

Scotland's Biodiversity: Progress to 2020 Aichi Targets, Interim Report, 2017

The Convention on Biological Diversity (CBD) set 20 global targets, known as the Aichi Targets in October 2010, to be met by 2020. SNH published an interim report in 2016 which covered 13 of the 20 targets and has now published this latest report covering all 20 targets.

There are a number of areas where Scotland is progressing well with mainstreaming biodiversity, including work to increase public awareness and engagement, and embedding biodiversity values through the development of policy and practice on Natural Capital. However, there appears to be a time-lag in terms of translating these ambitions into changes in practice and clearly influencing decision-making across key sectors of government and society.

The report notes that the areas of work that have proved most challenging relate to direct pressures on biodiversity. Although positive changes in sustainable management, pollution reduction and protection of ecosystems vulnerable to climate change are underway, there is still more to do, with the development of improved metrics and focused action on a range of pressures planned and being implemented.

There has been good progress in safeguarding biodiversity with the designation of marine and terrestrial protected areas now exceeding the international target. Further work is required to identify additional actions for certain groups of species, including seabirds, waders, upland birds and specialist butterflies. The development of a Scotland priority species indicator and metrics for genetic diversity will contribute to this work. Ambitious targets for native woodland planting and restoration have yet to be met, with further work required on implementation of deer management plans.

Improved collation of data and data management are ensuring decisions are informed by evidence, and that information is shared and accessible. However, more work is required to improve data recording, fill gaps and to assess ecosystem functions.

The Interim report notes that there has been a decline in public sector spending on the environment of 24% since 2010. However there are many other funding streams and non-monetary contributions to biodiversity conservation that are not currently accounted for in this target reporting. There is work required to develop the metric for financial resources to ensure it better captures the investment in biodiversity across Scotland.

The Interim report presents Accounts for each Target, with each Account comprising a combination of information and data, mostly at Scottish level, though a few are collated at UK level. The five-point scoring system produced by the CBD is shown in Figure 1 below is used to summarise progress against each Target. This assessment of progress was undertaken by relevant experts within and outwith Scottish Natural Heritage. The SNH Scientific Advisory Committee provided quality assurance and expert advice throughout the development of the Target Accounts and assessments.

Figure 1. Five point scale of progress, adapted from Global Outlook 4.



On track to exceed target (we expect to achieve this before its deadline)

On track to achieve target (if we continue on our current trajectory we expect to achieve the target by 2020)

Progress towards target but insufficient (unless we increase our efforts the target will not be met by its deadline)

No significant overall progress (overall, we are neither moving towards the target nor moving away from it)

Moving away from target (things are getting worse rather than better)

Table 1. Summary assessments of the 20 Aichi Targets

| # | Aichi Target Name | Target assessment |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society | | |
|  | <p>A1 Awareness increased Biodiversity awareness in Scotland is currently measured at around 65%. There are a large number of organisations actively seeking to promote biodiversity and help raise the awareness of conservation and sustainable use of biodiversity.</p> |  |
|  | <p>A2 Biodiversity values integrated Scotland is a world leader in developing the concept of natural capital, and actively promotes biodiversity through strategies and policies. Whilst challenges remain to embed conservation and sustainable use in practice, biodiversity values have been integrated into the mainstream planning, policy and reporting frameworks.</p> |  |
|  | <p>A3 Incentives reformed In Scotland there are a wide range of incentives designed to support and encourage management for biodiversity. However there are incentives for activities which conflict with biodiversity leading to its deterioration and sometimes loss.</p> |  |
|  | <p>A4 Sustainable consumption & production Sustainability is an integral part to Scotland's economy and enshrined within the Government Economic Strategy. Scotland is committed to being a low carbon economy and has ambitious targets to achieve this. However, current indicators show we still have work to do to ensure the economy is operating within safe ecological limits.</p> |  |

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| Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use | | |
|  | <p>B5 Habitat loss halved or reduced Some of Scotland's habitats have suffered degradation and losses through changes in land use and management. Targeted restoration is underway on peatland, woodland and freshwater habitats. The Habitat Map of Scotland provides baseline habitat data and will enable us, in time, to look at changes in Scotland's habitats. The review of Priority Marine Features and ongoing work to implement fisheries management measures across the Scottish MPA network will also assist in reaching the target. The Ecosystem Health Indicators will improve our knowledge of habitat fragmentation.</p> |  |
|  | <p>B6 Sustainable management – marine Considerable progress has been made in ensuring fish, invertebrate and aquatic plants are harvested sustainably and in line with Scottish and European legal frameworks. The latest fishery stock assessments show that they are at Good Environmental Status (GES) for the Greater North Sea ecoregion. In the Celtic Seas ecoregion, a number of stocks have very low biomasses and are not sustainable. The development of Scotland's National Marine Plan, 1 and Aquaculture, Seaweed Harvesting and Fisheries Strategies along with the Marine Strategy Framework are all helping to focus efforts towards sustainable management in the marine environment.</p> |  |
|  | <p>B7 Sustainable agriculture, aquaculture & forestry Agriculture, aquaculture and forestry are important industries in Scotland. Considerable progress has been made in developing policies and strategies that will help achieve and support sustainability targets by 2020.</p> |  |
|  | <p>B8 Pollution reduced Improvements to air and water quality over recent decades, brought about by reduced pollution, have led to marked improvements in their status. However, much work remains to be done, with more challenging measures required to control air pollution and diffuse pollution, control marine litter, and better quantify the effects of pollution on Scotland's biodiversity and ecosystems.</p> |  |
|  | <p>B9 Invasive species prevented and controlled Action to control the most problematic non-native invasive species is underway and new information systems are being developed to inform rapid response. However, the spread of invasive non-native species and their impacts on biodiversity is a present and growing threat.</p> |  |
|  | <p>B10 Pressures on vulnerable ecosystems reduced In Scotland terrestrial ecosystems vulnerable to climate change include uplands, peatlands and oak woodland. Coastal habitats such as machair and saltmarsh as well as intertidal habitats are particularly vulnerable to sea-level rise and increased air and water temperature. Many marine habitats and species such as cold water corals, maerl beds, serpulid reefs, horse mussel and flame shell beds are considered vulnerable to various factors such as temperature increase and ocean acidification. Steps are being taken to identify pressures and to make ecosystems more resilient through protecting sites, voluntary codes and enacting legislation.</p> |  |

