https://www.hse.gov.uk/statistics/assets/docs/agriculture.pdf>

<sup>6</sup> <https://arsyllfa.cymru/agriculture-and-the-welsh-language/>

<sup>7</sup> <https://www.welshlanguagecommissioner.wales/media/qugprwvj/briefing-note-on-the-commissioners-reponse-to-the-sfs-consultation.pdf>

Given this importance, the vulnerability of Wales' rural industries, (and their narrow range of products) to changes in climate, ecology, subsidy regimes and consumer tastes is of concern. Change is needed for reasons of resilience and continued cultural contribution.

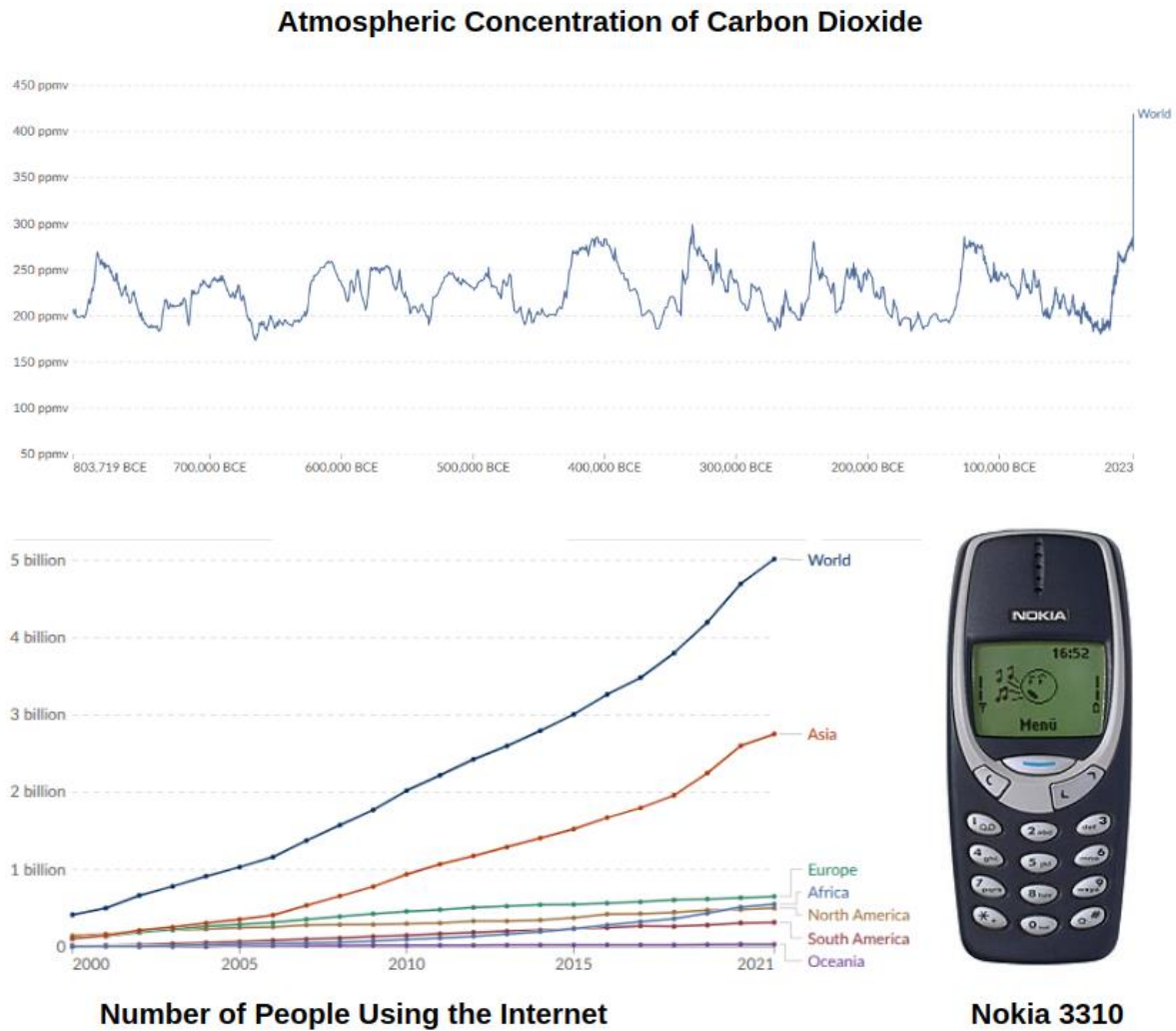
### **1.3 Imagining the Futures?**

At this point the temptation is to imagine a rural future for Wales – what farms should be making what products; what forests of what species should be planted with what markets in mind; and what people wandering where to do what? How many nature reserves, how much natural flood management and how many wind turbines? This imagining would however be difficult in the extreme, and probably foolhardy. Even though (say) 2050 is now not very far away, it is still far enough to mean that the 2050 context will be very different to 2025, and in very important ways. Going back 25 years is illustrative. In 2000, fewer than 2% of people in China used the internet; in 2023 it was 77%<sup>8</sup>. Not only the iPhone, but the iPod had yet to be invented. In 1999, the atmospheric intensity of carbon dioxide was 379 parts per million. It is now 422ppm, up by 11% - a growth that was well beyond the pessimism of most 20<sup>th</sup> century climate scientists. The biggest economic news was the launch of the Euro as (most of) Europe continued its inevitable journey to closer integration, and almost no-one had heard of Al-Qaeda or Osama bin Laden.

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<sup>8</sup> <https://ourworldindata.org/data-insights/internet-use-has-grown-rapidly-but-unevenly-across-asias-largest-countries>

**Figure 1: The Rapidity of 21st Century Change**



It is possible to look at *relatively* static rural farms, forests and mountains and conclude that we can imagine their change and adaptation over decades, but the contexts that create those landscapes – energy use, food supply, financial systems, technology, politics – are evolving (and sometimes regressing) rapidly and unpredictably. We cannot then reasonably imagine the future in any detail.



We can however, to some extent, *shape* the future - but this will take thought, evidence, capacity and a sense of shared purpose. This report thus does not imagine a future rural Wales. **It rather suggests how we can begin to lay the foundations to ensure that whatever rural Wales emerges, it has the greatest possible opportunity to be better.**

How do we put in place the building blocks to make *Tir Dyfodol* - our future land - home to vibrant, inclusive, fair, and nature-and-climate-friendly rural economies and communities? And how do we ensure as far as possible that local, embedded, culturally aware people, communities and organisations participate in and direct these economies for the benefit of all - including future generations?

Not only should our planning (and Planning) approach reflect deep uncertainties about the future - the value and use of products, the role of government support, the quality and productivity of land and its carrying capacity, the impacts of climate change and so on - but it must also step away from the difficult and limiting conversations that we currently have about how we incrementally tweak current activity, policy and support to make things a little better. It must be cognizant of why former good intentions have led us to a place that no-one really wants to be.

## **1.4 The Framework: Actionable, Context-aware Principles**

In the light of the above we here abstract from discussions about *actual* land use - the what, who and where - to discuss a set of principles that could guide our conversations, agreements and hence investments - in land, people, communities and the economy - to ensure a better rural future. Taking a principled approach is useful for a number of reasons. Principles can be;

- **transparent**, giving comfort to stakeholders that there is a shared understanding of the basis on which decisions are being made,
- **long-lasting** - durable beyond single Government terms, as shown by those enshrined in the Wellbeing of Future Generations Act (WFGA),
- **adaptable** as circumstances, technology, politics and the 'art of the possible' changes in ways that policies and specific interventions often are not,
- **informative**, providing the basis and rationale for specific interventions,
- **integrative** across a range of activities, enabling synergies and reducing policy conflicts,

- **context aware**, reflecting long term concerns over climate change, ecological function and socio-economic strains – as well as reflecting Wales’ global responsibilities.

Moreover, the idea of using principles to guide action is one that has recent currency in Wales (albeit of arguably varied implementation and impact). Our WFGA features ‘goal areas’, but also five Ways of Working, which are in effect principles. Meanwhile the Environment Act (Wales) 2016 enshrines the Sustainable Management of Natural Resources (SMNR) as the principle according to which we (should) manage our nature.

Some of the limitations of past Acts suggest that broad principles are not enough. Principles must direct action. They must indicate to communities, businesses and the public sector what could and should be done *now* in pursuit of a better future – and how we build institutional, partnership and policy bridges to that better future.

## 1.5 This Report

This report then addresses three issues.

- What principles for management and investment might deliver the kind of dynamic, productive, inclusive, and properly sustainable rural landscape we want?
- What are the implications of embedding these principles for supporting systems – rural businesses, public institutions, policymaking, capabilities and skills, and the management of nature and biodiversity?
- What must happen now – and by this we mean before 2030, and then in the next 18 months – to embed appropriate structures, incentives and behaviours across public and private sectors, and to increase the knowledge and capabilities of Welsh people, communities and organisations such that they can make holistic and integrated decisions for the long term?

Our report follows the above structure, so Section 3 discusses the potential principles, Section 4 the implications and Sections 5 and 6 the next steps. Firstly though, we briefly and broadly characterise a future Wales to provide some context for our discussion.

## 2 The Context

### 2.1 What Might we expect?

Here we outline what the Wales of tomorrow – the second half of the 21<sup>st</sup> century – might look like on current trajectories, and if the effectiveness of current (UK and Welsh Government) policies continue to mirror the recent past.

Clearly, we do not ‘know’ tomorrow in any sense, but there are a number of trends that are either already ‘baked in’ due to past actions, notably a certain level of (and set of impacts related to) climate change<sup>9</sup>, or very likely to occur given past and recent trends and current political circumstances. Few of these are set in stone, but we suggest that they are a likely outcome of the current UK and devolved approach.

Given the caveats above we would suggest rural Wales faces the following future.

#### **2.1.1 Effectively Smaller**

Increased sea levels around Wales are a given considering the level of greenhouse gases (GHGs) already in the atmosphere, and the consequent warming of the air and sea. These increased sea levels will occur in concert with an increase in rainfall, and the frequency and intensity of coastal/tidal and riverine storm surges<sup>10</sup>. Thus, whilst some small parts of coastal Wales might move to become effectively underwater, the issue is rather the extent to which climate-related flood disruptions will influence the use and usefulness of land. Some of this will be consequent on investments becoming irrational due to the likelihood of (potentially repeated) flood events depreciating or destroying capital (machines, buildings, infrastructure), and the related un-insurability of such investment. At-risk Investment is public as well as private, protective as well as economic (for example, flood protection in Wales is (generally) directed at properties not agricultural land).

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<sup>9</sup> Absent the extremely unlikely rapid development and scaling of technological CO2 removal.

