

Biodiversity Research Briefing

August 2021



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Biodiversity

Research Briefing

August 2021

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Summary

What is the issue?

In 2021 the **Senedd declared a 'nature emergency'**. This was in recognition of human induced declines in biodiversity. The **2019 State of Nature Report** highlights that 17% of 3,902 species in Wales are threatened with extinction.

Pressures on biodiversity come from many sources, including, urbanisation, pollution, hydrological change, certain agricultural and woodland management techniques and invasive non-native species. Biodiversity has both intrinsic value and provides benefits to humans, through '**ecosystem services**', such as flood prevention and food production. Biodiversity losses are thought to cause risks to human safety and well-being.

How is biodiversity being protected?

Nature conservation is an area of devolved competence in Wales. Most policies and legislation on biodiversity in the UK, including Wales are derived from international obligations, such as the **Convention on Biological Diversity**.

Stakeholders highlight that Welsh policies and legislation such as the **Nature Recovery Action Plan**, the **Environment (Wales) Act 2016** go some way to protect biodiversity, however they are calling for urgent action to address the 'nature emergency'.

Natural Resources Wales (NRW) is the Welsh Government's statutory body responsible for the management of Wales's natural resources.

What are stakeholders calling for?

Environmental stakeholders are calling on the Welsh Government to introduce statutory domestic biodiversity targets.

Recovery from the Covid-19 pandemic may offer an opportunity to address biodiversity loss. Branded as ‘the green recovery’ **environmentalists have highlighted** the need for green jobs to stimulate the economy and protect biodiversity.

The Welsh Government’s plans for a **National Forest** have gained momentum and stakeholders highlight that trees must be planted in the right places to maximise the benefit to biodiversity.

The Welsh Government’s **future farming scheme** has been identified as an opportunity to enhance biodiversity through payments for public goods.

And finally, post EU withdrawal, there is **concern amongst environmentalists** that with the loss of EU structures to ensure compliance with EU legislation, current laws may not be implemented appropriately. Stakeholders are calling for a domestic system of environmental governance.

Introduction

This section introduces what biodiversity is, why it is important, and why it is declining.

What is biodiversity?

Biodiversity, or biological diversity, is defined as “the diversity of living organisms, whether at the genetic, species or ecosystem level” in the **Environment (Wales) Act 2016**. Similar definitions are used by the international **Convention on Biological Diversity** (CBD) and the **UK Government**.

Living organisms are individual entities that show some characteristics of life, such as being composed of one or more cells and having the ability to metabolise, grow, adapt, or reproduce. Animals, plants, fungi and microorganisms such as bacteria are all living organisms.

The definition further emphasises the range of ways in which biodiversity occurs. Biodiversity considers genetic variants and variety of species, but also different types of habitats.

Wales’s geographic location bordering three oceanic climate zones and its varied geology and temperate climate, supports a diversity of species. Some, like the Radnor lily or the Snowdon lily, **cannot be found anywhere else** in the world. The number of species in Wales is difficult to determine, but the **Wales Biodiversity Partnership** estimates that there are around 50,000 species.

Why is biodiversity important?

Biodiversity is the building block of ecosystems and supports a healthy natural environment. Biodiversity helps the environment to provide a range of benefits to humans, often classed as **‘ecosystem services’**. These range from pollination and flood prevention to recreational and health aspects and are generally classed as:

- **Supporting** (e.g. pollination, photosynthesis, nutrient cycling);
- **Provisioning** (e.g. food, raw materials, energy);
- **Regulating** (e.g. carbon sequestration, decomposition, water and air purification, flood protection, disease control); or
- **Cultural** (e.g. recreational, science, therapeutic).

