

Putting Wales on a Path to Nature Recovery

The case for nature recovery targets in Wales | June 2021





Nicholas Rodd (rspb-images.com)

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A report for RSPB Cymru & WWF Cymru supported by Wales Environment Link

Stuart Housden OBE

June 2021

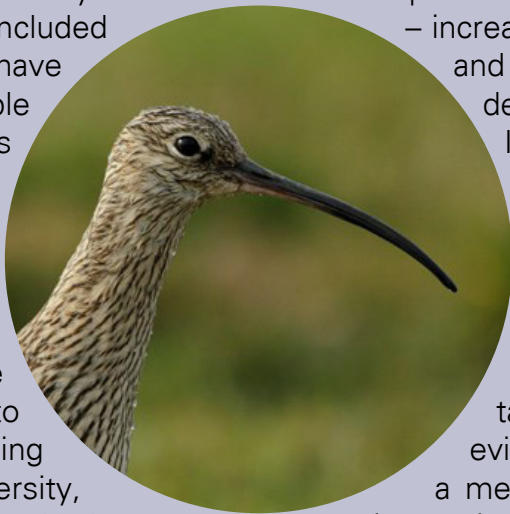


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Executive Summary

▶ Nature is under threat in Wales, the rest of the UK, and around the world. Human activity is driving dramatic declines in wildlife and habitats at an unprecedented rate. Recent reports including the UN Global Biodiversity Outlook 5¹ and WWF's Living Planet Report 2020² show that levels of biodiversity across continents are plummeting with no sign of halting. In Wales the recently published State of Natural Resources Report (SoNaRR) states that while there is complexity in the detail of biodiversity assessment, "the overall trend is one of serious decline, reflecting the global situation and internationally recognised nature emergency"³. The Nature Recovery Action Plan for Wales 2020-21 concluded that "although positive steps have been made and some notable species are recovering, the loss of biodiversity continues"⁴. Wales has a forward-looking legislative framework to encourage environmental improvements, including for biodiversity, but it has to date lacked the formal architecture to set realistic and stretching binding targets to halt the loss of biodiversity, and plan the means of recovering what has been lost. The benefits of adopting biodiversity targets for Wales have been acknowledged by the CCERA Committee, with a recommendation in its Fifth Senedd Legacy Report that the next Welsh Government "should introduce targets to arrest the decline and restore biodiversity"⁵.



▶ Governments across the world have adopted targets to achieve key policy objectives in many areas of economic, social and environmental endeavour. The climate and nature emergencies require the same focus. The Convention on Biological Diversity⁶ (CBD) COP 15 is being held later in 2021 to review progress against the objectives of the CBD, with signatory states set to negotiate and agree new decadal targets to achieve nature recovery. Accordingly now is the time for Wales to refresh and energise its actions for nature and put in place the architecture to bring a recovery. This report makes the case for the development of new nature recovery targets – increasing the abundance of species and restoration of habitats – to be developed urgently for Wales. In order to be world leading on nature recovery, Wales needs to set out its ambition for biodiversity with targets and mainstream their delivery across Government to achieve measurable progress. Nature targets would allow Wales to evidence its progress and provide a means of harnessing the energy, innovation and efforts of all sectors and stakeholders in making Wales a better place for nature and people.

Andy Hay (rspb-images.com)

▶ By considering the development of biodiversity targets both internationally and domestically over the previous two decades, and the success of targets in other sectors of public policy, this report considers what lessons can be drawn to aid the development of a robust set of targets to drive nature's recovery in Wales that keeps pace with the best found in the UK and other comparable countries.

▶ A global goal for nature should be measured in terms of delivering the following components, which are applicable to Wales and other nations:

Ecological ends targets

- Species Abundance – keeping common species common and recovering depleted species populations.
- Species Distribution – keeping widespread species abundant and recovering and/or maintaining species range, avoiding contraction and fragmentation.
- Species Extinction Risk – ensuring that extinctions and the threat of extinctions as

a result of human activity have ceased in Wales.

- Habitat Quality and Extent – increasing the extent and good ecological status of natural and semi-natural habitats.

Means targets

- Connectivity – to establish a world-leading nature recovery network, that links and expands priority habitats through an ambitious restoration programme, and offers enhanced protection at a landscape and seascape scale, with protected sites such as SSSIs at its heart.
- Domestic nature-based solutions to climate change – seeking to ensure that nature benefits from solutions to avoid or mitigate climate change impacts, for example by restoring peatlands at scale.
- Mainstreaming – action to achieve nature recovery targets to be integrated across Government portfolios, particularly in all land and sea activity.

KEY RECOMMENDATIONS

The key recommendations of this report are for an ambitious, legally binding set of targets and milestones to secure nature recovery to be introduced by 2022. This should include:

- ▶ An overarching new duty on the Welsh Government to embed and integrate nature recovery and environmental protection across Government, expressing the key objectives to be achieved by 2050.
- ▶ A duty to halt and begin to reverse the loss of biodiversity by 2030, and achieve recovery by 2050.
- ▶ A duty to set long term and interim targets via a framework informed by independent expertise and scientific advice, aligned with those set in post-2020 CBD framework to 2030 (to be negotiated). The targets would ideally be set in five year cycles, to match the climate plan or Senedd term. If the expert scientific advice is not followed the Minister must explain why to Senedd.
- ▶ Secondary legislation establishing a comprehensive plan with appropriate SMART targets, subject to regular review and reporting, with scrutiny at a high level, to ensure progress towards targets is maintained.
- ▶ A legal requirement on Ministers to ensure the targets are met. This should help break out of the cycle of 'too little too late' that has dogged biodiversity delivery to date.



Katie Nethercoat (rspb-images.com)

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CHAPTER 1

Introduction

Yng nghesail y moelydd unig
Cwm tecaf y cymoedd yw, -
Cynefin y carlwm a’r cadno
A hendref yr hebog a’i ryw

In a fold of the high, lonely moorlands,
The Valley of Valleys lies;
The home of the stoat and the vixen,
Where the hawk haunts the winter skies.

Extract from Cwm Pennant by Eifion Wyn (1867-1926)

A concern for wildlife and nature has deep roots in Wales. People were historically close to the land, coast and seas and were familiar with wildlife, which sustained their way of life through the provision of protein and other useful products. Our wildlife inspired poetry and our culture.

People today care passionately about nature, and many are alarmed by its loss and the state of the natural environment. The advent of large-scale, intensive agriculture, fisheries, forestry and urban and marine development exacerbated pressure on our land and seas. Today in Wales too often nature is in crisis. An assessment from The State of Nature Report⁷ found that of the 3,902 species assessed in Wales, 73 have been lost since the 1970s. Some bird species, including nightingales and corn buntings, have been completely lost from Wales. The report also highlights concerning declines in species abundance, with some indicator groups, such as butterflies and moths⁸, faring particularly badly; and widespread and rapid changes to species distribution, with 30% of species having decreased in distribution. The report’s main findings are shown in Figure 1.

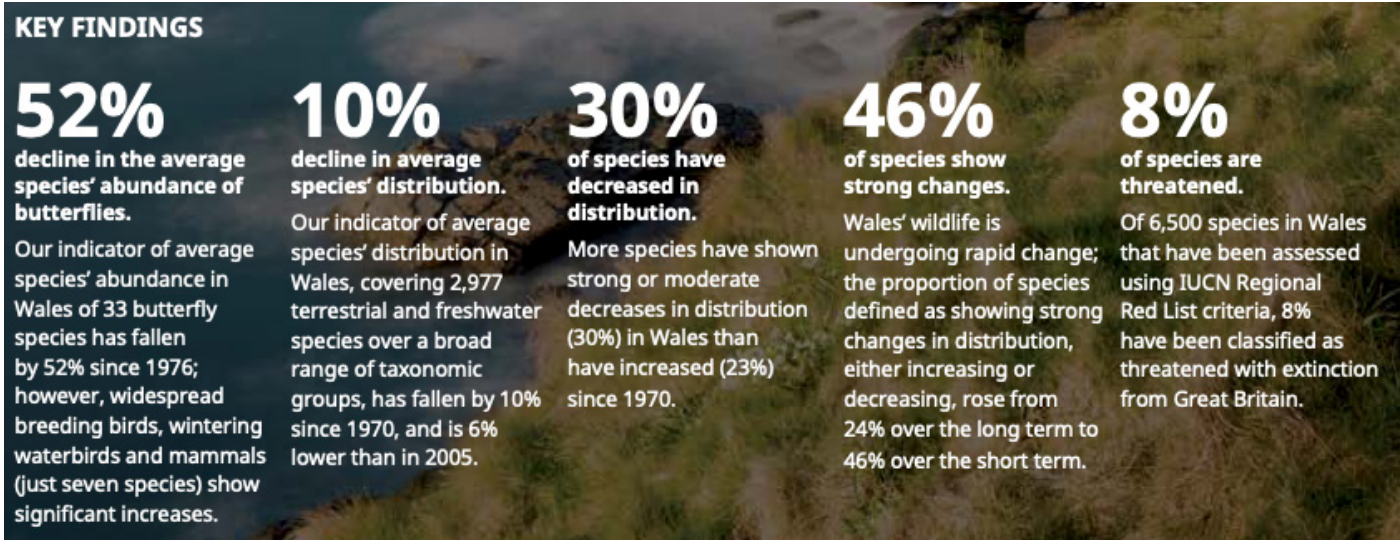


Figure 1: Key findings from the State of Nature 2019 for Wales.

Addressing the pressures and drivers behind these changes is essential to reversing the declines in biodiversity. From the evidence gathered in the State of Nature and SoNaRR reports there is a clear picture of the key pressures acting on nature in Wales, summarised in Table 1 below:

Table 1: Table adapted from SoNaRR 2020

Driver of change	Key Pressures
Pollution	<ul style="list-style-type: none">Air pollutionWater pollutionLand pollutionNoise pollution
Over-exploitation	<ul style="list-style-type: none">DrainageUnsuitable fisheriesInsufficient managementWater demandAgricultural intensification
Land use change	<ul style="list-style-type: none">Built development and infrastructureCompeting land useInsufficient managementAgricultural intensificationUnmanaged access, sport and recreational activityHistoric inappropriate afforestationPhysical modificationsAccelerated succession
Invasive non-native species, pests and diseases	<ul style="list-style-type: none">Herbivore pressurePests and diseasesINNS
Climate change	<ul style="list-style-type: none">Changing weather patternsSea level riseIncreased water temperatureOcean acidification



According to the SoNaRR report the most significant pressures for marine environments stem from climate change, pollution and poor water quality, with marine litter, fisheries, recreation and invasive species also highlighted⁹. The greatest impact on terrestrial and freshwater ecosystems is considered to be from agricultural intensification¹⁰.

