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The Implications of Brexit for Agriculture, Rural Areas and Land Use in Wales

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[1] In October 2017 the PPIW became part of the Wales Centre for Public Policy. The Centre builds on the success of PPIW, and will continue the Institute's work of meeting Welsh Government Ministers' evidence needs, alongside a new mission to support public services to access, generate, evaluate and apply evidence about what works to key economic and social challenges. This assignment was commissioned for the final PPIW work programme.

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Summary

- This report is a think-piece to inform ongoing policy development by the Welsh Government working in partnership with stakeholder groups. It synthesises evidence on the state of agriculture and rural areas in Wales with the available understanding of stages, timing and potential outcomes of the Brexit process, identifying implications and potential priorities.
- Our scenario analysis suggests that the most likely changes in trading conditions would tend to disadvantage the competitive position of Welsh agriculture vis-à-vis its main current markets and trading competitors (particularly in sheep and beef). Further, we may anticipate generally reduced levels and scope of public funding by comparison with those the sector has enjoyed in recent years. However, within these challenging probable change scenarios, there are opportunities if farm businesses are enabled to respond adaptively.
- Some farms and sectors face much greater challenges than others, which implies uneven structural change across significant areas:
  - a decline in the economic viability of sheep production is likely, with these farm businesses especially vulnerable to changes in both market access arrangements and public funding support – this could increase pressure on rural services;
  - accordingly, north and west Wales are likely to face stronger negative impacts than the south and east, where more potentially positive and diverse impacts can be expected among dairy, horticultural, mixed and other farm types.
- How key food and forestry processors and retailers respond to the Brexit process, and their willingness to invest in Wales and Welsh products, will be an important factor. Their patterns of operation may change in response to shifting economic and market conditions.
- Managing the challenges faced is key, to prevent undesirable impacts on natural capital, landscape quality and community identity. Three policy directions are recommended:
  - Fostering resilience in farm and other land management businesses; supporting successful adaptation, enhanced efficiency, diversification, adding value and inter-generational transfer, as well as some moves from farming into other sectors;
  - Investing in longer-term partnerships between government, food retailers, rural service providers, and commercial lenders to promote stronger business networks and SME infrastructure across Wales;
  - Designing a future funding framework to support natural resource management and rural vitality in Wales.

Introduction

The UK leaving the EU presents the Welsh agricultural sector and rural areas with important challenges and opportunities. To overcome the challenges and capitalise on the opportunities, the Welsh Government has called for all rural actors and stakeholders to work collaboratively to achieve its shared vision, as set out in recent policies and strategies. These include:

- for agriculture: ‘a prosperous, resilient agriculture industry promoting Wales’ present and future well-being’ (WG, 2015b);
- for the rural environment: ‘Healthy, resilient ecosystems underpinning our economy, health and well-being and (representing) an important part of our culture. They provide us with our food, clean water and air, the raw materials and energy for our industries and protect us against hazards, such as flooding and climate change’ (NRW, 2016);
- for the Welsh economy and communities: ‘to be widely recognised as one of the best places in the world to live, to work and to thrive… a strong economy, not as an end in itself, but for the integral contribution it can make to the quality of life and the economic, social and environmental wellbeing of people and communities in Wales, placing sustainable development as our central organising principle’ (IWA, 2015);
- for the process and outcomes of Brexit: ‘Wales can seize the opportunity to establish new ways of shaping the future in line with current best practice and (to) think inventively about new ways of doing things best suited to our needs’ (WG, 2017a).

This report is the product of a short, reflective exercise, undertaken between June and November 2017, to provide some independent insight and ideas to help address these goals, through rapid analysis of literature and consideration of policy, expert and stakeholder opinions. Its objectives are to:

1. Summarise ‘best estimates’ of the likely process and shape of Brexit, identifying clear scenarios that can be used to suggest impacts and outcomes.
2. Review the state of Welsh rural areas at present in respect of their agricultural, environmental and socio-economic components and the role of current policies in shaping these and their inter-linkages.
3. Consider how the ‘most likely’ identified Brexit scenarios would affect these assets and relationships.
4. Identify key ingredients for a future strategy for rural Wales which can deliver its main overarching goals, in the face of these anticipated scenario impacts.

The report is divided into five sections.

- Section 2 describes the likely shape and form of Brexit and considers potential scenarios for this exercise.
- Section 3 analyses how rural areas would be affected by the scenarios discussed.
- Section 4 summarises key points from Section 4 and compares scenario priorities.
- Section 5 develops key policy principles and elements for the future.

Also included is an Appendix, which summarises the state of Welsh rural areas: their agriculture, environment and rural socio-economic characteristics and trends. This work was conducted during a period of continuing evolution of UK-EU negotiations and related Brexit policy planning and development within the Welsh Government, working closely with a wide range of partners. The author was given access to the outputs and deliberations of a range of relevant Welsh Government working groups and held meetings with officials and at intervals during the research period.

Brexit Process and Scenarios

The Brexit Process

There are three key axes of variation for the Brexit process, and what it might mean for future UK and Wales policy and trends, as follows.

1. **Trade –** the UK must determine its future trading relations with the EU and with third countries outside the EU, as part of the process of leaving the Single European Market. The outcome of this process could vary between a situation of 'almost free' trade with the EU, within or outside a customs union (i.e. with or without common external tariffs for third countries), versus a high agri-tariff position as a result of defaulting to a World Trade Organisation (WTO) 'Most-Favoured Nation' (MFN) trading model. MFN would mean new tariffs on UK-EU agricultural trade and on UK trade with other countries outside the EU, at least in the medium term. This could happen, for instance, if there is insufficient agreement by 2019 between the UK and EU on the UK-EU trading position and/or the terms of any transition period.

2. **Future policy/funding for agriculture and rural areas** – the UK and its devolved administrations will determine how much can be afforded, for agriculture, environmental management and rural development support once we are no longer within the framework of the Common Agricultural Policy (CAP). The question is therefore how strong/large, and for what purposes, would a future public support budget be? Under the CAP, the scale of support

was largely EU-determined - how would priorities change, once determined by the UK or by Wales?

3. **The nature of the wider UK post-Brexit governance model and general economic situation**, **which will affect change in rural areas**. Will the governance model be regulatory or de-regulatory? How far will it be devolved, and how many other challenges will arise from Brexit impacts? Current devolution in agri-rural affairs is dependent on a common supra-national (EU) framework covering CAP resources, EU Structural Funding and the provisions of EU legislation on the environment, food safety and consumer welfare. Once this framework no longer applies, what might replace it? How might the wider impacts of Brexit affect the UK economy, public policy and finances?

As the UK begins the process of negotiating the Brexit deal, UK Government Ministers are seeking a process of 'roll-over' in respect of much of environmental, food and agricultural policy; for at least 5 years after we have left the EU. We can anticipate a fairly close translation and adoption of many of the basic instruments of EU legislation, including established regulations on the environment, and a proportion of those relating to agriculture and rural development, in the EU Withdrawal Bill.

However, there has been a longstanding view in the UK Treasury and UK Government that the CAP does not best suit UK interests (e.g. Defra and HM Treasury, 2005). The UK's official position on CAP reform has been that 'Pillar 1' direct farm payments, in particular, should be phased out as they fulfil no clear public policy role. It is therefore likely for moves in Whitehall to reduce the scope and scale of this kind of support to UK farms in future and reduce the amount of support that is going into any Pillar 1-style direct payments. However, unilateral removal by the UK without any counterbalancing change elsewhere would negatively affect our agri-trade position, and would undoubtedly affect sector viability, at least in the short term. The question remains as to how far the will of the UK Treasury might stand, against stronger support for continuing with some basic payment for the whole land-based agricultural sector, at least in Wales, Scotland and Northern Ireland, after Brexit.

Looking ahead, the full Brexit process will take more than two years:

- the CAP will cease in the UK from April 2019 and elements of its support will be honoured up to 2022, but policy perhaps until 2025, during the anticipated 'transition period', may look rather like CAP but with a lower budget, most likely Pillar 1 step-wise cuts and a modestly rising Pillar 2, then…
- a full domestic approach must be agreed for the four UK countries after transition, allowing some devolution in agri-rural policy within a national framework relating to UK trade policy,

as that becomes clearer. This might emerge in plans and proposals around 2021/2, for implementation once the transition phase ends;

- there will be opportunities to amend some environmental/health legislation that is most relevant to farming and forestry, which can only be taken forward after 2019. However, PM speeches during 2017 and the recent White Paper on Brexit and the new EU partnership suggest this area will probably not be among the UK Government's main legislative priorities during the transition phase.

It is important to consider that the Brexit process will evolve in parallel, and perhaps in tension, with the next phase of EU CAP reform, scheduled for 2020. This is likely to deliver a smaller total CAP budget (not only due to UK withdrawal) and some simplification of the policy. The UK may also require specific new transitional policy tools and processes to manage the period of change.

Scenarios for Brexit outcomes

These scenarios are broadly consistent with those proposed by the Welsh Government's own policy officials within the relevant areas of governance earlier in the post-referendum process. However some refinements have been made in light of political developments since then concerning:

- the nature of a future trading situation – EU-UK and UK-other countries,
- the scale and shape of future support to agriculture and rural development (the successor approach to CAP), and
- the regulatory climate within UK public administration, which will in turn be affected by current and future economic conditions.

Describing each briefly, in turn:

Scenario 1 considers a situation where the UK succeeds in attaining a future (near) open market with the EU, such that no significant barriers to trade with our existing EU markets are erected, at least in the short-term before the UK seeks any freer-trade deals with third countries outside the EU. In the longer term, some barriers might be necessary as part and parcel of a broadening of trade relations with other countries, to prevent the UK becoming a conduit for tariff-free entry of goods from third countries into the EU market, or *vice versa*. At the same time, this scenario supposes a significant reduction in domestic support for agriculture and rural development, over a period of (c.5) years. This is combined with a supposition that the regulatory environment remains roughly as it is now, due to its close links to open markets with the EU (i.e. UK standards will need to be at parity with EU ones).

Scenario 2 assumes the same trading conditions as Scenario 1, but with a commitment by the UK Government to continue with similar-to-current levels of support to agriculture and rural development. In many ways this is as near to a '*status quo*' scenario as is possible to envisage emerging from the Brexit process. We may consider it the least likely scenario, in the wider policy context in which the UK is seeking some dividend from its departure from the EU and yet the economy remains somewhat uncertain, thus discouraging significant growth and investment. As with Scenario 1, open UK-EU trade relations would imply limited scope for UK de-regulation.

