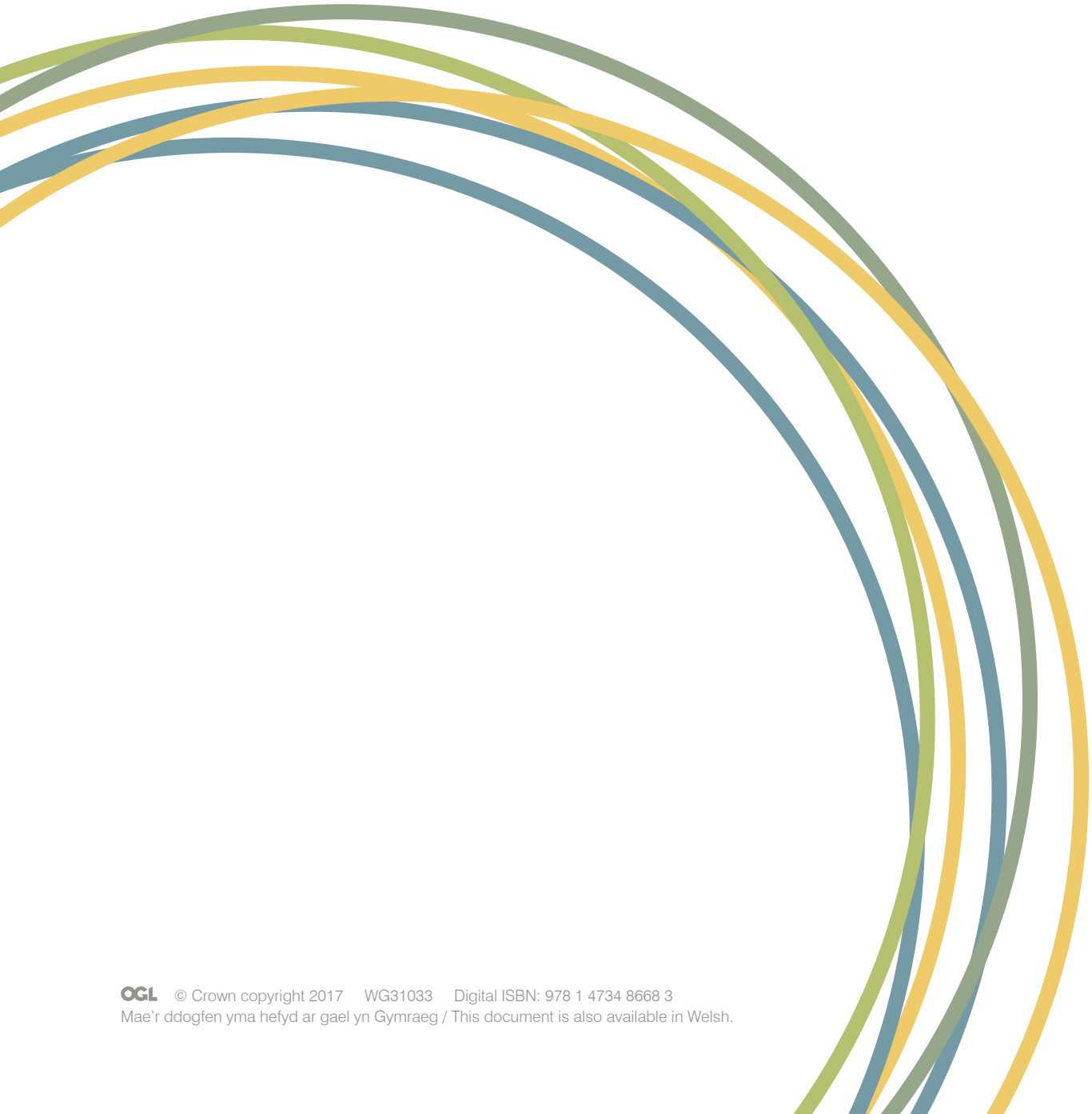




Llywodraeth Cymru  
Welsh Government

# Natural Resources Policy



## Ministerial Foreword



The publication of the first statutory Natural Resources Policy marks the second major milestone in the implementation of the Environment (Wales) Act 2016 as part of the ground-breaking legislation that we now have in Wales.

The State of Natural Resources Report (SoNaRR), published last year, underlined that Wales' natural resources provide us with a wide range of benefits and a wealth of opportunities. These include the ability to support our prosperity and improve our health as a nation. To do so, we need to improve the way we manage our natural resources – our land, sea and air. Our Natural Resources Policy (NRP) is focused on setting out how we will use our policies to achieve this.

The business case for action is clear; investing in our natural resources is cost effective and key to achieving our aim of bringing prosperity to the whole of Wales. Our sectors and industries that directly use our natural resources – from farming, forestry and fisheries, to energy and water – are spread across the whole of Wales. As well as opportunities to drive greater value out of existing supply chains, they are also well placed to take advantage of growing markets in areas like renewables and carbon.

The NRP will drive delivery across the Well-being Goals, delivering win-wins for our communities and our economy whilst also improving our environment. Alongside significant opportunities in areas like health, tourism, energy and recreation, as a Government we recognise that our natural resources come with a responsibility. The fact that the resilience of our ecosystems and our biodiversity continues to be in decline and the impacts of climate change are already being seen underlines why it is vital that we take action to deliver the priorities we set out in this document.

The NRP sets out how our policies can deliver both economic and environmental objectives. But to do this, we have to stop considering environmental issues separately. We must also recognise how much we depend on the benefits our natural resources provide. Nowhere is this dependence more acute than within the sectors that use our natural resources.

Following the referendum on the UK's exit from the European Union, my department's work with stakeholders across Wales overseen by my Roundtable, has considered the impact of Brexit as an integral part of our work in developing the NRP. Given the policy, legislative and financial framework that regulates our natural resources is fully integrated with that of the EU, the challenge associated with Brexit is particularly acute in these areas. My roundtable identified the following areas in which Wales' natural resources can support the resilience of our key sectors:

- improving processing capacity and the value derived from our supply chains;
- building on our reputation for high quality produce and the standards that underpin it;
- working with nature to both increase the resilience of our ecosystems and improve productivity;
- moving towards a more circular economy and accelerating green growth to increase efficiency, reduce pollution and increase profitability; and
- supporting the emergence of the markets that can support increased investment, including water, carbon and renewable energy.

Ultimately, delivering our priorities will require partnership working across sectors. This is why we have worked collaboratively to develop the priorities in this NRP and made it a central part of our departmental approach to Brexit. I look forward to continuing our engagement as we start to deliver these priorities.

A handwritten signature in cursive script that reads "Lesley Griffiths".

**Lesley Griffiths AM Cabinet Secretary for Environment and Rural Affairs**

## Introduction

Wales' natural resources underpin our well-being including our prosperity, health, culture and identity. We depend on high quality natural resources to provide our food, clean water and air. Good quality natural resources are fundamental to our livelihoods, we depend on them for raw materials, water and energy sources for our key industries. The focus of this Natural Resources Policy (NRP) is on improving the way we manage our natural resources. This is a key part of the delivery framework for the sustainable management of natural resources established by the Environment (Wales) Act. It is also vital if current and future generations are to continue to enjoy the benefits they provide. As such, it is also key to the delivery of the Well-being Goals set out within the Well-being of Future Generations Act and our international contribution to the delivery of the UN's Global Goals.

The following sections set out the statutory principles that underpin our approach, and how the NRP supports the delivery of 'Prosperity for All - the national strategy' and Wales' international commitments. This is then followed by sections on the opportunities and challenges facing our natural resources, in line with the requirements within the Environment (Wales) Act. Based on these opportunities and challenges, the NRP then identifies three national priorities that we will take forward to address them. Lastly, we illustrate how we will implement the priorities and monitor and evaluate progress.

The Natural Resources Policy is not just about the role of the Welsh Government or the public sector. The NRP is particularly important for farmers, foresters, fishermen, utility companies, communities, health professionals, the third sector and academic institutions, planners and developers. But our approach recognises that our society as a whole benefits from our natural resources. As a first step, we have drawn on consultation responses on the NRP and the State of Natural Resources Report (SoNaRR) published by Natural Resources Wales. We have also drawn from the findings of our engagement on the potential impact of the UK's withdrawal from the European Union

### Benefits derived from Wales' natural resources

The benefits and services our ecosystems provide to society include:

- **Provisioning services:** such as crops, livestock, fish and timber; and natural fluxes of energy
- **Regulating services:** such as water and air purification, noise regulation, carbon sequestration, flood risk management, waste assimilation and pollination
- **Cultural services:** such as recreation and associated health and wellbeing benefits; our historic environment and appreciation of our beautiful places, landscapes and nature, and
- **Supporting systems and services:** such as soil formation and nutrient cycling necessary for the production of all other ecosystem services. These systems and services are underpinned by biodiversity.