<sup>10</sup> See <https://naturalresourceswales.sharefile.eu/share/view/se4f62218743d4fd7ab69b331759c2cec/fo236bbc-d52b-42b3-908a-ffdd9a80957>

### **2.1.2 Less Traditionally Productive**

These impacts do not only relate to extreme events, but the potential for climate change to disrupt rural activities through lower-level but endemic waterlogging and changes in annual weather cycles<sup>11</sup>. Effectively the Welsh rural landscape becomes more constrained and economically restricted – meaning of course we must do more with less. A disrupted climate means more extremes. Longer droughts, more intense rainfall and more extreme summer heat. These ‘compound’ impacts of climate change – with Wales and the west of the UK most exposed in terms of livestock<sup>12</sup> – have the potential to disrupt rural production from both horticulture and many types of livestock (and in the latter case causing significant animal welfare issues). Meanwhile, timber productivity and strategic exploitation is challenged by both flooding, which damages road and culvert infrastructure, and storms that cause trees to fall in large number, blocking access to land estates and requiring significant effort to clear and sell<sup>13</sup> – often at sub-optimal times or prices. Rural productivity is likely to take further hits as Wales is colonised by invasive non-native species for which the west of the UK was formerly too cold<sup>14</sup>.

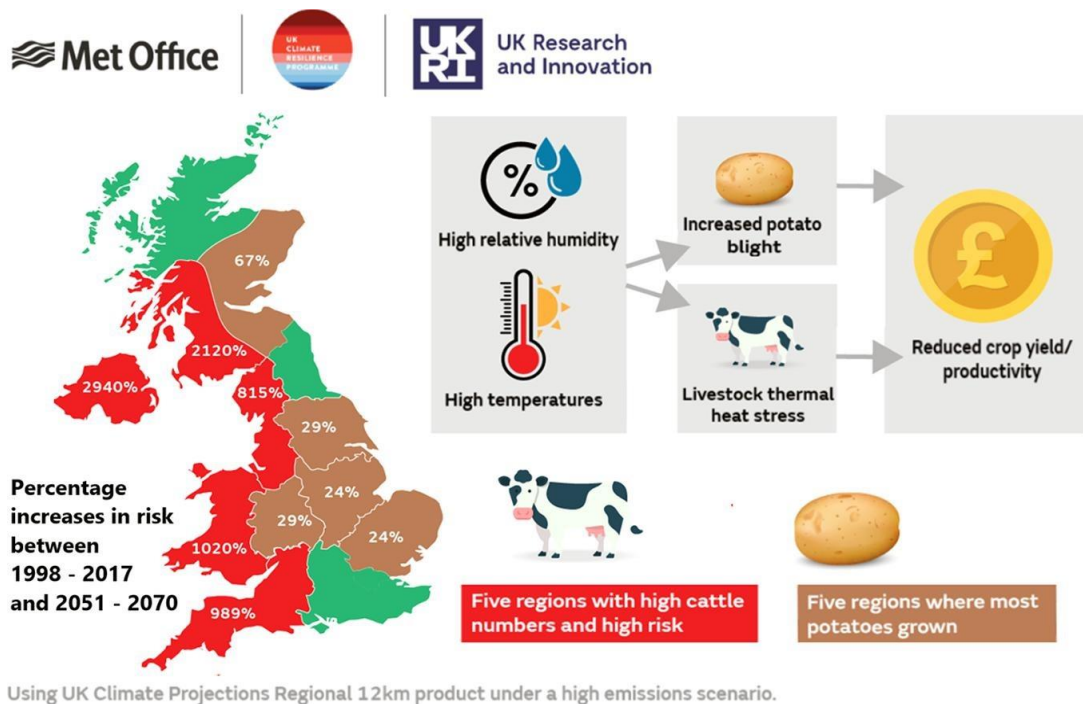
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<sup>11</sup> For example with late-spring frosts: <https://www.nature.com/articles/s41558-021-01090-x>

<sup>12</sup> <https://www.sciencedirect.com/science/article/pii/S2212096321000115>

<sup>13</sup> <https://naturalresources.wales/about-us/news-and-blogs/news/the-impact-of-storm-darragh-on-nrw-s-woodland-estate/?lang=en>

<sup>14</sup> <https://www.biodiversitywales.org.uk/Invasive-Non-Native-Species-Group>



**Figure 2: Regional Climate Risks Under a High Emissions Scenario**

Garry et al (2021)

### 2.1.3 Less Biodiverse

Wales is losing significant proportions of its native biodiversity, and seeing reductions in the function of its ecosystems. Whilst this is true of most (if not all) global systems, Wales (and the UK) starts from a more nature-denuded position than most. The key causes of this denudation include climate change, the economic exploitation of land (and sea), and consequent waste and pollution<sup>15</sup> although the decline of heavy industry and land and water remediation has also seen some improvements<sup>16</sup>. Meanwhile, Welsh Government has enacted legislation aimed directly at protecting and remediating the Welsh environment<sup>17</sup>, with more to follow in the current Senedd term<sup>18</sup> and has implemented some robust protective measures – for example on nitrate pollution, and in restricting housebuilding in phosphorous-sensitive catchments.

<sup>15</sup> See for example <https://stateofnature.org.uk/countries/wales/> and <https://naturalresourceswales.gov.uk/evidence-and-data/research-and-reports/sonarr2025-interim-report-2024-summary/?lang=en>

<sup>16</sup> <https://ymgyngghori.cyfoethnaturiol.cymru/metal-mines/metal-mine-water-pollution/>; <https://www.sciencedirect.com/science/article/pii/S0048969723017266>

<sup>17</sup> <https://www.gov.wales/environment-wales-act-2016-factsheets>

<sup>18</sup> <https://www.gov.wales/sites/default/files/consultations/2024-07/environmental-principles-governance-and-biodiversity-targets-white-paper-our-response.pdf>



So far however, we have failed to significantly move the curve of biodiversity loss towards restoration. As of early 2025, the Senedd suggested Government actions were piecemeal, fragmented, largely ineffective, and falling significantly short on 2030 targets. Worryingly, the Government was also considered unprepared to take advantage of future opportunities to drive investment and recovery, for example through green finance<sup>19</sup>. Without significant policy (and socio-economic) change, existing forces will continue to pressure nature, and Wales likely faces a future that is less natively biodiverse, and with incoming species likely to drive further reductions and extinctions, and a narrowing in the scope of nature<sup>20</sup>.

#### **2.1.4 Older, and Sicker**

Wales, along with the rest of the UK is ageing. The proportion of the population over 65 is projected to increase from 22% now to 25% in 2050 and over 30% by 2100 (the over 80s are set to almost double from 6% to 11%)<sup>21</sup>. Perhaps more worryingly, recent trends in physical and mental health suggests that not only will age bring more impediments and sickness, but that health issues at all ages will increasingly impact wellbeing, the public finances and economic productivity<sup>22</sup>. New treatments may form a partial response whilst not necessarily bringing holistic health or wellbeing<sup>23</sup>. Rural counties in Wales are typically older than urban, often to a significant degree<sup>24</sup>.

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<sup>19</sup> <https://senedd.wales/media/ts0f1ekc/cr-ld16916-e.pdf>

<sup>20</sup> Prior climate heating and extinction events suggest the period immediately after is characterised by a small number of successful species dominating. Halliday, T. (2022). *Otherlands: A World in the Making*. Penguin UK.

<sup>21</sup> Derived from

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/z4zip/pedpopulationprojectionsdatafileswales>

<sup>22</sup> <https://ifs.org.uk/news/various-indicators-point-deterioration-population-mental-health-likely-contributing-rising>

<sup>23</sup> <https://www.nature.com/articles/d41586-025-00404-9>

<sup>24</sup> <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/populationadhouseholdestimateswales/census2021#age-and-sex-of-the-population>

### **2.1.5 Economically Weaker**

The long-term economic prospectus for the UK is not good. It has suffered more than most from the post-credit crunch collapse in productivity growth and as of early 2025 there is little sign of this easing. This lack of growth (and a relatively low tax burden) has straitened public finances and limited investment. This lack of investment - in energy transition, public transport, climate resilience and education and skills - then drives socio-economic vulnerability to future shocks, locking in a cycle of relative economic decline. The position in Wales is in some ways more problematic, with an economic performance over the long term that is worse (in GDP terms) than the UK average<sup>25</sup>.

Moreover, Wales' GDP arises proportionally more from wages than in most UK regions and long-term real wages have stagnated in the UK relative to company profits and other sources of GDP (and household income). Rural Wales suffers from a variety of economic maladies which further exacerbate UK and Wales-level issues, including a lack of opportunity and local control of economic assets, a limited production/employment scope and consequent out-migration of younger and more skilled people, and reduction in the level of local services and community coherence<sup>26</sup>.

## **2.2 Implications**

This section presents a pessimistic picture of a future Wales: far more environmentally and climactically challenged, with species and ecological function (and wellbeing) under significant threat. Moreover, this Wales will (if current trends continue) be unable to direct significant public investment to addressing these issues - or expect much help from a UK Government that might be similarly focused on the issues of population ageing and health, low productivity, obsolescent infrastructure, and vulnerability to extreme events.

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<sup>25</sup> See for example <https://research.senedd.wales/research-articles/devolution-20-the-economy-in-wales-time-to-focus-on-the-foundations/>

<sup>26</sup> <https://undod.cymru/en/2021/12/06/y-gymru-wledig/>

This is, of course a pessimistic reading that ignores the potential for one or more socio-economic or technological 'silver bullets' to address our challenges. It might be that developments in artificial general intelligence greatly improve rural productivity and resource efficiency whilst eliminating pollution, or that carbon sequestration technologies prove reliable, cheap and scalable diluting the climate challenge. None of these technologies are anywhere near providing at-global-scale solutions, and most are, in any case aimed at climate/net zero concerns with little to offer for collapsing nature<sup>27</sup>. It is probably better, then, to hope for the best and plan for the worst. And having that plan means a very different approach to how we envisage and manage our rural landscapes.

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<sup>27</sup> See, for an overview Saetra (2023) *Technology and Sustainable Development*, Routledge  
<https://www.taylorfrancis.com/books/oa-edit/10.1201/9781003325086/technology-sustainable-development-henrik-skaug-s%C3%A6tra>

## 3 The Principles

### 3.1 Our Approach

Our key contention in this report is that rural management, policy and legislative development should adhere to a set of transparent and widely agreed principles. Clearly the derivation of those principles requires some thought and wide collaboration. Nonetheless, this Section presents a suite of principles that might lead to a holistic and integrated approach (at least as far as practicable) to protecting rural Wales and helping it succeed. They are intended to be Wales-relevant, and based on evidence and deduction around what might work (and what has proved not to).

We would expect any suite of principles to be refined and amended. But those presented here can at least frame that discussion.

### 3.2 Indicative Principles for Managing our Rural Landscape

#### ***3.2.1 Optimised across relevant entwined objectives***

Most of Wales' rural landscape has been long been divided up and managed for monocultures. Even now, multifunctional landscapes – or even discussions of their potential – are fairly rare, albeit increasing<sup>28</sup>, and when they do occur, are rooted in contention (e.g., over rewilding<sup>29</sup>). Even current and proposed developments and policy – the revised Sustainable Farming Scheme for example, or the (sometimes publicly-directed) development of renewables – do not seem to envisage the multifunctionality of rural land as part of the solution to our current and future problems.