AGRICULTURE

In Wales almost 90% of land is used for agricultural production, mainly the production of food¹¹. Because of this, agricultural intensification is a hugely significant pressure on the natural environment, with impacts not only on land but also in freshwater and marine environments. The SoNaRR assessment summarises that “intensive agricultural management over recent decades has resulted in the loss of habitats, declines in species populations and increased habitat fragmentation”.

Challenges include the scale of habitat loss, with for example 90% of semi-natural grassland habitat lost since the 1930s, and the particularly rapid declines in specialist farmland species. As the 2019 State of Nature Report summarised, “farming practices influence how nature fares with the power to either support or endanger wildlife”.

CLIMATE CHANGE

Climate is a key driver of change for species and habitats across all ecosystems and one of the top drivers of biodiversity loss globally¹². The impacts will vary but will include shifting or contraction of range for some species, and problems for many species adapted to specific climatic conditions. Habitats will be affected directly, and in addition changes to rainfall patterns and more extreme weather events will challenge how land is managed. Climate change is a highly significant pressure for marine environments, with impacts from ocean temperature changes and ocean acidification affecting a wide range of species groups including prey fish, seabirds and shellfish.

FORESTRY

From the 1970s there was a growth in commercial forest plantations in Wales, some of which were established on areas important for upland birds such as curlew, black grouse, and merlin. Until policy changed in the mid 1980's areas of native woodland and ffridd were also planted with conifers, with the loss of this key and distinctive Welsh habitat which supports scarce species of conservation concern from bryophytes to wood warblers and whinchats. Across woodlands as a whole, lack of appropriate management is having adverse impacts on species such as dormouse and butterflies, while grazing pressure from livestock and deer, and a growing range of pests and diseases present a serious and increasing problem¹³. The announcement of a National Forest for Wales¹⁴ offers a welcome opportunity to make the National Forestry estate an exemplar of management for biodiversity, addressing the shortcomings of past policy and restoring nature on a significant scale through for example restoring plantations established on ancient woodland sites (PAWS) back to native woodland, or by restoring areas of peatland or wetland afforested since the 1970's.

INVASIVE NON-NATIVE SPECIES (INNS)

Across the globe the adverse impact of non-native species is a major driver of biodiversity loss and species extinctions. Three hundred and fifty INNS of particular concern have been identified in Wales, with all of these associated with negative environmental impacts and 80% with negative economic impacts. Freshwater and marine ecosystems are impacted by the widest variety of INNS, while high numbers of INNS are also affecting semi-natural grasslands, woodland and urban ecosystems¹⁵.

DEVELOPMENT AND URBANISATION

Development and urbanisation cause the loss of valuable wildlife sites, as land is taken over for development sites and habitats are fragmented due to roads, rail and other transport infrastructure. This fragments and isolates wildlife populations, making them more vulnerable to loss and local extinction. Historically, for example, Wales has lost significant areas of internationally important estuarine and intertidal habitats in the Severn and Dee to development. Marine development has cumulative impacts on the marine habitats and wildlife, and marine development pressure - such as the construction of offshore renewables - is expected to increase.





CHAPTER 2

Setting objectives to halt the loss of nature



Governments around the world have adopted targets, often legally binding, to achieve the delivery of important policies across a broad spectrum of social, economic and latterly environmental performance.

This approach has, for example, driven the improvements to air quality and waste management seen in Wales. Our drinking water meets high standards because targets are set using best science and the precautionary principle, compliance is monitored, and legally enforceable steps are taken to ensure remedies are implemented in a timely manner. Businesses the world over adopt 'SMART'¹⁶ targets to focus effort on what matters – “what gets measured gets done” has been the mantra¹⁷. This report considers how addressing the nature crisis would benefit from such an approach in Wales.

One area which has benefited in particular from clear targets is the approach adopted to address climate change both at a UK level and specifically in Wales. Wales has embarked on a programme to address climate change with legally binding targets, and specific milestones and timeframes set out in five year carbon budgets. This has built impressive cross-sectoral support and momentum. Progress in all these and more areas would be harder to achieve without this combination of statutory duties, clear and legally binding targets, and robust implementation plans backed by the political will to provide the necessary resources.

The same must now be put in place to address the nature crisis. The First Minister has made welcome comments acknowledging the scale of the problem, saying “Wales is such a beautiful place and on the surface everything looks fine, but under that surface we’ve seen real loss in species, in habitat... we are determined as a Welsh Government to invest

in restoring that biodiversity loss”¹⁸. Halting the loss of nature has been an objective of the Welsh Government for nearly three decades. The UK, and thus Wales, were signatories to the UN Convention on Biological Diversity (CBD) that was agreed in 1992 at the Rio ‘Earth Summit’ and ratified by the UK in June 1994. The main requirement arising from this was to develop National Biodiversity Strategy and Action Plans (NBSAPs) to conserve biological diversity and to enhance it wherever possible.

As a result, specific targets and performance indicators for habitats and species found in Wales were developed. There was a clear target set to aid the recovery of the red kite, which at the time was largely found in Wales, with reintroduction programmes for England and Scotland – see box below:

RED KITE

A globally threatened species found in parts of Wales and recently successfully re-introduced into England and Scotland.

PERFORMANCE INDICATORS

To maintain the annual red kite population increase in Wales at more than 5% per annum, which should result in 120 breeding pairs by 1997. In the longer term see the species re-established throughout its former range.

With devolution in progress, the Government of Wales Act 1998 transferred responsibility for implementing the UK Biodiversity Action Plan (BAP) in Wales to the National Assembly for Wales.

Progress

2.1 PROGRESS FROM 2001-2010

In 2001 the EU Sustainable Development Strategy¹⁹ established for the first time an EU-wide target to halt the loss of biodiversity by 2010. At the fifth ministerial conference on Environment for Europe in 2003, the UN Commission for Europe adopted the Kiev Resolution on Biodiversity which decided to “reinforce our objective to halt the loss of biological diversity at all levels by the year 2010”²⁰. The 6th EU Environment Action Programme set the objective “to protect and restore the functioning of natural systems and to halt the loss of biodiversity... by 2010”²¹.

In Wales, the 2006 Environment Strategy mirrored this international commitment, with a suite of targets for species and sites aiming to have halted the loss of biodiversity by 2010 and have recovery underway by 2026. The Environment Strategy established SMART outcomes across a wide range of environmental indicators but was less clear on what would be done differently, or where resources would come from, to achieve the step change in delivery required to meet these goals. In 2008 a Wales Biodiversity Framework²² was published which reiterated support for the 2010 target, and placed emphasis on partnership delivery via the Wales Biodiversity Partnership to achieve its goals.

The UK did not meet the 2010 target of halting the loss of biodiversity. Similarly, the EU failed in this aim and most nations reporting progress to the CBD acknowledged that the pace and scale of losses did not meet the aims of the Convention. Wales also failed at the domestic level, and in response a Sustainability Committee Inquiry in 2011 made a series of recommendations

including the need to mainstream biodiversity action across Government departments and agencies; establishing clearer lines of responsibility and departmental sub-targets to increase accountability; and improving resourcing for biodiversity recovery work²³.

The Welsh Government acknowledged its failure to meet the 2010 target²⁴, and launched a major consultation under the banner of ‘A Living Wales’ in pursuit of a more integrated approach to biodiversity delivery²⁵. A central element was a review of environmental bodies (Environment Agency Wales, Countryside Council for Wales and Forestry Commission Wales) resulting in functions and responsibilities merging in 2013 into a new single body, Natural Resources Wales²⁶. The Environment Minister at the time, John Griffiths, emphasised the business case for the merger claiming it could save £158m over ten years while ensuring effective management of natural resources²⁷.

2.2 PROGRESS FROM 2010-2020

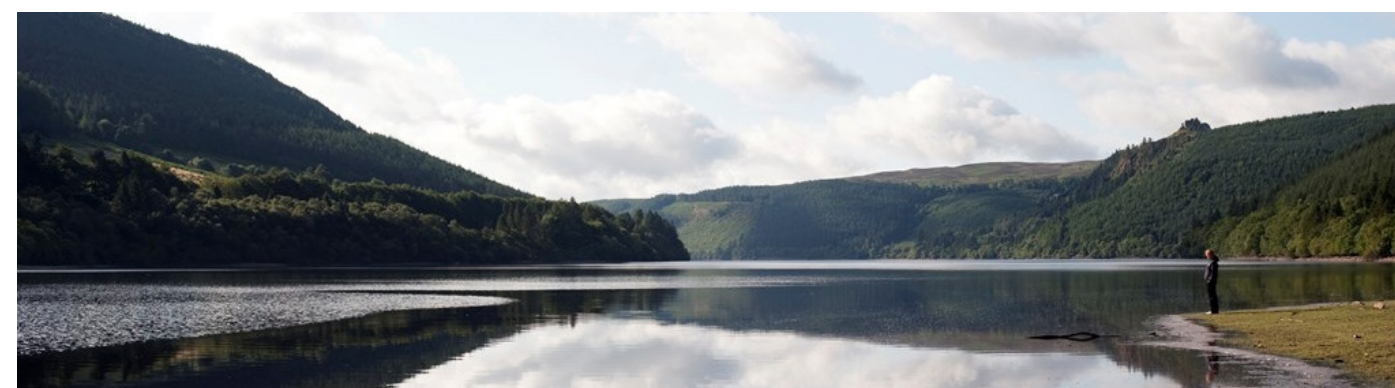
The CBD summit held at Nagoya, Japan, in October 2010 led to the adoption of five strategic goals and twenty new and revised global biodiversity targets, setting out the steps required to meet the commitments contained in the Convention. These targets, known as the Aichi Biodiversity Targets, established implementation timetables, usually to 2015 or 2020. They encouraged parties to adopt SMART targets²⁸ and appropriate indicators as part of their refreshed NBSAPs.

Reflecting on the failures of the previous decade, the EU reviewed its performance and concluded “Europe is seeing the constant loss, degradation and fragmentation of natural habitats”²⁹. It went on to adopt an “ambitious” new Biodiversity Strategy for the period 2010-20, which had six targets and twenty actions with the overall aim “to halt the loss of biodiversity and improve the state of Europe’s species, habitats and ecosystems and the services they provide over the next decade”³⁰.

Following the adoption of the Aichi Targets, the four UK countries agreed a post-2010

framework³¹. It acknowledged that globally we fell short of reaching the 2010 target to reduce biodiversity loss, but also that the target had been an important driver for conservation action “including in the UK”. The UK Post-2010 Framework was supported by an Implementation Plan in 2013³² followed by three monitoring reports tracking the implementation of the plan covering the period 2013-2020. Each of the four countries developed a National Biodiversity Strategy and Action Plan (NBSAP) as required by Aichi Target 17, and in Wales this took the form of the Nature Recovery Action Plan published in 2015³³.