## Key Principles underpinning our approach

The Environment (Wales) Act 2016 sets out the requirement for the ‘*sustainable management of natural resources*’ together with new ways of working to achieve this. The Act requires us to set out the *challenges* our natural resources and ecosystems face and the *opportunities* they can provide. This means looking at the ways we currently manage our natural resources and how we can reduce the pressures on them. Through actions such as increasing resource efficiency or reducing pollution, the aim is to *build greater resilience* into our ecosystems. Those ecosystems are the complex natural systems on which we depend. Healthy, resilient ecosystems are more able to address the increasing pressures and demands that we face as a society. Their resilience is essential if we are to be able to continue to rely on our ecosystems for the vital range of benefits they give us.

The attributes of ecosystem resilience are detailed in Annex A but ultimately sustainable natural resource management is common sense. It helps all of us – government, business, communities and individuals – by delivering multiple benefits for our economy, society and our environment. This approach replaces the historic focus on addressing issues in isolation on a reactive basis. Instead, this NRP recognises that systemic challenges require a systemic approach and continues our implementation of a joined up, modern legal and policy framework. It also recognises that to be successful we must work together. The development of this policy has been a collaborative approach – across sectors and across government - informed by extensive engagement, including through our Brexit Roundtable.

Fundamentally, the Natural Resources Policy must also be founded upon a good understanding of where we currently are and the need to have a clear baseline. This is why the Act requires Natural Resources Wales to publish a ‘*State of Natural Resources Report*’<sup>1</sup>. The ground-breaking 2016 report provides the first national evidence base for Wales with an assessment of both the state of our resources and the headline trends facing them. Alongside evidence from our consultation and international good practice, this assessment has underpinned the production of this policy and its ongoing refinement will continue to inform its implementation.

In this way, we have sought to fully exemplify the principles within the Well-being of Future Generations Act in relation to the five ‘Ways of Working’ – *prevention, integration, involvement, collaboration and acting for the long-term* – as well as focusing throughout on the contribution our natural resources can make to the achievement of all of our well-being objectives and the Well-being Goals.

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<sup>1</sup> [www.naturalresources.wales/sonarr](http://www.naturalresources.wales/sonarr)

## **Supporting the Delivery of ‘Prosperity for All – the national strategy’**

Following the National Assembly for Wales’ election, the Welsh Government published its programme for government; Taking Wales Forward 2016-2021. It sets out four areas where the Government believes it can have the biggest impact: prosperous and secure, healthy and active, ambitious and learning and united and the headline commitments we will deliver between now and 2021. Taking Wales Forward highlighted the complexity of the challenges that we face and the importance of working across traditional boundaries to deliver our priorities. We will shortly publish a national strategy ‘Prosperity for All’, which will set out how we will connect the different programmes and services we deliver to maximise our impact in these four areas. The Natural Resources Policy will have a role to play in delivering across the four areas of the strategy.

The priorities in the Natural Resources Policy will support the delivery of the national strategy. There is a clear link between our natural resources and their effective management and our mission as a government to deliver prosperity for all.

## **Wales’ commitments under international agreements**

The interconnections between biodiversity, climate change, and sustainable development, have been recognised within the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD) and the UN’s 17 Sustainable Development Goals (SDGs). The aims of these three international agreements are synergistic. Biodiversity and well functioning ecosystems provide natural solutions that build resilience, which in turn help society create jobs, support livelihoods and human well-being, adapt to the adverse impacts of climate change and contribute to sustainable development. The Welsh Government, as a sub-national government, is a critical actor in addressing the global challenges to biodiversity and climate change and plays a key role in delivering commitments under international agreements to the mitigation and adaptation of climate change, addressing biodiversity loss and delivering the sustainable development goals. The Well-being of Future Generations (Wales) Act 2015 includes a set of statutory sustainable development goals for Wales. The goals encompass the need to act on the causes and adapt to the consequences of climate change, as well as ensuring that Wales is globally responsible in its actions. The Environment (Wales) Act 2016 ensures that natural resources are managed sustainably to ensure they are able to deliver social, economic and environmental benefits, including nature based solutions to climate change adaptation and mitigation.

## The opportunities Wales' natural resources provide

This section sets out four headline opportunities associated with our natural resources, namely:

- Supporting successful, sustainable communities;
- Promoting green growth and innovation to create sustainable jobs;
- Supporting a more resource efficient economy; and,
- Maintaining healthy, active and connected communities.

### Supporting successful, sustainable communities

Wales' natural resources are not only the backbone of our rural economy; they also provide vital resources and benefits to our economy and society as a whole. Natural resources are the foundation of our primary production industries - agriculture, forestry, fisheries, and the water industry. Our beautiful landscapes, nature and wildlife also support a vibrant tourism and recreation sector as well as being a vital part of our culture and identity. A central reason people choose to live and holiday in Wales is the quality and accessibility of our natural environment. Sectors like agriculture, forestry, renewable energy, water and tourism provide the opportunity to develop high quality jobs across Wales and secure the long term economic sustainability of our communities across all parts of Wales. They also provide resources that are fundamental to the prosperity and security of wider industries and of our towns and cities. By managing our resources sustainably, and ensuring learning in education reflects this, we have the ability to improve their long term resilience, exploit emerging opportunities and reduce current vulnerabilities and risks, including those brought about by the UK's exit from the EU.

#### Key benefits supported by our natural resources

The food supply chain in Wales employs 223,100 (in 2014) which is 18.4% of all Welsh employment (compared with 13.5% in the UK).<sup>2</sup> In 2014, the annual value of recreational services provided by nature in the UK was estimated at £6.5 billion.<sup>3</sup> 2015 surpassed records set in 2014 with overnight visits to Wales by GB residents increasing to 10.45 million and associated spend at an all-time high of £1,975 million<sup>4</sup>. Overseas visits increased to 970,000, with record associated expenditure of £410 million<sup>5</sup>. Further, in 2015 direct employment in tourism in Wales rose to 132,400, 10% of the Welsh workforce.<sup>6</sup> The estimated annual value to the UK of the ecosystem service related to carbon sequestration recorded a steady rise between 2007 and 2014, increasing approximately 18% from £1.41 billion to £1.70 billion.<sup>7</sup>

<sup>2</sup> Priority Sector analysis ; data employment figures from ONS Business Register and Employment Survey. Agriculture employment figures BRES and Defra.

<sup>3</sup> <https://www.ons.gov.uk/>

<sup>4</sup> Great Britain Tourism Survey

<sup>5</sup> International Passenger Survey

<sup>6</sup> Priority Sector Statistics (on WG website <http://gov.wales/statistics-and-research/priority-sector-statistics/?lang=en>) 'WG analysis of Annual Population Survey, ONS'

<sup>7</sup> <https://www.ons.gov.uk/>

## Promoting green growth and innovation to create sustainable jobs

The opportunities for green growth in Wales have already seen the green economy expand considerably. Wales' natural resources provide an abundance of renewable energy resources, such as wind, hydro, solar power and biomass, which have contributed to significant growth in the sector in the last 10 years. They offer tremendous potential for further growth both on land and at sea. There are significant opportunities for innovation across supply chains, particularly in relation to our primary production industries. Markets can be developed through new, innovative products that add value and lengthen supply chains and by replacing less sustainable products. There are also opportunities through diversification into emerging markets in areas such as carbon, water and biodiversity. Our environmental standards, including for animal health and welfare and the protection of human health, underpin our reputation for high quality produce. This can help us to be competitive across both domestic and international markets.

### The growing green economy

In Wales, green growth is a means of fostering economic growth and development which is socially equitable and ensures the sustainable use of the wealth of natural resources, so that they can continue to benefit and sustain us into the future. Wales' natural resources are therefore a central part of the Welsh Government's aims to stimulate investment and innovation, support sustained growth and give rise to new economic opportunities. The environmental goods and services sector contributed £29.0 billion to the UK economy in terms of value added in 2014; £61.1 billion on a production output basis growing 18.7% between 2010 and 2014 and 373,500 full-time equivalent jobs to total employment in 2014; an increase of 10.9% between 2010 and 2014.<sup>8</sup> Sectors of the green economy like renewable energy have seen significant growth, with for example the value of wind energy to the UK power generation industry growing by 233% from 2007 to 2014; from approximately £0.55 billion in 2010 to £1.8 billion in 2014. Meanwhile global investments in renewable energy have led to a doubling of global renewable electricity capacity between 2005 and 2015. In the EU, renewable energy now accounts for the vast majority of new electricity-generating capacity (77% in 2015).<sup>9</sup> Here in Wales, Green Growth Wales supports the Welsh Public Sector to deliver energy efficiency and renewable energy projects, providing extensive specialist support and capital finance. In two years from March 2015 we have invested £21.3m, which will save the public sector £42.8m, stimulate the low carbon sector and retain greater economic value within Wales. The projects financed will also save 236,000 tonnes of CO<sub>2</sub>. The Arbed2 scheme has improved the energy efficiency of nearly 3000 homes, created more than 470 new jobs through schemes being delivered by Welsh based companies demonstrating up to £2 return into the local economy for every £1 investment.