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<sup>28</sup> But see the Food, Farming & Countryside Commission (FFCC), <https://ffcc.co.uk/multifunctional-land-use-framework> and Royal Society (2023) *Multifunctional Landscapes* [https://royalsociety.org/-/media/policy/projects/living-landscapes/DES7483\\_Multifunctional-landscapes\\_policy-report](https://royalsociety.org/-/media/policy/projects/living-landscapes/DES7483_Multifunctional-landscapes_policy-report) and more poetically, *Tir* by Caryewn Graves <https://carwyngraves.com/tir-the-story-of-the-welsh-landscape/>

<sup>29</sup> <https://www.sciencedirect.com/science/article/pii/S0016718522001129#bib231>

Abstracting from the contentious issues of diversifying the existing use of rural land (and the complex sharing-v-sparing debate<sup>30</sup>) we can envisage a principle that Wales' rurality should be managed to optimise its contribution to a set of relevant wellbeing and sustainability objectives – rather than maximised for one, usually economic, outcome. Our rural landscapes can – indeed must – contribute centrally to deeply necessary and inter-related outcomes in areas that include (but may not be restricted to):

- Food production,
- Carbon sequestration,
- Nature remediation - biodiversity and ecological function,
- Fibre (currently wood) and other materials production,
- Flood protection (for rural and urban Wales),
- Human housing, services recreation and wellbeing,
- Renewable energy generation,
- Community functioning and cultural dynamism.

This optimisation should be at the heart of rural policymaking, the development of new legislation (and the implementation of that already existing), and accepted in wider debates and management partnerships. This of course will be challenging – not only to existing private sectors and public agencies which currently dominate the rural landscape, but to those who think that extensive rewilding is the appropriate future for Wales.

Optimisation requires sophistication. Different parts of the landscape of course have different characteristics, and thus will be more appropriately directed to different outcomes. Every hectare of Wales' land must contribute to our sustainable wellbeing objectives. But they must also join like a jigsaw to form a coherent picture overall, reflecting the need for diversity in aggregate, and their spatial interrelationships – whether this is between parts of river catchments along which water and chemicals move, or as wildlife corridors that build nature's climate resilience. This will of course require a far higher level of data, understanding and policy nuance than we currently enjoy.

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<sup>30</sup> Balmford, A. (2021). Concentrating vs. spreading our footprint: how to meet humanity's needs at least cost to nature. *Journal of Zoology*, 315(2), 79-109. <https://doi.org/10.1111/jzo.12920>



### 3.2.2 Context Aware

Our notion of optimisation of land management across multiple interrelated goals – looking for ‘balanced and sustainable success’ for the (human and non-human) populations that land serves – is reflective of the WFGA. This Act is itself an outcome of an extensive national conversation through 2014-15 then very robust debate in the (then) Welsh Assembly and beyond<sup>31</sup>. Wales, thus has – relative to other polities at least – a reasonably settled and holistic approach to public management, and one that has resonance and acceptance far beyond the public sector<sup>32</sup>. This (again, relative) coherence around national principles must be reflected within any set of principles for rural management, and consequent policies, strategies and legislation.

Other contextual factors matter. For example, Wales is relatively poor, and dominated by micro firms, small farms, communities and organisations that lack economic and political weight from a UK – let alone global – perspective. This means that ‘embedded’ firms and communities are often outcompeted for rural resources by non-local or ‘placeless’ corporations, institutions and individuals<sup>33</sup>. Thus, we cannot imagine how to construct sustainable rural futures without considering how to help local actors ‘push back’ against commercial (or indeed cultural) incursions and these factors take on far more weight than in richer or more culturally dominant places. Many other contextual elements are relevant and developing our management in alignment with these contexts is fundamental.

### 3.2.3 Activity-blind

So far in Wales, conversations about land use typically start from the standpoint of the current land use. Hence the Sustainable Farming Scheme (SFS) will seek to modestly improve the biodiversity and GHG outcomes of currently farmed land, whilst not seeking to change its fundamental use (e.g. for the rearing of livestock). Meanwhile, Natural Resources Wales (NRW) and private landowners might seek to improve resilience and biodiversity of their plantations but within the context of continuing to seek commercial returns<sup>34</sup>.

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<sup>31</sup> <https://cynnalcyrmru.com/the-wales-we-want-national-conversation/>

<sup>32</sup> See for example NFU Cymru: <https://www.nfu-cymru.org.uk/media/oq2jdr3a/farming-bringing-wales-together.pdf>

<sup>33</sup> Jones, C. (2024). The triumph of the placeless. *Regional Studies*, 58(3), 654-667.

<sup>34</sup> <https://www.tandfonline.com/doi/abs/10.1080/00343404.2023.2236638>

<sup>34</sup> Especially given the Welsh Government’s clear desire to increase timber yields <https://www.gov.wales/timber-industrial-strategy>

This approach strongly implies the attitude that *the current use of any particular parcel of land is broadly the correct one* – and by extension that the overall distribution of rural land in Wales is also broadly appropriate. We cannot however assume this is the case. Wales' current land settlement is a result of a variety of drivers around national security, food supply and consumer preferences that are largely no longer relevant<sup>35</sup> – and of course climate change and ecological collapse generate a wholly new set of land use contexts and demands.

Any land use strategy should thus start from a position that is neutral regarding current land use – at both local and landscape scale – before determining (as far as feasible) the optimal uses of land. This is not to say that the costs (and timescale) of transition to more suitable land uses should be ignored in any planning or implementation.

### **3.2.4 Fair and Inclusive**

Existing landowners and managers are clearly central in land use planning processes. They have often invested significant finance and time – indeed sometimes lifetimes – in Wales' land. They are repositories of the deep and bespoke expertise that is needed to manage and protect land, and guarantee its beneficial uses. However, the story of land exploitation in Wales – for economic, living or wellbeing purposes – is one of the exclusion of large swathes of the resident population of actual decision-making on its planning and use, either because this has been solely the purview of private land owners or public sector managers; because democratic processes have not translated the wishes of the populace into land use frameworks; or because much of the population has been unaware of (or disinterested in) the role of Wales' land in supporting wellbeing<sup>36</sup>.

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<sup>35</sup> See for example <https://royalsociety.org/news-resources/publications/2020/commissioned-report-history-uk-land-use-decision-making/> Crowe, D. S. (1992). Forestry plantations. Upland Britain: A Natural History, 136.

<sup>36</sup> See for example Turner, M. (1990). Enclosures in Britain 1750–1830 in *The Industrial Revolution, a Compendium* (pp. 211–295). Macmillan; and Kitchen et al (2002) on forestry in south Wales <https://onlinelibrary.wiley.com/doi/abs/10.1002/jepp.106>

The uses of Wales' land will be of increasing importance in determining the wellbeing of its population, for example as international food chains become more fragile and (often onshore) renewable energy dominant in energy supply. Existing determination of land uses, driven by history, commercial considerations and an underfunded and unfit for purpose planning system provides little opportunity for deep and wide involvement in shaping land use policy, especially as the democratic avenue becomes choked by inflexible pull-and-pushing between government and private land managers. Conversations on land use must then include those who are affected directly and indirectly, including those excluded until now. There is meanwhile a requirement to ensure embedded voices – those people, community and businesses whose wellbeing and viability are intimately connected to this landscape – are sufficiently loud in comparison to those for whom Welsh rural resources are of purely commercial interest, or who are able to move easily between Wales and other places to lever value. Currently, the economic weakness of Wales leads to an imbalance between the local and non-local<sup>37</sup>.

### **3.2.5 Evidenced**

Shaping land and socio-economic processes to deliver multiple outcomes across different spatial areas, populations and timescales will require extensive data collection, analysis and interpretation, communication and then the ability to act on both the intelligence and society's responses to it. Opportunities to better understand our landscape potentials – through technology and human investigation and sharing – are widely available<sup>38</sup>, but suffer from under-funding and partial implementation, driven by the fundamentally reactive and regulatory framing of land planning in the UK and Wales. Information is collected only for purposes of shaping and restricting development, or guiding public subsidy, not to develop a holistic understanding of landscape potential. Thus, we know quite a lot about many species of interest to planning officers<sup>39</sup>, but far less about, for example, soils.

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<sup>37</sup> And not least in the case of some tenant farmers.

<sup>38</sup> See Royal Society (2023) Ch. 3 *ibid*

<sup>39</sup> With even this data often not publicly available, but rather owned by developers that fund investigations.

Information only becomes evidence when it is used. There is little point in developing a necessarily expensive and complex understanding of the threats and opportunities for rural land, economy and community if this information is not used as evidence with which to build legislation, policy and strategy. Relatedly, evidence on fit-for-future rurality must be robust and high quality, unimpeachable in its origin and intent, and as widely acceptable as can reasonably be expected in a context where the openness to evidence and rationality is in question.

### **3.2.6 Circular**

The linear model of economic production is at the heart of most ecological, climate and pollution problems. Circularity is often implied or explicit in discussions of sustainable transformations, but it is far more discussed than enacted. Further, circularity (when it is defined at all) often has a narrow materials and industrial focus. The notion of circularity – producing goods for wellbeing without degrading the enabling systems – is however applicable far more widely, not least in agriculture (agro-ecology, regenerative agriculture and permaculture for example) and forestry. Taking a Wales-level approach also raises issues of geographic circularity, whereby production systems reduce and optimise the level of inputs that are imported, with attendant improvements in global impact, transparency and control.

There is also however another side of the geographic coin: the tendency of value-added, resources and people to leave rural areas, particularly those in peripheral global regions. For Wales, this is a real problem. Ensuring rural socio-economic systems are not degraded by the loss of natural resources, human resources or ownership and control will be key consideration for any properly viable rural accord.

## **3.3 From Principles to Workability**

It is clear that the development of future-fit rural economies and societies will be demanding – of data, businesses, organisations and people. It is also clear that the current position is a long way short of what is required. Most public agencies, communities and the private sector do not have the capacities, interests and knowledge required to engage in the transformation of Wales' rural landscapes and economies. The destination may be clear in concept, but it is uncertain (and contested) in detail, and the bridges to any preferred future do not currently exist.

Future-fitness – Tir Dyfodol – requires building these bridges. Adopting the principled approach and framework suggested in this (and other) reports on rural dysfunction requires not a change in the diagnosis of the problem, or even in the identification of measures which have a good chance of remediating problems and rendering rurality revitalised, resilient, thoughtful and responsible. Rather the problem is in the wider system – or systems – which do not, in practice, recognise rural problems as wicked and themselves systematic, and thus are not primed to recognise and respond to signals that register this holistic dysfunction.

For Wales, building a better and more resilient future for our rural areas requires significant upgrading of our social and political approaches and institutions. The next section details some of the implications of the principled framework.



## 4 The Implications

### 4.1 For Futures Thinking

Welsh Governments and the Senedd/Assembly have enacted significant legislation in pursuit of environmental protection and the protection of future generations. These Acts have led to significant changes in the way that rural activities are managed. Regulation<sup>40</sup> has, for example, sought to reduce the levels of nitrogen pollution in the landscape by restricting the spreading of slurry, and continues to significantly constrain the level of house building in SAC catchments where phosphorous run off is problematic.