Meanwhile a key referendum in Wales in 2011 delivered resounding support for direct law-making powers for the National Assembly³⁴, paving the way for bespoke environmental legislation to be developed. In 2012 a Green Paper titled ‘Sustaining a Living Wales’ signalled a major shift towards an ecosystems approach to natural resource management to inform and underpin a future Environment Bill³⁵. The subsequent development of the current legislative and policy framework for the environment in Wales is summarised in Section 2.5.





2.3 2020-2021: A GLOBAL MOMENT FOR NATURE

In October 2021 the world will come together to negotiate a new decadal set of targets for nature under the CBD, a global agreement that aims, quite literally, to save life on earth. The agreement at the final summit in China (COP 15) will set the scene for how countries will take action to reverse the loss of nature over the next 10 years and beyond. The outcomes of these negotiations will have a direct impact on national ambitions, plans and commitments for nature.

Having failed to achieve the last set of targets, this has – again - been billed as a last chance to act. This time can be different: governments can show they are serious about implementing the next set of targets by both setting the bar high, and underpinning this with a structured approach that provides the political will, finance and means to support delivery, with a truly accountable framework that allows progress to be tracked. Momentum is building around the idea of a global goal for nature as a parallel for “net zero” emissions, with a coalition of international organisations calling for action to achieve “nature positive” – i.e. halting and reversing nature loss – by 2030³⁶.

A global goal for nature should be measured in terms of delivering the following components³⁷, which are applicable to Wales and other nations:

ECOLOGICAL ENDS TARGETS:

- ▶ Species Abundance – keeping common species common and recovering depleted species populations.
- ▶ Species Distribution – keeping widespread species abundant and recovering and/or maintaining species range, avoiding contraction and fragmentation.
- ▶ Species Extinction Risk – ensuring that extinctions and the threat of extinctions as a result of human activity have ceased in Wales.
- ▶ Habitat Quality and Extent – increasing the extent and good ecological status of natural and semi-natural habitats.

MEANS TARGETS:

- ▶ Connectivity – to establish a world-leading nature recovery network, that links and expands priority habitats through an ambitious restoration programme, and offers enhanced protection at a landscape and seascape scale, with protected sites such as SSSIs at its heart.
- ▶ Domestic nature-based solutions to climate change – seeking to ensure that nature benefits from solutions to avoid or mitigate climate change impacts, for example by restoring peatlands at scale.
- ▶ Mainstreaming – action to achieve nature recovery targets to be integrated across Government portfolios, particularly in all land and sea activity.

At a UK level the signals so far are encouraging. At a United Nations summit in 2020 the UK signed up to the Leaders’ Pledge for Nature³⁸. The UK Government has also been a vocal supporter of calls to protect at least 30% of land and ocean for nature by 2030 (“30x30”), and linked to this is acting as Ocean Co-Chair in the High Ambition Coalition for Nature³⁹. The Scottish Government has also adopted the 30x30 target for land and sea⁴⁰.

While the Welsh Government is thought to be supportive of the 30x30 goal, the key public commitment has been the signing of the

Edinburgh Declaration on the post-2020 global biodiversity framework⁴¹. This recognises the need for transformative change across marine and terrestrial ecosystems and emphasises the role of sub-national governments, committing to raising levels of ambition and action. While these commitments are welcome, for protected areas to count towards the 30% goal there must be evidence of effective long-term protection for nature being in place backed by resources for management and monitoring, or we will risk these being ‘paper parks’ where despite designations, little positive is actually achieved for nature, and declines continue unabated.

2.4 THE ENVIRONMENT FRAMEWORK IN WALES

Since devolution the Welsh Government has built on the inherited statutory architecture and developed a strong legislative and policy framework around sustainable development and the environment, underpinned by the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016.

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

The Well-being of Future Generations (Wales) Act 2015⁴² requires Welsh public sector bodies to carry out sustainable development - the process of improving the economic, social, environmental and cultural well-being of Wales. The Act sets out seven ‘Well-being Goals’ that public bodies must aim to achieve. These goals seek to translate the UN Sustainable Development Goals (SDGs) into the Welsh context, and articulate Wales’ contribution to the SDGs⁴³. In 2015, former UN Head of Sustainable Development Nikhil Seth praised the Act saying “We hope that what Wales is doing today the world will do tomorrow. Action, more than words, is the hope for our current and future generations”⁴⁴.

The Well-being Goals cover economic, social, environmental and cultural well-being elements including health, equality and Welsh language as well as prosperity and environment. They include “A Resilient Wales: A Wales that 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 Act created the post and office of the Future Generations Commissioner who can provide strategic and specific support to public bodies on the delivery of their duties under the Act.

As well as the requirement for public bodies to report annually against their well-being objectives the Welsh Government produces an annual Well-being of Wales report which summarises progress with reference to a set of 46 national indicators⁴⁵. Two are specifically linked to the Resilient Wales goal; Indicator 43 ‘area of healthy ecosystems’ and Indicator 44 ‘biodiversity’.

In the Future Generations Report⁴⁶ of May 2020 evaluating what has been delivered under the Act, the Commissioner found that “overwhelmingly, objectives have a focus on improving the economic and social well-being of localities, with



little emphasis on the environment or culture". With a handful of exceptions the Commissioner found that objectives on the environment were rarely integrated with other objectives, and that they were commonly focused not on the natural environment but on recycling, flooding, cleanliness, fly tipping and reducing emissions. This poor representation of the Resilient Wales goal is also apparent in the Welsh Government's 2020 Well-being of Wales report, in which the brief summary on the environment is focused on air quality, carbon emissions and renewable energy capacity⁴⁷.

The Commissioner's key recommendation to the Welsh Government in respect of the Resilient Wales goal was that it should "commit to large-scale habitat restoration, creation and connectivity throughout Wales, which includes setting statutory targets for nature's recovery and specific species recovery measures to help prevent extinction."

Environment (Wales) Act 2016

The Environment (Wales) Act 2016⁴⁸ placed sustainable management of natural resources (SMNR) at the heart of Welsh Government's policy approach, making this the key purpose and function of Natural Resources Wales (NRW). The objective of SMNR is "to maintain and enhance the resilience of ecosystems and the benefits they provide, and the Act establishes an iterative framework for its implementation including an evidence base (the State of Natural Resources Report); a Natural Resources Policy; and delivery via Area Statements.

The Act also introduced an enhanced biodiversity and resilience of ecosystems duty ('S.6 duty') that requires public authorities to "seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions"⁴⁹. The duty includes a requirement for public authorities to publish a plan and, every three years, a report on the actions they have

taken to meet the duty. According to the Wales Biodiversity Partnership, eighteen plans and/or reports have been submitted at the time of writing, fewer than half the number of public authorities subject to the duty⁵⁰.

NRW is charged with producing a State of Natural Resources Report (SoNaRR) towards the end of each Senedd term⁵¹. The report assesses the state of natural resources including biodiversity on land and in the inshore marine environment; the extent to which SMNR is being achieved; and the main trends and factors impacting on natural resources. The most recent SoNaRR was published in 2020, with the underpinning evidence published in March 2021⁵². The report finds that ecosystem resilience and health in Wales is declining in line with trends observed in many EU countries, and that SMNR is not yet being achieved. It points to the need for transformational change with a focus on three systems – food, energy and transport.

The first Natural Resources Policy⁵³, setting out Welsh Government's approach for pursuing SMNR, was published in 2017. Again, this sets a positive high level direction of travel, stating overarching priorities as well as highlighting the relevance of different Government policies and departments. It lacks a specific delivery framework, and has no measures of success. In other words, the process is not SMART.

The Act also requires NRW to develop Area Statements for Wales⁵⁴, to facilitate the implementation of the natural resources policy. Seven of these have been developed, covering six terrestrial regions and one covering the inshore marine area. These are intended to outline the key challenges facing each locality, and what can be done to meet these challenges and manage natural resources sustainably. While Area Statements contain lists of proposed activities, to date it is far from clear who will deliver these and on the whole they have not so far developed spatial priorities for action. This is despite other areas of Welsh policy, for example Future Wales⁵⁵, the new National Development Framework, pointing to them as a key evidence base.

Nature Recovery Action Plan

The Nature Recovery Action Plan (NRAP)⁵⁶ for Wales was published in December 2015, fulfilling the Aichi Target 17 requirement for developing a national biodiversity strategy. Part 1, the Strategy for Nature, explained how the CBD Strategic Plan and Aichi Targets would be addressed. Part 2, the Action Plan, was refreshed for 2020-21 to take into account the growing evidence around the scale of the loss of biodiversity and the changing policy context in Wales including the Natural Resources Policy, EU exit and coronavirus pandemic. The refreshed Action Plan recognises that very few of the Aichi Targets were achieved in Wales, and that "although positive steps have been made and some notable species are recovering, the

loss of biodiversity continues"⁵⁷. While it lacks defined indicators, SMART objectives or targets, it does identify the key pressures and the urgent priorities for further action. Work on a suite of indicators for the NRAP is commencing in 2021.

The NRAP is overseen by an Implementation Group involving statutory and non-statutory stakeholders, and a number of sub-groups⁵⁸. While it is referenced in the Natural Resources Policy, it is not formally linked to governance structures under the Well-being of Future Generations or Environment (Wales) Acts. Furthermore, it is focused on terrestrial biodiversity; marine biodiversity is considered separately by the Welsh Government and there is no equivalent NRAP process for the marine environment.





CHAPTER 3

The role of targets and indicators in improving performance and delivery

The setting of targets and key performance indicators is now commonplace across business, agencies and for individuals. Governments across the world commit to targets, aims or goals, with associated measures of progress, which guide investment, delivery and monitoring of the rate of improvement. Their purpose is to implement change and to deliver key policies or programmes, within an agreed timeframe, in a manner that can be measured, with the results used to focus further effort and resources. Environmental targets are welcomed by the business sector for the certainty they provide to guide investment decisions that can speed progress towards set goals⁵⁹, and targets are also popular with the public, with recent polling showing that 68% of Welsh citizens want to see legally binding targets for wildlife restoration⁶⁰.

A recent review of the twenty Aichi Targets by Green et al found a significant positive relationship between progress and the extent to which the target elements were perceived to be measurable, realistic, unambiguous, and scalable⁶¹. The researchers highlighted the importance that targets be kept SMART, recommending that “any new or revised targets established under a post-2020 global biodiversity framework should be clearly and unambiguously worded so that the intent and necessary action or actions are apparent; well defined with explicit deliverables and include quantifiable elements where appropriate so that progress towards the target can be measured”.