<sup>8</sup><https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/ukenvironmentalaccounts/2010to2014>

<sup>9</sup><http://www.eea.europa.eu/highlights/renewables-assuming-greater-role-in>



## Supporting a more resource efficient economy

Managed wisely, Wales' natural resources provide a wide range of opportunities to support a low carbon, more resource efficient economy. Our economy relies on inputs of raw materials, especially in the manufacturing of components and final products. Increasing raw material costs, price instability and a lack of security of supply of key materials are a threat to the resilience of manufacturing in Wales. In addition, many of our industries are focused on providing raw materials that are immediately exported or undergo only minimal processing within Wales.

Moving towards a more circular economy provides Wales with a strategic opportunity. Supported by education and skills development, it provides the opportunity for new jobs and innovation, cost savings for businesses and the ability to strengthen our supply chains, which can also help to mitigate risks associated with Brexit. Using our resources more efficiently also reduces the pressures on our natural resources caused by issues such as pollution and waste disposal. Integrating economic and environmental policy by driving resource efficiency and innovation can help Wales maximise the benefits from a circular economy, but also support our future competitiveness.

### Moving to a more resource efficient economy

A circular economy is about keeping resources in use for as long as possible, extracting the maximum value from them whilst in use, then recovering and regenerating products and materials at the end of each service life.

Employment in UK waste management activities increased steadily between 2012 and 2014 and accounted for the largest number of full-time equivalent (FTE) employees for all years with 127,300; the largest proportion of output in the UK green goods and services sector at £12.7 billion (20.9%), with a gross value added at £5.2 billion (18.0%) in 2014.<sup>10</sup>

There are potential savings to the Welsh economy of up to £2 billion<sup>11</sup> and the potential for up to 30,000 jobs<sup>12</sup> to be created in Wales through moving towards a circular economy.

<sup>10</sup><https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/ukenvironmentalaccounts/2010to2014>

<sup>11</sup> 2013 WRAP/Ellen MacArthur Foundation report 'Wales and the Circular Economy: Favourable system conditions and economic opportunities'

<sup>12</sup> 2015 WRAP/Green Alliance report 'Employment and the circular economy: Job creation in a more resource efficient Britain' identifies the potential for up to 30,000 jobs to be created in Wales through moving towards a circular economy.

## Maintaining healthy, active and connected communities

Natural resources are essential for human life and their condition affects both our physical and mental well-being. High quality natural resources and ecosystems play a key role in supporting health outcomes. They can help to tackle key public health issues ranging from air and noise pollution to conditions associated with physical inactivity, such as diabetes and obesity. Outdoor recreation generates significant health benefits for the population in Wales as well as significant benefits to Wales' economy through the growing tourism opportunities.

Wales' green spaces provide a focus for community action and volunteering, helping to increase social capital, improve community cohesion and reduce antisocial behaviour. They can also be a stimulus and a key component of regeneration and investment and providing vital services that our towns and cities require is essential to support their development. Low-income areas also often have less access to good quality green space. As health inequalities are significantly reduced in greener areas, this illustrates the close link with poor health, whereas improving this provision can improve health and reconnect people with the natural assets nearby.

### Our natural resources, health and inequality

A key ecosystem service is air filtration to remove pollutants from the atmosphere. In Wales, around 1,320 deaths and 13,549 lost life-years are attributed annually to particulate matter 2.5 (PM2.5) exposure, and 1,100 deaths and 13,200 lost life-years to NO2 exposure.<sup>13</sup>

Increasing access to green spaces and providing community facilities to bring people together is highlighted as a 'best buy' to prevent mental ill health and improving mental well-being by Public Health Wales.<sup>14</sup> The World Health Organisation suggests that public health approaches with health, social, economic and environmental benefits, such as safe green spaces and active transport, have been shown to be cost-effective with potential returns on investment.<sup>15</sup> Studies also suggest that people living closer to good-quality green space are more likely to have higher levels of physical activity, and are more likely to use it and more frequently.<sup>16</sup>

According to evidence from elsewhere in the UK, low-income areas suffer not only from issues associated with housing educational attainment and poor diet, but also less access to good quality green space which contributes to poor health. Health inequalities are estimated to cost the Welsh economy £1.8 - £1.9 billion in productivity losses and £1.1 - £1.8 billion in welfare costs per year.<sup>17</sup>

<sup>13</sup>[http://www.wales.nhs.uk/sitesplus/documents/888/Making%20A%20Difference\\_Evidence%28E\\_web%29.pdf](http://www.wales.nhs.uk/sitesplus/documents/888/Making%20A%20Difference_Evidence%28E_web%29.pdf)

<sup>14</sup>[http://www.wales.nhs.uk/sitesplus/documents/888/PHW\\_Making\\_a\\_Difference\\_Infographics\\_E%28web%29.pdf](http://www.wales.nhs.uk/sitesplus/documents/888/PHW_Making_a_Difference_Infographics_E%28web%29.pdf)

<sup>15</sup>[http://www.wales.nhs.uk/sitesplus/documents/888/Making%20A%20Difference\\_Evidence%28E\\_web%29.pdf](http://www.wales.nhs.uk/sitesplus/documents/888/Making%20A%20Difference_Evidence%28E_web%29.pdf)

<sup>16</sup> <http://researchbriefings.files.parliament.uk/documents/POST-PN-0538/POST-PN-0538.pdf>

<sup>17</sup> [http://www.wales.nhs.uk/sitesplus/documents/888/Making%20A%20Difference\\_Evidence%28E\\_web%29.pdf](http://www.wales.nhs.uk/sitesplus/documents/888/Making%20A%20Difference_Evidence%28E_web%29.pdf) and <http://researchbriefings.files.parliament.uk/documents/POST-PN-0538/POST-PN-0538.pdf>

## The key challenges

If our action is to be effective, it is important to be frank about the challenges faced. Following a review of the evidence, and broad engagement, we have set out three main challenges:

- Improving ecosystem resilience
- Climate change and the decline in biological diversity
- The UK's Withdrawal from the EU

### Improving Ecosystem Resilience

The benefits and opportunities provided by our natural resources depend on ecosystems being healthy and resilient. However, the State of Natural Resources Report shows that none of Wales' ecosystems are currently showing all the attributes of resilience. Overall, biological diversity is declining, which can be seen by the loss of habitats and species. The extent of some habitats has also declined significantly. This means that unless action is taken, the benefits that we derive from our natural resources are at risk.

To build resilience into our ecosystems we need to:

- Proactively develop resilient ecological networks to maintain and enhance the wider resilience of Wales' ecosystems. The evidence shows that diversity is declining and that land and sea use change, including urbanisation, is leading to fragmentation and loss of habitats and species, and soil sealing. Building on the protected sites Wales has, our aim is to improve resilience and reverse the decline of biodiversity in Wales. Reversing this trend, by better managing existing areas and creating new ones will also provide important wider benefits for society.
- Improve the condition of our ecosystems. Evidence shows that air, noise, soil and water pollution is affecting the condition of ecosystems, reducing the productive capacity of our soils, affecting habitats and wildlife and contributing to ill-health. We need to reduce the pollution levels in our air and enhance air quality. We also need to improve the quality and ensure the quantity of our water. We must take action to support pollinators. We must also better manage our soil and safeguard our best and most versatile agricultural land to improve soil quality, productive capacity and its resilience to degradation. We need to ensure the good ecological and environmental status of our freshwater and marine ecosystems with healthy populations of fish species, supporting productive fisheries and manage issues across the land/sea interface, especially marine litter. We also need to improve the management of existing woodlands and look at the more widespread use of trees.

- Reduce and better manage the pressures and demands on ecosystems and natural resources. The evidence shows that the inefficient use of natural resources is affecting the availability of primary resources and materials now and in the future. In addition the use of these resources places significant pressures on our natural resources and ecosystems in the form of damaging pollution and climate change. To reduce these pressures, we need to increase waste prevention and promote reuse, recycling and recovery. We also need to reduce consumption of non-renewable sources of energy, through improved energy efficiency and enhanced generation and uptake of renewable energy and adapt to and mitigating climate change. We need to ensure the sustainable extraction of minerals, maximise the use of recycled aggregates and promote the efficient use of aggregate material while avoiding adverse effects on Wales' other natural resource assets. We also need to continue to improve biosecurity, including in respect to animal health, plant health and invasive non-native species.

### **Climate change and the decline in biological diversity**

The NRP must set out what should be done in relation to tackling climate change and the decline in biodiversity as cited in the Environment (Wales) Act.

Climate change is already driving change. Change in species and habitats; the distribution of pests, pathogens and invasive species; agriculture and forest productivity, soil condition from increased seasonal aridity and wetness; and, from saltwater intrusion, water scarcity, flooding and water temperature changes. The introduction of invasive species, pests and diseases is leading to adverse impacts on native species and habitats and on productive capacity.