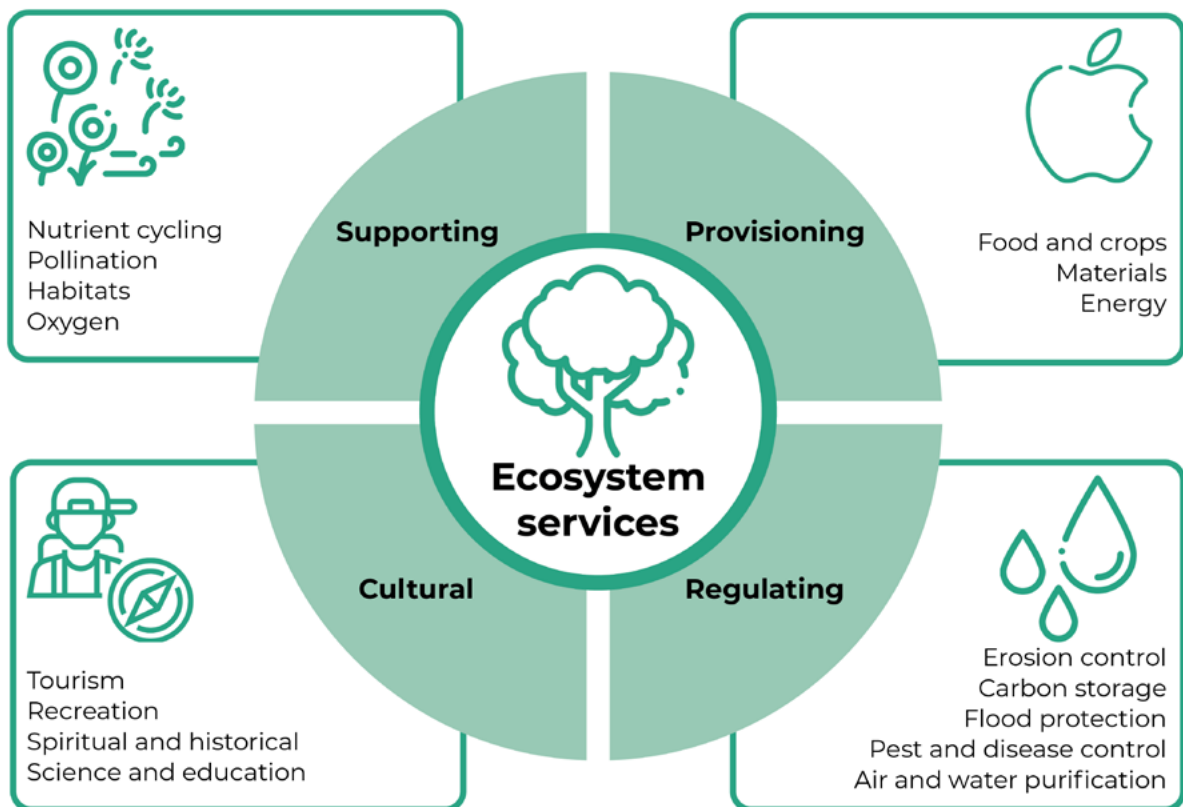


Figure 1: Categories and examples of ecosystem services. **Figure based on UK National Ecosystem Assessment.**

How and why is biodiversity declining?

Global biodiversity levels have always undergone changes. **Scientists differentiate six mass extinctions** since life on Earth began, interspersed with phases of thriving biodiversity. Each mass extinction is thought to have resulted in at least 75% of all species becoming extinct. Fossils found on Welsh coasts are evidence of species that became extinct hundreds of millions of years ago, to be replaced by others through evolution.

Scientists say we are entering the sixth mass extinction event, and the first **linked to human activity**. **Research suggests** that the average rate of vertebrate species loss over the last century is up to 100 times higher than pre-human extinction rates.

The IPBES Global Assessment (2019) revealed widespread, accelerating declines in biodiversity and life-support systems. It concluded that biodiversity is threatened by habitat conversion, excessive resource harvesting, climate change, invasive species, and other impacts. The assessment gained unanimous approval by the 132 member countries. It highlighted that unless these declines are reversed, regression in human safety, mental and physical health, and food and livelihood security will continue.

At a UK and Welsh level, the environment sector's collaborative **State of Nature report 2019**, concludes that pressures upon biodiversity come from sources, including agricultural management, urbanisation, pollution, hydrological change, woodland management and invasive non-native species. It says climate change is driving widespread changes in the abundance, distribution and ecology of Wales's wildlife.

Natural Resources Wales's (NRW) **State of Natural Resources Report (SoNaRR 2020)** and the **Nature Recovery Action Plan for Wales** acknowledge that Wales is still far from reaching national and international biodiversity goals, such as achieving the 'sustainable management of natural resources' as defined in the **Environment (Wales) Act 2016** or the **Aichi targets** defined by the CBD. Instead, **NRW's interim SoNaRR 2020 found:**

Climate change is driving species to move location. Arctic-alpine species within mountain habitats could disappear from Wales as their habitats are lost. Where coastal plants and wildlife cannot move inland, sea-level rise and increased land erosion could lead to widespread loss. The number and range of invasive non-native species is likely to increase with the changing climate. Environmental pressures are causing global biodiversity declines at rates not previously encountered in human history. The rate of species extinctions is accelerating.

An assessment of the **International Union for Conservation of Nature (IUCN) Red List of Threatened Species** for Great Britain, which was published in the **State of Nature report 2019**, found that 8% of 6,500 species found in Wales are at risk of extinction from Great Britain (critically endangered, endangered and vulnerable species - Figure 2). This includes vertebrates, invertebrates, plants, fungi and lichens.