At the EU level the goals of “halting the loss of biodiversity” and to “protect and restore” the functioning of natural systems were refined in 2010 to “halt the loss of biodiversity and improve the state of Europe’s species, habitats and ecosystems and the services they provide over the next decade”⁶². A detailed set of plans and in some instances Key Performance Indicators (KPIs) followed. Most are a mix of qualitative measures as well as quantitative ends measures.

At UK level these same targets were adopted, and monitoring against the EU targets, and latterly the Aichi Targets, was co-ordinated by JNCC on behalf of the UK Government and devolved administrations. A ‘red-amber-green’ assessment is used to indicate performance over a long-term and a short-term period⁶³.

Within Wales, reports are made annually on the Well-being of Future Generations national indicators, and a State of Natural Resources Report (SoNaRR) is prepared in each Senedd term to assess the extent to which natural resources are being sustainably managed. But despite the positive duties, objectives and goals in the Welsh legislation, there remains no clear and quantified articulation of what success looks like, and how much and how quickly things need to change. Halting the loss of biodiversity has not been achieved over some two decades, and the challenge remains to mainstream biodiversity and nature recovery across Government. In short, current efforts are, despite positive progress in some areas, unlikely to succeed without adopting a greater sense of urgency and clarity of purpose, backed by the necessary resources to address the management required.





CASE STUDY: THE CONDITION OF SSSIs IN WALES

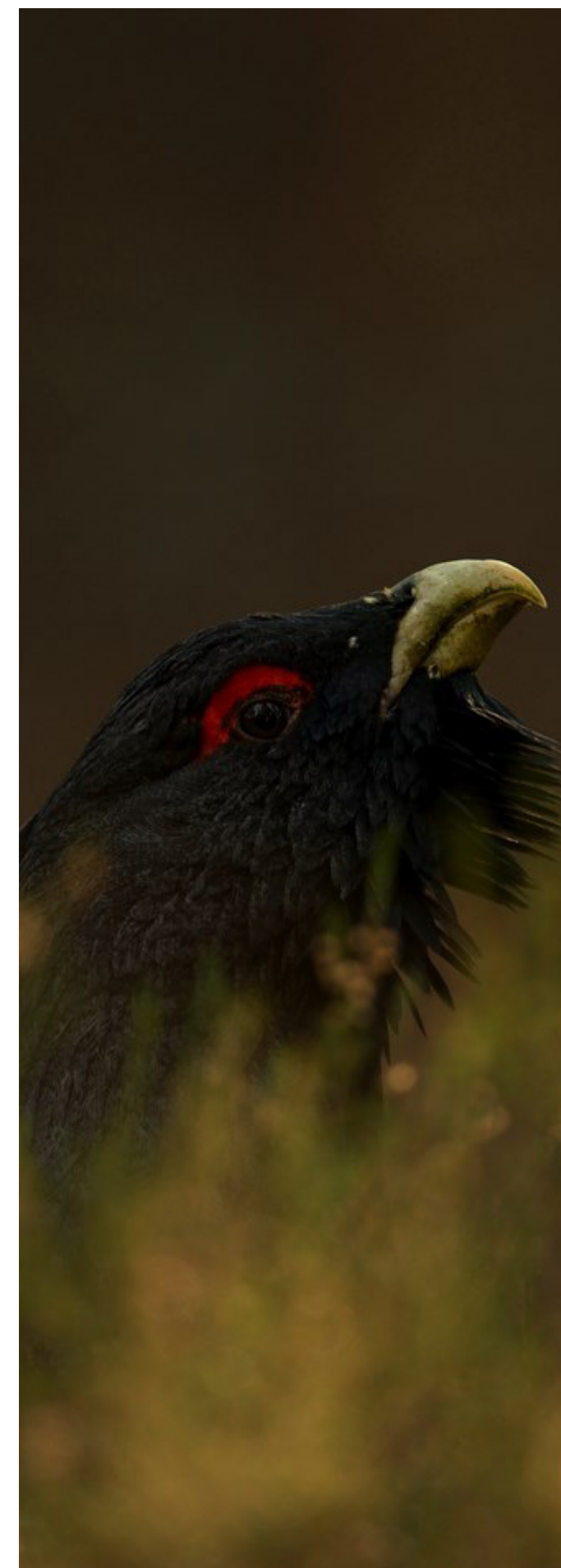
Sites of Special Scientific Interest (SSSIs) are notified by NRW and represent the best areas in Wales for terrestrial and coastal nature, or geological features of special interest. They have statutory protection under the Wildlife and Countryside Act 1981⁶⁴. Many important SSSIs were identified and designated from 1949 onwards⁶⁵, and so have a long history of conservation intervention and management, but it wasn't until the 1981 Act became law that all farming and forestry operations were subject to consultation with the statutory nature conservation organisation then operating in Wales (the Nature Conservancy Council). Prior to the 1981 Act becoming law, farming and forestry operations were a substantial cause of loss and damage to SSSIs across Britain. NRW now describes SSSIs as the cornerstones of conservation work, protecting the core of our natural heritage⁶⁶. They are the best sites for nature and will be key components of any strategy to expand and restore habitats and recover species in Wales. There are more than 1,000 designated SSSIs, protecting almost 11% of Wales by area⁶⁷. All Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) on land are also designated as SSSIs.

The status and condition of SSSIs is seen as a bellwether of conservation, and thus SSSI condition was adopted as an indicator by the Welsh Government's 2006 Environment Strategy⁶⁸. The original target was to bring 95% of Welsh SSSIs into favourable condition by 2015, and 100% by 2026. A detailed review of SSSIs in England and Wales undertaken by GHK Consulting Ltd examined the biodiversity, economic and social benefits of restoring SSSIs and bringing them into favourable condition⁶⁹, and reported that at the time of the 2006 Environment Strategy only 32% of SSSIs in Wales were in favourable condition, with 68% in unfavourable condition. The

condition targets were later quietly dropped and have not been replaced. The 2012 Green Paper 'Sustaining a Living Wales'⁷⁰ signalled an increasing focus on an ecosystem approach, which would be reflected in the central principle of the Sustainable Management of Natural Resources which is a core provision of the Environment (Wales) Act⁷¹.

The Nature Recovery Plan (subsequently renamed the Nature Recovery Action Plan) adopted in 2015 described a framework for measuring progress whereby high-level National Indicators developed for the Well-being of Future Generations would be supported by a further set of indicators measuring progress against NRAP objectives. Objective 2 of this plan, "safeguard species and habitats of principal importance and improve their management", recognised the need to ensure protected sites are in good condition, but no SMART target or objective has since been attached to this⁷². The development of indicators has been remarkably slow with even the high-level National Indicator on the status of biological diversity in Wales (Indicator 44) still under development and specific concerns that the species-based indicators under consideration are suboptimal. A National Indicator on extent of healthy ecosystems in Wales (Indicator 43) is currently measured using the extent of semi-natural habitats as a proxy, with no consideration given to the condition of these habitats, or the status of species dependent upon them.

In the absence of SMART targets for SSSI condition, in recent years the only monitoring that has taken place has been for Special Areas of Conservation (SACs) with even this programme being suspended in 2018. At the time of writing there is therefore no Wales-wide dataset indicating the condition of SSSIs. This is a major gap in evidence to assess progress on ecosystem resilience – the objective of sustainable management of natural resources. It



is notable that Wales is the only UK country not contributing data to the UK biodiversity indicator C1.c. on condition of Areas/Sites of Special Scientific Interest⁷³. Where data for SSSIs is available the picture is bleak, with the Brecon Beacons National Park Authority for example reporting that 55% of SSSIs in the Park are in unfavourable condition⁷⁴. A report from the Woodland Trust found that two thirds of ancient woodland SACs in Wales are in unfavourable condition. The status of other woodland SSSIs in Wales could not be assessed due to the lack of data⁷⁵.

The refreshed NRAP published in 2020 belatedly recognises the problem, identifying improving the condition of the protected sites network as an immediate and urgent priority that is key to reversing the decline in biodiversity. This has spurred the production of a new desktop assessment of SSSI condition due to be published shortly, with a wider strategy for protected sites understood to be in development. It is vital that that a framework of SMART and time-bound targets to achieve favourable condition is put in place, with monitoring based on a survey methodology that records the status of species and habitats on protected sites involving fieldwork as well as desk assessments of condition. Ultimately, understanding condition is key to understanding how SSSIs are responding to the pressures on them, and therefore to prioritising the management and policy interventions required to bring about improvements and halt declines by 2030.

CHAPTER 4

Learning from how Wales has approached other environmental challenges

This section reviews how the adoption of targets and SMART procedures with overarching statutory duties, with reporting against these, has helped focus action to achieve progress and considers what lessons can be learned to tackle the nature crisis.

4.1 CLIMATE CHANGE

Part 2 of the Environment (Wales) Act 2016⁷⁶ requires Welsh Ministers to meet targets for reducing emissions of greenhouse gases from Wales, and following a recent update sets a target of a 100% reduction in emissions - i.e. net zero - by 2050 (compared to the 1990 baseline). Ministers have recognised that setting such stretching targets will require a significant commitment from all sectors of the economy.

The Act requires Welsh Ministers to set decadal interim targets in regulations, and to publish carbon budgets covering five-year periods out to 2050. Each five-year carbon budget sets reduction targets, from the 1990 baseline. The budget for 2016-2020 was a 23% reduction, that for 2021-2025 was for a 33% reduction against the baseline, subsequently amended to 37%. The Welsh Government's commitment in February 2021 to push to reach net zero before 2050⁷⁷ has resulted in a change to the targets

for the period 2026-2030, now requiring a 58% reduction from 1990 levels⁷⁸.

Ministers are required to publish a plan setting out detailed proposals and policies to meet the targets - the current plan covers the period 2021-2025⁷⁹. Ministers have a duty to report to the Senedd on progress against the plan and whether the carbon reduction targets have been achieved.

Advice to Welsh Ministers from the independent UK Climate Change Committee is hard wired into this process: Welsh Ministers must obtain advice if they propose to amend either the long term or interim targets. Furthermore, the Climate Change Committee's advice to Welsh Ministers must include their view as to what is the highest achievable target. Such advice has driven the faster more ambitious targets now adopted by Ministers.

CHECKLIST FOR NATURE RECOVERY

- ☑ Clear targets and a complementary range of duties established in law.
- ☑ SMART implementation plans with clear objectives and targets.
- ☑ Regular monitoring, review and reporting against targets.
- ☑ Advice from a high-level independent committee.
- ☑ Resources to fund action.
- ☑ Ministers across Government fully engaged in delivering a coherent and ambitious response.