Healthy and resilient ecosystems play a vital role in tackling climate risk. Ecosystem components such as trees and soils are fundamental in helping to capture and store carbon. Careful management of ecosystems can play a crucial role in building our resilience to the impacts of climate change such as flooding, heat waves and extreme weather. However ecosystems themselves face many risks to their effective functioning from the impacts of climate change, including the continued decline of biological diversity. Actions that improve our ecosystems are therefore a key and often under emphasised part of climate action which complements the implementation of technological solutions.

## **Nature-based action for climate change**

The approach provided for in Part 1 of the Environment (Wales) Act 2016, namely the sustainable management of natural resources, has been identified and advocated by the United Nations Environment Programme (UNEP) and the World Bank as a key mechanism for dealing with climate change. Covering both mitigation and adaptation in a way that addresses economic, social and environmental aspects as part of an overarching approach that focuses on delivering multiple benefits.

Recognising the importance of the nature based approach as a key component of climate change action, the Welsh Government initiated and is a founding signatory to the *International Memorandum of Understanding on Nature Based Climate Action*. The MoU was launched at the UN conference in Paris and is designed to complement the successful '*Under 2 MoU*', developed by our partners in the Governments of California and Baden-Württemberg. The text of the Memorandum can be found at Annex B.

As a Government we will embed the Natural Resources Policy into our pathway to decarbonisation. Part 1 and 2 of the Environment (Wales) Act – on the management of natural resources and climate change - were designed to work together. This recognises the role nature-based solutions must play in tackling climate change and how action on climate change can support the sustainable management of our natural resources. The Environment (Wales) Act established a target to reduce emissions in Wales by 80% in 2050 against a 1990 baseline. This will be supported by interim targets and five year carbon budgets. We will set interim targets for 2020, 2030, 2040 and five-year carbon budgets for 2016-2020 and 2021-2025. We are also developing a delivery plan outlining how we will meet the first of these budgets, to be published in 2019.

Alongside reducing future emissions, we must also build resilience to the changing climate. The UK Committee on Climate Change published a revised Climate Change Risk Assessment evidence report in 2016, which the UK Government has responded to. The Welsh Government is responding to this by reviewing the Climate Change Strategy and Adaptation Delivery Plan with the aim of building resilience in our communities, businesses, public services and the natural environment.

Biological diversity is essential to our natural resources as it underpins the structure and functioning of our ecosystems and has wider economic, social and cultural significance. We aim to reverse the decline of biodiversity by taking an approach focused on the sustainable management of our natural resources across all policy areas. Section 6 of the Environment (Wales) Act introduced a stronger biodiversity and resilience of ecosystems duty (the S6 duty) for Public Authorities in Wales, which includes the Welsh Government. The duty requires public authorities to seek to maintain and enhance biodiversity and promote the resilience of ecosystems, as part of their business planning and day-to-day activities.

Action on biodiversity is also guided by the implementation of the Nature Recovery Action Plan (NRAP) for Wales, published in 2015, which seeks to:

- Engage and support participation and understanding to embed biodiversity throughout decision making at all levels;
- Safeguard species and habitats of principal importance and improve their management. Including the requirement on Welsh Ministers to prepare and publish a list of the living organisms and types of habitat which are of principal importance for the purpose of maintaining and enhancing biodiversity in Wales;
- Increase the resilience of our natural environment by restoring degraded habitats and habitat creation;
- Tackle key pressures on species and habitats;
- Improve our evidence, understanding and monitoring; and,
- Put in place a framework of governance and support for delivery.

These objectives form part of our delivery against international commitments to the Convention on Biological Diversity and the Aichi targets so that our obligations for biodiversity are met<sup>18</sup>.

### **The UK's Withdrawal from the EU**

The policy, legal and financial framework for our natural resources in Wales is intrinsically linked to the European Union's operating framework. The areas encompassed by the Natural Resources Policy are therefore some of the most impacted by the UK's withdrawal from the EU. To be successful, the NRP must be able to operate in the context of the UK's withdrawal from the EU. The resilience of our natural resources and the opportunities they provide will become even more crucial to Wales' future prosperity and security as we define a new place in the world.

Our work with stakeholders since the referendum on the development of this policy has underlined the importance of our natural resources to Wales' post-EU future. In doing so it has highlighted for example that:

- maintaining our environmental standards and taking action to improve the resilience of our natural resources are key to the reputation Wales has for high quality produce. This will continue to be vital to the competitiveness of our natural resource based industries;
- opportunities to add more value along supply chains, innovate and diversify are important in mitigating the worst potential impacts of Brexit to our vulnerable sectors. This includes expanding the development of markets in renewable energy, carbon, water, wildlife, aquaculture and tourism;
- working with nature to increase the resilience of our ecosystems, for example to maintain the productivity of our soils and our seas, will be important in the long term economic viability of agriculture, forestry and fisheries;

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<sup>18</sup> [www.cbd.int](http://www.cbd.int)

- promoting the circular economy and green growth to improve our efficiency, minimise the unsustainable use of resources, reduce pollution and make more use of renewable energy can increase profitability and reduce economic risks associated with Brexit;
- establishing markets for key ecosystem services can support action to reduce flood risk, improve water quality and retain carbon in soils. It can also further provide opportunities for businesses on land and sea to diversify and improve their economic resilience; and,
- targeting environmental action to improve communities, including by improving air quality, improving access to green and blue space and recognising the value of our landscapes can also further improve Wales' tourism offer.

The NRP will be important to the delivery of our own Welsh legislation that will continue to be in place post-Brexit. But it also contributes to the delivery of international obligations that will continue to apply to the UK. It is an important part of our global responsibility and our contribution to action to mitigate the risks of unsustainable management and use of natural resources.

### **Working with partners to ensure the best possible future post EU exit**

Immediately following the result of the referendum on the UK's membership of the EU, a Brexit Roundtable was set up for the areas encompassed by the Department for Environment and Rural Affairs. The Roundtable includes representatives from across all the sectors represented by the department and, recognising the importance of the Natural Resources Policy in this context, have actively contributed to its development. This has included the development of the policy being a key part of workshop sessions held with both the Roundtable and with sector-based forums. This engagement also fed into the development of the Welsh Government's White Paper: '*Securing Wales' Future – transition from the European Union to a new relationship with Europe*'

Having established working groups on *trade and supply chains; evidence and scenarios; land management; seas and coast; air and climate people and communities and, legislation and regulation*, the next phase of the work of the Roundtable's work will be key in informing the implementation of the NRP.

## Our national priorities

This section builds on the opportunities and challenges described in preceding chapters and sets out our three national priorities for managing Wales' natural resources. These have been developed to support the delivery of our programme for Government and the national strategy 'Prosperity for All' which supports its delivery. The priorities also embed the contribution of our Natural Resources across all the Well-being Goals, and take an integrated, long term approach in line with our new ways of working.

Everyone has a stake in our natural resources and a role to play in ensuring these resources are sustainably managed. Through consultation feedback and the findings of our extensive engagement exercise, three national priorities for the management of our natural resources have emerged, namely:

- Delivering nature-based solutions;
- Increasing renewable energy and resource efficiency; and,
- Taking a place-based approach.

These priorities have been designed to work together to help us to tackle challenges and realise opportunities that our natural resources provide. We will align our policies to the delivery of these priorities, and use the framework from our Welsh legislation to drive action.

### Delivering nature-based solutions

Healthy, resilient and diverse ecosystems can provide solutions for the benefit of society to the big challenges we face. They provide cost effective and efficient ways to transform those challenges into opportunities for innovation. By doing, so they can turn natural resources into a driver for green growth and sustainable development.

There is growing evidence which shows a high return for investment in our natural resources, with rates of return comparable to more traditional infrastructure investment projects. This is particularly the case for investments in our natural infrastructure. The State of Natural Resources Report also shows that these areas deliver most in terms of both ecosystem resilience and benefits across all the well-being goals:

- Increasing green infrastructure in and around urban areas;
- Coastal zone management and adaptation;
- Increased canopy cover and well located woodland, for example close to towns and cities where it will have the greatest recreational and ecosystem service value;
- Maintaining, enhancing and restoring floodplains and hydrological systems to reduce flood risk and improve water quality and supply; and,
- Restoration of our uplands and managing them for biodiversity, carbon, water, flood risk and recreational benefits.



Developing markets for ecosystem services will be an important way forward in delivering the Natural Resources Policy. Finding ways of generating an income from the services our ecosystems provide such as water quality, reducing our risk of flooding or to protect our carbon sources to name a few, will support businesses and communities and improve our environment. We are working with NRW and stakeholders to support their development by addressing the barriers, developing partnerships and looking at any necessary regulatory changes.

### **Examples of Nature-Based Solutions**

Nature-based solutions include approaches to:

- support the development of resilient ecological networks to maintain and enhance the resilience of Wales' ecosystems;
- support climate change adaptation and mitigation, and flood risk management
- Improve infrastructure - such as green infrastructure and water treatment systems, for example sustainable urban drainage, swales and reed beds;
- Improve land and water management - such as integrated coastal zone management and adaptation, integrated water resources management, natural flood management, better soil management for carbon storage and sequestration, water quality and continued productivity, for example peat bog management, streamside corridors and strategic hedge planting on farms.