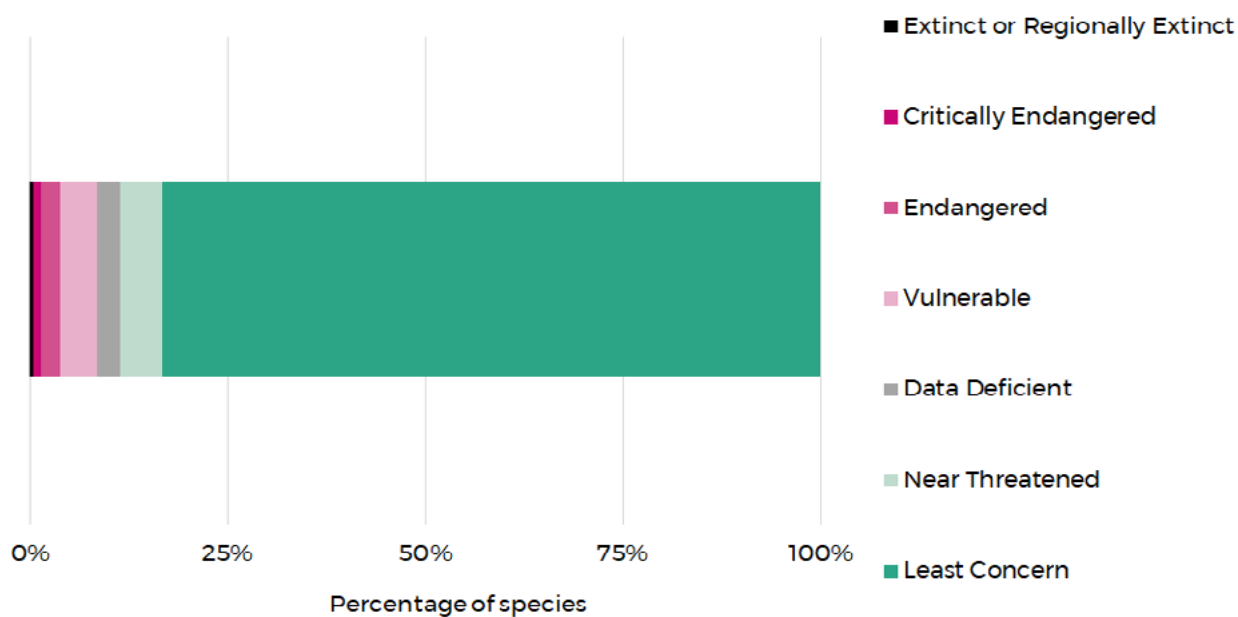


Figure 2: IUCN Red List Assessment of species in Wales (Source: [State of Nature 2019](#))

In addition, the report presents assessments of extinction risk within Wales for several taxonomic groups (3,902 species). Of these, 666 (17%) are threatened with extinction from Wales, and another 73 (2%) have become extinct already (from a 1970 baseline).

Biodiversity policy and legislation

Most policies and legislation on biodiversity in Wales and the UK are derived from EU and international law, such as the EU's Nature Directives and the international Convention on Biological Diversity. This section presents the landmark international treaties, EU, UK and Welsh biodiversity policies and legislation.

International

The UK is party to multiple international treaties aimed at protecting and conserving biodiversity, which are detailed below. These treaties include general aims to:

- Implement specific legislation on biodiversity;
- Set targets and develop national policies or action plans to achieve them;
- Establish national bodies; and/or
- Report on progress against international targets.

Convention on Biological Diversity

The **Convention on Biological Diversity (CBD)** is an international treaty that was adopted at the Conference on Environment and Development (also known as 'Earth Summit') in Rio de Janeiro in 1992 and came into force in 1993. There are **196 parties** to the Convention, which was **ratified by the UK in 1994**. The CBD requires parties to create and enforce national strategies and action plans for conservation, protection and enhancement of biodiversity. Particularly, the CBD sets out three goals:

- The conservation of biodiversity;
- The sustainable use of the components of biodiversity; and
- The fair and equitable sharing of the benefits arising from use of genetic resources.



Figure 3: Representatives at the 1992 Earth Summit, where the CBD was adopted (Source: [UN Photo](#))

The **Strategic Plan for Biodiversity 2011 – 2020** was adopted at the 10th Conference of the Parties (COP10) to the CBD in Nagoya, Japan, in 2010. It concluded that:

1. the 2010 targets for biodiversity had not been met; and
2. the drivers of biodiversity loss (habitat change, over-exploitation, pollution, invasive alien species and climate change) had not been properly addressed and biodiversity issues were not sufficiently integrated into national policies (partially due to limited capacities and technical and financial resources in developing countries).

Another development from COP10 was the introduction of the **Aichi targets**. These are a set of 20 headline targets organised under five strategic goals:

- Address underlying causes of biodiversity loss through government and society;
- Reduce direct pressure on biodiversity;
- Improve biodiversity by safeguarding;
- Enhance benefits to all from biodiversity; and

- Establish participatory planning, knowledge management and capacity building.

The targets include those to at least halve and, where feasible, bring close to zero the rate of natural habitat loss, conserve 17% of terrestrial and inland water areas and 10% of marine and coastal areas and to restore at least 15% of degraded areas through conservation and restoration.

The parties agreed to incorporate the Aichi targets into national biodiversity strategies and action plans within two years.

The Strategic Plan for Biodiversity from COP10 also set out the '**2050 Vision for Biodiversity**', which states:

By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.

A successor framework for the post-2020 era was expected to be adopted by the **UN Biodiversity Conference**, referred to as COP15, in 2020. However this conference was **postponed to 11-14 October 2021** due to the coronavirus pandemic, and the possibility of a further delay to 2022 has **been reported**. A **draft framework** has been made available. In addition to adopting a post-2020 global biodiversity framework, **the conference** will also assess the implementation of the Convention on Biological Diversity and its protocols.

Other international treaties

Biodiversity is the subject of several other international treaties. A few examples are listed below. A comprehensive list can be found at Annex 1.