4.2 AIR QUALITY

Air pollution has long been recognised as a cause of poor health and damaged environments, and evidence continues to build of the detrimental impacts on biodiversity caused by nitrogen deposition. Legislation to combat the effects of such pollution commenced in earnest as a response to the smogs which affected many parts of Britain in the post-war period. Successive Governments legislated to take action, and in the modern era this included the Clean Air Act of 1993⁸⁰, and the Environment Act 1995⁸¹ which for the first time introduced a national air quality strategy to combat the issue. The approach taken to tackling air pollution across the UK saw standards set either by the EU or on the basis of advice from the World Health Organisation (WHO), which were then transposed into law and, in Wales, subject to regulation by NRW⁸². Other important components of the regulatory jigsaw in Wales include the Air Quality Standards (Wales) Regulations 2010⁸³ which gave effect to EU Directives and Regulations. Air quality

has become a headline public interest issue in recent years, thanks in part to the series of court cases brought by Client Earth against the UK Government in relation to nitrogen dioxide levels⁸⁴.

Recognising the serious impact on health outcomes posed by poor air quality, particularly for vulnerable groups, the Welsh Government has reviewed current arrangements and has issued a Clean Air Plan for Wales⁸⁵. The plan sets out a ten year pathway to achieving cleaner air in Wales and paved the way for a White Paper for a Bill to “support our aim to improve air quality and reduce the impacts of air pollution on human health and biodiversity, the natural environment and our economy”⁸⁶. This section evaluates the proposed framework in the White Paper, as it offers a useful model for addressing the nature crisis in Wales, halting the loss of biodiversity, and restoring it through targeted actions.

At the time of writing the White Paper is out for public consultation. Its key proposals are as follows:

1. A requirement in the Bill for a Welsh Clean Air Plan or Strategy, which will be reviewed every five years, with the first Strategy/Plan being published within twelve months of the Bill becoming law.
2. A proposal to establish an air quality target-setting framework, with a requirement for Ministers to set one or more air pollutant targets, initially for fine particulate matter in ambient air concentrations, in secondary legislation through regulations.
3. When setting targets by regulation, it is proposed Welsh Ministers must have regard to amongst other matters:
 - Independent and expert advice
 - Existing domestic policy, guidelines, targets and legal requirements
 - International policy guidelines and legislation, including advice from the WHO, or guidelines for international biodiversity targets.
4. A reporting duty cycle, including a statement to the Welsh Parliament reporting whether targets have been met.
5. Strengthened Local Air Quality Management (LAQM) and other measures as appropriate, including relevant duties placed on Local Authorities.

CHECKLIST FOR NATURE RECOVERY

- ☑ A nationally agreed Strategy/Plan setting strategic outcomes for all of Wales reviewed every 5 years.
- ☑ An air quality target setting framework with a requirement to set targets.
- ☑ A duty on ministers to review progress against targets, placing a report before the Senedd with a requirement to state if targets have not been met.
- ☑ A requirement to take account of independent expert advice when setting targets, and to benchmark performance against WHO and other domestic and international guidelines.
- ☑ Strengthened Local Air Quality Management, and other measures and duties for Local Authorities.

The combination of a statutory target-setting framework, duties to seek expert advice and take account of WHO guidelines when setting targets, resources provision, and benchmarking offers a useful blueprint for biodiversity and nature recovery.



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4.3 RECYCLING

Following years of underperformance, Wales introduced statutory recycling targets through the Waste (Wales) Measure 2010⁸⁷, with monitoring and enforcement via regulations⁸⁸ to promote a zero waste ethos. Recycling and repurposing has steadily increased as a result, with Local Authorities leading initiatives to achieve the targets⁸⁹. Across Wales recycling has risen from some 40% to 63% in 2018/19 and the Welsh Government now has a target to reach 70% by 2024/5. The Welsh Government has declared a target of being a zero-waste nation by 2050⁹⁰, aligned with the commitment to be a “net zero” climate nation.

The 2011 Regulations place a duty on NRW to monitor performance of Local Authorities against the recycling targets, require Local Authorities to report quarterly on waste streams, and set penalties should a Local Authority fail to meet a target. Local Authorities were supported with funding to invest in facilities to meet the targets. As a result almost all Local Authorities have met or exceeded the targets since their introduction, with only a handful of exceptions across a few particular years.

The Welsh Government’s newly launched Beyond Recycling Strategy⁹¹ and the accompanying Litter & Fly-tipping Prevention Plan (out for consultation at the time of writing)⁹² retain high aspirations for zero waste. They seek to achieve this by addressing structural challenges and developing a preventative approach, which is crucial as recycling rates from kerbside collections will inevitably plateau unless source issues are addressed. To support this and develop a circular economy an initial investment of £43m has been announced.

Note that, in order to meet their recycling targets, many Local Authorities have also introduced enforcement measures for households which don’t recycle properly, in addition to local businesses, providing a means to target local actors who fail to respond to advice and guidance.

CHECKLIST FOR NATURE RECOVERY

- ✓ Clear national objectives (zero waste by 2050), with interim targets set for Local Authorities.
- ✓ Statutory underpinning of the targets and performance monitoring.
- ✓ Mix of means and ends performance indicators.
- ✓ Strong focus on co-production of improvements, and finance for essential infrastructure.
- ✓ Regular monitoring, independent audit and reviews leading to new initiatives and resources to tackle problems. New powers to tackle poor uptake/participation.
- ✓ Steady improvements in waste recycling and repurposing achieved.



CHAPTER 5

Lessons from international efforts to set nature recovery targets

5.1 NEW ZEALAND

The New Zealand Biodiversity Strategy, Our Chance to Turn the Tide (2000-2020)⁹³, set a national goal to halt and reverse the decline in indigenous biodiversity, maintain and restore a full range of remaining natural habitats and ecosystems, and ensure that viable populations of all native species are preserved. This built on the Resource Management Act 1991, which offered protection for biodiversity across all New Zealand's land and seas. Action Plans were produced and categorised into ten themes.

For each theme a desired outcome describes what needs to be achieved to meet the goals of the strategy. Key issues for biodiversity are summarised, highlighting the gap between current state and management, and the desired outcome. Detailed objectives and actions are

then described, covering research needs, legislation, and management with key players and responsibilities identified. Governance is supported by a high-level group to give strategic direction and guidance and encourage participation by stakeholders to ensure the conservation and sustainable use of biodiversity.

The key commitments in New Zealand's Biodiversity Strategy are incorporated into Government and departmental planning, including Strategic Result Areas (SRAs), Key Result Areas (KRAs), strategic business plans and departmental performance and purchase agreements. The Biodiversity Action Plan⁹⁴ was updated in 2016 and it contains some substantial commitments accompanied by SMART targets. On example is:

"By 2020 1.3m ha of New Zealand's terrestrial areas and inland waters will be managed to achieve a high level of ecological integrity and a further 3.9m ha will be managed to maintain ecological integrity (located where possible to ensure buffering and connectivity)".

One of the main pressures on New Zealand's rich biodiversity, much of which is endemic, is the adverse impact of Invasive Non-Native Species that threatens species with global extinction. A well-resourced campaign to remove non-native predators by 2050, Predator Free 2050, is underway⁹⁵. Introduced predators are one of the primary drivers of biodiversity loss. Interim targets are also set, with committed spend to

remove predators from offshore islands by 2025 with an additional NZ\$7m (equivalent to £3.5m) committed per annum, on top of the existing NZ\$70m budgeted.

A further NZ\$1.1bn has been announced in the 2020 budget⁹⁶ to tackle key actions contained in the Biodiversity Action Plan and steps in the Predator Free 2050 programme.

The package is intended to support thousands of people into jobs in these areas, and includes:

- ▶ NZ\$433m to restore wetlands and improve the health of rivers and estuaries and the Kaipara Harbour, New Zealand's largest harbour.
- ▶ NZ\$147.5m for pest control and eradication, including advancing the Predator Free New Zealand vision and working with iwi to prevent the collapse of North Island forests.
- ▶ NZ\$100m for extensive wilding conifer control on public and private land.
- ▶ NZ\$40m for pest and weed control on Crown land in riverbeds and control and eradication of aquatic weeds in Lakes Wakatipu and Wanaka.
- ▶ NZ\$27.5m to get ballooning populations of wallabies in the Bay of Plenty, Waikato, Canterbury and Otago under control.

New Zealand has just completed a consultation on its next strategy for biodiversity that will have targets with milestones to be achieved by specific dates⁹⁷. This detailed review was published in August 2020⁹⁸ and a plan to brigade proposed actions and engage the key stakeholders is due to be published as a National Policy Statement in July 2021⁹⁹. Such statements are based in New Zealand law and have statutory underpinning.

KEY LESSONS FOR WALES

- ▶ New Zealand has identified the key pressures on biodiversity in the country and is focussing action on adopting SMART targets, with considerable resources deployed to tackle the problems.
- ▶ A cross-Government approach and buy-in from key stakeholders is being built.
- ▶ Restoring native habitats and linking protected areas through large-scale targeted programmes achieves many benefits, helping control diffuse pollution and flooding, increasing the resilience of endangered native wildlife populations, and creating places for people to enjoy.
- ▶ Opportunities have been seized to create eye-catching jobs across the environment sector, including tackling the social, environmental and economic cost caused by Invasive Non-Native Species and enhancing biodiversity through restoration projects.





5.2 THE NETHERLANDS

The Netherlands has adopted architecture similar to the UK for planning and reporting on its action plan for biodiversity at national, EU and CBD levels. The Netherlands has adopted six national targets to meet the EU Biodiversity Strategy to 2020 and contribute towards the Aichi Targets, with some of these being met¹⁰⁰.

An important step in the delivery of the key actions contained in the NBSAP was the Nature Pact 2013¹⁰¹. This established a new way of delivering a National Ecological Network (NEN). This is an ambitious plan to create and restore wildlife habitat at a landscape scale. The Nature Pact set a target for delivery of 80,000ha of new land for nature to be established on farmland and other areas with little current biodiversity value between 2011-2027. The NEN has at its core all the EU Natura sites, and extends over natural and semi-natural habitat, and identifies agricultural land earmarked for conversion (restoration) to nature and natural habitats.

The Dutch Government has concluded that the NEN is its most significant contribution towards conserving biodiversity, and it contributes to

habitat connectivity and is restoring ecosystems across the country, particularly wetlands. Some 14% of the Netherlands' land and fresh waters are designated EU Natura sites, and with the contribution of the NEN, 26% of the Netherlands is to be protected by 2027. To date 108,000ha have been acquired for the realisation of the NEN, and more than 85,000ha of agricultural land has been restored to nature¹⁰².

This aligns with findings of a study undertaken by the Institute for European Environmental Policy (IEEP) across EU member states which found that broad scale measures to improve the environment at the EU level, such as tackling air and water pollution, were most successful at preventing habitat and species decline if underpinned by well managed protected areas¹⁰³. The study shows that protected areas are cornerstones of both national and international conservation strategies by securing key sites for species conservation and positive habitat management, while also acting as a catalyst and focus for concerted action by stakeholders.