### **Increasing renewable energy and resource efficiency**

As well as looking at the ways in which we manage our land and seas, we also need to look at how we can manage our natural resources more efficiently. This can help reduce the pressures that face our natural resources and also provide new jobs and market opportunities, and reduce operating costs and exposure to market volatility. In this way we can build on our success on renewable energy and recycling. Developing a more resource efficient economy has a crucial role to play in green growth. Wales' economy consumes large quantities of natural resources including water, electricity (from renewable and fossil fuels), minerals (including metals and aggregates), timber and food. Moving towards a more circular economy in Wales, where raw materials are kept in productive use for longer is already reducing the demand for materials. Further progress can significantly reduce our impact on our natural resources whilst providing opportunities for jobs and sustainable economic growth and helping address risks to long-term supply chain security.

## **Modernising construction and adding value across the timber supply chain**

A circular economy approach to construction can reduce consumption. Construction is one of the biggest consumers of raw materials, with 80% of all materials produced used in the built environment. Considering the impact of building and the products in them over their entire life-cycle – from concept, design, construction, use and maintenance to demolition – provides a considerable economic opportunity.

Increasing the use of timber in construction combines a nature-based solution with a circular economy approach to deliver win-win benefits. Timber provides an effective alternative to more common but less sustainable construction materials. It is a low-carbon material when it is harvested from sustainably managed forests. When substituted for carbon intensive materials - including steel and concrete - are not only a low carbon alternative but also lock away carbon. There is less waste in its manufacturing and demolition as timber by-products and waste can be recovered and re-used for energy generation in biomass power plants. Modular housing also provides a further opportunity for the delivery of a higher quality, more efficient building process.

Our investment as a Government to deliver 20,000 new affordable homes in Wales provides an opportunity for innovative use of materials and methods of construction. This could include furthering the use of timber in construction, which would help develop local supply chains for a modern construction sector.

## **Taking a place-based approach**

A fundamental aspect of our approach to managing natural resources sustainably is our focus on collaborative working to deliver better results at a local level. Communities are best placed to shape and understand local priorities and opportunities and to find practical solutions that bring the widest possible benefits. This is also a way that new solutions can be pioneered or piloted. Evidence also shows that local people do not always benefit fully from the natural resources in their locality.

Enabling collaboration at the right scale (be that site, regional, catchment landscape or ecosystem) and the right locations is vital to tackling issues and maximising benefits. Area Statements will play a key role in identifying local opportunities and constraints linked to the national priorities.

### **Piloting the Area-Based Approach**

Natural Resources Wales has taken forward three area trials to pilot the approach in readiness for the Area Statements under the Environment (Wales) Act. This included the Rhondda Area trial which focused on the natural assets and opportunities within the area alongside tackling the issue of wildfires (through the collaborative 'Healthy Hillside' project). This included investment in recreational infrastructure at Llanwynno woodland and Daerwynno Outdoor Centre, working with nature to help restore the natural water environment at Cwmparc (peatland restoration) and providing environmental training for local community groups.

With community groups integral to the overall design, the Llynfi Valley Woodland Creation Project has focused on enhancing ecosystem resilience while promoting health and bringing communities together. Planting broadleaved trees and shrubs has complemented and improved existing habitats and species management and will reduce water run-off into water courses nearby. A range of bespoke health trails, sculptures, ponds and a green gym offer a place for people to relax, exercise and socialise in a tranquil woodland setting; aiming to improve wellbeing in the local community.

Further examples have been taken forward through the Sustainable Management Scheme under the Rural Development Programme.

## **Delivering through our policies**

To deliver the Natural Resources Policy, we must align our policies to the delivery of the national priorities we have identified. This section sets out how we will do this in our key policy areas.

### **Economic Policy**

A strong economy, delivering for people in every part of Wales is essential to the ambitious, healthy, prosperous and united Wales we want. The difference we can make to the success of our businesses, the strength of our communities and the life chances of people are in large part dependent upon our economic prospects.

Our three main objectives that will be taken forward through our national strategy are:

- supporting people and businesses to drive prosperity;
- tackling regional inequalities and promoting fair work; and
- driving sustainable growth.

Our aim is a Welsh economy that delivers prosperity for current and future generations whilst spreading opportunity and tackling inequality. This requires the whole of government to work together, including through our policies and activities in health, education and natural resources. Our natural resources are a key input into our economic system. Global population growth and related economic development have the potential to increase humanity's use of and competition for non-renewable resources. Those businesses that are able to use those resources more efficiently and sustainably will have a competitive advantage. Therefore, through our economic policy, we will support businesses to improve their resource efficiency and, in doing so, improve the competitiveness and resilience of our economy.

### **Renewable energy**

Wales has a wide range of natural and low carbon energy resources, including on- and off-shore renewables, nuclear and heat. Our natural resources provide opportunities for a low carbon economy and need to be managed wisely so that we can continue to enjoy the benefits they provide. Our aim is a low carbon economy that delivers jobs and long term prosperity for all, working in partnership with businesses and communities. To do this, we will:

- use decarbonisation to drive sustainable growth and expand developing markets around low carbon, renewable energy, resource efficient goods and services and to add value to the way we use our natural resources .
- maximise the role of renewable generation to deliver secure and affordable low carbon energy for Wales. Decarbonising the energy sector will contribute to delivery of our Carbon Budgets
- support the delivery of low carbon energy, through a mix of different technologies and sizes, from community scale to major projects. Area Statements, the National Development Framework and Local Development Plans will provide evidence to identify locations where particular energy solutions might be appropriate.

- help communities and businesses to use locally generated electricity and heat from renewable sources. The Welsh Government Local Energy Service will help achieve this. We will also set ambitious targets for renewable energy.
- invest in the skills Wales will need to be competitive in a decarbonising global economy, supporting sustainable growth and innovation which will deliver a low-carbon and resource-efficient economy.
- ensure that our consenting and regulatory regimes support the effective deployment of renewable energy technologies.

## **Resource efficiency**

Moving towards a more resource efficient economy has a crucial role to play in green growth. To achieve this, we will:

- set out a route map for a more resource efficient circular economy, building on success in recycling and taking forward our aim to be the best in the world.
- develop a circular economy package for investment in economic opportunities, including clear regulatory frameworks and investment support.
- build on opportunities for green growth outlined in the Waste Prevention Programme
- work with SMART Cymru to embed resource efficiency within its programme of innovation support to SMEs.
- use public procurement to identify collaborative opportunities for resource efficient manufacturing in Wales (including remanufacturing).

## **A National Infrastructure Commission for Wales**

We are committed to developing a better informed, longer-term strategy of investment in infrastructure which enshrines the principles of the Well-Being of Future Generations Act. To help achieve this, we are establishing an advisory, non-statutory National Infrastructure Commission for Wales (NIFCfW) to provide independent and expert strategic advice. Following public consultation, we have confirmed that:

- NIFCfW will analyse and advise on economic and environmental infrastructure needs and take into account the relationship with social infrastructure,
- We will ensure NIFCfW, in providing advice on long term strategic infrastructure needs, takes into account Welsh Ministers' duties under the Environment (Wales) Act, including the sustainable management of natural resources and the Biodiversity and Resilience of Ecosystems Duty.

## **Regulatory Reform**

We will continue to use the regulatory mechanisms we have and explore opportunities for smarter and more flexible regulation, while ensuring we maintain existing environmental standards. To do so, we will:

- work to ensure that our legislation contributes towards the sustainable management of natural resources in a consistent, proportionate and targeted way.
- identify opportunities to improve our legislative framework so that the opportunities managing our natural resources sustainably provide for our prosperity can be realised. This will also help improve our resilience as a nation as we withdraw from the European Union.
- consider the potential of different regulatory approaches to provide a consistent application of standards to improve the management of our natural resources, and which help, to address the impacts of diffuse pollution.
- continue to explore innovative mechanisms, such as payments for ecosystem services, that can help unlock funding for additional actions in relation to water, habitat or carbon management.
- We will work with NRW to test new approaches using its powers to undertake experimental schemes.
- improve our legislative framework by addressing issues in out of date legislation, ensuring it aligns with the new approach provided in the Environment (Wales) Act and continuing our work to put in place a more modern, smarter and more efficient regulatory framework.

## **Agriculture and food**

Wales needs to sustain a range of farm types and scales, ensuring a viable future for both upland and lowland farming through a flexible future agricultural framework. Future patterns of farming may not be the same as current uses and we need to be creative in enabling new opportunities that will support prosperous farm businesses and build on the distinctive strengths and character of Wales' natural resources.

At a time of considerable change for the industry, we want to increase the opportunities available to farmers. An important part of this is about developing markets for ecosystem services such as for water and carbon management. This Natural Resources Policy will also inform the development of future agricultural support schemes.