Progress on developing a holistic 'new deal for rural Wales' has however been slow-to-non-existent. There is (yet) no clear ask or offer in terms of how rural businesses and communities might transform, to what new markets and ways of living – and how this will be resourced. This is not unrelated to the preoccupation of an under-resourced Government and civil service (Figure 3.) focussing on the pressing (but narrow) problems of the day.

It is clear that the ability of the Welsh Government (and more widely the Senedd) to vision and plan holistically for the future is extremely limited. Futures thinking is undertaken in specific areas in relation to specific themes; outsourced to advisory groups<sup>41</sup> or Commissions<sup>42</sup>, and with recommendations often never fully responded to<sup>43</sup>, if at all<sup>44</sup>. The most recent piece of in-house holistic futures assessment – at least for public digestion – appears to be from 2012, and the Sustainable Futures division – formerly the conduit for thinking on foresight, and the organiser of the National Forum on the WFGA implementation – appears defunct.

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<sup>40</sup> Seen as crude and overbearing by some,

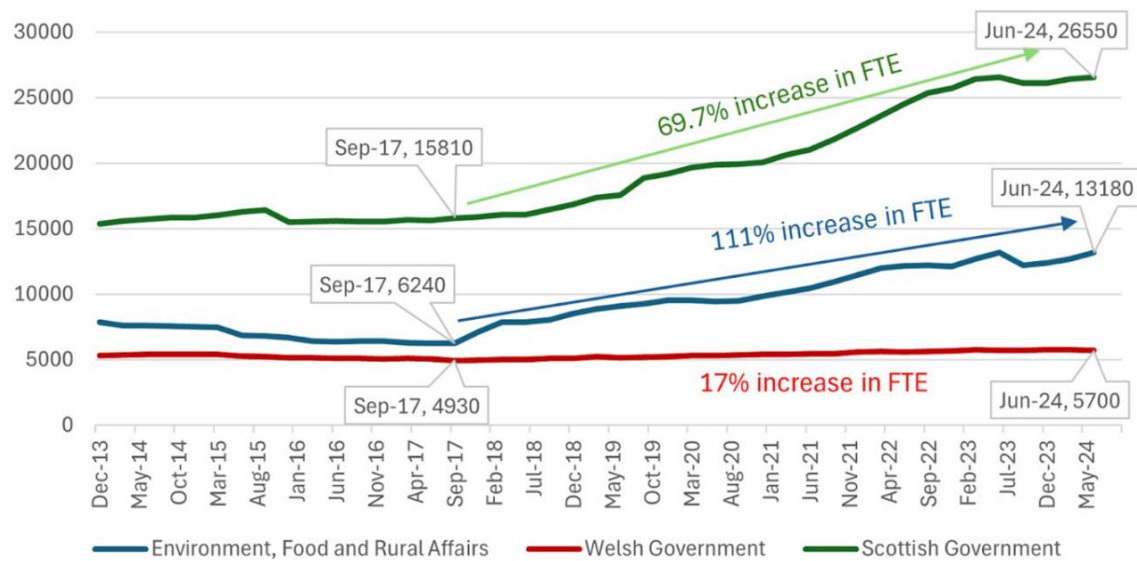
<sup>41</sup> e.g. the electricity grid <https://www.gov.wales/independent-advisory-group-future-electricity-grid-wales/terms-reference>

<sup>42</sup> <https://www.gov.wales/independent-commission-constitutional-future-wales/broad-objectives>

<sup>43</sup> See on renewables roll-out <https://nationalinfrastructurecommission.wales/preparing-wales-for-a-renewable-energy-2050-2/>

<sup>44</sup> e.g. on the future of work <https://www.gov.wales/review-digital-innovation-final-report>

**Figure 3: Growth in Civil Service Headcount, 2013-24, DEFRA v Welsh Government**



Source: Waters, n.d.<sup>45</sup>

It may well be that Welsh Government considers the existence of the Office of the Future Generations Commissioner as sufficient to guide long term decision making, but the Commissioner's resources are extremely constrained. For 2025-6 the Office has a budget of £1.65m, some 0.006% of the public spending it is required to both audit and shape<sup>46</sup>. The National Infrastructure Commission for Wales meanwhile has a remit to improve the future-fitness of Wales' infrastructure but has a thematic, project-by-project approach to understanding the future - necessarily, given a budget guarantee of only one year, and that only £400,000 in 2024<sup>47</sup>. Meanwhile, Future Wales, our high-level spatial planning framework<sup>48</sup> outlines some useful principles for the nature and (broad) location development, but says nothing about markets, demographics, technology or other contextual factors.

<sup>45</sup> [https://www.cardiff.ac.uk/\\_data/assets/pdf\\_file/0010/2888677/Cathays-Conversations-Lee-Waters-2025-01-14.pdf](https://www.cardiff.ac.uk/_data/assets/pdf_file/0010/2888677/Cathays-Conversations-Lee-Waters-2025-01-14.pdf)

<sup>46</sup> <https://www.gov.wales/draft-budget-2025-2026>

<sup>47</sup> <https://nationalinfrastructurecommission.wales/nicw-annual-report-2024/#our-2023-24-expenditure-and-2024-25-budget>

<sup>48</sup> See <https://research.senedd.wales/research-articles/the-national-development-framework-a-new-spatial-strategy-for-wales/>

In summary, the interest in, and capacity for futures thinking within Welsh Government and the public sector more widely is deeply lacking, and what work there is does not appear to be mainstreamed into Welsh Government departments, decision-making, spending or culture. Without substantial and long term investment in understanding Wales' opportunities and threats it is difficult to imagine we could construct a robust and holistic vision for its rural landscapes and people. This is perhaps why prior attempts to sketch a future for rural Wales have had limited impact<sup>49</sup>.

## **4.2 For Spatial Planning**

We have already noted the existence of Future Wales as the overarching land planning framework for Wales. Under this sit 22 Unitary Authorities (and three, perhaps in near future four, National Parks) with land use planning responsibility. This multiplicity of actors has not, however, led to a more long term or holistic approach to land use planning, with guidance in Wales focussed fundamentally on regulating new developments rather than considering the appropriate distribution of human (let alone natural) activities across the nation<sup>50</sup>. Here, Wales is lagging Scotland, currently on its third iteration of a statutory land use plan, with attendant outcomes monitoring<sup>51</sup>. The UK Government in February 2025 launched a consultation on a vision for land use in England. In Wales meanwhile, much rests on the ability of Future Wales to inform and influence decision-making, and on the hope that precedents set by Planning and Environment Decisions Wales (PEDW) and other planning authorities on a case-by-case basis aggregate to a suitable overall spatial settlement. PEDW has long struggled with managing its caseload, for example in response to increased demands for renewables development<sup>52</sup>. In 2019, Audit Wales reported on a national planning system that was struggling, having seen funding cut by 50% since 2008-9<sup>53</sup>. Despite some recovery since, the 2023-24 spend on planning policy and development control was still some 37% lower than its 2008-9 inflation-adjusted equivalent.

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<sup>49</sup> Including of course the thoroughgoing and thoughtful work of Wales' now defunct Rural Observatory over many years; e.g. [https://pure.aber.ac.uk/ws/portalfiles/portal/41914327/Evidence\\_Report\\_English\\_.pdf](https://pure.aber.ac.uk/ws/portalfiles/portal/41914327/Evidence_Report_English_.pdf)

<sup>50</sup> <https://www.gov.wales/sites/default/files/publications/2024-07/planning-policy-wales-edition-12.pdf>

<sup>51</sup> <https://www.gov.scot/publications/scotlands-third-land-use-strategy-2021-2026-getting-best-land/pages/1/>

<sup>52</sup> <https://www.gov.wales/planning-and-environment-decisions-wales-pedw-service-update>

<sup>53</sup> <https://www.audit.wales/sites/default/files-old/publications/planning-services-2019-summary-report-english.pdf>

It might be expected that the requirements and processes of the WFGA might help complement and support a straitened planning system in shaping rural futures. For example, public bodies under the Act (and aggregated Public Services Boards, PSBs) are required to submit forward looking Well-being Plans for their services and/or localities. The Plans however, whilst often sensible, well-informed, well structured, and sometimes ambitious, tend to take their starting point from the delivery of the services which are the remit of the originating bodies – so focusing on health, transport, education etc. rather than wholesale systems change in pursuit of a sustainable and resilient future. Even those that might be expected to be most holistic – the synergised Plans produced by the PSBs – tend to abstract from *actual* economic activity happening (or possible) on their ‘patch’. Thus, for example, the Wellbeing Plan for Carmarthenshire PSB for 2023-28 does not even mention farming, and mentions rurality in only a passing and broad brush fashion<sup>54</sup>.

Summarising the above, Wales lacks any holistic or integrated land use approach, and even its more narrowly drawn policy and regulatory system struggles to respond to current demand due to a lack of resource. Its ability to handle the increased demand inherent in managing necessary transformative change, in terms of both remit and capacity is thus in grave question. We are therefore some distance from being able to plan for future rural Wales.

### **4.3 For Skills and Capabilities**

Sustainable, multifunctional – or multi-objective – rural land requires multiply skilled, autonomous, informed and co-operative land managers. Currently, land managers – farmers, foresters and conservationists for example – are oriented towards a narrow set of outcomes. There has been some ‘softening at the edges’, for example as farmers diversify into tourism or energy generation, but this is very partial, with diversification in Wales lagging other parts of the UK, driven by smaller and less well capitalised farms, run by increasingly time poor farmers<sup>55</sup>.

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<sup>54</sup> <https://www.thecarmarthenshirewewant.wales/media/st1hdb23/psb-well-being-plan.pdf>

<sup>55</sup> <https://research.aber.ac.uk/cy/publications/diversification-and-resilience-of-welsh-farming-prospects-after-b>

Even within the bounds of farming, diversification is difficult. For example, transitions from meat to plants in Wales is challenged by limitations in skills and knowledge, the need to rebuild markets and supply chains, and cynicism over a narrative that paints to existing activities as climate damaging<sup>56</sup>. Diversification requires nuanced policy that reflects farmers' entrepreneurial orientations and capacities<sup>57</sup>. Skills development aimed at farmers is – even in the area of land rather than livestock management – useful and extensive, but aimed at improving *current* activities (in terms of business processes, environmental outcomes, disease and pest control etc.) rather than developing a orientation to different products or land uses<sup>58</sup>.

Similar points can be made in respect of forestry<sup>59</sup>, albeit here the managers at the coalface are rarely owners, and have less opportunity to change the uses of the land they manage. It is illustrative that from a nature perspective, there is a movement to more holistic rural management through the creation of a National Nature Service for Wales that explicitly cites agriculture in its universe of green jobs<sup>60</sup>. This is however embryonic; so far not embedded in any public agency or policy, or actual land management.