KEY LESSONS FOR WALES

- ▶ The NEN has legal underpinning, with targets agreed between Regional and Federal Government. It has been mainstreamed.
- ▶ The targets cover area and location and have timetables for delivery.
- ▶ Substantial resources are deployed and targeted at landscape scale habitat restoration to address fragmentation by improving connectivity and the recovery of priority ecosystems.
- ▶ Such an approach would guide action to restore particularly significant and distinctive Welsh habitats and improve their connectivity at a landscape scale
- ▶ Budgets and targets to achieve the NEN are set over several parliamentary terms.



CHAPTER 6

Learning from innovation and best practice in the rest of the UK

6.1 ENGLAND

Following the referendum decision to leave the EU, a comprehensive Bill to create a new legal framework for environmental governance has been introduced. The UK Environment Bill is at the time of writing is about to resume its passage through the House of Commons¹⁰⁴. The Bill predominantly covers England but has some measures that affect all parts of the UK¹⁰⁵.

The Bill sets a strong ambition: “The case for tackling biodiversity loss, climate change and environmental risks to public health is clear. The accelerating impact of climate change in this

country and around the world is of profound public concern, as is the damage to nature with species loss, habitat erosion and the disappearance of cherished wildlife”¹⁰⁶.

The Environment Bill will help deliver the UK Government’s commitment to make the vision set out in its 25 Year Environment Plan a reality. Significantly, the Bill sets out a process to establish long-term legally binding targets of at least 15 years’ duration, including for the protection of nature:

“A new statutory cycle of target setting, monitoring, planning and reporting will help deliver significant, long term environmental improvement and ensure government can be held to account for its actions. Statutory Environmental Improvement Plans (the first being the 25 Year Environment Plan) and a new framework for setting long term legally binding targets will be integral to this cycle. We will set new legally binding targets in four priority areas of the natural environment: air quality; waste and resource efficiency; water; and nature. The Environmental Improvement Plans and legally binding targets will be reviewed on a five-yearly basis”¹⁰⁷.

In a significant development in May 2021, Environment Secretary George Eustice MP announced that amendments to the Environment Bill would include a new legally-binding species target for 2030 to drive action to halt the decline of nature in England¹⁰⁸. This sets an important precedent for other Governments across the UK, including the Welsh Government, to set their own nature recovery targets in domestic legislation.

The Bill supplements existing legislation and policy on protected sites and species and introduces new incentives, actions and planning tools. It also lays the foundation for a Nature Recovery Network in England, although this is not given legal status in the Bill. In addition to setting the framework for at least one legally binding target for biodiversity in England, it establishes spatial mapping and planning tools to help inform nature recovery. The Bill introduces a mandatory requirement for biodiversity net gain in the planning system, to ensure that new

developments enhance biodiversity and create new green spaces for local communities to enjoy¹⁰⁹. It sits alongside plans for introducing a new Environmental Land Management Scheme (for farmers and land managers) under the Agriculture Act 2020, which will focus public funds on the delivery of ‘public goods’ including for climate and nature recovery. These mechanisms have the potential to drive progress towards reaching the targets, but to realise this a clear framework to link them to address the target outcomes is required.

The 25 Year Environment Plan had a series of ten goals and related targets¹¹⁰. Its target to create or restore 500,000ha of wildlife-rich habitat outside the protected site network, focusing on priority habitats, is recognition of the fragmented landscapes often found in England, and the issues of connectivity and resilience that were explored in detail by Professor Sir John Lawton in his independent report Making Space for Nature 2010¹¹¹. This proposal mirrors the Dutch

NEN, and commitments made at an EU level to restore habitats and improve their connectivity.

Within protected sites, the 25 Year Environment Plan set a target of restoring 75% of SSSIs, England's most important places for nature, to favourable condition.

In May 2019 Defra published a framework of outcome indicators to measure progress against the 25 Year Environment Plan¹¹². The National Audit Office have reviewed the approach taken by Defra to the use of monitoring metrics and stated:

“A significant portion of the goals and targets in the 25-Year Environment Plan are currently too vague to allow government to measure and monitor performance effectively (we assess that less than one-quarter of the 44 targets are entirely specific, measurable and time-bound). If the government does not break down its strategic objectives into clear and measurable long-term and interim goals, it will not be able to use performance data effectively to assess whether it is on track to achieve its ambitions”¹¹³.

The emphasis placed by the National Audit Office on Specific, Measurable and Time-bound targets - the key components of SMART target setting - is noteworthy and of course this key point applies to future endeavour for nature recovery in Wales.

KEY LESSONS FOR WALES

- ▶ The establishment of a framework for setting legally binding long-term and interim targets to 2050, including for biodiversity, and a process for reporting to Parliament.
- ▶ Targets are to be reviewed regularly to ensure that they significantly improve the natural environment in England.
- ▶ Statutory underpinning for Environmental Improvement Plans (the first being the 25 Year Environment Plan) and a five-yearly review process (when interim targets to support the long term targets must be set).
- ▶ A duty on Government to obtain data to monitor progress under the Environmental Improvement Plan and towards the meeting of targets.
- ▶ A legal requirement for biodiversity net gain.
- ▶ Commitments in the 25 Year Environment Plan to develop a Nature Recovery Network to provide an additional 500,000ha of wildlife habitat, more effectively linking protected sites and landscapes, and to restore 75% of SSSIs into favourable condition.

6.2 SCOTLAND

Environment Minister Roseanna Cunningham MSP has committed Scotland to protecting 30% of land for nature by 2030 and endorsing the Leaders' Pledge for Nature¹¹⁴. Scotland has already declared over 30% of its seas as Marine Protected Areas (MPAs), but control over damaging practises such as bottom trawling within MPAs is often lacking¹¹⁵. The Scottish Government also announced it will issue a new biodiversity strategy within one year of COP 15, which will both take forward the CBD decisions and implement the EU 2030 Biodiversity Strategy¹¹⁶. NatureScot estimated Scotland met only 9 of the Aichi targets, and like the situation in Wales biodiversity continues to decline^{117, 118}.

However, an important target led initiative to tackle the climate emergency through adopting 'natural solutions' in Scotland is the effort to restore substantial areas of degraded and damaged peatland, which emit large amounts

of carbon to the atmosphere and to water as dissolved carbon. Peatlands are important for biodiversity as well as offering wider ecosystem benefits for water and the climate. Scotland has some of the largest blanket peatlands in Europe¹¹⁹. The targets for this programme of restoration and the funding to achieve the targets is provided as part of the Scottish Government's climate change programme¹²⁰. This set a target of 250,000 ha of peatland to be restored by 2030. A commitment to invest £250m over the next ten years was announced to extend the programme in the 2020/21 budget. Working to restore biodiversity and address climate change via targeted investment in natural solutions provides an important example for Wales. A focus on restoring peatlands and addressing emissions from damaged peat soils will bring multiple benefits - for nature, climate, and water resource management^{121, 122}.

KEY LESSONS FOR WALES

- ▶ Linking and aligning action for the climate with biodiversity gain, e.g. peatland restoration and targets for planting native woodland.
- ▶ Commitment to adopt the 30x30 target and endorse the Leaders' Pledge for Nature.
- ▶ Funding to restore a significant area (250,000ha) of peatland by 2030, adopting a 'SMART' target led approach.
- ▶ Commitment to refresh and update the approach to biodiversity within one year of COP 15.



CHAPTER 7

Developments at the EU level

The EU has acted at speed to review and refresh its Biodiversity Strategy for 2030, issuing the full document titled 'Bringing nature back into our lives' in May 2020¹²³.

The Strategy linked investment in nature protection and restoration with recovery from the Covid-19 crisis. It is a key element of the European Green Deal – the EU's growth strategy – described by EU Commission President, Ursula von der Leyen, as "our compass"¹²⁴ for Europe's recovery, ensuring that the economy serves people and society while giving back to nature. The EU is showing ambition to reverse biodiversity loss and aiming to lead the world by example - and by action - by helping to agree and adopt a transformative post-2020 global framework at CBD COP 15. The EU was also clear that action to date by the EU and member states had not met the targets in its 2010-20 Biodiversity Strategy, to halt the loss of biodiversity and restore 15% by area of damaged or degraded ecosystems. As a result, many species are in unfavourable and declining condition across the EU^{125, 126}.

The EU in its Biodiversity Strategy for 2030 outlines a Nature Restoration Plan with a commitment for: "Legally binding EU nature restoration targets to be proposed in 2021, subject to an impact assessment. By 2030, significant areas of degraded and carbon-rich ecosystems are restored; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favourable condition status or at least show a positive trend"¹²⁷. It further commits that 30% of land and marine areas will be protected for nature, 10% strictly so¹²⁸. The Institute for European Environmental Policy (IEEP) reviewed the EU Strategy and published its first impressions in May 2020¹²⁹. The authors state the EU Biodiversity Strategy to 2030 "is an ambitious, constructive and coherent strategy". The IEEP concluded that the EU Restoration Plan,

to restore healthy and resilient ecosystems, with binding targets "promises to significantly improve the condition of ecosystems across the EU". Given this position it is no surprise that the EU has collectively adopted the Leaders' Pledge for Nature¹³⁰.

The European Commission's consultation on the EU targets to restore Europe's ecosystems, ran until April 2021¹³¹ and included detailed consideration of the appropriate targets to adopt¹³².

The EU position is now clear, framed in response to detailed monitoring that demonstrates the 2020 targets were not met, and it raises the sense of urgency and ambition to meet targets (many of which are SMART) by 2030, and at global level by 2050 to achieve biodiversity recovery.



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CHAPTER 8

Wales's international responsibilities and global footprint

When setting targets for nature recovery it is vital that the Welsh Government recognises its international responsibilities for nature. This ensures priority action in Wales has the greatest impact for global nature recovery.

For some species Wales holds a significant proportion of the total population at not only a UK level, but also a global level. 79% of the UK breeding population of chough occur in Wales; Welsh woodlands support at least 50% of the UK's populations of pied flycatcher, hawfinch and goshawk; and the west coast islands of Wales hold over half the global population of breeding Manx shearwater¹³³ and significant proportions of northern gannet and other seabirds. The diminutive Snowdon lily is confined in the UK to a few sites in north Wales. Additionally, those special habitats for which Wales is particularly renowned, such as western Atlantic oak woodland and ffridd, must be valued even more highly given their international scarcity and the important range of species they support from mosses and bryophytes through to migratory breeding birds. Wales also has estuaries and wetlands which are vital staging posts for migratory birds, whose travels span from the high arctic to wetlands in west Africa. Many nations must work together to protect these flyways through for example the Ramsar Convention¹³⁴.