Scenario 3 considers perhaps the most drastic changes for Wales, due to a combination of reduced trade with the EU for agricultural products arising from the imposition of tariffs on key farm products (assumed to be the 'losses' agreed as part of a deal enabling 'priority' UK competitive trade sectors to retain open trading conditions, in return), and reduced public support for agriculture and rural development. De-regulation would also be more possible in respect of some agri-rural policies and regulations, particularly where global standards are some way below EU ones (e.g. on pesticides, nitrates, genetically modified organisms and some aspects of food safety/supply chain controls).

Scenario 4 considers the same trade scenario as Scenario 3, but without a reduction in domestic support. Again, a more de-regulatory climate could be anticipated with this approach.

TABLE 1. Summary of future agri-rural scenarios

Scenario number	Trade outcome for UK-EU trade	Domestic agri-rural support outcome	outcome for UK-other trade	Regulatory outcome
1	Little change for 5-10 years	Significant reduction	No change	No change
2	Little change for 5-10 years	Maintained at current levels	No change	No change
3	Tariffs, reducing trade both ways	Significant reduction	New deals, cheaper imports	Relaxing of some standards
4	Tariffs reducing trade both ways	Maintained at current levels	New deals, cheaper imports	Relaxing of some standards

Estimating Scenario Impacts

The main factors that will affect rural Wales during and after the Brexit process relate to:

- the instability caused by uncertainty during the negotiating period and an anticipated transition phase, which could last from now until 2022 or so;
- the nature and extent of changes to trading prospects for Welsh business, but especially agriculture *vis-à-vis* the rest of the EU and third countries outside the EU, which will most likely happen after 2019 but could continue indefinitely thereafter;
- the extent and pace of change in respect of UK and Welsh agricultural and rural policy reform, which again should not begin until 2019, but where we might anticipate the basics of a new approach to emerge between then and 2022 (i.e. more quickly than the trading outcomes); and
- the shape and scale of public sector funding for the Welsh economy, particularly in respect of public services in rural areas and policies for growth and investment which, as the UK leaves Europe, will increasingly depend upon the funding relationship between Cardiff and Whitehall and Welsh Government priorities, in a likely context of unstable but generally slow UK growth.

Against these factors, we must consider the current state of Welsh agriculture and rural areas and their capacity to absorb, react and respond in the face of change. A broad examination of status and capacity is made in Appendix 1 to this report, covering Wales' rural economy, agriculture and environment and summarising some key points relevant to future change.

Looking ahead, we can distinguish an initial adjustment period up to perhaps 2023, and a longer-term period beyond that point. Whilst it is the general aim of this report to focus upon policy recommendations for the post-Brexit situation and thus an implied long-term, the short-term will nonetheless prove critical for the Welsh rural economy, environment and communities, as farms and other rural actors and stakeholders react to emerging trends and shocks.

The direction of potential change, in respect of both trading conditions and policy support for agriculture and rural areas, in particular, is similar. The most likely changes in trading conditions would tend to disadvantage the competitive position of Welsh agriculture vis-à-vis its main current markets and trading competitors, and the most likely direction of change in respect of future levels of support to the UK farm sector (based upon policy rhetoric from Whitehall, at least) is downwards, as compared to the current situation. Even in respect of the wider public funding climate, we may anticipate generally reduced levels of support to Wales than has historically been enjoyed post-devolution.

However, within these generally 'negative' probable change scenarios, there are opportunities, both in respect of potential changes to trading patterns and options domestically and internationally, and in respect of the targeting and added value of domestic support to agriculture, forestry, the natural environment and rural development in Wales. It is therefore important to map out approaches that prioritise opportunities for rural development when planning future policy.

Policymakers will need to consider how, and how differently across space and time, impacts will be caused and will interact dynamically with one another during and after the Brexit process. The next sub-sections take each of the main factors set out above and discuss how they might be anticipated to affect Welsh agriculture and rural areas, in turn and then in combination – as each will act in parallel. The impacts of each of the four scenarios are then examined in a table.

Uncertainty

Up to the point when the UK is scheduled formally to leave the EU, and probably for at least two or three years beyond, the domestic economy will be subject to uncertainties in respect of the outcome of the detailed negotiating process for departure and post-departure 'transition arrangements'. Already, some of this uncertainty has affected the economy, with devaluations of the pound against the other major currencies including the Euro, following the initial referendum result and then again following the recent UK general election. When the currency devalues it makes imports more expensive, and exports better value. At the same time, the city responds swiftly to every key step in the clarification process, judging whether and to what extent these steps represent a boost, or a problem, for UK companies and the health of the economy more generally. In turn, this affects real economic performance, inflation, and business expectations and decisions, which then affects public exchequer incomes from taxation and returns on investments. Thus the more uncertain the process, the more we might anticipate sudden swings in any or all of these elements. For rural Wales and Welsh farming, the key variables likely to be affected by this process are prices for (inputs and) outputs, general costs of living and variations in public spending – reflecting the heavy dependence of rural areas upon the public sector and upon agriculture, in particular.

The impact of big swings in output prices for the main farm sectors in Wales – sheep, beef and dairy – could be to make farmers less able or willing to invest in long-term development of their businesses because of the difficulty of predicting future cash flow and income. However, messages from the media and sector bodies might seek to counteract this. Also, in the short-term at least, UK currency devaluation should give an immediate boost to sheep producers and grazing livestock as a whole, via the twin effect of higher export demand firming up prices, and the value of the Basic Payment Scheme (BPS) increasing because it is fixed in Euros, which becomes worth more pounds.

Dairy producers, being less dependent on subsidy and on export markets, won't feel these benefits so much but, because the UK dairy market is under-supplied and imports become less attractive with currency devaluation, they should see some positive impacts in milk prices, although the price of concentrates – many composed of imported proteins – will also rise, in parallel.

Generally, therefore, the more extensive farm systems in Wales with low input reliance should see some short-term financial gains. While these sectors may see reduced investment, dairy, also horticulture and other more niche sectors could identify opportunities for growth based upon food sector incentives to source more products and/or raw materials domestically.

To set against this, we need to consider the wider economic effect of turbulence and uncertainty. As a generally import-dependent food economy, the UK should anticipate rising inflation as a result of currency falls. This will increase rural households' costs of living and devalue any savings. The short-term visible effect could look like growth, but as it is fuelled by consumer spending it won't represent real growth in a material sense (we have already seen some of this over the past year). Business investment decisions are more key to underlying trends in the economy and these might become either more positive or more cautious, depending upon other factors such as share prices and the cost of borrowing, itself affected by whether and to what extent the bank of England seeks to curb inflation via interest rate rises. If the emerging outcomes of the Brexit negotiations look like the UK Government is on the way to creating a stable and positive business environment, then business investment should benefit. If not, and the converse is true, confidence will be lower and business will seek to move resources out of the UK to other countries and markets. If the economy thus shrinks, public revenues will be reduced and government settlements with the devolved powers will be less generous. On the other hand if signs are more positive, spending could remain stable.

Unless there is a change of government, any major increase in spending appears unlikely, although higher budgets for health and education as well as infrastructure could be a feature of spending round redistributions, within limits.

Until 2022, the UK Government has pledged to maintain current support to agriculture and Rural Development, including LEADER programmes. Therefore, uncertainty in the wider economy should not affect these important elements of support for farming, environmental management (i.e. Glastir) and rural economies and communities. Likewise, the EU Structural Fund programme for West Wales and the Valleys will be largely protected and will continue to spend on business growth and investment, including infrastructure, until 2022. Given the nature of Wales, a proportion of this funding will have a positive impact upon rural areas, even if the largest investments are in Wales' main conurbations, as has been the pattern historically.

Trading prospects

The UK is seeking to negotiate continuing free market access to the single European market, as part of the Brexit deal, but without accepting all the duties and obligations which apply to others in that marketplace (notably free movement of workers). The EU is unlikely to grant this without some restrictions, not least for fear of making departure from the EU look too attractive to other members. So, we may anticipate a UK-EU trading agreement which places some restrictions on UK exports to and inputs from the EU. The UK will push hard for free access in those areas firstly where it has strong value exports to Europe, and as a second priority, where it is heavily dependent upon imports from the EU.

Agricultural imports and exports are not a major priority in respect of economic value to the UK, whereas they are relatively more important to countries like France and the Netherlands. Thus we may see a situation where the UK is willing to trade off the imposition of tariffs in its minor sectors like agriculture, in return for no tariffs on things like cars and the financial sector. It is possible that the EU might favour imposing two-way tariffs on sheepmeat as a way to give a stimulus to its declining sheep sectors in France and Spain, whereas it could be less keen for dairy and horticulture as these are sectors where the UK consumer market remains significant for EU producers. To what extent UK negotiators would resist or accept these patterns would depend upon the signals they might receive from the UK's largest organisations in food and drink: e.g. the multinational processors like Unilever, and the big five retailers, for whom lamb is unlikely to be an important focus of market attention. Strong calls from the farm lobby to resist tariffs on sheepmeat, on the basis that this could bankrupt much of the British landscape, might or might not prove effective. With the added complication of how to deal with the special arrangements for New Zealand lamb's access to EU markets – negotiated by the UK as part of our initial entry into Europe – it seems possible that tariffs on sheepmeat could be agreed as part of a Brexit trade deal with the EU. If there should be no trade deal within the 2 years up to 2019, without transition arrangements the 'default' exit position would certainly include tariffs on all main agricultural commodities. The scale of tariffs under a negotiated deal could be anything from 5% to perhaps 40% while under default conditions they would be around the higher end of this scale: a 12.8% tariff plus a variable amount per tonne depending on the cut, which can amount to as much as 50% ad-valorem equivalent (AHDB, 2016).

If there is no deal by 2019 but agreement on both sides that a deal is possible and desirable by e.g. 2022, we can anticipate transition arrangements keeping the UK notionally in a free-trading relationship with the EU, probably for a fee, up to then. This implies few impacts for Welsh agriculture and rural areas, for the next five years, although if a transition arrangement proved costly to public finances there could be negative impacts upon public spending in rural Wales.