Success in moving towards 'better' farming – for example organic, regenerative, agro-ecological – will depend on the land and farm in question, and demand deep knowledge and (financial and time) investment on the part of farmers involved. Siting better farming within sustainable multifunctional landscape – in a way which also provides for financial viability – will require transformational change in the level of skills and capabilities of those involved, and an ability to recognise and sift a wide range of land use potentials. The requirement is indeed for a whole new profession; that of holistic land manager.

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<sup>56</sup> See Craft & Pitt (2003) More than meat? Livestock farmers' views on opportunities to produce for plant-based diets *Agriculture & Human Values*, 41(975-988) <https://link.springer.com/article/10.1007/s10460-023-10533-4>; Follett, et al. (2024). Working for the environment: farmer attitudes towards sustainable farming actions in rural Wales, UK.

*Environment, Development and Sustainability*, 1-20. <https://link.springer.com/article/10.1007/s10668-024-04459-y>

<sup>57</sup> Morris et al (2017). Farm diversification, entrepreneurship and technology adoption: Analysis of upland farmers in Wales. *Journal of rural studies*, 53, 132-143. <https://www.sciencedirect.com/science/article/pii/S0743016716303679>

<sup>58</sup> See for example <https://businesswales.gov.wales/farmingconnect/business/skills-and-training/training-courses/land-training-courses>

<sup>59</sup> e.g. <https://ukwas.org.uk/>

<sup>60</sup> <https://natureservice.wales/>



## 4.4 For Policy Implementation, Integration & Durability

### 4.4.1 Implementation

A long understood but rarely formalised characteristic of devolution in Wales is that Welsh governments have often been good at making policy – and latterly writing and passing legislation – but less good at *actually implementing* these policies and laws. Impressive words have been followed by less impressive deeds.

To some degree this is an outcome of the issues discussed earlier. Politicians have lacked the skills and capabilities, and perhaps incentives, to embed and mainstream the new ways of doing business that these policies and laws require<sup>61</sup>. Additionally, a lack of resource can impact on the best of politicians' intentions, with Bills and Acts rarely identifying sufficient funds for required actions (if indeed any at all<sup>62</sup>). Relatedly, the ability to punish transgressors of novel (or frankly even existing) regulations is at serious question<sup>63</sup>.

The implementation gap is systematic, but even though widely recognised, current trajectory does not suggest significant improvement. Notably there are some exceptions – where Government and Senedd actions result in clear outcomes that are legislatively or operationally straightforward. Examples might include the existing Council Tax on Empty and Second Homes<sup>64</sup>, which levers a well-established taxation system to implement something really quite radical, and the upcoming Visitor Levy which will implement not just a new, operationally clear tax, but also for the first time a register of tourism businesses in Wales<sup>65</sup>. There are then potential successes to examine, but so far little reflexivity in Government. The implementation – and hence credibility – gap needs closing.

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<sup>61</sup> <https://regions.regionalstudies.org/ezine/article/issue-12-spotlight-sustainable-wales/?doi=10.1080/13673882.2022.00001002>

<sup>62</sup> Progress to 30x30 has suffered in these regards; <https://senedd.wales/media/ts0f1ekc/cr-ld16916-e.pdf>

<sup>63</sup> e.g. <https://lordslibrary.parliament.uk/water-companies-and-sewage-pollution-repairing-damage-using-revenue-from-fines/>

<sup>64</sup> <https://www.gov.wales/council-tax-empty-and-second-homes.html>

<sup>65</sup> <https://www.gov.wales/VisitorLevy>

#### **4.4.2 Integration**

The Senedd has adopted the Cabinet system of government from its mother Parliament, and indeed its parties and much of its culture<sup>66</sup>. This means it has inherited a system where policy fragmentation across cabinet portfolios is almost 'baked in' and must be actively dealt with<sup>67</sup>. Such proactive integration has been relatively rare in Welsh governments (although arguably more evident in the Drakeford period, and under Gething's 'Mission' approach to the economy). More usually, and across most areas of policies, Ministers have a high level of autonomy.

Thus, Welsh Government policies are not typically integrated and indeed may cut across one another. Sometimes policies can clash within Ministerial portfolios, when for example as planning and environment minister, Julie James was responsible for both encouraging extensive social and private housebuilding and protecting rural areas from phosphate pollution – an effectively impossible balancing act. Also relevant here in the area of territorial GHG emissions, the strong cross-Government focus on transition and decarbonisation is undermined by ownership and active promotion of both a regional airport, and (hitherto) high-GHG red meat products via Hwbu Cig Cymru<sup>68</sup>. In both cases, aspirations for sustainability or zero-carbon operation are some way off, and not central to the funding or operations of Government sponsorship, raising issues around how far WG policies and actions are (or even can be) integrated and purposefully directed across the piece. Additionally, of course, the impact of building stakeholder coalitions for rural transformation may well be impacted by the apparent favouring of established products and sectors.

#### **4.4.3 Durability**

Policymaking for the long-term and for transformation is stymied by a number of considerations (and now, 4-year rather than 5-year Senedd terms):

- Longstanding interpretation of the UK's unwritten constitution, and by implication the position in devolved regions, is that no government can bind its successor<sup>69</sup>,

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<sup>66</sup> Andrews, L. (2022). Performing Welsh Government 1999–2016: how insider narratives illuminate the hidden wiring and emergent cultural practices. *Contemporary British History*, 36(1), 124–156. <https://doi.org/10.1080/13619462.2021.1996235>

<sup>67</sup> See Cejudo, G. M., & Michel, C. L. (2021). Instruments for policy integration: How policy mixes work together. *Sage Open*, 11(3), 21582440211032161. <https://doi.org/10.1177/21582440211032161>

<sup>68</sup> With in 2023 a grant larger than the budget for the Office of the Future Generations Commissioner, but with HCC looking to become independent from WG <https://meatpromotion.wales/en/about/corporate-information-2/corporate-information/>

<sup>69</sup> <https://publications.parliament.uk/pa/ld199899/ldhansrd/vo990429/text/90429-13.htm>

- Systematic and targeted lobbying by established and single-interest groups, and by those motivated by ‘culture war’ considerations,
- A carousel of Ministers and officials who have little time to understand the complexities inherent in systems change, or the incentive to seek long-term payback.

Durability – over time and to challenge – is a bare necessity for functional long-term planning and policy development, but is significantly lacking. Recent focus in the UK and Wales has been to place policies within the framework of long-term, transformative ‘missions’ but these are so far more talked about than implemented. Meanwhile a missions approach *a la* Mazzacuto<sup>70</sup> arguably raises significant issues within Wales’ socio-economic context that lacks resources and a complex institutional ecosystem, and struggles with innovation across the piece<sup>71</sup>.

In this context, lobbying of Welsh Government has had some successes (the WFGA amongst them) but it is difficult to see how pressure from outside could establish Government policy on a path to a very different rural landscape and settlement. Environmental NGOs and others themselves may see ‘wins’ on specific asks, but this negotiation is unlikely to lead to systems change.

## 4.5 For Financing

Change processes are dependent on a variety of resources. Rural businesses in Wales are small and under-capitalised relative to their English and Scottish counterparts. Farms are (in aggregate) more dependent on public support via, for example, income payments and are asset poor, especially in the uplands<sup>72</sup>. Dairy farms are heavily capital intense, with significant sunk costs in milk production, often indebted (and with debt a demonstrated drag on performance<sup>73</sup>), and facing volatile markets and prices<sup>74</sup>. Tourism businesses face a market that has not recovered fully since the pandemic, and with visitor numbers currently falling<sup>75</sup>.

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<sup>70</sup> Mazzucato, M. (2021). Mission economy: A moonshot guide to changing capitalism. Penguin UK.

<sup>71</sup> See Jones (2024) Imagining New Dragons? Innovation fit for future purpose European Society for Ecological Economics, Pontevedra June 2024. [https://cf-my.sharepoint.com/:p/g/personal/jonesc24\\_cardiff\\_ac\\_uk/EXv4F3KVpjZJlyQ2Up1VyB4BlDujnGcuqkToGnC2MBSNA?e=wxzpuw](https://cf-my.sharepoint.com/:p/g/personal/jonesc24_cardiff_ac_uk/EXv4F3KVpjZJlyQ2Up1VyB4BlDujnGcuqkToGnC2MBSNA?e=wxzpuw)

<sup>72</sup> <https://www.aber.ac.uk/en/media/departamental/ibers/farmbusinesssurvey/Farm-Business-Survey-Statistical-Results-2023-2024.pdf>

<sup>73</sup> <https://assets.publishing.service.gov.uk/media/5f1acc073a6f407279ea8754/agrienviro-analysis-dairycattle-24jul20.pdf>

<sup>74</sup> <https://www.wwf.org.uk/sites/default/files/2025-03/insights-from-sector-engagement.pdf>

<sup>75</sup> <https://www.gov.wales/tourism-barometer-february-wave-2025>

In this context it is unreasonable to expect rural businesses to proactively pivot, *en masse* towards new markets, processes, products and sustainable orientations. Instead, there will likely be a two-tier transition, with businesses that are capital and knowledge rich, or already involved in organic, regenerative or 'green' markets to move ahead of micro- and less aware businesses. It also likely that businesses embedded in complex entrepreneurial or co-operative ecosystems will have an advantage<sup>76</sup>. This will result in disparities across regions of Wales, and of course as larger and better resourced farms outside Wales progress faster towards serving growing and sustainable markets.

The upcoming Sustainable Farming Scheme will likely make (at best) modest attempts to diversify farms towards tree planting, but there is little sign so far of the Scheme being structured to allow (or persuade) farmers into different markets or behaviours – at least at the lowest level of support. Other public sector financial incentives are notable by their absence. The Payment for Ecosystems Services (PES) Practitioner Group hosted by Welsh Government has not met in almost a decade<sup>77</sup>, and wider PES projects seem a long way off<sup>78</sup>.

The prospect of 'green' or sustainable finance allowing for both regenerative action and rural prosperity has become important in recent debates. Welsh Government has recently joined with UK and Scottish Governments to develop a British Standard on the 'overarching principles' for sustainable investment<sup>79</sup>, but at the same time actual green finance – in practice in 2025, voluntary carbon markets – are incredibly complex to operate and audit, locked in permanent dysfunction<sup>80</sup>, and rarely apply to agriculture<sup>81</sup>. Given the quantitatively small scale of the Welsh opportunity, and our difficult landscape context, the wall of money may be a long time arriving<sup>82</sup>, and may simply not be feasible for wider regenerative and sustainability investments.

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<sup>76</sup> Klofsten, M., Norrman, C., Cadorn, E., & Löfsten, H. (2020). Support and development of small and new firms in rural areas: a case study of three regional initiatives. *SN Applied Sciences*, 2(1), 110.

<sup>77</sup> <https://link.springer.com/article/10.1007/s42452-019-1908-z>

<sup>78</sup> <https://www.gov.wales/payments-ecosystem-services-pes-projects>

<sup>79</sup> <https://www.blackmountains.wales/project-work-areas/payment-for-ecosystems-services/>

<sup>80</sup> <https://www.gov.uk/government/news/new-world-leading-nature-finance-standards-launched-to-encourage-green-investment>

<sup>81</sup> <https://valuationstudies.liu.se/article/view/4765>

<sup>82</sup> Bozzola, M., & Cerroni, S. (2022). *Farmers acceptance of carbon offset programs in agriculture*. In Handbook of Behavioral Economics and Climate Change (pp. 310-329). Edward Elgar Publishing.