The **1979 Bern Convention on the Conservation of European Wildlife and Natural Habitats** aims to conserve flora, fauna and habitats, promoting cooperation, and calling attention to endangered and vulnerable species. Parties are obliged to promote national conservation policies and measures against pollution. The Bern Convention also established the **Emerald Network of Areas of Special Conservation Interest**. In the UK, the Bern Convention is implemented by the **Wildlife & Countryside Act 1981** (detailed below).

The **1979 Convention on the Conservation of Migratory Species of Wild Animals** (or ‘Bonn Convention’) aims to conserve migratory animals, including terrestrial, aquatic and avian species, and promote sustainable use of their habitats. In the UK, the Bonn Convention is implemented by the *Wildlife & Countryside Act 1981* and the **Countryside and Rights of Way Act 2000**.

The **1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat** (or ‘Ramsar Convention’) aims to protect wetlands, promoting their sustainable use as well as international cooperation. There is no dedicated legislation for Ramsar sites in the UK, but they are Sites of Special Scientific Interest (SSSIs) and are protected by other legislation (below).

Additionally, a new UN treaty is **in development** on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. The **draft text** explains how one of its objectives is to:

Rehabilitate and restore biodiversity and ecosystems, including with a view to enhancing their productivity and health and building resilience to stressors, including those related to climate change, ocean acidification and marine pollution.

EU

The EU has passed two important Directives addressing biodiversity, the **Birds Directive** (*on the conservation of wild birds*) and the **Habitats Directive** (*on the conservation of natural habitats and of wild fauna and flora*). Together they are known as ‘the Nature Directives’.

The Nature Directives are implemented in the UK through various instruments as described below. Although the Nature Directives **apply domestically through retained EU law** following the UK’s exit from the EU, the UK is able to replace or repeal this legislation.

The Birds Directive

The Birds Directive was adopted in 1979 in recognition that habitat loss and degradation are the most serious threat to wild birds. The Birds Directive protects, with some exceptions, all naturally occurring wild birds, in the European territories of Member States, as well as their eggs, nests and habitats, and prohibits actions such as deliberate killing or destruction (Article 1). It requires EU Member States to designate **Special Protection Areas (SPAs)** for the protection of migratory birds (Article 2) and a further 194 bird species listed in Annex I of the Directive (Article 4).

The Habitats Directive

The Habitats Directive was adopted in 1992 to ensure restoration or maintenance of natural habitats and species of interest at a favourable conservation status as part of the EU's contribution to sustainable development.

Article 2 of the Habitats Directive requires EU Member States to designate **Special Areas of Conservation (SACs)** for the protection of over 1,000 animal and plant species as well as 200 habitats. Importantly, the Directive is not limited to species facing extinction. It aims to protect species that are endangered, vulnerable or rare, and habitats that are in danger of disappearing, have a small natural range or present outstanding examples of typical geographical regions. For some species, protection measures must be in place for their entire natural range.

Article 3 of the Habitats Directive also established the **Natura 2000 network**, which is composed of 14 biogeographical regions containing all SACs and SPAs. This extends to around 20% of the EU's land territory, as well as to some marine areas.

A comprehensive list of EU developments is provided in Annex 2 to this briefing.

UK

UK biodiversity policy

Prior to devolution, work to meet international biodiversity obligations was carried out at a UK level. The UK **Biodiversity Action Plan**, published in 1994, was the first response to the CBD. It described the UK's biological resources and their international importance, and presented the strategies and frameworks for setting and achieving biodiversity targets.

Following devolution in 1998, Wales and the other countries of the UK developed their own strategies for biodiversity. The devolved countries were able to pursue conservation approaches based on their different environments and priorities. The Welsh policies are discussed below.

Although nature conservation is devolved in Wales, the UK Government represents Wales at an international level and it is the UK that is party to the Convention on Biological Diversity. The governments of the UK continue to collaborate in the Four Countries' Biodiversity Group (4CBG) with other cross-governmental bodies in order to meet national and international biodiversity commitments.

The **Joint Nature Conservation Committee (JNCC)** was established under the **Environmental Protection Act 1990** and reconstituted under the **Natural Environment and Rural Communities Act 2006**. The JNCC is the public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation. JNCC includes representatives of the devolved nations' statutory conservation bodies, including NRW for Wales.

The 4CBG mandated JNCC to develop the **UK Post-2010 Biodiversity Framework** as a response to the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011 – 2020 and the 20 Aichi targets. It superseded the previous **Biodiversity Action Plan**. The purpose of the framework was to set out a shared vision and priorities for UK-scale activities and facilitate collaboration at a UK level.

UK biodiversity legislation

Below are the main legislative instruments that address biodiversity at a UK level.

The Wildlife and Countryside Act 1981

The **Wildlife and Countryside Act 1981** is the key legislation for the protection of animals, plants and habitats in the UK. It implements the Birds Directive, including the legislation for Special Protection Areas (SPAs).

As amended, the 1981 Act prohibits, with exceptions:

- Intentionally killing, injuring or taking listed wild animals;
- Intentionally picking, uprooting or destroying listed wild plants;
- Introducing non-native wild species, both animals and plants, into the wild; and
- Possessing invasive species.

The 1981 Act and legislates for:

- Sites of Special Scientific Interest (SSSIs);
- National nature reserves; and
- Marine nature reserves.