Any situation with tariffs on sheepmeat would mean much higher costs of access to the current main market for producers of lamb, which is Wales' largest agricultural export by volume and value. If prices to EU consumers rose by anything from 5% to 40%, reduced demand could (significantly) depress UK lamb prices and render a significant number of farm businesses in Wales even less financially viable and unable to cover their costs of production from agricultural income. Even with continuing subsidy, this could render it uneconomic to continue producing sheep for a much larger share of existing producers and for a sustained period of years, rather than the smaller proportion and sporadic occurrence that we already see in the sector. It would send a clear message to older farmers that they might do best to cut their losses and retire now, and to those younger farmers with borrowings based upon future income projections, it could send them into bankruptcy.

Thus there would be a shake-out, and those farms with the most efficient and least borrowed sheep systems might well buy up more land and spread their operations and fixed costs over a much larger area. Highly extensive 'ranching' might survive, therefore, while elsewhere, other kinds of buyer could be expected to pick up the land released from former sheep farms – forestry companies, energy enterprises and tourism and leisure sector users, even environmental NGOs.

In any situation where some level of standard tariff were applied to all agricultural products traded between the UK and EU (e.g. a default to World Trade Organisation Most-Favoured Nation status, in the absence of a bespoke trade deal), then the impacts for Welsh sheep producers would be similar to those just described, but there would be additional impacts on other products and sectors. Notably, the UK food sector as a whole would have increased incentive to encourage an expansion of (efficient) domestic supplies for fruit and vegetables, dairy products, high value products like wine and beer and, to a lesser extent, beef and livestock feeds. This could lead to new opportunities to expand production in these sectors, which in rural Wales would suggest more horticulture especially in the south and north-east/border areas where there is already a culture and infrastructure for these products, and more dairying in the lowland areas of the north, south and west of Wales. Vineyards, barley and hops could become a more visible feature of south Wales farming, and the beer and spirits sectors could expand generally into many areas of rural Wales, given the ease with which micro-breweries and distilleries can now be cost-effectively set up and run.

These kinds of development of course assume that the agriculture sector is able and willing to respond quickly to new market opportunities and to work closely with others in supply chains to ensure that it can produce what they are looking for, to the right quality and price specifications.

Policy reform

The UK Treasury and successive UK Ministers have stated publicly that they do not support the principle of paying farmers indefinite income support without a direct connection to the delivery of public goods that markets will not provide. This refers to the biggest current form of direct financial support to UK agriculture from the CAP: Pillar 1 aid, or the current Basic Payment Scheme. This view has been held by successive UK governments, irrespective of the party leadership (Labour or Conservative), for a sustained period of at least 20 years. During the referendum campaign, a rare consensus emerged that the basic rationale for support, if not its scale, must change.

There will be an Agriculture Bill in the next two years' legislative programme, as announced in the Queen's Speech in June 2017. It is widely anticipated that this will seek to produce a new set of objectives for future support to the sector, which will more clearly focus upon its role in providing public benefits, public goods and/or ecosystem services, for which some level of public funding is justified in the eyes of UK Treasury and, by inference, the UK taxpayer (e.g. Gove, 2017[2]). This implies a future approach to 'subsidy' that is more single purpose than previously. It may still include the longstanding distinction between payments on a regular and repeated basis (annual payments, usually linked to land), and 'investment'-style aids which help support restructuring through performance-enhancing equipment, skills and training, planning and strategic development.

[2] In his first major speech as environment secretary, Michael Gove said 'there is a growing appetite for a new system of agricultural support which respects their work and puts environmental protection and enhancement first.' 21 July 2017.

The biggest uncertainty in respect of UK policies for agriculture and rural development, both during and after the Brexit process and any transition period, remains the financial scale and reach of these policies. For Welsh agriculture, this is a critical point. Beef and sheep sectors in Wales are heavily financially dependent upon support from the Basic Payment Scheme (BPS), and to a lesser extent from the Glastir scheme. This dependence is sustained through an EU-level framework which largely determines the scale of the BPS, at least. At farm level, BPS varies by area of land farmed and currently to a minor extent by its productive capacity. Other sectors (dairy, arable, horticulture, pigs and poultry) receive a lower share of average income from CAP payments.

As previously mentioned, Wales is now moving its Pillar 1 support from what was a historically-based payment until 2014 (i.e. offering a higher rate of funding/ha to more productive land and sectors) to a flat-rate area payment, which will be fully in place by 2019. On top of the standard payment per hectare an additional transition payment, whose scale decreases annually and which is only paid on the first 50 hectares of each farm, is added to this between 2015 and 2019 to cushion the redistributive effect of the change. The shift moves money from productive land and sectors (dairy and crops) to less productive ones (LFA sheep and beef). Wales also restricts eligibility for payments to a minimum area of five hectares and a maximum amount of €300,000 for all claims. Under EU rules, young farmers (principal farmers under 40 years of age) receive a higher rate of payment for their first five years of claims.

The current trend in Pillar 1 support in Wales, therefore, compounded by the post-Brexit devaluation of sterling, is to give quite a bit more support to farms on poorer land in the harshest parts of the country. So, extensive upland and hill beef and sheep farms across Wales are currently enjoying higher CAP aid levels than they have seen for quite some time. By contrast, dairy and cropping farms and those with more intensive livestock (e.g. beef finishing, poultry and pigs) either receive no aid or will receive successively less each year, between now and 2019. It is unclear at present, whether UK Ministers' assurances concerning the maintenance of 'existing levels of support' to the sector refer to the situation as it was immediately after the referendum, or whether it will also include the significant changes that have occurred and will continue to occur to budgets and payments between now and March 2019.

Vocal (and potentially influential) commentators (e.g. Helm, 2016) have suggested that after the UK leaves the EU, Pillar 1 aid should be cut successively over perhaps five years so that it is completely abolished by 2025. At the same time, it is suggested that agri-environmental schemes could be expanded and/or simplified, enabling many farmers to apply to receive continuing support via this route. This would establish a principle that future support is only paid in return for the delivery of public goods and/or ecosystem services. However, among the groups discussing these options, some clearly see this as a means to reduce the overall scale of support to agriculture in future. Others appear to see it rather as a way of re-legitimising a basic principle that all farming can deliver benefits to the public that go beyond food production and merit public support. In this second case, the assumption is that overall farm spending might not alter much from the present.

A growing collaboration of environmental and farming interests focused on the hills and uplands is promoting what might represent an intermediate view (Upland Alliance, 2016). This coalition argues that, irrespective of future support in the rest of the country, the uplands deserve a special deal because of the underlying economic marginality and high environmental quality, as well as value for water cycling and carbon storage, of these areas. They suggest a tiered system of future upland support, with a basic level paid to all farmed land, probably on a per-hectare basis; supplemented by potentially locally-designed and delivered, targeted and more tailored payments seeking and rewarding higher levels of environmental benefit and/or social added-value, and negotiated on a farm by farm, or landscape-by-landscape, basis. More detailed proposals are being developed in some areas (e.g. Exmoor, EHFN, 2016), and the same basic model was strongly supported at a Welsh uplands futures meeting in March 2017 (Ricketts-Hein et al., 2017).

It seems likely that at UK level, the Treasury will favour a net reduction in the CAP-equivalent support budget to the UK agriculture sector and that it will then be for Ministers, in Westminster and from the devolved governments, to decide how a smaller overall ‘cake’ should be divided. The implication of adopting an upland-friendly model would be that England loses much more than Wales, Scotland or Northern Ireland, which could be politically sensitive for English politicians. A more ‘balanced’ shrinkage of the pot for each nation would mean significant cuts and subsequent challenges for beef and sheep farming in Wales.

It thus seems prudent, in this report, to use our scenarios to envisage perhaps the two extremes of possible future public support to farming. Currently Pillar 2 agri-environment schemes in Wales represent around one-quarter of the total CAP support. So, at one extreme, all Pillar 1 funding could be removed and not replaced, cutting the farm support budget to a quarter of its current scale, and at the other extreme, all the current Pillar 1 funding could be shifted into a four-times larger and simplified, more accessible type of Glastir, over perhaps the next 5 years. The first extreme could lead to significant business collapse in beef and sheep farming, similar to that outlined already in respect of sheep tariff impositions (see the ‘trade implications’ sub-section), while the second would mean more modest shifts, encouraging more tangible environmental performance and land management benefits from the majority of Welsh farms. Indirectly, any overall cut in support can be anticipated to reduce land values – this will take time to work its way through the system but could then potentially reduce barriers to new entrants and put heavily borrowed farms in financial difficulties.

Funding to the wider Welsh economy

It is perhaps most difficult to predict causal linkages between Brexit and impacts upon Welsh rural areas, because these linkages are multiple and largely indirect. Here we focus on the significance of public sector spending, tourism, SMEs and service provision for the rural economy in Wales.

If the UK economy does well during and after Brexit, the UK Government would be able to provide new investment in infrastructure, services and key priorities like social housing, health and education. On the basis of need, all of Wales (and by implication, its rural areas) might at least maintain current levels of service provision and thus contribute to the vitality and quality of life in rural communities. To date, UK Ministers have seemed positive about the outcomes of funding programmes under the CAP's second Pillar, including those for rural skills and training, business development, productivity and economic diversification, as well as for rural social and cultural protection and enhancement (as in LEADER and other similar local initiatives). In the overall funding picture, these are relatively small spending items and thus we might anticipate no immediate pressure to cut them, beyond Brexit.

Nevertheless, it could be premature to expect no change to broader rural public service provision in Wales as a result of leaving the EU. Should the process trigger harsher economic conditions and lower growth in the UK as a whole (i.e. lower tax receipts), there would most likely need to be reductions in public spending. Hence for all our four scenarios, whilst the implicit assumption is for these kinds of support to be maintained in future, it is important to bear in mind that significant cuts could be required if the impact of the process on the UK economy were ultimately negative.

Also, the quality and impact of rural service provision is affected by both supply and demand. The points above have focused upon the supply side, but demand side changes could be significant. Most obviously, if changes to the farm sector trigger widespread business and family hardship in rural areas, the demand for a range of public services could increase significantly. If budgets for the medium term are not prepared for such an increase, the inevitable result will be reduced levels of relative provision and thus greater social and community problems and challenges. If combined with public spending cuts, these impacts would be magnified.