Stakeholders are clear that agriculture in Wales needs to maintain high environmental and animal health and welfare standards to support our ongoing competitiveness in the market place. We must address continued challenges, such as diffuse water pollution from agricultural run-off and on-farm incidents as well as decreasing greenhouse gas emissions from animal wastes through better nutrient management. In this context, we will:

- support work to improve the resilience of supply chains across agriculture and food, unlocking greater added value and improving processing capacity;
- support businesses to diversify and take advantage of existing and emerging markets, improving our resilience to risks associated with leaving the EU;
- increase Wales' share of UK domestic markets, particularly for our high quality food and drink
- maintain and enhance farmland biodiversity, habitats and historic features to make a positive contribution to increasing ecosystem resilience and maximise benefits to society.

- support development of resilient supply chains across agriculture and food, including collaborative action across agri-food sectors, co-operatives and new market opportunities for products, locally and internationally.
- support opportunities for anaerobic digestion of food waste as an opportunity for diversification.
- continue to co-ordinate and embed best practice for the sustainable management of our soil resources. This will be informed by monitoring trends in carbon stock, a better understanding of the soil resource, the functional importance of soil biodiversity, and trends in and management of macro-nutrients.

## **Animal Health and Welfare**

Everyone has a stake in raising standards of animal health and welfare in Wales. The way animals are bred, reared and cared for throughout their life, the health and welfare policies introduced to manage disease risks can have major implications for the environment and society. Disease outbreaks and the measures to control them can carry wide and costly consequences for public health, the economy and the environment. The Wales Animal Health and Welfare Framework sets out our plan for animal health and welfare for kept animals, whilst also helping to protect public health and making a contribution to the economy and the environment. Through the implementation of the Framework we will:

- secure Wales' reputation for the highest standards of animal health and welfare.
- ensure Wales has a healthy sustainable livestock industry. Healthier more productive animals reduce the impact on the environment, maintain and improve animals of high genetic value and increase Wales' reputation as a provider of high quality food.
- improve biosecurity standards to minimise disease risk and spread of disease. This can support work to reduce green house gas emissions, improve water and soil quality.
- improve resilience by continuing to work with industry to help minimise the risk of disease through effective contingency planning.
- minimise the impact of animal disease to protect rural communities and sustain profitable farm businesses – helping to safeguard and create jobs.

The UK also has a high aquatic animal status compared with most of Europe and the many regions of the world, and is free from most serious aquatic animal diseases. This status supports a healthy environment and a thriving rural economy. Through the joint contingency plan for notifiable and emerging diseases of aquatic animals in England and Wales, we will:

- maintain this status and contribute to a nation better protected against animal diseases, with strong response and recovery capabilities.

## **Trees and Woodlands**

Our trees and woodlands are vital in delivering our national priorities. Wales needs both large and small scale, diverse woodlands that include both conifer and broad-leaved species. We also need greater integration between woodland and other land uses and a removal of the historical, artificial distinction between farmland and woodland management. We must also recognise the fundamental importance of increasing the number of trees in our towns. New woodland will need to be created and trees established to provide greater connectivity between, and increase the size of woodland habitat patches and to address key challenges, in both rural and urban areas. In taking forward action we will:

- encourage good forest design and sustainable management that makes a positive contribution to the character and quality of the landscape, improves the biodiversity value of the forests, and secures wider benefits, such as flood risk management.
- improve the climate resilience of the forest resource and its capacity to resist pests and diseases through more appropriate species and provenance choice, coupled with adaptive management approaches.
- Increase and improve the connectivity between our hedgerows, with an increasing proportion of hedgerows brought into positive long term management, with restoration where they have been lost or remain as relict features. Hedgerow management should allow selective growth of trees, supplemented as appropriate by planting. Hedgerows are an important aspect of connectivity in the landscape, one of the factors in increasing resilience that can play a role in water management and provide increased biosecurity and shelter belts for farm animals.
- promote increased community ownership or management of woodlands as a local resource.
- work across government to support the higher value use of our timber resources, in particular in the construction of high quality housing .
- carefully manage trees and woodland that have high environmental values, including ancient woodland sites, and ancient, veteran and heritage trees, which are an irreplaceable resource that provide a wide range of ecosystem services.

## **Water and flooding**

There are opportunities to manage flooding by using natural flood risk management techniques in both our upland and lowland areas. In the uplands this means taking measures to increase water storage by reducing run off and soil sealing, and in the lowlands slowing flow through more natural floodplains. This should have wider benefits for ecosystems and water quality. There are opportunities to prioritise management of water at a catchment scale. This should provide income to land owners and increase the resilience of the ecosystems as well as providing a cost-effective approach to improving water quality. We will encourage the adoption of this approach in our guidance to water regulators. In taking forward our action on water and flood, we will:



- increase the role of nature-based solutions in flood and water management, including coastal risk management and adaptation. This will address problems at source and could reduce costs. Interventions should be designed to deliver a range of benefits through the way in which they manage the land.
- Support the use of innovative approaches to water quantity and drought planning which might involve new technological applications to access smaller water bodies and create a more dispersed supply network.
- Reform the abstraction licencing system to ensure that we have robust and resilient water resources.
- Increase awareness of water efficiency and support innovative approaches for encouraging reduction in water consumption. Reduction in water use will reduce energy used in the treatment and delivery of drinking water, and reduce our carbon footprint.
- Improve the outdated drainage systems across Wales, with an emphasis on sustainable, nature-based drainage in our urban areas. This will include new frameworks for new development and incentivising natural interventions in areas of pressure by water, sewerage and drainage authorities. This will both increase green areas and resilience to changes in our climate.

## **The Common Agricultural Policy**

The Common Agricultural Policy (CAP) has dominated the funding environment in the land based sector for the last 40 years. CAP will soon disappear and will need to be replaced by bespoke support policies tailored to the needs of rural Wales and framed within the context of the Environment and Wellbeing of Future Generations Acts. The replacement of CAP offers opportunities to improve the type of support we offer to land managers to ensure sustainable management of our natural resources. In particular replacing the 2 pillar system of direct support and rural development will enable us to develop a more strategic and integrated package of investment and land based support which puts land managers at the heart of a sustainable and vibrant rural economy. The Natural Resources Policy will inform the design and delivery of this package of measures. Welsh Government will deliver these by:

- Reviewing best practice from our existing support schemes and look to develop new programmes building on this.
- Considering the potential for introducing a more results-based approach to land based support for which the required outcomes are informed by local consultation and Area Statements.
- Identifying market mechanisms to increase the income from our land managers' activities including through rewarding them for the ecosystem services they provide, such as carbon storage and clean water provision.
- Increasingly operating programmes at a collaborative landscape scale involving multiple partners, including land managers and wider beneficiaries, and engage them in how best to deliver the benefits we are seeking.
- Using the best available science to inform policy development and generate technical advice and training for land managers, and monitoring the outcomes of our schemes and feeding these into ongoing improvements.

## Tourism

Tourism is an important part of the economy of Wales. Our countryside and coast, mountains and inland waters provide outstanding environments for outdoor activities. These, and our historic environment are a central reason why visitors choose to holiday in Wales. We have three National Parks of distinctive character, five areas of outstanding natural beauty and, since 2012, a 870 mile long Wales Coast Path, the only one of its kind anywhere in the world. This is a unique part of the overall tourism offer but also contributes to wider aims including to improve the well-being and health of the nation. A key priority in the *Partnership for Growth - Strategy for Tourism* is selling excellence through the Wales offer – coastal and rural environment, culture, activities, events and distinctive destinations.

- Working closely with partners in the National Parks, Local Authorities, the National Trust and Natural Resources Wales will be essential to realise the economic and wider benefits of Wales' built and natural environments. We need to take full account of the major asset represented by Wales' natural environment and consider how to use its characteristics for growing tourism sustainably

## Local Environmental Quality and Community Wellbeing

Nature-based solutions to health and community issues are preventative, long term and cost effective. The natural environment provides physical and mental health benefits by increasing opportunity to engage in physical activity. Green infrastructure such as open spaces and parks are important to people's health and well-being. Outdoor play and learning in green spaces is important to children and their health, development and understanding and appreciation of the environment, as supported by *Wales: a Play Friendly Country*. Areas with more accessible green space are associated with better mental and physical health and health inequalities can be significantly reduced in greener areas. Attractive and accessible green and blue spaces, such as country or community parks, provide a focus for community activities and identity and can be a stimulus to regeneration and investment. However, many of our most deprived communities live close to natural assets from which they are disconnected and currently provide very little benefit to those communities. Air quality and excess noise are significant causes of ill-health. Community-run assets, such as community woodlands or community energy schemes, provide local income, employment, skills and community engagement through volunteering. In addition, in urban areas, well planned green infrastructure can provide relief from climatic extremes through shelter and shading as well as important space and connectivity for biodiversity to adapt to climate change. In taking forward our action for our local environmental quality and communities we will:

- Ensure our communities benefit from healthy environments, by identifying opportunities to take actions that improve respiratory conditions, inactivity and mental health. These include increasing green space and tree cover and improving public access to green infrastructure. We will support communities to improve places where they live and work, tackling local environmental issues such as litter and fly tipping which affects mental and physical health.