<sup>82</sup> The market has become quiet since the purchase at Frongoch in 2021 <https://www.walesonline.co.uk/news/wales-news/carbon-offsetting-companies-uk-calculator-22464381>

In the absence of any substantive and directed rural transformation funding, the market may well decide – but simply decide to largely leave rural Wales alone, except insofar as monoculture (but locally owned) sheep and conifers are replaced by monoculture (and largely non-local) grid-parity Solar PV and renewables. And these renewables will, of course be constrained by topography, capital requirements, and (especially) grid connection, meaning they will not be viable for the vast majority of farms.

#### **4.6 For Civic and Democratic Structures**

Part of the problem with rural futures debate in Wales is the dominance of a small number of stakeholders who are intimately tied to the land – and mostly to its current uses – and the disinterest of the majority of Wales’ people and communities. This context, mirrored of course in the rest of the UK, sees 80%+ of the landscape relegated to second-tier status in politics and hence policy. Land use policy is only partially applied, subservient to wider economic and social priorities, and lacking in evidence or impact<sup>83</sup>.

Improving the importance, quality and acceptance of spatial planning and land use change requires deep and sustained democratic participation – including by those with hitherto little interest or ‘skin in the game’. Extensive evidence suggests participation in planning is necessary, but also difficult, requiring sophisticated engagement approaches, the upskilling of participants and communities (and also of planners), and culture change within planning and strategic processes. Power and authority must to some extent be relinquished. Otherwise, established structures – departmental disciplines and budget lines, linear and onerous funding procedures, time-lags, can easily turn enthusiasm about transformative potential into disillusionment<sup>84</sup>.

This, then is another required competence that is lacking – the ability of Government, now limited to a 4-year term, to engage systematically, inclusively and over time with citizens on issues of deep long-term importance, but which seem urgent to only a few.

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<sup>83</sup> This is true of the new Land Use Framework in England, at least in its pre-consultation phase. 80% of farms will see no new products or habitats. <https://consult.defra.gov.uk/land-use-framework/land-use-consultation/> Meanwhile, 25% (and possibly increasing) of Wales is National Park governed by recreational and natural beauty considerations that are only tangentially linked to future-fitness or Wales’ spatial plan.

<sup>84</sup> See, just for example Kiss, B., Sekulova, F., Hörschelmann, K., Salk, C. F., Takahashi, W., & Wamsler, C. (2022). Citizen participation in the governance of nature-based solutions. *Environmental Policy and Governance*, 32(3), 247-272. and *Integrated Spatial Planning: the State of the Art*, Office of the Future Generations Commissioner, Forthcoming.

## 4.7 For Science and Evidence

We make a final point here that all the above can only take place within a context where we can accept and lever the best possible evidence on current rural productivity and impacts and on the reasonableness and potentials of future rural scenarios. In part this is related to the lack of ‘futures thinking’ noted in 4.1 above: holistic analysis of the present, let alone the future is difficult in Wales, stymied by lack of resources and interest, the UK’s very partial statistical devolution<sup>85</sup>, the rather procedural and reactive provision of evidence by Natural Resources Wales<sup>86</sup>, and the central position of an increasingly challenged academia in providing the analysis the public sector does not.

It is not only the lack of evidence and data that is at issue, but also its framing. As Section 3.2.5 makes clear, evidence collection must be moved from something reactive, single-policy-or-legislative-purpose oriented, under-resourced and partial (often in both senses of the word) to something that is far more holistic and forward looking, transparently collected, managed and audited by a generally accepted agency, bespoke to Welsh purpose, and securely and decently funded.

Arguably, data collection, analysis and interpretation on rural matters might thus be done better outside of Government.

## 4.8 Conclusions

This Section suggests there is much to do to move rural Wales from a position where it faces the future passively and dependent on the whims of subsidy, UK trade deals and consumer and visitor behaviours to one where it is moving purposefully and united to a preferred future. The latter may indeed be unachievable: a position of consensus may not exist, or commercial and climate forces may take agency away from those in rural Wales despite their best efforts and intentions.

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<sup>85</sup> <https://digitalanddata.blog.gov.wales/2025/03/11/guest-blog-unpacking-the-welsh-economy-reflections-on-the-compilation-of-the-input-output-tables-for-wales/>

<sup>86</sup> For example as a requirement of the Environment Act, the State of Natural Resources report, SoNaRR, is published only every five years, and is not especially ‘action oriented’. <https://naturalresources.wales/about-us/news-and-blogs/news/nrw-publishes-interim-state-of-natural-resources-report/?lang=en>

It is however worth considering what actions – with what priorities – might be undertaken to at least concentrate existing activity and focus in areas that might reveal synergies and further opportunities. The next and concluding section suggests that some of this attention might be better directed at structures and institutions rather than activity: on changing how and why Government (and others) act, rather than trying to incrementally change *what* it does.

## 5 The Path to 2030

### 5.1 Framing the debate

*“The Welsh government finds it easier to write strategies than to actually do stuff, because we're very small and civil servants generally find it easier to write papers than they do to change delivery, partly because the delivery mechanisms are so diffuse. And it's hard.”*

Lee Waters<sup>87</sup>

The Senedd passed the Future Generations and Environment Acts roughly a decade ago and declared a climate emergency in 2019, followed by a nature emergency in 2021. Despite this, the last decade has largely seen stasis in the rural reality. Post-Brexit, farming practices and markets (and public support) have changed only moderately if at all. The forestry industry moves towards different practices, but only at the slow speed of the tree lifecycle, and with almost no net afforestation. Rural communities remain challenged by weak local employment markets and property price inflation that encourages out-migration of the young and challenges social and family cohesion. Renewables roll-out and Welsh (as opposed to UK) Grid decarbonisation has been minimal. Tourism markets are, at best, stagnant.

At the same time the ecological and climate emergencies are worsening, as is Wales' socio-economic vulnerability. It is clear we do not have another decade to spare before making Wales – and relevant here, rural Wales – more resilient, climate and nature respectful, and hence future-fit.

The last Senedd term has shown that Welsh institutions are currently incapable of joining with business and communities to shift rural Wales onto a transformative path. There are problems of capacity and capability, incentives, relationships and trust, and resource. The 'ways of doing business' are not fit for purpose. There is, however, the prospect of change. An expanded Senedd post-2026 brings more raw capacity, but also a large voluntary and involuntary turnover in existing Members of Senedd, meaning structures and cultures – and party politics – may change radically.

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<sup>87</sup> <https://www.instituteforgovernment.org.uk/ministers-reflect/lee-waters>



Despite the planetary urgency, 2026-30 might then be seen as a foundational phase: one in which the Senedd and Government can mature and develop a transformative purpose that will serve to put Wales in a far better place to weather upcoming storms.

With that in mind we suggest a number of potential priorities that Welsh Government, Senedd and other stakeholders might coalesce around to the benefit of rural sustainability and viability. Clearly these are in part 'straw-man' suggestions that will face significant winnowing and change, but might still be useful in directing debate.

## **5.2 Agreeing the Principles**

Despite its limitations, the passing of the Future Generations Act is the most significant act of devolution. The grounding of that Act in an extended national conversation and considerable legislative scrutiny has given it currency and cultural legitimacy. No party in Wales (as of writing) suggests reversal.

### **Learning the lessons from the WFGA, a new national conversation on rural futures could set the goals and ways of working that would allow progress towards**

**responsible resilience** - identifying what is agreeable to major stakeholders in terms of rural outcomes, and the mechanisms by which these should be fleshed out and progress achieved. At the same time, areas of disagreement can be identified for further debate into the medium term.

This rural conversation through the early part of the next Senedd term should reflect the lack of time available to prepare for climate and socio-economic change and to remediate nature - and the reality that the prior national conversation for the WBFA delivered an Act, but only limited action. The conversation should be directed to enable the next necessary set of activities.

### 5.3 An Audit of Institutions & Policies

Evidence from Wales over the last two decades suggests that in many respects it is not the objectives of government that are inadequate, but its ability to deliver. This is consequent on both resource limitations and the way government is done. The civil service is under-resourced, and as a consequence busy writing but not implementing policies and strategies, and enacting new legislation with little or no consideration of how and why prior legislation has succeeded or failed. Government is built around a model of outsourcing – to arms-length bodies, consultancies, City-Regions and latterly Corporate Joint Committees<sup>88</sup> – and wholly-owned Limited Companies such as Transport for Wales and Trydan Gwyrdd Cymru.

This is in part an outcome of the limited range of action afforded to devolved governments, but has the result of limiting civil servants' range of knowledge, and building a distance between Government and those on-the-ground. It is not working for rural economies, the climate or nature.

There is then a strong argument for a wholesale review of the institutions of government insofar as they deliver for rural Wales – one that emerges from the rural conversation and is explicitly aimed at uncovering, insofar as is possible, how a better and more inclusive governance model might look, given devolved constraints.

There are, of course arguments against this approach – primarily that activities of this nature – often Commissions – take a long time and have limited influence on government policy<sup>89</sup>. We would have two rebuttals. Firstly, the current system is *in any case* doing little or nothing to enable a better future for rural Wales<sup>90</sup>. The SFS, as currently trailed, might see no actual difference 'on the ground' for years into the future, despite coming fully a decade after the Brexit vote. The *Growing Mid Wales* signed heads-of-terms in 2020, and in March 2025 announced funding for its first project – a visitor centre and some afforestation in the Elan Valley<sup>91</sup>. These structures are simply not delivering and need urgent revision.

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<sup>88</sup> <https://research.senedd.wales/research-articles/collaboration-nation-what-are-corporate-joint-committees-and-what-will-they-do/>

<sup>89</sup> Not least <https://www.gov.wales/independent-commission-constitutional-future-wales>

<sup>90</sup> Albeit is likely reducing damaging activities somewhat, e.g. around slurry and phosphates.

<sup>91</sup> <https://www.growingmid.wales/article/18383/Extra-11.8m-unlocked-for-Mid-Wales-Growth-Deal-as-first-project-takes-shape>

Secondly, the next Senedd will be over 50% larger and extremely unlikely to see a majority government. The opportunity to build actions around areas of cross-party consensus will be both improved, and vital to making change happen. **A rural commission that was agreed cross party, to deliver its recommendations within the Senedd term, and with agreement from parties to bring relevant legislation to the Senedd is more feasible than at any time prior.**

#### **5.4 A Programme for Legislation**

Emerging from the above conversation and commission should be a programme for legislation in areas where the current set of Senedd laws are clearly inadequate. This might include revisions to existing Acts (as might the new biodiversity targets Bill have implications for the Environment Act) and/or wholly new ones.