Considering impacts of the four scenarios

The table which follows presents a summary of likely impacts upon Welsh agriculture, the rural environment and economy of the four possible Brexit scenarios described earlier. It pulls together the combination of likely impacts from uncertainty, trade, domestic support and the wider economic and regulatory context and sketches how these might differentially affect farming and rural areas across the country.

TABLE 2 – Summary of scenario impacts on Welsh agriculture and rural areas						
	Farming sector impacts	**Rural economy & community outcomes**	**Rural environment outcomes**	**Food chain outcomes**	**Key determinants of local adaptation**	**Regional patterns**
Scenario 1 – free trade with EU, then with others, support cut by 60%	Most beef and sheep farms become economically inviable, dairy/other sectors OK (especially as milk prices now rising). EU imports will still out-compete domestic produce for the bulk UK horticulture market.	Widespread livestock farm insolvency triggers restructuring, so fewer people managing larger areas. Health and social needs for farms in crisis, downturn in agri-economy, decline in rural family/working populations. Possible loss of large-scale abattoir in N Wales. Rural community – fewer trades, fewer job opportunities, decline in young families in short-term. In south and east Wales dairy, pigs/ poultry and horticulture more stable, fewer impacts. Expansion in forestry and leisure offers medium-term scope for job creation in services/ leisure but risks to tourism from neglected land.	Upland and lowland peatland/meadows and associated features are under-managed; scrub spreads, land moves out of farming into other uses including leisure, forestry, energy generation – biomass, solar, wind. Some land is abandoned in the most inaccessible areas, whilst in more productive zones, dairying may expand. Reduced grazing stock may mean marginally better water quality in uplands and sensitive pastoral lowland areas (e.g. Wye valley), reduced GHG from agriculture, reduced public access, negative historic feature and landscape quality impacts.	Retailers/processors switch away from UK produce to imports for beef and lamb, except in respect of higher-value niche products where the supply chain linkages, price premiums and loyalties remain strong, sustaining primary production. Dairy sector linkages remain as now.	Banks' attitudes to indebtedness and poor business prospects for farms; support for diversification of incomes and outputs; consumer loyalty for Welsh produce; growth in processing capacity among SMEs in Wales to assist farms to add value to primary outputs.	Central and north Wales will be more negatively affected than south. Critical risks for High Nature Value areas in the uplands and pastoral lowlands from under-management in many situations, but potential intensification via transfer into dairying, for some lowland pasture. Likely movement of upland into other uses including forestry, where there is pre-existing infrastructure (e.g. near existing forest areas) in north, mid and west Wales.

TABLE 2 – Summary of scenario impacts on Welsh agriculture and rural areas						
	Farming sector impacts	**Rural economy & community outcomes**	**Rural environment outcomes**	**Food chain outcomes**	**Key determinants of local adaptation**	**Regional patterns**
Scenario 2 free EU/UK trade, same support level as now	Depends upon types of aid – if they represent a status quo, continued slow farm enlargement in hills, some dairying growth in S&W Wales, and continued growth in diversification and non-farm work among farm families.	Continued slow growth in jobs and incomes, helped by continuing rural development aids to farms, SMEs and micro-business start-ups. Possible boost to tourism if Sterling remains low in value vis-à-vis EU and wider market currencies.	Assume continuing spread of Glastir across rural Wales with increasing benefits, but challenges to sustain adequate sensitive management and restoration work in most marginal areas as farms continue to feel the impacts of cost-price squeezes, farmer's age and succession remains a challenge.	Little change from the present situation, although the implementation of the new Wales Food Strategy, if it happens, within the next 5 years could help to stimulate gradual, positive developments in added value and employment in rural Wales.	Short-term uncertainty may discourage investment and entrepreneurship, so suggesting more financial vulnerability for those farms not already well-integrated into supply chains. However once the policy direction is clearer, the recent modest but positive development of these twin elements should be reinstated.	No significant change from current patterns and trends.
Scenario 3 – tariffs on EU/UK agri-products, then freer trade with others. Domestic support	Most beef and sheep farms inviable, as markets for sheepmeat collapse. Shift in profit away from grazing livestock to horticulture, novel, niche or	Big shift in rural economy, new land uses replace farming: leisure, tourism, forestry, and energy – also land abandonment and village decline in remote areas. More market opportunities for niche/ high value products near main	More dramatic impact than scenario 1, same types of change and sustained over a potentially longer period, as new trading relations are established.	Retailers look for new sources of meat supply outside EU, also for more domestic or non-EU suppliers of key EU imports like horticulture, dairy, wine and beer. Possible exit of major processors targeting a wider EU market.	Need to upskill a new generation of (fewer) more entrepreneurial farmers in how to produce a more diverse offer and how to manage business collapse, reorientation and resurrection. As in	Again, worse impacts on farms in north and centre than in south, with some increased pressure on land, especially in the south, north-east and borders, for a variety of new

TABLE 2 – Summary of scenario impacts on Welsh agriculture and rural areas						
	Farming sector impacts	**Rural economy & community outcomes**	**Rural environment outcomes**	**Food chain outcomes**	**Key determinants of local adaptation**	**Regional patterns**
cut by 60%	high-value products (wine)	processing centres leading to population growth			scenario 1, support services for farm families will be vital.	products and uses. More forestry/ tourism in mid and north-west Wales.
Scenario 4 – tariffs, same support level	Market for UK sheepmeat exports collapses, but continuing subsidy ensures more farms survive than in Scenarios 1 & 3, potentially to re-orientate. More welsh beef is consumed in the UK. More opportunities in horticulture, dairy, etc.	This is a scenario with some features of 3, but with the big change in market signals cushioned by continuing farm and rural development support. The hardest hit farm sector is sheep, so all areas with specialist sheep farms would see the greatest changes while beef output may stabilise and other sectors can be expected to grow.	Difficult to determine short-term, as farmers may retain some sheep and expand beef on marginal upland farms, which could bring benefits. Growth in other sectors and uses will have mixed impacts – potential benefits if carefully managed and sited. Long-term, there could be land management decline on the most exposed areas if sheep numbers fall below the levels needed to maintain biodiverse vegetation.	In the short-term, processors and retailers will see more incentive to source domestically, but may seek longer-term gains from freer global trade. Replacing Irish imports will be a key challenge for the beef and dairy sectors, and could incentivise more vertical integration in these sectors, at UK level.	UK/ Welsh Food chain reactions and strategies will become critical to the full range of outcomes. Assistance to help mainly sheep enterprises re-orient successfully towards more multifunctional businesses (combining farm and non-farm incomes, as well as considering other farm outputs), could also be vital.	The highest land and communities in Wales in the north and central belt could see super-extensification and widespread agri-rural decline (see p.13). Elsewhere, change less dramatic, growth in lowland dairying and (e.g.intensive) beef with very mixed impacts depending upon the production systems favoured by the food chain.

Summary Impact and Comparison Across Scenarios

The patterns in Table 2 show a range of similarities, regardless of which of the scenarios is considered. These include:

- a likely decline in sheep production beyond the current and likely short-term 'heyday' period, and a need to restructure and/or re-orientate the basis of the business for many of those operating this major farm business type in Wales (i.e. specialist sheep production, or mainly sheep with some beef suckler cows/beef finishing in sheds);
- a differentiated spatial pattern of economic and environmental impact whereby the north and west of Wales is likely to suffer stronger negative impacts whilst in the south and east, more potentially positive economic/diverse environmental impacts may be anticipated;
- the key role and influence of the food chain, in respect of how it chooses to respond to the Brexit process and likely outcomes, centred around key processor and retailer perspectives including buyer loyalty and willingness to invest in Wales, Welsh product image, as well as longer-term pricing and market growth strategies. The dynamic nature of this sector is also important – it cannot be assumed that the current pattern of operation will remain as it is when the wider economic situation could change quite rapidly, and larger operators in the sector will need to be anticipating and responding quickly to change; and
- an appreciation that, whilst hardly visible in basic statistics, agriculture remains a major driver of economic and community viability in the many remote areas of Wales, and the main manager of its habitats, biodiversity and landscapes. Thus, for all scenarios in which the economic fortunes of the dominant type of agriculture (grazing livestock for meat production) seem set to decline, consideration must be given to how best to encourage, stimulate and support alternative business and land management options that can develop sustainably, to support wider Welsh Government goals. This is not to say that grazing livestock farming will disappear from the Welsh countryside, but one can anticipate a potentially significant decline in its relative importance to Welsh rural economic activity, competitiveness and community viability. This leads to questions of how it can be either replaced, and/or retained by adding value or broadening market reach and the returns to producers. Potential negative environmental impacts of intensification in southern Wales could also merit some attention, as these farms respond to changing trade conditions.

This report has not considered the impact of a Brexit immigration control policy upon the profitability and modus operandii of the food sector in Wales and the UK as a whole, but this should also be recognised as part of the mix. There is a current heavy dependence of abattoirs, veterinary services, meat cutting and dairy processing plants, food packing etc. on skilled and unskilled labour from Eastern Europe.

To summarise, it is necessary to reconsider how best to foster and sustain farming's positive contribution to the quality and character of the natural environment of Wales, if the economic incentives for grazing livestock production decline further; whilst being ready to cope with potential negative pressures from growth in intensive farming and other land uses, in some areas. A focus upon entrepreneurship skills and confidence, new products, new markets for alternative products, new enterprises and new multi-sectoral, environmentally sustainable land-based business models would seem worthwhile, in this context. At the same time, re-thinking the rationale and form of future support to maintain and enhance ecosystem services and public benefits from land management is also clearly necessary.

Policy Recommendations

The combined implications of the scenarios discussed in this document give a clear sense of opportunities and needs for the short and medium term, in Welsh agriculture and rural development policy. These can be divided into three main areas:

1. Preparing Welsh farm and land management sectors and businesses for a post-Brexit future. The WRO report on likely impact of 2013 CAP reforms on farms in Wales highlights 'we can witness the significance of farm family skill sets (for instance, levels of entrepreneurship, multi-functionality) and types of farm family strategy as being important factors in shaping the degree of resilience and adaptability of farms to impending …changes' (WRO, 2010). Up-skilling, developing collaborative capacity and improving efficiency, environmental knowledge and farm-level coping strategies will all be important.
2. Increasing agri-food sector and rural community resilience, through more active long-term partnership working between Welsh Government and commercial or social actors in the food, public services and financial sectors in Wales, planning for longer-term strength.
3. Developing a new bespoke approach to public support to maintain and enhance natural resources and rural vitality benefits provided by land managers and rural communities across rural Wales, for the benefit of current and future generations.