The designation of these protected areas in Wales is generally the responsibility of NRW.

The Conservation of Habitats and Species Regulations 2017

The **Conservation of Habitats and Species Regulations 2017** is the main piece of legislation through which the Habitats Directive and parts of the Birds Directive are implemented in England and Wales for terrestrial and inshore habitats.

Implementation of the Nature Directives is complemented for the offshore marine areas by the **Conservation of Offshore Marine Habitats and Species Regulations 2017** and the **Offshore Petroleum Activities (Conservation and Habitats) Regulations 2001**.

The Nature Directives remain in place as retained EU law following the UK's exit from the EU. Most recently, the 2017 Regulations and the 2001 Regulations have been amended by the **Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019** in order to keep them operable. Importantly, the 2019 Regulations replace the Natura 2000 network through a new national site network. The **Explanatory Memorandum** to the 2019 Regulations states:

The intention is to ensure habitat and species protection and standards as set out under the Nature Directives are implemented in the same way or an equivalent way when the UK exits the EU. There is no change to policy.

Further UK legislation

Further UK legislation on biodiversity includes:

- The **National Parks and Access to the Countryside Act 1949**;
- The **Marine and Coastal Act 2009**;
- The **Invasive Alien Species (Enforcement and Permitting) Order 2019**;

Wales

Welsh biodiversity policy

The **Nature Recovery Action Plan** is the Welsh Government's biodiversity strategy and action plan. It was developed in collaboration with NRW, environmental organisations and other public and private sector organisations. It sets out how the CBD's Strategic Plan is addressed in Wales. The plan was first issued in 2015 and revised in 2020.

To meet the CBD's Aichi targets and the 2050 vision, the plan sets out the following objectives and actions both for the terrestrial and the marine environment:

- **Engage and support participation and understanding to embed biodiversity throughout decision making at all levels.** This is to be achieved through the legislative framework, mainly the *Well-being of Future Generations (Wales) Act 2015* and the *Environment (Wales) Act 2016*. Further interventions include addressing communication, planning law and agricultural support.
- **Safeguard species and habitats of principal importance and improve their management.** This is to be achieved through designation and improved management of protected sites, eventually leading to a network of connected ecosystems.
- **Increase the resilience of the natural environment by restoring degraded habitats and habitat creation.** This is to be achieved by identifying priorities for restoration in face of limited resources.
- **Tackle key pressures on species and habitats.** Besides using existing legislation, for example the *Water Act 2003*, this is to be achieved using holistic approaches, such as nature based solutions, green infrastructure, and fighting non-native invasive species.
- **Improve evidence, understanding and monitoring.** This is to be achieved through a set of biodiversity indicators and further ways of monitoring ecosystems.
- **Put in place a framework of governance and support for delivery.** This includes bringing together key players for biodiversity restoration in a Nature Recovery Framework, as well as the Wales Biodiversity Partnership and Local Biodiversity Action Plans.

The Nature Recovery Action Plan is supplemented by the Welsh Government's **Woodlands for Wales strategy** (first published in 2009 and updated in 2018), recognising that woodlands can make significant contributions to biodiversity and healthy ecosystems. The strategy sets a 2,000 hectares per annum target for woodland creation for the enhancement and promotion of environmental quality, response to climate change, recreational purposes, and the forestry sector. The **Low carbon delivery plan** (2019) reiterated this target and proposed that it be increased to 4,000 hectares per annum "as rapidly as possible".

Welsh biodiversity legislation

Wales has introduced legislation promoting biodiversity within its devolved powers:

The Environment (Wales) Act 2016

The purpose of the ***Environment (Wales) Act 2016*** is to promote sustainable management of natural resources (SMNR). It supersedes the previous “duty to conserve biodiversity” set out in the ***Natural Environment and Rural Communities Act 2006***.

Section 6 of the 2016 Act requires public authorities to maintain and enhance biodiversity to promote ecosystem resilience. This ‘biodiversity and resilience of ecosystems duty’ also includes that public authorities must publish plans setting out their proposed actions to enhance biodiversity and ecosystem resilience, and report on their progress.

Section 7 of the 2016 Act requires the Welsh Ministers to take all reasonable steps to maintain and enhance ***living organisms and types of habitat that are of principal importance*** for biodiversity in Wales.

The 2016 Act also establishes a framework of policies:

- Every 5 years, Natural Resources Wales must publish a ***State of Natural Resources Report*** (SoNaRR), assessing SMNR and biodiversity in Wales and considering trends affecting SMNR;
- The Welsh Ministers must publish and implement a ***national natural resources policy***, outlining key priorities, risks and opportunities for SMNR. The policy must be reviewed after each general election; and
- NRW must publish ***area statements***, which are place-based natural resource reports, contain references to natural resources in an area, explain how the principles of SMNR have been applied, and address any priorities, risks or concerns.

Senedd Research has ***produced a guide*** with more details on the SMNR requirements of the 2016 Act.

The Well-being of Future Generations (Wales) Act 2015

The ***Well-being of Future Generations (Wales) Act 2015*** aims to improve the social, economic, environmental and cultural well-being of Wales in accordance with the sustainable development principle. This means that public bodies must act so that the needs of the present are met without compromising the ability of future generations to meet their own needs.