Critically, as part of legislative progress, Government needs to ensure that not just it, but bodies of the Senedd – like the Office of the Future Generations Commissioner, have the wherewithal – personnel, capabilities, and sheer, guaranteed, cash – to do the jobs required of them. In 2024/5, the combined budgets of the OFGC and Audit Wales were less than £30m (and 90% in favour of the latter) – some 0.1% of the total Welsh Government budget. Clearly the funding of this work cannot be left to the vagaries of the annual budget round but should be clearly stipulated at an appropriate level in legislation.

## 5.5 New Toolkits & Analytical Structures

Separate from the extended reflection and restructuring suggested above, there is a clear and urgent need for more proactive, trusted and holistic analytical resource. Wales lacks a detailed and integrated land use map, a rural observatory, or indeed *any* professor with a core interest and expertise in Wales' rural economy. This could be remediated quickly and at trivial cost with **the funding of a new Rural Observatory from the current or upcoming Government budget** – using established networks across Wales to bring together academics, practitioners and others, collaboratively rather than competitively. Indeed, **this work is already part-done with the launch of the UKRI-funded Arsyllfa Cymru, but this would need significant additional resourcing and re-orientation to step up**<sup>92</sup>.

This stepping up would include a substantive audit and gap-analysis of what intelligence is available about how rural Wales 'works' – including improved and integrated mapping. Again, much of this exists already to be built upon<sup>93</sup>, by moving from data layers to models of how natural and physical capital, ecosystems and people interact<sup>94</sup>.

This research structure could be deliberately task-and-finish oriented, constructed to aid and inform the rural conversation but with part of that remit to consider what analytical framework would be necessary – and potentially of course legislated for – to enable progress to a responsible and resilient future rural Wales. **Whether this is solely a rural structure, or whether Wales needs a fully featured and statutory Future Generations Lab is an interesting question.** There are existing proposal for such a Lab which could form the basis of a discussion and development around logistical and funding options<sup>95</sup>.

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<sup>92</sup> <https://arsyllfa.cymru/category/lpipruralwales/>

<sup>93</sup> <https://datamap.gov.wales/>

<sup>94</sup> e.g. using socially-embedded digital twins <https://www.mdpi.com/2071-1050/12/24/10623>

<sup>95</sup> <https://www.iwa.wales/agenda/2024/01/calvin-jones-future-generations-innovation-wales/>

## 6 The Immediate Next Steps

The developments listed in Section 5 above are, in our opinion, necessary, but not in all cases quick. Thus we here complement, build on (and to some extent duplicate) the above and suggest that there are actions that can be undertaken *now* – in the final period of this Senedd term, or in the early part of the next – that can begin to make a real difference, on the ground now, in progressing towards the more structural suggestions presented above, and in showing stakeholders that the Government and Senedd are serious about unblocking the log jam.

We have collated these suggestions into two broad areas: improving spatial planning, and creating markets.

### 6.1 Better Spatial Planning and Land Management

The biggest threat to any family farm is (apparently<sup>96</sup>) the lack of a robust succession plan. The same might be said for effective rural planning in the round. However, the signing off of the Universal layer of the Sustainable Farming Scheme – likely requiring little on the ground changes by individual farmers – is not much of a legacy for the next Senedd to develop from. Meanwhile, in areas faced by dysfunctional stasis, the Welsh Government has undertaken thematic ‘deep dives’ – for example into wood and timber, biodiversity and renewables. These deep dives have led to new targets (e.g. on 30x30), the strengthening of guidance to other authorities, and modest institutional change<sup>97</sup> – but sometimes unfortunately, also the outcome of the Welsh Government ignoring its own recommendations<sup>98</sup>.

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<sup>96</sup> <https://businesswales.gov.wales/farmingconnect/business/succession-planning>

<sup>97</sup> <https://www.gov.wales/search?globalkeywords=deep+dives> will give a flavour.

<sup>98</sup> e.g. for a National Energy Plan – <https://www.gov.wales/preparing-wales-renewable-energy-2050> – and in the rowing back from the original tree-planting requirements of the SFS.

**We suggest a deep dive into the ability of the planning and land use system to deliver better ecological and climate function is long overdue.** This would focus not on objectives and outcomes (which are largely agreed) but on the ability of the system to deliver them. In common with prior deep dives, this could be undertaken within a timeframe of months (the approach is tried and tested), and set to report, ideally before the 2026 election, but otherwise by mid-2026 in order to inform the work of any new government. Initial areas of investigation might include the following.

### **6.1.1 The Influence of national structures and guidance**

Notionally, Future Wales, Planning Policy Guidance Wales (2024) and the Marine Plan (2019) provide high level guidance for the suite of strategic and local development plans forthcoming under the auspices of the new Corporate Joint Committees (CJCs). CJCs – legally mandated and institutionally at the heart of local government are investment, development and infrastructure oriented<sup>99</sup> with no remit to protect nature. They will sit alongside Wales’ already established four City-Regions with their economic growth and job creation objectives. Meanwhile, the new Infrastructure Wales Act<sup>100</sup> will seek to streamline and speed physical development. This institutional complexity may create further distance between on the ground decision making, and Future Wales: the national development where the requirement for integrated planning is most forcefully made. Notably even the inclusion (for over a decade) of important, nature friendly approaches such as One Planet Development in planning guidance has made almost zero difference on the ground<sup>101</sup>.

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<sup>99</sup> <https://research.senedd.wales/research-articles/collaboration-nation-what-are-corporate-joint-committees-and-what-will-they-do/>

<sup>100</sup> Which interestingly covers open cast coal and hydraulic fracking;  
<https://www.legislation.gov.uk/asc/2024/3/contents/enacted>

<sup>101</sup> The One Planet Council can find fewer than 100 dwellings over more than a decade;  
<https://www.oneplanetcouncil.org.uk/approved-applications/>

There is then an *a priori* possibility that, notwithstanding various nature *targets*, the actual land use and planning system is taking a significant (if quiet) turn towards development and away from the *systematic* consideration of nature. A planning deep dive could consider whether this turn is appropriate within the context of the Future Generations and Environment (Wales) Acts, and whether it might have implications for future efforts to meet biodiversity targets through new legislation. The investigation might also consider whether the relative evident absence of Future Wales as a framework for on the ground decision-making is the reality – especially as evidence suggests that Future Wales is simply missing from Welsh Government’s own formal strategic decision making<sup>102</sup>.

### **6.1.2 An assessment of the evidence**

Good policy requires good (and topical) evidence. We have suggested this is poor at Wales-scale. It is far worse at lower spatial scales, and often in both cases, not actionable. For example, the seven Area statements produced pre-COVID by Natural Resources Wales, roughly contiguous with CJC geography, were intended to;

*...Outline[s] the key challenges facing that particular locality, what we can all do to meet those challenges, and how we can better manage our natural resources for the benefit of future generations. They will be updated regularly and improved year-on-year as we engage with more people, gather new evidence, put forward ideas and work across boundaries to create opportunities. Watch this space, in other words<sup>103</sup>.*

In reality, while textually extensive and descriptive of their own construction they lack detailed evidence on sub-Areal ecology, population distribution, topography and catchments, or climate threats. None of the promised iterative improvements or data gathering has (as far as one can tell) materialised, thus the Statements say nothing about whether a particular development should happen in a particular place. This lack of place-specific ecological evidence is compounded by an approach to wellbeing evidence, assessments and planning by the (differently geographic) Public Service Boards that (as Section 4.2 notes) make almost no links to supportive nature.

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<sup>102</sup> Evidence here unpublished at time of writing; please contact current author for further details.

<sup>103</sup> <https://naturalresources.wales/about-us/what-we-do/strategies-plans-and-policies/area-statements/?lang=en>

**Future iterations of Area statements, (linked) NRW Forest Research Plans, and PSB and other wellbeing plans should be explicitly ecologically aware, reflecting local carrying capacity.** The lack of any well-established, well-funded and singular voice for nature as part of statutory land use and planning decision making at any mezzo-level likely compounds this lack of actionable evidence<sup>104</sup>. **A quick understanding of the key gaps in the availability and then the effect of nature's voice in planning processes seems an urgent undertaking.**

### **6.1.3 More resource, better applied**

The formal land use planning system is clearly not working for nature. In addition to structural, pro-developmental issues noted in Section 6.1.1 we point again to the increasing resource gap, from PEDW down to local development planning. This issue will not be addressed with incremental cash but will require innovation. The deep dive could consider how planning resource could be better identified, collated and developed.

An example of this might include nature-dedicated professionals, such as ecologists supporting land use planning. This work is inherently uncertain in scale, scope and location due to economic, institutional/policy and environmental-biological reasons. Job opportunities are in the public sector, based in planning authorities – hence often fixed term, seasonal or casual – or in Natural Resources Wales, which itself has suffered a recent reduction in employment<sup>105</sup>. Meanwhile in the private sector, large developers – narrowly focused in a limited range of occupations, and with geographically wide interests may be able to offer better remunerated and steadier employment in contexts with better career progression prospects. There is an additional cadre of peripatetic consultant professionals serving large and small developers<sup>106</sup>.

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<sup>104</sup> The NRW role in planning is consultative only.

<sup>105</sup> <https://ymgyngghori.cyfoethnaturiol.cymru/corporate-strategy/case-for-change/>

<sup>106</sup> As of May 2025 <https://uk.indeed.com/jobs?q=ecologist&l=wales> made this point well.



This means that most (and the better paid) ecologists in Wales are (probably) not engaged in making Wales' nature better<sup>107</sup>, but in ensuring new development is legally compliant. This represent significant and enduring power imbalance that can only be solved by the creation of a defensive professional resource, either at mezzo, or more likely Once-for-Wales level. **A national cadre of nature-oriented, legal-context aware professionals, available via call-off contracts to planning authorities across Wales (and beyond) may help authorities avoid the constraints associated with employing specialists at local level**, whilst helping professionals do worthwhile work better and longer with like minded colleagues. A planning deep dive could consider the (outline) structure, objectives and hosting of any such service – for example within NRW, in Nature Service Wales, or in a dedicated low-cost but legally robust structure such as a wholly owned Company Limited by Guarantee<sup>108</sup>.

In summary then, we suggest that irrespective of how willing the policy (or legislative spirit), little will happen where the implementation flesh is weak. A holistic and thoroughgoing (but quick) assessment of our land use planning and structures can work towards driving smaller this implementation gap for nature.

## 6.2 Creating markets

Markets – global and local – have done little to support or remediate nature in Wales or elsewhere. Despite the narrative of the economics profession, markets are, always and everywhere, socially constructed. The construction of new – and potentially nature beneficial – markets is thus a possibility, and arguably a necessity given straitened public funding. Following and expanding on prior argument, these are some areas we think require urgent moves to market create.

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<sup>107</sup> Not ignoring the work of many dedicated academics and third sector colleagues.