Each of these areas is suggested as major themes for planning and action: the first two representing an adaptation strategy, and the third constituting a framework for longer-term support, for land management and rural vitality. The adaptation strategy might focus on building resilience in Welsh agriculture and the rural environment, in the coming 5-10 years, as follows.

- Fostering resilience in farm and land management businesses
    - Uncertainty, coupled with potential trade and public funding changes, suggests that the majority of current farmers and farming families in Wales need to review their business performance and strategies. They should look to enhance efficiency in the short-term (but in ways which reduce risk to the underlying health of the business and the environment); and seek to minimise their vulnerability to short-term price fluctuations and/or unfavourable lending rates.
    - For those farms without successors, near to or over retirement age, it should be a priority to plan for a safe exit from the business, either transferring to a younger and well-trained generation or selling up to a more profitable neighbouring/alternative business, which may or may not be agricultural. With a concern for future rural vitality, transfers of farms to people with new, more diverse and eco-friendly business models which offer a prospect of more jobs, or a wider range of outputs with added value, should be encouraged.
    - For farms with hopes for succession, it will be essential for the younger generation to be well-skilled in confident and adaptable business management, looking to maximise the multiple potential benefits (economic, social and environmental) and commercial opportunities afforded by each individual farm, neighbouring group of farms, or producers all supplying the same food chain via a single route. In this context technical skills development, business planning, co-operation and collaboration for economic and environmental gain would all seem valuable potential elements to support through advisory and industry-led initiatives. Mobilising the creative and supportive skills of staff and leaders in Menter a Busnes, Farming Connect, the Farming and Wildlife Advisory Group (FWAG) Cymru and the various levy bodies and boards (including those for minor products like wool) could be very valuable in this context.
    - These priorities should be supported using existing resources under the Wales RDP and other domestic policies, in the period between now and 2022. More Brexit-focused strategic delivery of already programmed advice, training, group development, business planning and investment aids for farms can be pursued if all main delivery bodies can come together with Welsh Government to consider and plan now. A new approach could be rolled out nationwide and in a way which

enables specific targeting to local 'hotspots' in respect of vulnerable sectors and communities, seeking to reach places and people that perhaps have not been easy to engage under previous initiatives.

- In order to facilitate experimenting with new approaches to target different groups and situations, it may be necessary to provide some national funding (under state aid *de minimis* provisions), or to amend the RDP to enable more creative use of 'Article 25'[3] co-operation aid, between now and the end of the Programme period.

- Ongoing evaluation and increased partnership working
    - It will also be necessary and important to use this short-term period as one in which ongoing evaluation of these efforts, in an engaged and inclusive partnership between expert evaluators, farmers, rural communities, agencies, NGOs and policymakers, is established. This would help to clarify the shape and scale of a longer-term knowledge and investment in resilience programmes for Welsh agriculture and rural areas, beyond 2022. This would most likely need to offer continued enabling support and investment up to 2030, to facilitate robust adaptive management and development from Brexit impacts.
    - For the major players in the food chain in Wales, those involved in key processing (e.g. Dunbia, the Welsh creameries, Welsh farm foods) as well as the main retail groups should be invited to work with Welsh Government to consider how and in what circumstances they can help to support the achievement of Wales' goals for food and farming. There could be scope through integrated supply chain initiatives, local marketing and product promotions and development, local procurement strategies, and other actions. Many valuable ideas were set out in the Wales Food Strategy consultation document – this report highlights the importance of taking them forward as a matter of urgency, in light of Brexit.

For the future beyond Brexit, the Welsh Government's current working group on the future of land management in Wales could be tasked with developing a successor support framework for Wales. In order to align with the broad UK consensus and UK Government statements, this should probably be based upon the principle of public payment for public benefit; and accessible in principle to all farms in Wales. This report makes no explicit recommendation on future funding, but takes as its starting point that the stakeholder consensus in Wales is for a

[3] Article 25 of the European Agricultural Fund for Rural Development (EAFRD) Regulation, 2013.

continuation of some level of future support to the farm sector, as discussed in the previous section on 'Policy Reform' (p.13-15).

To foster efficiency and effectiveness, a two-tier approach is suggested, distinguishing between those elements that are appropriate for all land managers and others that won't be appropriate everywhere because they depend upon specific local contexts, needs and opportunities. The public's willingness to pay for such a policy may need to be assessed prior to the setting of budgets – this could be measured using proxies from former market research on similar topics, or via new survey work.

By way of author's illustration, a broad approach could be conceptualised as 'Natural Resource Managers Aid' (with an appropriate Welsh name). It might consist of:

A. A basic tier, paid non-competitively but offering a simple payment in return for a range of good farming/land management/ecosystem service provision practices, applicable generally across all land-based farm types (as a minimum), and going clearly beyond the legislative minimum. This could either be paid as a standard rate per hectare or as a lump sum per farm plus a per-hectare rate – possibly up to a maximum claim per beneficiary business, depending upon the balance of cost and benefit associated with the management standards that it would require. Previous experience strongly suggests that even a basic tier approach should be supported by advice to help farmers to fulfil their commitments and it could be valuable to link the receipt of aid to an ongoing duty to undertake some basic training to complement the elements in the tier. These might include soil condition and enhancement, water safety and conservation/flood mitigation options, basic biodiversity surveying/protection and landscape feature management.

B. A basket or menu of options for additional area-based payments or investment funding, to enable more ambitious management, or investment in restoration or development work that benefits the long-term resilience of the enterprise and the environmental and social/cultural services that it provides to the public. The options could include both environmentally-focused measures as well as economically-focused ones, because sometimes the economic stimulus will be a key means of securing the environmental benefits, and vice versa (e.g. consider the challenge of enhancing the biodiversity value of Welsh farm woodlands which are crying out for more active management). The types of management option could include many of those from Glastir Advanced and the Sustainable Management Scheme, as well as measures from the rest of the RDP schemes, and the most effective choice of options should be supported by farm planning and expert facilitation.

Element B could be designed and delivered locally via collective partnerships – akin to the Dutch agri-environment co-operatives model, or the pilot schemes developing now in Ireland, or the UK's own Heritage Lottery Landscape Partnerships – at whatever scale is felt to be most valuable to the stakeholder bodies concerned. Such partnerships would have to include relevant actors from the farming community, landowners, environmental organisations or interests, and representatives of local community, rural business and culture/leisure and tourism interests. They could be linked to the areas for which Area Statements are being prepared under the Environment Bill 2016 by NRW; either singly or in locally-endorsed combinations that provide a better scale to match notions of local identity, and capacity to act and plan strategically. Local community groups and the WLGA have previously suggested devolved design and delivery approaches such as this, for government aids.

Alternatively, if there is insufficient confidence among farmers and landowners that such partnerships would work, it would be possible to design and operate B as a national scheme with some local tailoring to reflect specific local agricultural, cultural, social and environmental priorities and needs / opportunities. The national scheme should also be a partnership enterprise, represented via strong collaborative steering in which all main stakeholders have a real and meaningful stake and to which they are expected to contribute ideas and resources (financial or in respect of skills, time and knowledge). Particularly in periods of uncertainty, evidence from across the EU demonstrates the value of collective approaches to landscape management and local economic development (e.g. PEGASUS, 2017).

It would of course be possible to make A conditional upon some minimal level of engagement with B, or otherwise to pursue some linkage between the two components. But in essence, these kinds of detail should be worked up in partnership with the range of stakeholder bodies who stand to benefit most from such a system – both as private operators and as public recipients of their outcomes in respect of the environment, rural communities, thriving rural economies and rural culture and heritage.

The vision for the support framework could be designed consistent with that recently agreed among the ERA group: "Sustainable land use which uses our Natural Resources to benefit the social, environmental and cultural well-being of Wales" (Welsh Government working Environmental and Rural Affairs Group 2017, unpublished). Likewise, its principles could include those already proposed by the group:

- the budget must be flexible and used where needed;
- a local/area based approach;
- business planning should be a mandatory part of receiving support;

- outcome-focused policies;
- a collaborative approach should be encouraged;
- funding available to all farms; although targeting other areas for additional funds;
- land owners rewarded for good practice but no payment for doing the bare minimum;
- future schemes should be simple to administer and for the landowner to understand; and
- payments based on standards that can be monitored and progress measured.

More detailed aspects of operation should draw upon the best and most up-to-date experience of support systems and approaches nationally and internationally, as well as being informed by local concerns and aspirations, and the issues discussed in this report.

These two major themes for planning and action - an adaptation strategy and a framework for longer term support for land management - are suggested as key priorities for action, in the months between now and March 2019 (the deadline for the UK to exit the European Union) and throughout any subsequent transition period.

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- Witnesses' written submissions and oral evidence given to the Brexit committee and the Environment and sustainable development committee, Welsh Government inquiries into Brexit implications for Wales, 2016-17, and to the inquiry into the Wales (Environment) Bill 2016
- Welsh Government: Research and Statistics : http://gov.wales/statistics-and-research/?topic=Environment+and+countryside&lang=en (most of the charts in the document are adapted from the data provided by the documents and excel sheets from this webpage)

Welsh Government Website: Environment and Countryside. http://gov.wales/topics/environmentcountryside/?lang=en

Appendix 1: State of Welsh Rural Areas, Agriculture and the Rural Environment

Current policy has a significant direct effect on Welsh agriculture and rural land use – via current CAP support, environmental regulations and broader contextual policies shaping farming and other rural land-based activities in Wales. These have knock-on impacts for the broader aspects of rural development – rural economies, rural social and cultural fabric, and the Welsh rural environment's character and quality, including the health and functionality of its ecosystems.

The statements in this section are based on analysis of a range of statistical and secondary research data.

What is Rural Wales? In this report a broad definition is used, in line with the Wales Rural Development Programme (WG, 2015).

- 'Predominantly rural' (OECD definition) local authority areas cover 82.1% of Wales, and contain around 960,000 (33%) of the Welsh population. However, rural land is found in all of Wales' local authority areas, including those of its largest settlements on the south and north coasts.
- Most of Mid and West Wales is sparsely populated 'with challenges for landscape, connectivity, business structure and employment, where agriculture provides an important but declining contribution' (WG, 2014),
- The mixed urban-rural, former industrial South Wales Valleys host its most economically-deprived communities, also dramatic rural landscapes and a strong sense of culture.