The 2015 Act does so by defining seven well-being goals. The goal “A resilient Wales” recognises the importance of biodiversity for well-being:

A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).

The 2015 Act requires **national well-being indicators** to measure the progress towards this and other well-being goals defined in the Act. Indicators 43 (‘Areas of healthy ecosystems in Wales’) and 44 (‘Status of Biological diversity in Wales’) particularly consider biodiversity.

Welsh biodiversity monitoring

The Welsh Government models and monitors the environmental, social and economic impact of its policies through the **Environment and Rural Affairs Monitoring Programme (ERAMMP)**. It replaced the previous **Glastir Monitoring and Evaluation Programme (GMEP)** in 2016. It collects data across the Welsh landscape and links any changes to ensuing impacts, such as economic consequences.

Welsh bodies with responsibility for biodiversity

Natural Resources Wales (NRW) is the Welsh Government’s statutory body responsible for the management of Wales’s natural resources. It was formed in 2013 by merging the previous Countryside Council for Wales, the Environment Agency Wales, and the Forestry Commission Wales. The *Environment (Wales) Act 2016* defines NRW’s purpose to pursue and apply the principles of SMNR. NRW has statutory roles and duties relating to biodiversity. These include, amongst others, publishing the SoNaRR and area statements, as well as the designation of protected areas.

Wales Biodiversity Partnership (WBP) is a group of stakeholders from the public, private and voluntary sector. It acts as an advisor to the Welsh Government with the aim of promoting and monitoring biodiversity and ecosystem action.

Wales Environment Link (WEL) is a network of environmental, countryside and heritage non-governmental organisations (NGOs). It provides advice to the Welsh Government and briefs the Senedd on environmental policy and practice.

Protected areas

Over time, a large number of designations for protected areas have evolved. This section brings together types of designations that exist in Wales and the underlying legislation.



Figure 4: Llyn Idwal in Snowdonia, one of Wales's Ramsar sites.

Sites of Special Scientific Interest (SSSIs) provide the basic protection for most of the nature conservation sites on land. SSSIs require land owners to manage their land to conserve its special features. SSSIs are identified by NRW. National nature reserves, Ramsar sites as well as SPAs and SACs, are also SSSIs. There **are currently over 1,000 SSSIs in Wales.**

Special Protection Areas (SPAs) were designated under the EU Directive on the Conservation of Wild Birds, which is now transposed into domestic law by the **Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019**. SPAs protect habitats of migratory and rare or vulnerable bird species, such as red kite, merlin, osprey and golden plover. SPAs are identified by NRW considering selection guidelines from JNCC. There are **currently 21 SPAs in Wales**. They can be on land or at sea.

Special Areas of Conservation (SACs) were originally designated under the EU Habitats Directive, which is now transposed into domestic law by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. SACs aim to conserve biodiversity through the protection of over 1,000 listed animal and plant species as well as 200 habitats. There are **currently 95 SACs in Wales** including some cross border sites. They can be on land or at sea.

Natura 2000 is a network of all SPAs and SACs within the EU. Natura 2000 facilitates co-operation of stakeholders to ensure the long-term survival of Europe's most vulnerable and threatened species and habitats. After Brexit, SPAs and SACs within the UK (including 116 SPAs and SACs in Wales) are no longer part of Natura 2000, but form a new **"national site network"**.

Ramsar sites are protected wetlands under the **UNESCO Ramsar Convention**. Ramsar sites are identified by NRW, in collaboration with the JNCC. All Ramsar sites are also SSSIs. There are **currently 10 Ramsar sites in Wales**.

Biosphere reserves are designated by UNESCO and form part of the World Network of Biosphere Reserves. They receive protected status through other designations, such as SSSI. There is currently one Biosphere Reserve in Wales, the **Dyfi National Nature Reserve / Biosffer Dyfi**.

National Nature Reserves (NNRs) are designated by NRW under the National Parks and Access to the Countryside Act 1949, or under the Wildlife and Countryside Act 1981. Besides nature conservation, they are also designated for research and study purposes and as such are open to the public. All NNRs are also SSSIs. There are **currently 76 NNRs in Wales**. They are either managed by NRW or by voluntary bodies, such as the National Trust, the RSPB, or the Wildlife Trusts.

Local Nature Reserves (LNRs) are similar to NNRs but only of local instead of national interest. As such, they are designated by local authorities. There are **currently 62 LNRs in Wales**, including, amongst others, abandoned quarries, redundant canals or disused railway sidings.

Marine Conservation Zones (MCZs) aim to protect a range of rare or threatened marine habitats and species. Unlike National Nature Reserves, MCZs specifically address marine environments and include the sea and seabed. MCZs replace the previous marine nature reserves through the Marine and Coastal Act 2009. There is currently one MCZ in Welsh seas, the **Skomer Marine Conservation Zone**.

National Parks were established under the National Parks and Access to the Countryside Act 1949 and have their origin in the demand for public access to the countryside. As such, National Parks also have a recreational purpose, and balancing recreation and conservation is driven by the **Sandford principle** which gives conservation priority over recreation when “irreconcilable” conflict occurs. There are **currently 3 national parks in Wales: Brecon Beacons National Park, Pembrokeshire Coast National Park, and Snowdonia National Park**.