- Work with communities to protect and enhance green spaces that bring people together, helping communities take ownership of assets in their area.
- Plan the development of green infrastructure at the heart of our communities to deliver space for recreation, transport corridors for cycling and walking, resilience against flooding and heat and provide important spaces for nature.
- Promote 'green prescribing'.
- Take practical steps to improve air quality across Wales, not just in the most polluted hotspots but across Wales. This will require a mix of action to address pollution from traffic and other sources and to improve the ability of the natural environment to absorb pollutants through tree planting and green infrastructure.
- Support the deployment of the infrastructure for low emission vehicles
- Ensure that investment in infrastructure projects maximise wider benefits such as the creation of local jobs, training opportunities and support the move to a low carbon, resource efficient economy.
- Build on our action to improve the warmth and efficiency of our homes and hospitals, further to improve people's health and reduce the running costs of houses and our health service
- Improve nutrition and expand the market for Wales' high quality food and drink, through provision of healthy, lower carbon food to schools and hospitals
- Promote community ownership or management of natural resources.
- Support the development of allotments and community food growing, particularly in support of deprived communities.

## **Landscapes and our Historic Environment**

Landscapes are a vital part of both place-based and nature-based approaches. All places have distinctive qualities, opportunities and functions which will be reflected by NRW in developing area statements.

- The collaborative Future Landscapes Wales review process has identified clear principles for the future of our designated landscapes. This includes aligning their purpose, processes and governance with the new framework set by the Environment (Wales) Act and Well-being of Future Generations Act and providing for new community-led proposals for places and landscapes to come forward, drawing on the experience of international models.
- Detailed actions, including the potential legislative changes identified in the report, will be developed using the same collaborative process and through wider public engagement on what makes places 'special' for people and communities.

The measures introduced by the Historic Environment (Wales) Act will improve the protection and sustainable management of scheduled monuments and listed buildings in Wales. They have been complemented by planning policy, advice and best-practice guidance to support the careful management of change in the wider historic environment in line with current conservation philosophy and practice.

## **Fisheries and marine**

Wales possesses world-class coastal assets, delivering a range of social, cultural, economic and environmental benefits. Conservation measures are contributing to the improvement of marine ecosystems which is important to our coastal communities, the well being of the people of Wales and those who visit our shore.

High quality aquaculture, allows people to enjoy healthy, locally produced food. Many people enjoy angling in Wales, targeting iconic species such as salmon and sewin on our rivers or bass and sharks in our seas. It is important that these fish populations, and their environments, are healthy and support productive fisheries and recreational opportunities.

A coordinated approach between Government, regulators, industry and the 3<sup>rd</sup> sector is needed to remove preventable impacts such as on our riverine environments that are affecting fish stocks. The work priorities for commercial and recreational interests in relation to marine fisheries are agreed through the Wales' Marine Fisheries Advisory Group (WMFAG).

Wales' inshore waters are an important national resource and the Wales National Marine Plan will guide the way in which we will take forward the delivery of the NRP priorities in this area as a part of our approach to the management of Wales' marine natural resources, stakeholder oversight for which is provided by Wales' Marine Advisory and Action Group (WMAAG).

The Natural Resources Policy, land use planning and marine planning will complement each other in supporting sustainable management of natural resources across the land sea interface (applying the principles of Integrated Coastal Zone Management (ICZM)). In taking forward action in this area we will:

- increase domestic consumption and develop more added-value local processing of Welsh seafood and supply chains and reduce reliance on imported produce which can have higher environmental and climate impacts.
- Identify and support practical opportunities for ecosystem recovery, realising benefits for coastal communities and ensuring multiple benefits from the sustainable development of the marine area.
- securing ecological coherence across our network of marine protected areas and work to improve the management and condition of the network. The improvement, connectivity and resilience of marine ecosystems is supporting the long term sustainability of our seas.
- Develop a methodology for monitoring and reporting on the effectiveness of the plan and its policies.
- Develop a marine fisheries policy and regulatory regime to ensure resilient stocks which contribute toward both productive ecosystems and a secure future for Welsh fisheries. This will mean working across borders including the Republic of Ireland and Isle of Man.

## **Transport**

Through the Wales National Transport Strategy and Finance Plan we are promoting a more sustainable road transport network and a modal shift away from roads for people and freight. This will reduce emissions and the impacts that transport has on our environment and our health. We are committed to improving active travel opportunities and promoting public transport. In taking this action forward we will:

- take action on our transport network that enhances the resilience of our ecosystems and reverses the decline of biodiversity. We will also explore opportunities for wider ecosystem service delivery, such as carbon, water and flood management
- exemplify best practice for green corridors on our trunk roads as part of a resilient ecological network which helps promote Wales as leading the way as a first class sustainable tourist destination
- improve the connectivity and diversity of our ecosystems through initiatives that promote green corridors, strategic tree planting and appropriate vegetation management and further improvements to the environmental quality of urban and rural transport networks.
- integrate nature based solutions into the planning and development of new transport related infrastructure

## **The land-use planning system**

The Planning (Wales) Act 2015 improves the planning process to ensure the right development is located in the right place. Planning Policy Wales is being restructured to reflect the goals and ways of working set out in the Well-being of Future Generations Act. Following this, we will consider whether the supporting series of Technical Advice Notes also need to be amended. Taken together, Planning Policy Wales and the National Development Framework will set the national planning context which will support the delivery of the Natural Resources Policy at the national level. At the local level, Natural Resources Wales' area statements will provide a vital local evidence base for the sustainable management of natural resources, which Local Authorities must have regard to in their Local Development Plans.

## **Education**

The Welsh Government can help promote environmental awareness and encourage more considered future decision making through the current curriculum arrangement including Education for Sustainable Development and Global Citizenship. The Successful Futures report by Professor Graham Donaldson identified four purposes of education – one of which is to support children and young people to become ethical, informed citizens and this includes developing learners who show their commitment to the sustainability of the planet. The four purposes are at the heart of the new curriculum and are the starting point for all decisions on the development of the new curriculum and assessment arrangements. Officials will work to ensure that the cross cutting elements of the National Resources Policy help to inform the development of the new Areas of Learning and Experience (AoLEs). Development

work is currently considering evidence from a wide range of relevant stakeholders and experts including input about citizenship, management of natural resources and the potential of the natural environment to support children and young people's physical and mental well-being. This work will help inform the detail of the AoLEs and of the curriculum as a whole.

The 21<sup>st</sup> Century Schools and Education Programme is the biggest investment in educational infrastructure since the 1960s. Under the first wave of funding, which runs over the five year period ending 2019, over £1.4 billion will be invested in the rebuild and refurbishment of over 150 schools and colleges across Wales. New build schools and colleges, which are constructed under the 21st Century Schools and Education Programme, must achieve BREEAM Excellent, use 15% recyclates (which is higher than the Welsh Government standard of 10%) and have an EPC rating of A. By replacing old, energy inefficient schools and imposing these conditions of grant, our new schools and colleges do have reduced environmental impact.

## Summary and next steps

Taken together, the three national priorities set out in this, our first Natural Resources Policy, have been designed to tackle the challenges we face and realise the significant opportunities that our natural resources provide.

In implementing this approach, collaborative working will be essential to help us find practical solutions that deliver at a local level and bring the widest possible benefits. Working at the right scale and in the right locations to tackle the issues and realise the win-win benefits is essential. We will work with stakeholders in developing the new frameworks needed post EU exit for the management of our land and seas, ensuring that our policies and programmes support the NRP's delivery and are responsive to our unique Welsh context. As we work to forge a new place in the world, we will also build on the international recognition received, providing certainty for business and investment and strengthening our reputation as a progressive nation with strong values and a clear direction.

A clear approach to monitoring and evaluation is also needed. We will develop an evaluation framework to demonstrate the extent to which we deliver our priorities in the NRP, supported by performance measures aligned to those in the suite of 'National Indicators for Wales'.

## **Annex A: Environment (Wales) Act Part 1**

The approach to the sustainable management of Wales' natural resources is set out in the Environment (Wales) Act.

### **Section 2 Natural resources**

In this Part, “natural resources” includes (but is not limited to)—

- (a) animals, plants and other organisms;
- (b) air, water and soil;
- (c) minerals;
- (d) geological features and processes;
- (e) physiographical features;
- (f) climatic features and processes.

### **Section 3 Sustainable management of natural resources**

(1) In this Part, “sustainable management of natural resources” means—

- (a) using natural resources in a way and at a rate that promotes achievement of the objective in subsection (2),
- (b) taking other action that promotes achievement of that objective, and
- (c) not taking action that hinders achievement of that objective.