Population and economy

Economically, rural Wales has strong and weak points. Key sectors include the public sector and tourism, as well as small and medium-sized manufacturing and crafts.

- A study (LUC, 2002) of six contrasting market towns in north and south Wales found all were dominated by employment in public administration and services, involving between 44% (near urban) and 93% (remote rural) employees. However, the service function of market towns had decreased with increased centralisation of retail and administrative functions. Schools were key, as employers and in forging links between future employees and local businesses. Livestock markets provided a vital service function for surrounding agricultural communities. In near-urban areas there were few remaining farm businesses but in remote rural market towns over 60% of VAT-registered businesses were associated with agriculture. Near-urban market towns were characterised by a few major employers (in manufacturing, construction, distribution and public administration) employing over 100 people, while more remote rural areas were characterised by SMEs and micro-businesses. A range of current sources (see below) suggest the picture has not changed markedly in the past 15 years. Total employment in Wales' 9 rural counties was 339,700 (WG, 2009).

- The IWA report on the Welsh economy (IWA, 2015) noted that since devolution in 1999, Wales' economic performance has been stable, leaving it with a GDP/capita figure which is just over 70% of the UK average. It suggests the Welsh economy is more vulnerable to global trends than the UK as a whole, because of the significance of oil to the principality.
- Rural Wales has a relatively high economic activity rate and low level of unemployment (WRO, 2009). During the recession, small businesses in rural areas reported problems with cashflow, indebtedness and repossessions. Agriculture and tourism sectors fared better than others, but rural services suffered significantly from public sector austerity (WRO, op. cit.).
- The Welsh Rural Business Survey (WRO, 2013a) highlights the apparent persistence of a low-skills, low-wage economy over the past 15 years. The IWA report (2015) concluded that 'Wales has a problem about a missing *Mittelstand* [middle layer] and absent Welsh brands because it has too few solid middle-sized firms'. Policy and markets encourage successful SMEs to sell out to non-Welsh larger companies, taking management and profits out of Wales even if the workforce remains. They called for major public investment in new housing, domestic energy efficiency and infrastructure, plus work to strengthen Welsh supply chain linkages, buyer loyalty and the incentive to invest / ability to retain added-value, among SMEs.
- Eluned Morgan AM's 2017 report for CLA Cymru said: 'There is a need to develop a new partnership between rural and urban Wales which recognises that they can benefit each other and a need to develop an appreciation that inter-regional connections are critical rather than just planning for urban and rural regions in isolation'.

Tourism, both coastal and inland, is an important sector and 'an integral part of the rural economy' (WG, 2015).

- The value of wildlife and outdoor activity tourism to Wales is estimated to be around £6.2 billion, supporting 206,000 jobs, more than three times as many as work in agricultural production in Wales. The three Welsh National Parks attract 12 million visitors/year, spending £1 billion on goods and services (NRW, 2016).

- A 2012 study, 'Valuing Wales' seas and coasts', estimated that coastal and marine environment contributed £6.8 billion to the economy of Wales, supporting more than 92,000 jobs'. Expenditure in Wales by anglers was estimated at £74 million, supporting almost 1,500 Welsh jobs and £32 million in household income (cited in NRW, 2016).

Quality of life measures vary considerably by location and individual circumstances

- A 2013 survey (KAS, 2013) concluded that relatively speaking, rural Wales suffered less from many classic measures of poverty than urban Wales. Research on rural households (WRO, 2013c) suggests rural social cohesion is positive, but poverty affects many, (especially pensioner) households. Low income households were more likely to experience difficulties accessing key services, and those living in a village or open countryside setting were more affected than those in larger settlements.
- Household income is strong in regions close to the English border – Monmouth, Powys and Wrexham, possibly reflecting the impact of commuting upon standards of living in these areas. However, growth rates in recent years have been greater in areas of Wales which are further from the English border (Cardiff and Bridgend excepted – IWA, 2015). Commuting out of rural to urban areas for work is common in the east and Valleys (c.20% of working population) but not in more remote areas of West Wales (WG, 2014).

Figure A1 Employment by sector in the 9 Rural Counties of Wales, 2009 (WG stats online)

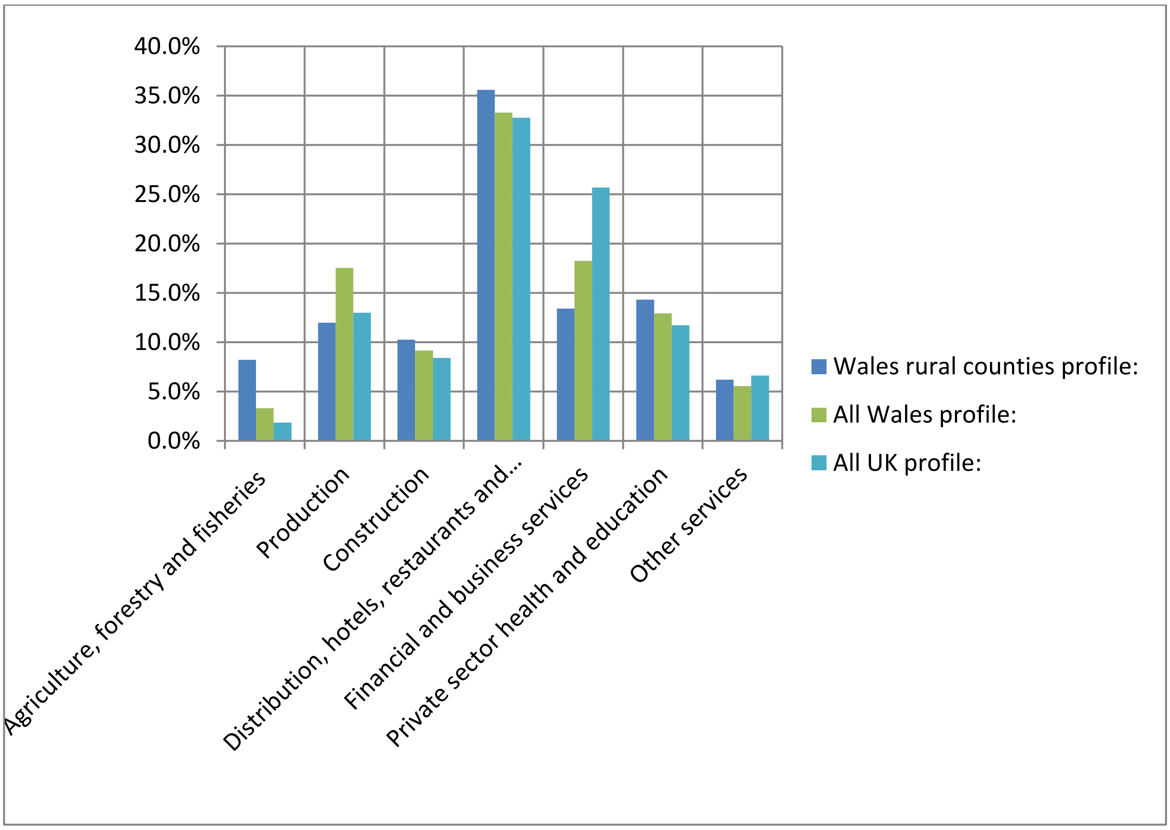
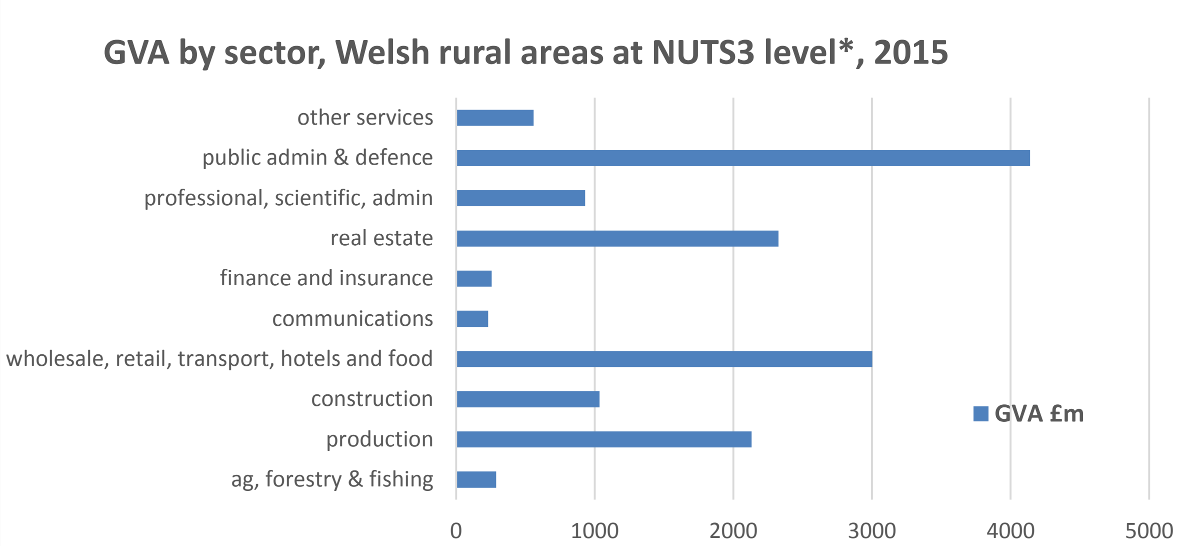


Figure A2. GVA in rural Wales



*rural areas at NUTS3 level include Gwynedd, Conwy and Denbighshire, Powys and South-West Wales

Source: Statistics Wales

Agriculture, food and forestry in Wales

Agriculture - varied but often marginal, family-based, with incomes heavily dependent on public funding and / or non-farming contributions

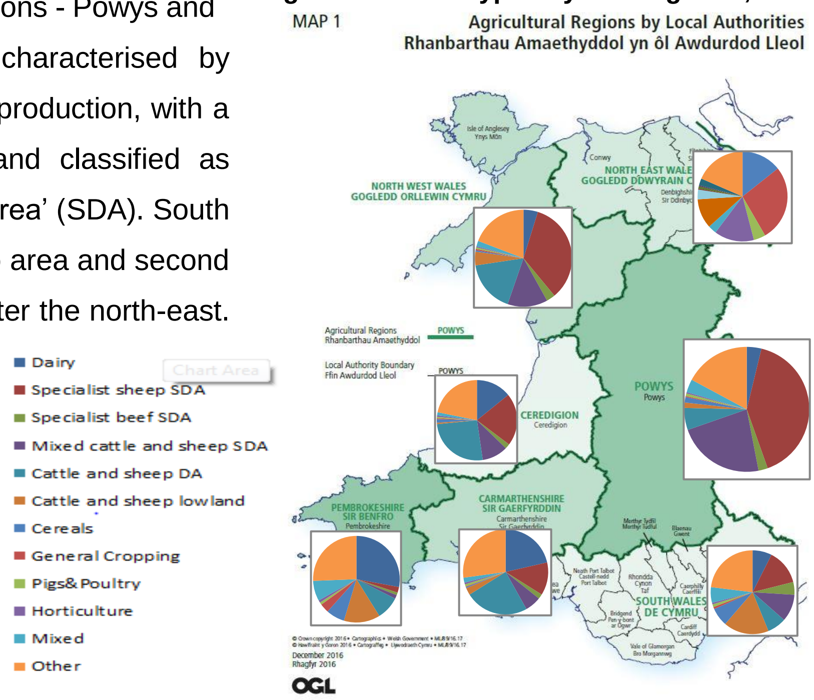
Wales is characterised by upland terrain with a relatively wet climate. Its agriculture is dominated by grazing livestock, predominantly sheep, on 'Less Favoured Area' land in comparatively small-scale farm businesses, making modest incomes (Armstrong, 2016).