The Welsh Government's current position and next steps

This section presents ongoing action and potential future developments relating to biodiversity policy and legislation relating to Wales.

The previous Welsh Government added **biodiversity** and **decarbonisation** to its original five priority areas of **'Prosperity for all'**, making environmental growth and biodiversity a priority in the Fifth Senedd.

In April 2019, the Welsh Government and Senedd **declared a 'climate emergency'**. Declaration of a 'nature emergency' came later, in June 2021, **by the Senedd**. The declaration was **supported** by the Minister for Climate Change, Julie James, in the Sixth Senedd, who said:

We are, of course, putting climate change and nature at the heart all the decisions in this new Government.

The **Programme for Government for the Sixth Senedd** includes the well-being objectives to:

- Embed our response to the climate and nature emergency in everything we do; and
- Build a stronger, greener economy as we make maximum progress towards decarbonisation.

In August 2020, the Welsh Government, amongst other devolved governments, cities and local authorities, signed the **Edinburgh Declaration** on global biodiversity. The signatories express their concern regarding missing the Aichi targets and call for strong and bold actions to bring about transformative change to halt biodiversity loss.

Some specific areas of interest are outlined below.

Biodiversity targets

Wales currently has no domestic targets relating to the restoration of biodiversity.

This is an issue which environment NGOs have been lobbying on for years. The argument has **recently come to the forefront** in light of the 15th meeting of Conference of the Parties (COP15) to the CBD, scheduled for October 2021 (for more information, see page 9). A post-2020 global framework is expected to be agreed which will include international goals and targets to reverse the decline in biodiversity. The outcome of the conference is expected to have a major influence on national policies, including the Nature Recovery Action Plan for Wales and could result in the introduction of domestic biodiversity targets.

At the end of the Fifth Senedd, the **Climate Change, Environment and Rural Affairs (CCERA) Committee** and **environmental stakeholders** called for the Welsh Government to set legally binding biodiversity targets. **In evidence to the CCERA Committee**, Wildlife Trusts Wales said:

We want to see ambitious, legally binding, and enforceable targets for nature's recovery enshrined in law and enforced by an independent Welsh Office for Environmental Protection. With post-Brexit legislation requirements, there is the opportunity to establish legal targets, sub-targets, and action plans for biodiversity for all government departments and public bodies. This commitment will ensure a future where nature is recovering – not in decline.

The Minister for Climate Change told the Sixth Senedd's Climate Change, Environment and Infrastructure (CCEI) Committee in July 2021 that the Welsh Government is minded to include domestic biodiversity targets in a future Bill. This Bill is also anticipated to introduce a Welsh environmental governance system (discussed below). She said "we are bidding strongly for it to be in year 2 of the legislative programme."

Green recovery

Recovery from the coronavirus pandemic has been recognised as an opportunity to address the underlying nature and climate emergencies. The **Green Recovery Task and Finish Group** (mandated by the Welsh Government) has identified restoring biodiversity as a priority. In its **'Green Recovery: Priorities for Action' report** it assesses stakeholder ideas for green recovery based on its benefits for biodiversity. Further benefits of green recovery include climate action, inclusive and fair economic growth, and job creation. The group recognises:

There may be greater emphasis on some elements compared to others. [We] agreed to a principle of ‘do no harm’, for example, action on decarbonisation should not be at the expense of biodiversity.

Members of the group have since committed to continue to work together by forming the **Green Recovery Delivery Partnership**. The CCERA Committee concluded in its **legacy report**:

Our successor Committee should keep under review the next Welsh Government’s progress in delivering a “green recovery” and the implementation of the recommendations of the Green Recovery Task and Finish Group. The Welsh Government will need to ensure that its approach to green recovery retains a focus on nature restoration.

Forestry and woodland

The **National Forest** is a long-term project first introduced by First Minister, Mark Drakeford, in his leadership manifesto in 2018. It comprises both **creation of new woodland in Wales** and upgrading existing woodland to meet UK forestry standards. The National Forest aims to improve biodiversity by providing habitats as well as carbon capture to mitigate climate change and benefits for rural development, the economy and recreation.

A detailed picture of where the National Forest is going to be and what it will look like has not yet been published by the Welsh Government. Fourteen existing woodlands were designated as National Forest sites in November 2020. The afforestation target of 2,000 hectares of newly planted woodland per year, as set out in the **Woodlands for Wales strategy**, has been continuously missed, with **80 hectares planted in the year to 31 March 2020**.

The objective for biodiversity competes with other expectations of a National Forest, such as the need for carbon sequestration or forestry. Stakeholders such as **RSPB Cymru warn** that afforestation may destroy biodiversity, if woodland is expanded into established habitats, particularly rare habitats such as peatland. The **National Forest in Wales Evidence Review** found that benefits for biodiversity may be highest when improving woodland quality instead of size.

In July 2021, the Deputy Minister for Climate Change, Lee Waters, **set out the Welsh Government’s next steps** for tree planting including that a new Woodland for Wales Action Plan would be published later this year. He stated:

We need to plant 43,000 hectares of new woodland by 2030, and 180,000 hectares by 2050 to meet the ‘balanced pathway’ set out of the UK Climate Change Commission.