In developing a suite of nature recovery targets it will also be important that the Welsh Government considers the environmental impacts caused by the consumption of goods by the Welsh economy beyond Welsh borders. Complex international supply chains mean that consumption that takes place within Wales can cause pressures on land and sea elsewhere in the world, as recognised in 2009 when the Welsh Government's Scheme for Sustainable Development set the vision that "within the lifetime of a generation we want to see Wales using only its fair share of the earth's resources". The ecological footprint of Wales, described as "the area of land used to provide raw materials, energy and food, as well as absorb pollution and waste created", is included in the national indicators used to track progress under the Well-being of Future Generations Act¹³⁵. In 2011 the ecological footprint of Wales was calculated as 10.05m global hectares¹³⁶, an area almost five times the size of Wales, highlighting

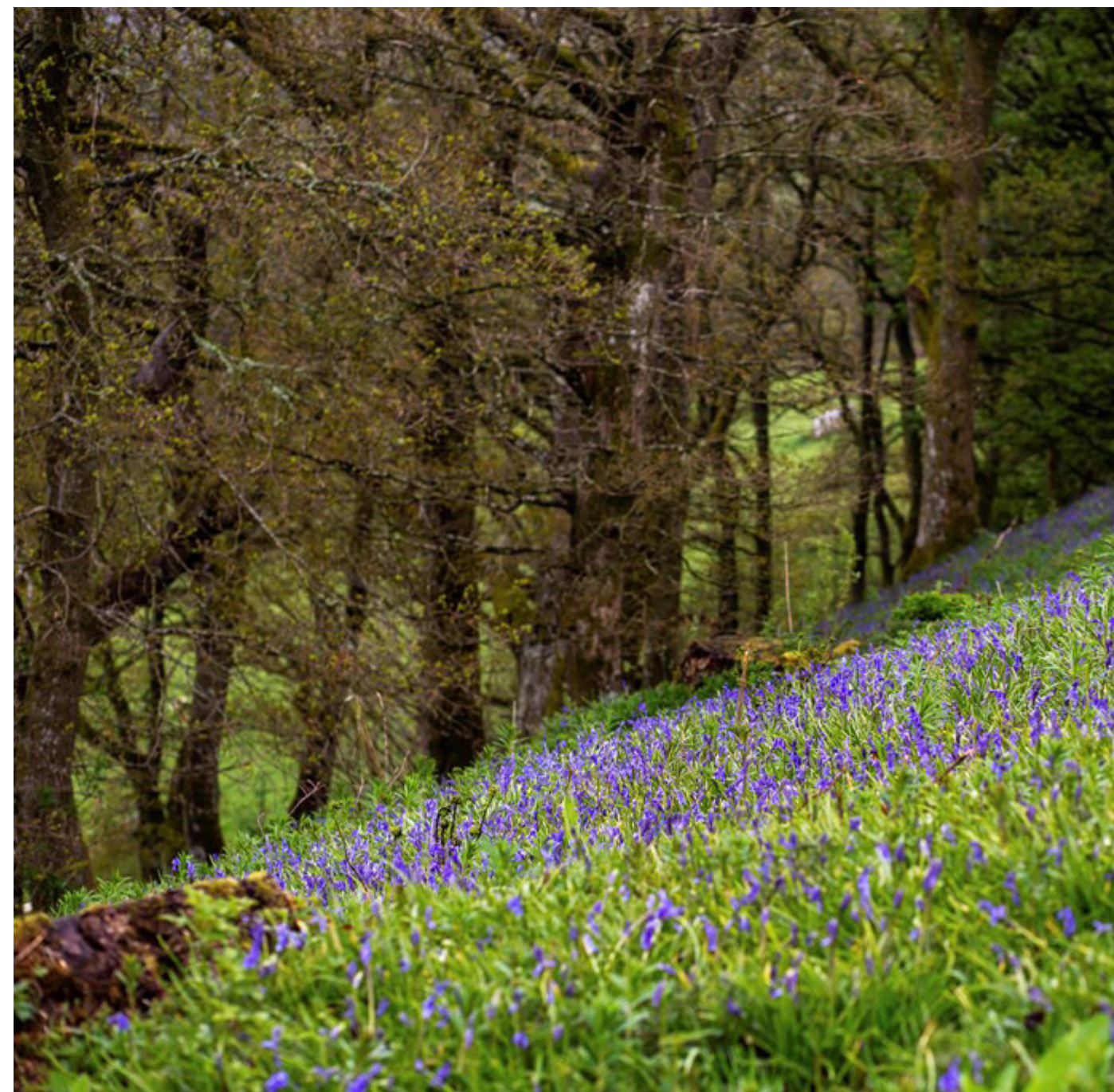
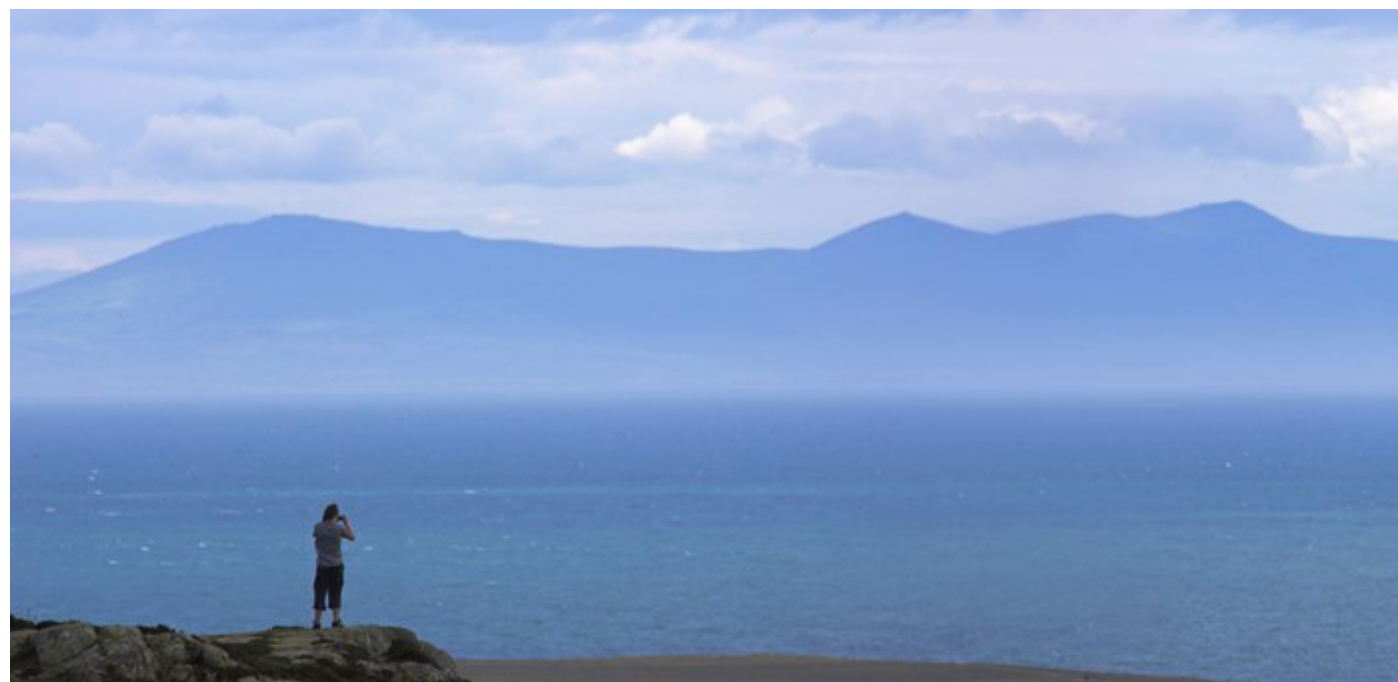
the correlation between growing consumption and increased ecological footprint.

In 2020, WWF and RSPB published 'Riskier Business: the UK's Overseas Land Footprint'¹³⁷. This analysed the UK's overseas land footprint and focused on the impacts resulting from the UK's trade in seven agricultural and forest commodities – namely beef and leather, cocoa, palm oil, pulp and paper, rubber, soy and timber – and the biodiversity impacts associated with the production of these commodities. The report estimates that over 2,800 threatened species worldwide could have been negatively affected by the production impacts, and offers a clear recommendation that:

“By the end of 2020, government should establish an ambitious and time bound, legally binding target to halve the UK’s overall environmental impacts overseas – global footprint – by 2030... Such a target should be applicable to the entire UK, including devolved administrations”.

Developing and adopting such a target at a domestic level in Wales would align well with the national indicators framework and would increase momentum on breaking the link between economic growth and the adverse environmental impacts of consumption. It would also encourage moves to a circular economy to recycle and repurpose goods and materials. Wales has significant levers, for example, to help eliminate overseas deforestation and land conversion from its supply chain as identified in

the recently launched ‘Deforestation Free Nation’ campaign in Wales¹³⁸. This includes setting deforestation free targets for procurement policy in Wales. For the Welsh Government, setting targets to reduce our impact on the world’s biodiversity would be in line with the Edinburgh Declaration for adopting bold actions that will bring about transformative change.





CHAPTER 9

Investing in Nature Recovery Targets

Achieving ambitious and legally binding targets for nature recovery will require a transformation in the scale and means by which action for nature is funded. Fundamental to the process will be a long-term commitment to restore lost habitats, and manage and enhance them to allow species to recover. A significant body of evidence points to the many benefits that could be realised from investing in nature recovery¹³⁹, as well as the urgency of the case for investment.

Studies in recent years have attempted to assess the level of investment needed to achieve improvements for nature in Wales. NRW has calculated that Wales needs £144m to secure Favourable Conservation Status of Wales' network of SPA and SAC sites¹⁴⁰ which extends over 718,000ha of land and sea, although this estimate does not include staff time or provide for ongoing maintenance. In 2019 it was estimated that on land, £273m per annum for ten years is needed to meet a wider suite of identified environmental priorities and commitments made by the Government of Wales¹⁴¹. With £242m allocated for agri-environment support in Wales in the November 2020 Spending Review, the future Sustainable Farming Scheme in Wales will be a crucial vehicle that must enable and support farmers to deliver more for nature.

Investing in nature recovery delivers a significant return on investment as shown by a GHK Consulting report for Defra on the benefits of SSSIs¹⁴², which used public willingness to pay to estimate the annual value of the benefits of SSSIs in 2010 at £128m in Wales. This compared to annual public expenditure at the time of £10m in Wales, showing that for each £1 in public spending on SSSIs brought benefits worth close to £13. The benefits of increasing funding to bring all SSSIs in Wales into favourable condition were estimated at £103m per annum. Recent analysis of nature-based solutions delivering both climate and ecological benefits further supports the case for investing in habitat restoration, with every £1 invested in peatland, salt marsh and woodland securing £4.62, £1.31 and £2.79 of benefit respectively¹⁴³. The value of carbon sequestration in marine environments in Wales has been estimated at £6.6m per year, with this expected to more than treble by 2050 as carbon prices increase¹⁴⁴. Considerable social and financial benefits from investing in nature recovery are currently remaining unrealised.