- In 2015, 88% of the land area in Wales was agricultural. Farmland area has grown in the past 15 years. Average farm (holding) size is steady at around 50 hectares, but this masks a split between numerous very small holdings and fewer commercial farms, which are commonly 100ha or more in size.
- More than half of agricultural land use in Wales is permanent grass and grazing, and the dominant farm type is hill and upland cattle and sheep. The most common systems are wholly or mainly sheep with some beef suckler cows, and relatively few specialist beef producers. Sheep production is the main farm activity in Wales, but very small farms tend to have more diverse farm and non-farm outputs. The number of livestock has been quite stable in Wales in the past 10 years, with steady numbers of sheep and dairy cows, but modest declines in beef and pigs. Only 13% of the land is arable, much of this grows barley and wheat for own-use livestock feed, while horticulture represents a very small area.

These basic figures mask significant regional and sectoral diversity

- The largest agricultural regions - Powys and north-west Wales - are characterised by extensive sheep and beef production, with a high proportion of grassland classified as 'Severely Disadvantaged Area' (SDA). South Wales has the highest crop area and second highest poultry numbers after the north-east. The south-west of Wales (Pembrokeshire, Carmarthenshire) is a mainly dairy region, seeing decline in farmed area as land moves into non-farm use, in recent years, while the dairy holdings that remain have grown in size.

Figure A3. Farm types by holding area, 2015



- Agriculture accounts for a relatively high share of total workforce in Wales by comparison with the UK, at just over 4%, but this has declined by c.2,000 between 2008 and 2015. In 2015 approximately 58,000 people were working on farms in Wales (WG, 2017). Most principal farmers are over 55, average age has increased 2007-2013 (58 to 60), in line with EU-wide trends.

In economic terms:

- 95% of the output value of Welsh farming is livestock, crops only 5%. Production is concentrated on larger farms: about half the farms produce 5% of output (RDP, 2014). The GVA of Agriculture in Wales was £406 million in 2015, and £355 million in 2016 (Statistics Wales).

- There is notable variation in average farm business income (FBI) per farm: in 2015-16, the figure for Dairy was £32,800, for lowland beef and sheep it was £16,300 and for Less-Favoured Area Cattle & Sheep £21,900 per farm (Statistics for Wales, 2016).

- Change in incomes between years is also highly variable across contrasting farm types - incomes in milk production are very dependent upon milk prices; while beef and sheep farms' incomes are much more dependent upon subsidies (pillar 1 and pillar 2).

- The Welsh agriculture sector is relatively important to UK farming – Welsh lamb accounts for 29% of the UK flock; beef, 11% of the UK herd and dairy, 12% of UK production and 13% of the herd.

Farm Business Survey (FBS) data for Wales shows the largest component of farm income for all farm types is income from the basic/single farm payment (Pillar 1 of CAP).

- Of the main types analysed in the FBS (2016), only average dairy agriculture income has a significant positive value without subsidy. The agricultural income is negative on LFA cattle and sheep farms, which is counterbalanced with higher agri-environment payments. In 2015-2016, 56% of farm businesses either made a loss or would have done so without subsidies. Subsidies were a minor share of income on only 7% of farms in Wales.
- Half of Welsh farms had a business farm output lower than £100k in 2015-2016, including 23% less than £50k. Just 1% of farms had a farm business output of £800k or more, contributing 8% of total farm business output in Wales, by value. It should also be noted that the FBS figures show averages – in all sectors, some farms perform much better than others.
- Also, many farm households have other income sources. FBS data suggests in 2013-14, around 3,000 or 12% of 'active' holdings in Wales (likely a much higher proportion of commercial farms) had some form of diversification but for two-thirds of these, diversification income contributed less than 25% of total income, an average of £5,000 per farm. Larger farm businesses tended to have the largest diversified enterprises, and diversification was growing on sheep and beef farms but declining in the dairy sector.
- The FBS definition of diversification only covers enterprises operated as part of the farm, not incomes earned by household members from non-farm work, which may also be significant. The 2013 farm household income survey (WRO, 2013c) found that half had diversified incomes and 41% had non-farm incomes.
- Another study (WRO, 2010) suggested that if future policy changes result in reduced payments to farmers, 28% would carry on business as usual; 22% would not know what to do; 10% would sell up and leave farming; and the remaining 40% would pursue strategies of diversification, making savings, joining agri-environmental schemes, starting alternative enterprises, or retiring. They estimated that 75% of Welsh farms were vulnerable to continuing cost-price squeezes over the following 5 years, and identified 3 clusters of farmers: 'strugglers', policy-dependent farms, and pro-active diversified businesses. Small LFA sheep farms, operated by older couples, were most vulnerable while larger, more diverse and more entrepreneurial farms managed by younger people were more pro-active and resilient.

- The WRO report on the impact of the recession on rural Wales (WRO, 2009) identified evidence of significant social, welfare and health problems among farmers and their families, particularly in Carmarthenshire, Powys and Gwynedd.
- A WRO report on knowledge transfer needs in Wales concluded 'rural and land based sectors currently lag behind other areas of industry' in professional status and career development.
- A recent evaluation of the young entrants scheme (see below – Thomas, 2014) found few applicants were completely new to farming, but most were starting their own business. The main barriers identified for new entrants were: increased size of farm holdings; the price of land; the capital costs of set up and low profitability; the negative image of agriculture as a career choice and the reluctance of some older farmers to retire.
- Three years ago, land prices in Wales were reported as the highest in the UK (RICS/RAU, 2014), due to a combination of strong demand from farmers expanding production on neighbouring plots, and a revival of 'lifestyle' demand as the post-recession housing market recovered. High values are a factor leading some commentators to call for the introduction of a new land value tax in 2019 as Wales gains tax-raising powers under devolution (ap Gwilym, 2017). However, prices have fallen since 2015 and the Brexit vote (RICS/RAU, 2017).

The Common Agricultural Policy is a significant influence upon farms in Wales

- From 2012-2015, CAP Pillar 1 subsidies totalled between £205 and £250m per year, while Pillar 2 planned to spend an average of £70m/year. By far the largest spending element in Pillar 2 has been agri-environment schemes paid annually on land (Tir Gofal and Glastir).
- Other smaller-budget RDP aids include a Sustainable Production Grant (2017), the Farm Business Grant (2017): a Knowledge Transfer and Innovation Scheme (2016), and the Food Business Investment Scheme (2017) for processing activities. The Young Entrants Support Scheme (YESS) operated in 2014-2016, targeting 100 young farmer entrants each year.
- The CAP reform of 2013 required Wales to move from a historic-based Pillar 1 payment to an area-based payment. A WRO report in 2013 found: all "larger" farms (in terms of output) would receive reduced subsidy payment following the reform; most dairy farms would receive less than their historical entitlement, losing at least €50 per hectare; while just under half of small sheep farms would gain at least €50 per hectare. The biggest relative gainers would be very small farms but the gains in cash terms would be small; there was also much variation, with both dairy gainers and small farm losers. It is also

important to remember that very small farms and those in horticulture, indoor pigs and poultry do not receive this support.

- As previously discussed, CAP support makes a big difference to farm business income on land-based livestock farms (sheep and beef), and it undoubtedly influences land prices indirectly, enabling owner-occupiers to use the equity in their land to buy more. It is likely to have a positive impact upon rural economic activity via the Pillar 2 schemes and indirectly through its income effect for farm families, though its impact on food prices is less clear, with different theories suggesting both inflationary and deflationary effects, depending upon how bargaining power works within food supply chains.

Welsh Food and Drink is an important sector for rural economy and employment

- Employment in the Food and Drink Sector (FD) in Wales is about 12% of total employment and 70% of this is in rural areas, concentrated in particular regions. (Welsh Agricultural Statistics, 2009). Wales has large numbers of small and very small food processing and manufacturing businesses, with only a few large food businesses. The large businesses have a strong effect on employment. For example, four major companies account for 85-90% of the total cattle and sheep slaughter in Wales. Abattoirs in English border locations (e.g. Ludlow, Hereford and Shrewsbury) take substantial quantities of Welsh-reared stock (WG, undated). The Wales Food Strategy states that GVA of the food and drink sector in Wales, excluding agriculture, was estimated in 2005 as £3.5 billion, or 12% of total Wales GVA.
- The Wales Food Strategy aims to encourage new forms of collaboration to increase the availability and consumption of Welsh produce, encouraging food producers to build capacity to supply a range of market outlets, from supermarkets to the public sector. Three WG-supported Food Centres provide businesses with advice and help to develop new products.

Forestry in Wales – potential for growth

Wales has a relatively low proportion of woodland – around 15% of land; of which 38% is publicly-owned and managed. Private woodland, much of which is owned by farmers, includes 120,000 ha which is under-managed. 44% of forests are certified as sustainably managed (WG, 2012).