(2) The objective is to maintain and enhance the resilience of ecosystems and the benefits they provide and, in so doing—

- (a) meet the needs of present generations of people without compromising the ability of future generations to meet their needs, and
- (b) contribute to the achievement of the well-being goals in section 4 of the Well-being of Future Generations (Wales) Act 2015

### **Section 4 Principles of sustainable management of natural resources**

In this Part, the “principles of sustainable management of natural resources” are—

- (a) manage adaptively, by planning, monitoring, reviewing and, where appropriate, changing action;
- (b) consider the appropriate spatial scale for action;
- (c) promote and engage in collaboration and co-operation;
- (d) make appropriate arrangements for public participation in decision-making;
- (e) take account of all relevant evidence and gather evidence in respect of uncertainties;
- (f) take account of the benefits and intrinsic value of natural resources and ecosystems;
- (g) take account of the short, medium and long term consequences of actions;
- (h) take action to prevent significant damage to ecosystems;
- (i) take account of the resilience of ecosystems, in particular the following aspects—
  - (i) diversity between and within ecosystems;
  - (ii) the connections between and within ecosystems;



- (iii) the scale of ecosystems;
- (iv) the condition of ecosystems (including their structure and functioning);
- (v) the adaptability of ecosystems.

### **Section 8 Duty to prepare and publish state of natural resources report**

- (1) NRW must prepare and publish reports in accordance with this section containing its assessment of the state of natural resources in relation to Wales.
- (2) Each report must, among other things, set out—
  - (a) NRW’s assessment of the extent to which sustainable management of natural resources is being achieved;
  - (b) NRW’s assessment of biodiversity (including the living organisms and types of habitat included in any list published under section 7);
  - (c) what NRW considers to be the main trends and factors that are affecting, and are likely to affect, the state of natural resources;
  - (d) any aspects of the state of natural resources about which NRW considers that it does not have sufficient information to make an assessment.
- (3) NRW must publish its first report before the end of four months starting with the day this section comes into force.
- (4) Subsequently, NRW must publish a report before the end of the calendar year preceding a year in which an ordinary general election is due to be held.
- (5) NRW must publish a draft of each report required by subsection (4) before the end of the calendar year preceding the year in which the report must be published.
- (6) In this section, “ordinary general election” means the poll held at an ordinary general election under section 3 of the Government of Wales Act 2006 (c. 32).

### **Section 9 Duty to prepare, publish and implement national natural resources policy**

- (1) The Welsh Ministers must prepare and publish a document setting out their general and specific policies for contributing to achieving sustainable management of natural resources in relation to Wales (the “national natural resources policy”).
- (2) The national natural resources policy must set out what the Welsh Ministers consider to be the key priorities, risks and opportunities for sustainable management of natural resources in relation to Wales, including what they consider should be done in relation to climate change and biodiversity.
- (3) The Welsh Ministers may include anything in the national natural resources policy which they consider relevant to achieving sustainable management of natural resources in relation to Wales.
- (4) The Welsh Ministers must—
  - (a) take all reasonable steps to implement the national natural resources policy, and
  - (b) encourage others to take such steps.

- (5) The Welsh Ministers must publish the first national natural resources policy before the end of 10 months starting with the day this section comes into force.
- (6) The Welsh Ministers—
- (a) must review the national natural resources policy after each general election, and
  - (b) may review the policy at any other time.
- (7) The Welsh Ministers may at any time revise the national natural resources policy and must publish the national natural resources policy as revised.
- (8) In exercising their functions under this section, the Welsh Ministers must apply the principles of sustainable management of natural resources.
- (9) In preparing or revising the national natural resources policy, the Welsh Ministers must have regard to the most recent report under section 8 on the state of natural resources in relation to Wales.
- (10) When the Welsh Ministers publish the national natural resources policy (or a revised policy), they must also publish a report summarising—
- (a) any consultation that was carried out in preparing the policy, and
  - (b) any representations that were received as a result of the consultation.
- (11) In subsection (6), “general election” means a poll held at an ordinary general election under section 3 of the Government of Wales Act 2006 (c. 32) or an extraordinary general election under section 5 of that Act.

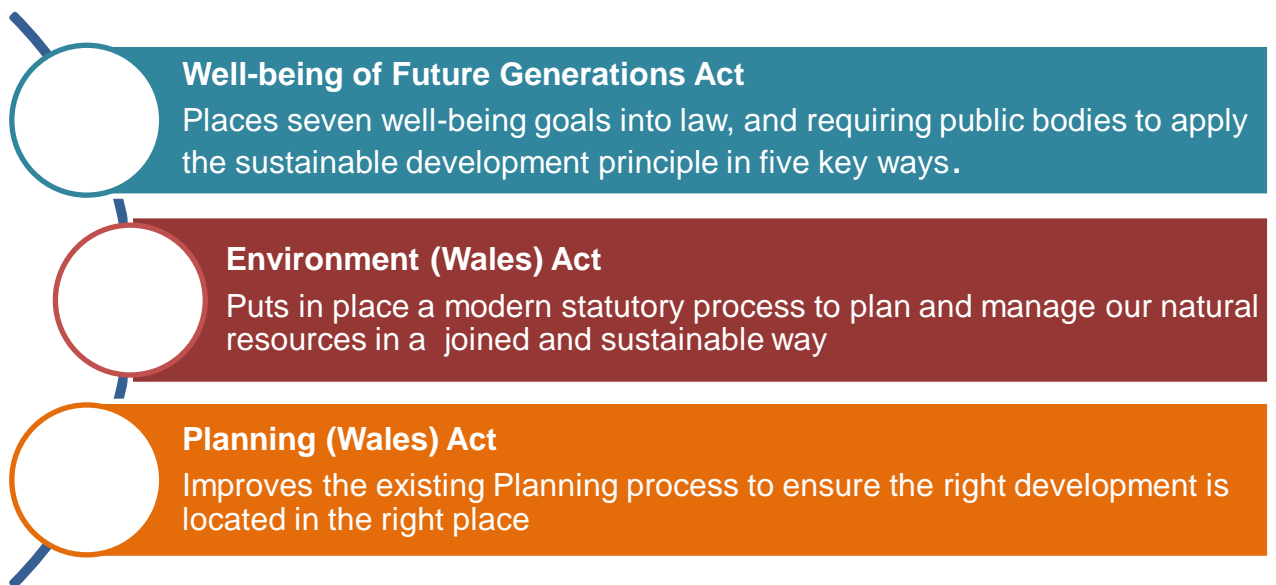
### **Section 11 Area statements**

- (1) NRW must prepare and publish statements (“area statements”) for the areas of Wales that it considers appropriate for the purpose of facilitating the implementation of the national natural resources policy.
- (2) NRW may use the area statements for any other purpose in the exercise of its functions.
- (3) Each area statement must—
- (a) explain why a statement has been prepared for the area, by reference to—
    - (i) the natural resources in the area,
    - (ii) the benefits which the natural resources provide, and
    - (iii) the priorities, risks and opportunities for the sustainable management of natural resources which need to be addressed;
  - (b) explain how the principles of sustainable management of natural resources have been applied in preparing the statement;
  - (c) state how NRW proposes to address the priorities, risks and opportunities, and how it proposes to apply the principles of sustainable management of natural resources in doing so;
  - (d) specify the public bodies which NRW considers may assist in addressing the priorities, risks and opportunities.
- (4) NRW must ensure that every part of Wales is included in at least one of the areas for which it prepares an area statement.
- (5) NRW must
- (a) take all reasonable steps to implement an area statement, and
  - (b) encourage others to take such steps.
- (6) NRW must keep area statements under review and it may revise them at any time.
- (7) Before publishing an area statement, NRW must consider whether—

- (a) another plan, strategy or similar document should be incorporated into the area statement, or
- (b) the area statement should be incorporated into another plan, strategy or similar document.

## The Interface with the Well-being of Future Generations Act and the Planning (Wales) Act

The Environment (Wales) Act received Royal Assent in March 2016, having been developed following consultations in 2010 (*A Living Wales*), 2012 (Green Paper) and the Environment Bill White Paper (*Towards the Sustainable Management of Wales' Natural Resources*) in 2014. Developed in parallel with the Well-being of Future Generations Act, it complements and links with that Act; the sustainable management of natural resources being a fundamental part of sustainable development. The Act's provisions are also closely linked to the Planning (Wales) Act as illustrated in the following diagram.



## **Annex B: Nature Based Climate Action Memorandum of Understanding**

**As founding signatories to the international Nature Based Climate Action Memorandum of Understanding, the Welsh Government has committed to:**

- promote investments in enhancing ecosystem resilience as part of the response to the need for mitigation and adaptation;
- look to natural or “green” infrastructure solutions to reduce climate risk and provide wider ecosystem services whilst safeguarding biological diversity and ecosystem health;
- the use of tools and assessments that promote the understanding of the wider value of biodiversity and healthy ecosystems in addressing climate change and providing wider multiple benefits;
- the development of tools to measure the benefits of integrated approaches to climate change (including ecosystem services, safeguarding biological diversity, carbon sequestration, and wider co-benefits that support increased resilience);
- the need for enhanced technical and scientific cooperation and measurement in relation to implementation; and,
- foster closer links between ecosystem management, climate-change adaptation and sustainable development.