Future land management policy

The Welsh Government has been developing proposals for a future land management / agricultural policy now the UK has left the EU's Common Agricultural Policy (CAP). The future of farming could look very different with more emphasis on biodiversity if the Welsh Government's **White Paper** plans are implemented. An Agriculture (Wales) Bill is expected in the Sixth Senedd to implement a new scheme.

The proposed scheme would reward farmers for the provision of public goods, predominantly **environmental outcomes**, as well as animal welfare and community benefits. Contrary to the CAP, farmers would not receive support for food production per se, **with the rationale given** that food is a marketable commodity and so should not be funded by the state. Instead funding would focus on the non-marketable benefits of sustainable food production such as enhancing biodiversity. This might be through (for example) enhancing wildflower diversity on farms alongside food production.

In October 2019, the Fifth Senedd's CCERA Committee published a report "**The Welsh Government's proposed Sustainable Farming Scheme: restoring biodiversity**", setting out a number of recommendations for aligning support for the agricultural sector with biodiversity restoration. This included making biodiversity a key priority of the proposed Sustainable Farming Scheme and rewarding farmers for good practice. To do this it recommended specific targets linked to biodiversity and its restoration.

Environmental governance and principles

EU bodies, such as the European Commission and the Court of Justice of the European Union (CJEU), play an important role in **enforcing the implementation of EU derived environmental laws**, such as the Nature Directives, across EU Member States. At an EU level, these laws, and their interpretation, are shaped by the **EU environmental principles**, which are designed to ensure high environmental standards.

These EU governance structures and environmental principles no longer apply in the UK following departure from the EU. The Welsh Government **previously committed** to "take the first proper legislative opportunity to enshrine the environmental principles into law and close the governance gap" post-Brexit.

A consultation was carried out in 2019; **Environmental Principles and Governance in Wales Post European Union Exit**. However legislation has not yet been brought forward to establish a domestic environmental governance body for Wales, or environmental principles. **Interim arrangements are in place**, however the role of the interim environmental protection assessor is to comment on the functioning of environmental law rather than investigate breaches of the law.

There is wide **concern** across the environment sector that this 'environmental governance gap' could have implications for the enforcement of environmental law and therefore consequences for biodiversity protection.

The Fifth Senedd's CCERA Committee has carried out two inquiries in this policy area, in **2018** and **2019**. **It advocated for these matters** to be addressed by legislation in the Sixth Senedd. As discussed the Minister for Climate Change recently told the successor Committee (CCEI) that she was bidding for a Bill to be introduced in year 2 of the legislative programme.

See our guide on **environmental governance** for further detail.

UK-EU obligations

The UK and EU have agreed the terms of their new relationship in the **Trade and Cooperation Agreement (TCA)**.

The TCA contains several provisions relating to the environment and climate. They are both part of the 'level playing field' (LPF) provisions, which aim to ensure fair competition between the UK and EU in a manner conducive to sustainable development.

'Nature and biodiversity conservation' is explicitly listed in these provisions. They include a non-regression duty not to weaken or reduce the levels of protection in place on 31 December 2020 in a way that affects UK-EU trade or investment. They also permit the UK and EU to use rebalancing measures if their future levels of protection diverge.

Annexes

Annex 1: Comprehensive list of international biodiversity treaties

1946 International Convention for the Regulation of Whaling

1952 International Plant Protection Convention

1964 International Union for Conservation of Nature's (IUCN) Red List of Threatened Species

1971 Ramsar Convention on Wetlands

1972 World Heritage Convention

1972 UN Conference on the Environment (also known as the Stockholm Convention)

1975 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

1979 Convention on the Conservation of Migratory Species of Wild Animals (also known as the Bonn Convention)

1982 Law of the Sea Convention

1986 Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region

1992 UN Conference on Environment and Development (also known as the Rio Convention)

1993 Convention on Biological Diversity (CBD)

▪ **COP meetings** (every two years)

- Cartagena Protocol on Biosafety 2000
- Kuala Lumpur Supplementary Protocol 2010

2001 International Treaty on Plant Genetic Resources for Food and Agriculture

2002 World Summit on Sustainable Development

2010 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization

- Aichi Targets

Annex 2: Comprehensive list of EU developments

1979 Birds Directive

1992 Habitats Directive

1993 EU ratification of Convention on Biological Diversity

1997 EU Regulations stemming from CITES Convention

1998 EU Biodiversity Strategy 1998

2004 Environmental Liability Directive 2004

2006 EU Commission Communication on Halting Loss of Biodiversity by 2010

2006 EU Biodiversity Action Plan 2006

2008 Announcement that it would miss 2010 targets

2010 Targets missed

2011 Communication, Our Life Insurance, Our National Capital (EU Biodiversity Strategy to 2020)

2014 Invasive Alien Species Regulation (IAS)

2016 'Fitness Check' evaluation of the Nature Directives (REFIT)

2017 EU Council adopts Action Plan following fitness check process

2017 EU Regulations stemming from CITES Convention

2018 Communication on Pollinators Initiative