- The gross output of Wales' forest industry is estimated around £424 million; it supports 8,100 - 9,500 rural jobs, mainly in sawmilling and processing. Current market prospects are positive: the relative weakness of sterling has favoured domestic production over imports, and a much increased market share for UK timber. This, plus biomass development, have boosted prices, given limited supplies. (WG, 2014)

- Reinstating management in neglected private woodlands would generate economic activity in rural areas and secure long term environmental and social benefits. Welsh forests are also an important venue for leisure and tourism (NRW, 2016).

Natural environment

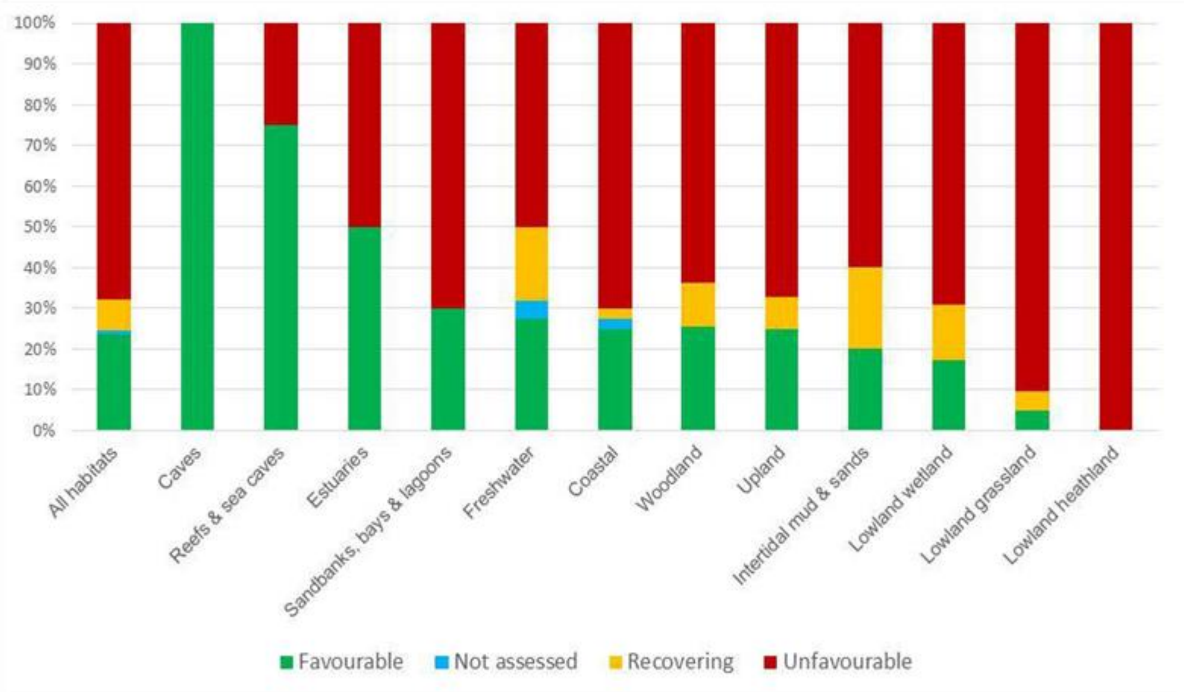
A high-value, diverse resource showing some recovery from past pressures but vulnerable to future change

- Wales' rural areas contain a relatively high proportion (30% of the land area) of designated areas and sites, including SSSIs (12%) and Natura 2000 sites (SAC and SPA), as well as five AONBs and three National Parks. As the RDP puts it: 'Wales is renowned for its dramatic and varied landscapes many of which have high ecological value and deliver important ecosystem services which underpin our wellbeing. All are working landscapes producing high quality food and supplying most of Wales and large parts of England with drinking water' (WG, 2015). The Welsh rural environment is also internationally recognised for its historic value.
- The value of the Welsh natural environment was negatively affected by change over more than a century. Economic development led to urbanisation, with industrialisation and then de-industrialisation in the south and north-east, and specialisation and intensification of agricultural production across the territory, as well as insensitive afforestation in two periods (following each world war), including in High Nature Value areas. Since the mid-1980s many of these trends have subsided or been partly reversed. Acid rain and climate change have also driven change in recent decades: the latter poses a significant future challenge.
- Climate change emissions in Wales have been falling in recent years, but more slowly than in the UK as a whole: in Wales, a higher share of greenhouse gas emissions come from the power sector, manufacturing and construction while agriculture only contributes around 4% (WG, 2012).
- On biodiversity, the total number of priority species in Wales increased by 21 since 2002 to 195 in 2008. Of those with information available, those classed as stable or increasing increased from 40% in 2002 to 52% in 2008, while those lost or declining decreased. The total number of priority habitats in Wales was 38 in 2008, and of those with information available, there was little change in those classed stable or increasing, while those declining increased 57% in 2002 to 62% in 2005, falling to 53% in 2008 (WG, 2012).

- On birds, trends in indices are generally negative. The index of widespread breeding birds began in 1994 and peaked at 113 for all species in 2000, then fell below 100 for the first time in 2009. The 'other, urban and wetland' species sub-group peaked at 136 in 2004 before declining. The farmed habitats sub-group remained at or below 93 since 2006 and fell to a new low of 84 in 2009 (WG, 2012).
- Wales Priority Action Framework states that 58% of Natura 2000 features on sites are in unfavourable condition, due predominantly to a number of pressures and threats:
    - access and recreation management;
    - air pollution; climate change;
    - diffuse water pollution; flood and coastal erosion risk management;
    - grazing and livestock management; habitat fragmentation;
    - non-native invasive species and pathogens;
    - man-made changes to hydraulic conditions;
    - marine litter; marine fisheries and
    - woodland management.' (NRW, 2015).

Terrestrial priority areas are lowland and upland peatlands; sand dunes; rivers and woodlands.

Figure A4. State of SAC and SPA sites in Wales, NRW 2015



- In respect of the historic environment, rural Wales has seen positive trends, although the data is now rather old. In 1996 and 2003, c.80 per cent of scheduled ancient monuments were reported as stable, and around 10 per cent improved or greatly improved (in condition). Over the period there was an increase in superficial disturbance, invasive vegetation and scrub encroachment, probably due to 'less intensive agriculture encouraged by agri-environment schemes', but it was 'more than offset by a reduction in the severe disturbance sometimes caused by intensive agriculture.'(Historic Wales, 2007) Trends are likely to have continued.

- On public access, SoE Wales reported: 'The proportion of footpaths and other rights of way surveyed which are easy to use in Wales increased from 41 per cent in 2005-06 to 55 per cent in 2010-11.' (WG, 2012) This implies that just under half of Public Rights Of Way were not easy to use, in 2011. For tranquillity, the indices are negative 'Between 1997 and 2009, there was a loss of Tranquil Areas of nearly 1,500km^{2}', over 6 per cent of the land area of Wales (WG, op.cit.).
- In respect of water quality and the targets of the Water Framework Directive (WFD), Wales has a generally high level of biological and chemical quality in rivers, but groundwater sources have generally poorer quality. Only a small proportion of land in Wales – around the north-east border with England – is designated as Nitrate Vulnerable under the Nitrates Directive, signifying relatively high N levels due to agriculture and reflecting the more intensive nature of livestock production (beef and dairy, indoor pigs and poultry) in this region. Positive trends of reduced water abstraction in Wales have been seen in recent years (NRW, 2016).
- The Environment Act Wales 2016 set out a new strategy - elements most relevant to rural areas are: sustainable management of natural resources; collection and disposal of waste; flood and coastal erosion and land drainage. Sustainable management signals a new national natural resources policy (NNRP), the production of 'area statements' for all of Wales highlighting environmental priorities, and five-year 'state of the natural environment' reporting.

In sum, environmental data and trends indicate a continuing need for enhanced management for the protection of natural resources and ecosystem services, and the reversal of declines in environmental quality. The interface with viable farming and forestry is critical as so much of the resource base and its service provision depends upon appropriate land management practices, and suffers equally from neglect or over-use.

Summary of findings and implications

The data indicates the heavy dependence of land use and management and the natural environment in Wales upon a large number of relatively small (in business terms) family farms, whose financial survival relies significantly upon current CAP subsidy. However the rural economy is perhaps equally or more reliant upon public sector and service sector employers, notably tourism. It seems that vulnerability to Brexit-induced agricultural change is greatest in those remoter situations where small, less-diversified sheep farms dominate the landscape – e.g. North, West and Mid-Wales, whilst more diverse rural land users in the South-west, South and North-East appear more able to adapt to anticipated change. Declining land value could see various non-agricultural uses grow. Nonetheless, a wider economic downturn triggered by Brexit could lead to increased rural poverty and reduced service provision in the Valleys and in North Wales, in particular, while new opportunities for higher-value farming might arise in any areas close to main settlements. Tourism might see growth from both UK domestic and overseas markets, potentially benefiting Wales' significant non-industrial coastline and designated landscapes. Forestry also seems likely to increase in economic significance, and there is also potential for growth in mid-sized food and drink firms. Social and economic vulnerability will negatively impact key resources including peatland and other semi-natural upland habitats, hedgerows and historic features but there could be new opportunities for enhanced coastal and forestry management linked to increased visitor spending and land use change.

At the level of individual businesses and communities, vulnerability to different aspects of Brexit-induced change will vary considerably in relation to individual circumstances. Financial shocks in farming hit those with already marginal profitability but also tend to trigger crises among those who have borrowed heavily to invest (likely among larger capital-intensive farms e.g. dairy). Those nearing retirement age and without successors may suffer significant short-term hardship, or may decide to sell up. Businesses with significant diversification enterprises are more likely to cope with downturns in farming; and households with other non-farm incomes may be as much affected by trends in other sectors. For example, significant investment by public and private sectors in housing and infrastructure renewal could help support rural adjustment and non-farm employment but if this is reduced by wider contraction in the economy linked to Brexit, its cushioning potential will be less.

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- Leads a programme of research on What Works in Tackling Poverty.

Note: In October 2017 the PPIW became part of the Wales Centre for Public Policy. The Centre builds on the success of PPIW, and will continue the Institute's work of meeting Welsh Government Ministers' evidence needs, alongside a new mission to support public services to access, generate, evaluate and apply evidence about what works to address key economic and social challenges. This assignment was commissioned for the final PPIW work programme.

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