Nature recovery targets would support the Welsh Government's Green Recovery agenda

in the wake of the Covid-19 pandemic, with NRW identifying the creation of a National Nature Service as a priority action¹⁴⁵. NRW's Green Recovery agenda stated "Nature-based solutions must be the cornerstone of the green recovery" and emphasised "Wales may be a small country, but it is our ambition that the ideas put forward in this report will leverage the collective power that we need to make a big impact in how we tackle the climate and nature emergencies, and lay the foundation for a more sustainable future for our nation". A study by RSPB has estimated that a Wales National Nature Service could support almost 7,000 direct FTE jobs, with significant skills development and job opportunities in habitat creation and nature-based tourism¹⁴⁶.

The desire for a Green Recovery has prompted renewed interest in innovative funding mechanisms that could scale up the resources available for nature recovery. Wales Environment Link (WEL) has suggested that Wales is lagging behind in this area¹⁴⁷ compared, for example, to Scotland, where a '£1bn Challenge' conservation finance project has been launched incorporating a range of investment mechanisms from carbon payments to loans for tackling invasive non-native species, and nature-climate bonds. WEL has also identified potential from funding mechanisms such as the single-use carrier bag levy, and visitor payback schemes.

A recent report from the Aldersgate Group¹⁴⁸ has shown that far from environmental regulation being a hindrance to the business sector, in fact it brings economic and employment benefits and greater stability and resilience for businesses, and is widely welcomed. There is a strong desire for ambitious and clear environmental targets underpinning the regulatory framework, to drive innovation and provide businesses with the certainty that they need over the long term in order to make investments and change corporate behaviour.



This desire for a strong framework to set a clear and progressive future course aligns well with the recommendations of the landmark Dasgupta Report on the Economics of Biodiversity¹⁴⁹. Responding to the findings of the review, RSPB and partners have highlighted the need for change in the fundamental ways that Governments assess progress and make decisions, such as the reliance on GDP and the shortcomings in the application of the Treasury Green Book, which tend to underestimate the ecosystem service benefits provided by a healthy environment, and all too frequently underestimate the risks posed by a climate and nature crisis¹⁵⁰.

The urgency of growing investment in nature recovery and ecosystem resilience cannot be overstated. Once habitats and ecosystems are in poor condition, damaged or fragmented, it becomes substantially more expensive to restore them and bring back the full range of benefits they provide¹⁵¹ and it has recently been estimated that delaying action on biodiversity by ten years will cost twice as much as acting immediately¹⁵². This is why the EU Biodiversity Strategy to 2030 emphasises scale, with 30% restored and managed for nature, 10% strictly

so, and works to give natural habitats greater connectivity, to allow species to move and adapt.

The First Minister has recognised that there is a limited window of opportunity to recover biodiversity in Wales¹⁵³ and it will be important to build on that statement, and the call by the CCERA Committee to adopt nature recovery targets to deliver the necessary change¹⁵⁴, in the next Senedd term.

Starting a programme of a sustained increase in investment brings forward the benefits that will accrue for people and nature, and will also prevent the cost of nature recovery increasing markedly – as it will if the current trends in Wales, of resourcing shortfall and biodiversity decline continue.

Wales can learn from the approach taken in the Netherlands to establish a target-led and well-resourced nature recovery network (see page 25 of this report), and the innovative job creation programmes announced by New Zealand to combat the loss of nature and restore it at landscape scale for people to enjoy (page 29).





CHAPTER 10

Conclusion and recommendations: next steps for Wales

Wales made commitments to halt and restore the loss of biodiversity by 2010 and then, when this was not achieved, by 2020. That target too has not been met. A new approach is needed in order to ensure that nature in Wales has the support and commitment across Government that it needs to meet these international goals. It should have a legally binding headline target to halt and begin to reverse the loss of biodiversity by 2030, and secure nature recovery by 2050, in line with the ambition to tackle climate change. In addition, alongside the targets there needs to be a robust architecture to plan and direct resources, and measure the impact of this activity in meeting indicators of progress between now and 2030, and then to 2050.

Conclusion & recommendations

To be successful experience shows it must be embedded through a legislative framework, placing a duty on ministers to achieve targets, alongside clear duties on ministers to establish a recovery plan with timebound objectives and targets, subject to consultation and approval, and to regularly report on progress to Senedd, and implement the actions required.

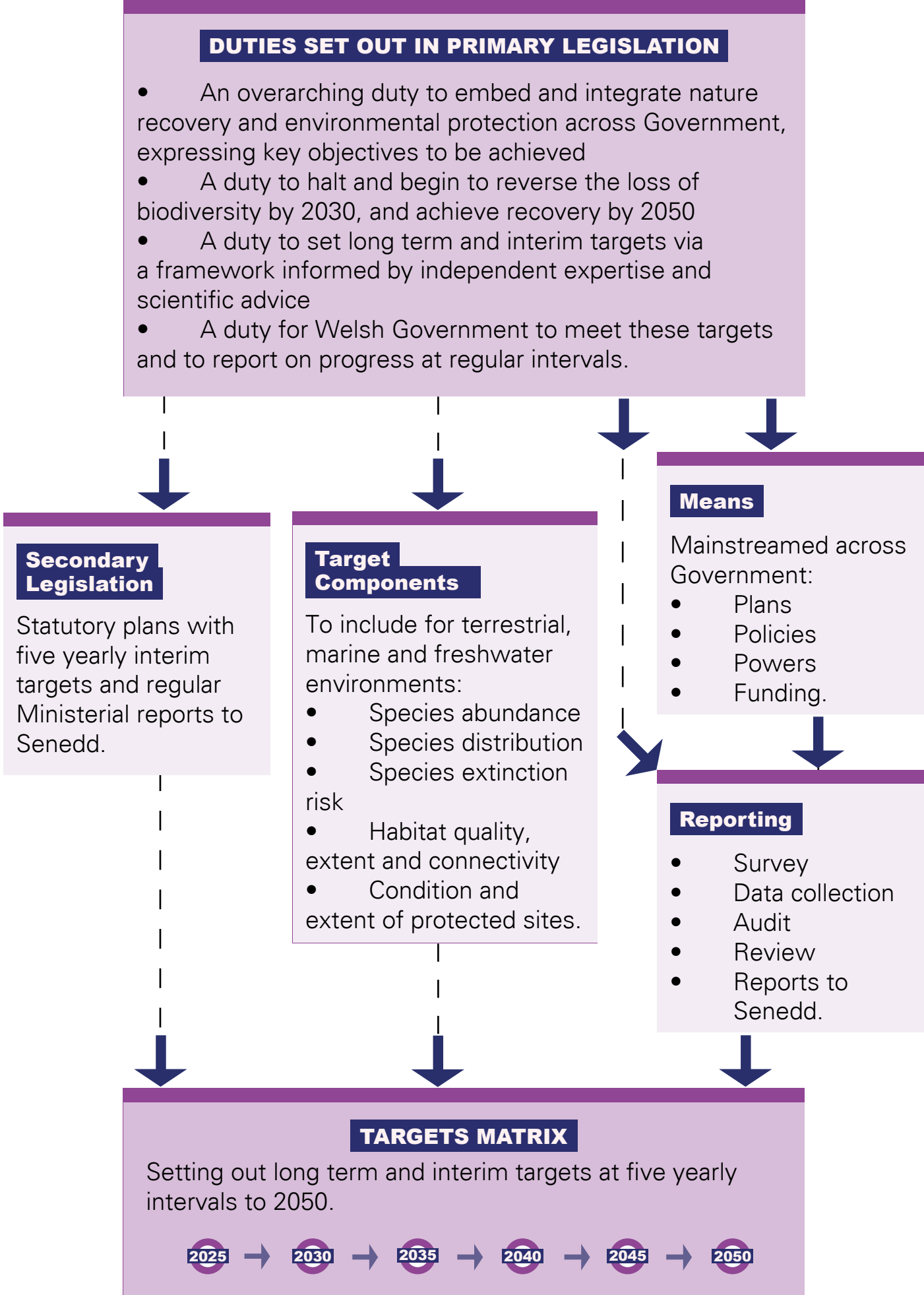
This would set the building blocks in place to meet the commitments in the Leaders' Pledge for Nature, and the refreshed CBD targets which will emerge from COP 15¹⁵⁵. Only by doing this will it be possible to 'bend the curve' of biodiversity loss¹⁵⁶ and secure nature's recovery by 2050. It would also place Wales at the forefront of nature

recovery, matching and potentially exceeding the approach in the Netherlands, New Zealand and England amongst others. Wales's legislation has been praised as being world-leading¹⁵⁷, but it needs to go further to make Wales a world leader in driving nature's recovery.

In Wales we recommend that a legally binding set of targets and milestones is introduced as happened following the Paris climate agreement. The timeline should align with that for achieving net zero by 2050, but see significant progress by halting the losses and restoring conservation sites and habitats by 2030, with appropriate interim steps, milestones and binding targets aligned to Senedd terms.

THIS SHOULD INCLUDE

- ▶ An overarching new duty on the Welsh Government to embed and integrate nature recovery and environmental protection across Government, expressing the key objectives to be achieved by 2050.
- ▶ A duty to halt and begin to reverse the loss of biodiversity by 2030, and achieve recovery by 2050.
- ▶ A duty to set long term and interim targets via a framework informed by independent expertise and scientific advice, aligned with those set in post-2020 CBD framework to 2030 (to be negotiated). The targets would ideally be set in five year cycles, to match the climate plan or Senedd term. If the expert scientific advice is not followed the Minister must explain why to Senedd.
- ▶ Secondary legislation establishing a comprehensive plan with appropriate SMART targets, subject to regular review and reporting, with scrutiny at a high level, to ensure progress towards targets is maintained.
- ▶ A legal requirement on Ministers to ensure the targets are met. This should help break out of the cycle of 'too little too late' that has dogged biodiversity delivery to date.



This would ensure appropriate accountability for meeting the targets, including funding the necessary actions and monitoring their implementation. A particular challenge for achieving biodiversity outcomes, in Wales and other countries, is successfully mainstreaming biodiversity requirements at sufficiently high level into all sectors of Government so that positive outcomes can be achieved and value added, and perverse policies or incentives that damage nature interests are removed, or compensated for if unavoidable¹⁵⁸. This report considers that setting overarching duties and targets in legislation will address this, together with appropriate cross-Governmental architecture, aligned with the climate plan, and with sector plans in key areas such as agriculture¹⁵⁹.





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