<sup>108</sup> e.g., <https://trydangwyrddcymru.wales/who-we-are/> (which at time of writing had no ecologist in-house)

### 6.2.1 Local, decent food

Whilst the move away from established food products from Wales has stymied, Welsh Government (and the Future Generations Commissioner) recognises the need that increased local sourcing can improve both the economy and population health. This has resulted in the publication of its Community Food Strategy<sup>109</sup>. Whilst welcome the Strategy brings no new structures or legislation and few (if any) additional requirements on the public sector, with its supporting documentation making it clear that re-localising the public plate is, legally, no easy job<sup>110</sup>. Horticulture remains explicitly an activity for small scale producers<sup>111</sup>. The strategy has no financial resource, no timeframe and no measurable objectives or outcomes.

This approach thus leaves the relationship between consumers and producers in Wales – the market – the same. The outcome will likely be similar as that for community energy which has struggled in Wales; small and fragmented local suppliers finding themselves unable to compete with large, resource-rich and well established non-local corporates that are finely honed to respond to existing, narrowly-financial incentives and rewards.

The current approach is thus a recipe for no change. This is especially frustrating as elements of the Welsh public sector have recognised the potential for more local and foundational economies to address a number of wicked concerns and begun to address their development<sup>112</sup>. Measurement, for example of the level and impacts of local sourcing, is in train<sup>113</sup>. Projects like Welsh Veg in Schools are delivering modest numbers, but more substantive learning about what might work<sup>114</sup>. More of what might work can be drawn from sector voices such as the Food, Farming and Countryside Commission, Our Food 1200, WWF and others<sup>115</sup>. Summarising these developments, early stages are likely to include:

- Significant nutritional, seasonal and locational diversity in Welsh food produce, likely much more plant based to address climate and ecological issues,

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<sup>109</sup> <https://www.gov.wales/sites/default/files/publications/2025-04/community-food-strategy.pdf>

<sup>110</sup> <https://indd.adobe.com/view/f76f7fee-3fd6-4e39-933e-7c564aa6393a>

<sup>111</sup> And intervention here is not working: <https://blackmountainscollege.uk/the-future-is-healthy-and-nutritious/>

<sup>112</sup> See <https://cynnalcyrmru.com/foundational-economy/> for example although much work is not in the public domain.

<sup>113</sup> [https://www.linkedin.com/posts/bic-innovation-ltd\\_sustainableprocurement-foodsystem-localfood-activity-7322609737349414913-UC3T](https://www.linkedin.com/posts/bic-innovation-ltd_sustainableprocurement-foodsystem-localfood-activity-7322609737349414913-UC3T)

<sup>114</sup> <https://www.foodsensewales.org.uk/what-we-do/pilot-project-welsh-veg-in-schools/>

<sup>115</sup> <https://ffcc.co.uk/wales>; <https://ourfood1200.wales/>

- The durable aggregation of Welsh food suppliers to build security of local supply, incorporating a range of legal and other constitutions and mechanisms fit for specific purpose,
- The re-structuring of public procurement processes to explicitly cost the climate and ecological impact of supplied food, and the related reinterpretation of 'best value', including actual enforcement of the clear requirement for public procurers to act and co-ordinate to "take action to reduce and reverse the negative impacts on the environment from our actions ... to safeguard and protect future generations [and use] ...[a]ppropriate reporting metrics [across] the Welsh public sector to demonstrate how procurement is supporting the delivery of net zero ambitions<sup>116</sup>,
- The recognition that locally procured food brings (measurable) socio-economic benefits to Wales that are wholly lost when (notionally cheaper) food is imported,
- The paying of a premium for increased nutritional security.

Creating a better-functioning market for food in Wales will not happen overnight, and certainly not for processed products that require significant investment in physical capital. It is nonetheless clear with what produce, customers and suppliers it can be started, but requires **a commitment by Welsh Government to build a new market relationship in an iterative, transparent and purposeful manner, with regard to science rather than established interests.**

### **6.2.2 Green Finance**

Environmental markets – primarily that for carbon – suffer from a variety of maladies including;

- lack of information on the quality and durability of the environmental remediation purchased,
- issues around additionality and displacement,
- gaming and greenwashing,
- prices for, e.g., carbon that do not represent the social or economic cost of emissions, even in the most sophisticated (e.g. EU) schemes,
- their mostly voluntary nature.

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<sup>116</sup> <https://www.gov.wales/sites/default/files/publications/2022-08/wales-procurement-policy-statement-2022.pdf> - page 10

As a result, carbon markets are trusted less and less. They are not yet a serious response to runaway climate change and may never be. Carbon markets are, however, easy relative to financing nature: For example, it matters not at all to the planet in which season or part of the world greenhouse gases are emitted or by whom, and there is thus an equalising mechanism that allows a single price to apply to all GHGs.

None of this is true of nature, meaning evaluating and then pricing nature outcomes is incredibly difficult, doubly so because those outcomes (the failure or success of nature) will be consequent only in part on the paid-for intervention, over a very long period, and in complex, non-transparent ways. And there remains a key question: why should any individual investor, beyond altruism, reputation or regulation, pay to remediate a remote and unrelated part of the world?

These issues will not be solved quickly. Many are, however, related to the macro scale of environmental markets: buyers and sellers do not know (or trust) each other, or the places and processes within which they invest, and thus rely upon – inadequate – regulation, certification and narratives to make the market function. This is not the case at Wales scale, where both market players and the nature problems at hand are relatively well known – and where all, currently are strongly embedded, with skin in the local game.

The task therefore is to create a nature market – or a system of payments for ecosystem services (PES) – that levers the advantages of small scale and deep knowledge. Prior efforts, whether formally PES or folded within agricultural support schemes have resulted in no significant improvements at aggregate scale, meaning hard regulation – e.g. on nitrates and phosphates – has been required.

A different approach is thus needed. We cannot continue to rely on the glacial development of agricultural subsidy regimes to 'save' nature. The recent, extensive and thorough assessment of the carbon sequestration potential of the SFS<sup>117</sup> illustrates the point: 160 pages and 40 recommendations, but only passing mentions of nature and biodiversity, no remit to consider anything beyond single-farm, single process interventions (e.g. catchments), and no comment and contextualisation of the fact that, the SFS as currently envisaged with no substantive change to core agricultural outputs, cannot even get near the narrow target of 'net zero'.

Given the constrained and troubled nature of the SFS, and its long gestation, there may be value in diverting resources from its notional (but as yet non-existent) optional and collaborative layers to a dedicated scheme for the trialling of a substantive payments for ecosystem services/nature remediation system that:

- Is open to all rural land managers, not just farmers,
- Allows co-funding, capital funding (e.g. via loans) and blended investment and returns,
- Clearly identifies (and pays for) environmental outcomes in terms of GHG reductions, pollution avoidance, and a key initial set of nature/biodiversity/ecosystem improvements that are most easily measurable,
- Enables and de-risks collaboration, especially for contiguous holdings,
- Is deliberately innovative 'action-research' with payments available for the delivery of both on the ground outcomes and learning,
- Includes substantive resource for central learning, extrapolation to Wales scale, digital and algorithmic modelling, and narration and explanation,
- Is presented and conceptualised as an - expensive - investment in a sustainable future.

It is unlikely that Welsh Government civil servants have (or can easily obtain) the competencies to develop and deliver this scheme at pace. It is likely then that either outsourcing to an expert agency, or an upskilled Development Bank for Wales (which already has a remit in this area<sup>118</sup>).

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<sup>117</sup> <https://www.gov.wales/sites/default/files/publications/2025-04/sustainable-farming-scheme-carbon-sequestration-evidence-review-panel-full-report.pdf>

<sup>118</sup> <https://developmentbank.wales/sustainability>

### 6.3 Tir Dyfodol. Towards a Responsible and Resilient Rurality

We are not unaware that this report presents an analysis that is far reaching, and a set of suggested actions that are ambitious in the extreme. This is, however, a reflection on more than two decades of devolution that has simply failed to deliver a shared vision of a sustainable, commercially viable and responsible rural economy for Wales.

This gap is of course not the fault of one organisation alone – if indeed it is anyone’s ‘fault’. No other region like Wales has (as far as we are aware) charted a path to the future that is regenerative, inclusive, climate-responsible and practicable. However, no other region has a Future Generations Act, and thus a similar responsibility – and arguably ability – to do so.

The conversation about building for the future is accepted in legislation and civic debate in Wales as much as it is anywhere. Implementation however remains a challenge. This is because the legacy the Senedd inherits is that of a British state – political culture, resourcing, party structures, democratic engagement – that has singularly failed itself to plan for, and hence protect, the future. This is evident in a lack of investment in long-term-useful infrastructure, in husbanding and renewing the skills and capabilities of its citizens, or in protecting the current – let alone future – poor<sup>119</sup>.

The lack of investment in basic data, as well as in cultivating grown up and inclusive conversations and relationships, means that we currently do not know what is ‘best’ for future rural Wales. Even if we did, Wales lacks the capacities and tools to enact the undoubtedly radical changes that would be needed to move to this preferred future. The truth is that, as for the UK<sup>120</sup>, nothing less than the rewiring of the state is required to ensure a resilient and responsible future for rural Wales.

This report then suggests that rural Wales requires transformational change over a long period to deliver sustainable wellbeing for both those who live there, and for Wales more widely. Further, we suggest that the next Senedd will require a clear sense of direction, good evidence, and the incentive and courage to enable these big changes.

In the short term however, a better approach to planning, and embarking upon the creation of better markets for food and nature are things we can do quickly, and possibly well.

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<sup>119</sup> <https://www.unicef.org.uk/what-we-do/our-uk-work/child-poverty-uk/>

<sup>120</sup> <https://www.instituteforgovernment.org.uk/comment/five-things-keir-starmers-speech-reforming-state>

## **6.4 Recommendations**

**WG to undertake a deep dive into the ability of the planning and land use system to deliver better ecological and climate function. This to include an understanding of the presence and effectiveness of nature's voice in planning processes and decision-making.**

**WG to fund of a new Rural Observatory potentially building on the UKRI-funded Arsyllfa Cymru, with a task-and-finish remit to suggest what long term data and analytical structures best serve rural Wales - including whether a legislated Future Generations Lab should be part of that architecture.**

**A commitment by Welsh Government to build a new market relationship for food in an iterative, transparent and purposeful manner, with regard to science rather than established interests, and to explicitly market-create by aggregating and linking suppliers and customers.**

**To launch a rural Commission - a new National Conversation on rural Wales - agreed cross party, to deliver its recommendations for protecting future rural Wales within the Senedd term, and with agreement from parties to bring relevant legislation to the Senedd.**

**Ensure future iterations of Area statements, NRW Forest Resource Plans, Wellbeing plans, development strategies and similar are explicitly ecologically aware, reflecting local carrying capacity.**

**Create a national cadre of nature-oriented, devolution-aware professionals, available via call-off contracts to planning authorities across Wales (and beyond) to help authorities avoid the constraints associated with employing specialists at local level.**

**To work with partners to create a new skills approach and set of professions to serve rural Wales and better enable holistic land management**

**To consider how we best plan for Tir Dyfodol: To either develop and legislate a new integrated land use mapping and planning approach that takes full account of the needs of nature, or to amend existing guidance and legislation and fund and orient planning and development functions to actually fulfil current and future legislative and stewardship duties.**