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| Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity | | |
|  | <p>C11 Protected areas increased and improved Species, habitats and geology of national and international importance in Scotland are safeguarded in a suite of protected areas, contributing to halting biodiversity loss. By August 2017 some 23% of terrestrial and inland water areas and 18% of marine areas had been brought under site protection, with over 80% of designated features in favourable (including recovering) condition. Although these percentages exceed the Aichi Target and meet the national target, more work is still required on management, representativeness, integration, and connectivity of sites.</p> |  |
|  | <p>C12 Extinction prevented In historical times, there has been only one case of a Scottish species going extinct worldwide: the great auk which went extinct in Scotland in 1840, and globally in 1844. From a biological viewpoint, in many cases it is appropriate to look at extinction risk across the British Isles as a whole, as well as the Scottish context. The UK Indicator shows some evidence of a slowing in the rate of decline in abundance of the UK's priority species. There is a mixed picture from Scotland's species indicators: with seabirds, waders, upland birds, and specialist butterflies in decline; generalist butterflies, woodland birds, and geese are increasing. Further work is required to develop a Scotland priority species indicator, and improvement of the taxonomical breadth of our GB-Red Lists, and indicator suite.</p> |  |
|  | <p>C13 Genetic diversity maintained There is no universally agreed metric of how genetic diversity should be measured and the subject itself is complex. Scotland is at the forefront of developing such metrics and is also a partner in UK-wide work to safeguard genetic diversity. Comprehensive reporting on Target 13 involves addressing several knowledge gaps/issues. Despite the progress on plant health and on individual species, such as the Scottish wildcat, until these gaps are understood, it would be premature to say we are on target.</p> |  |

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| Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services. | | |
|  | <p>D14 Ecosystems & services safeguarded Scotland has a variety of ecosystems which provide essential services for environmental, cultural, recreational and economic purposes. These include large rivers and lochs, woodlands along with an extensive coastline and marine area. The overall measure shows Scotland's natural capital deteriorated historically until the 1990s. Most habitat types were declining during this period, especially bogs and grassland. However, stocks have stabilised or slightly improved since 2000. Numerous policies, directives and legislation help us to safeguard these ecosystems. The biodiversity duty placed on all public sector bodies in Scotland further protects them. Clean drinking water is widely available with 99.91% of samples at point of use meeting EU Drinking Water Directive standards.</p> |  |
|  | <p>D15 Ecosystems restored & resilience enhanced Reversing ecosystem degradation, loss and fragmentation are key aims of the Scottish Biodiversity Strategy. Considerable efforts have been made on restoration of some of Scotland's most threatened habitats over the past few years. In particular peatlands and rivers have seen focused efforts which help towards Scotland's climate change targets. Rivers have seen continuous improvement in condition over the last 25 years. The area of woodland has more than trebled since 1900, though much of this is non-native commercial plantations.</p> |  |
|  | <p>D16 Nagoya protocol in force & operational The UK signed the Nagoya Protocol in 2011. Following public consultation in 2014 the Nagoya Protocol (User Compliance) Regulations 2015 were laid in the UK Parliament on 23 March 2015. Guidance on compliance and provision of an Access and Benefit-sharing (ABS) information platform provides a key tool for facilitating the implementation of the Nagoya Protocol.</p> |  |

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| Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building | | |
|  | <p>E17 NBS & AP adapted as policy instruments The Scottish Biodiversity Strategy; 2020 Challenge for Scotland's Biodiversity was approved by the Scottish Cabinet and published in 2013. This document sets the strategic direction for biodiversity action in Scotland towards 2030. The Route Map to 2020, published in 2015, provides a clear focus for activity which will significantly contribute to the Scottish Biodiversity Strategy. Both documents represent the policy instruments for biodiversity in Scotland.</p> |  |
|  | <p>E18 Traditional knowledge respected Scotland's traditional languages and the knowledge held by their speakers have gained greater protection since 2005, following the Gaelic Language (Scotland) Act 2005. New research is safeguarding and sharing traditional knowledge. The rights of communities have been enhanced through several pieces of legislation, particularly since 2000. Traditional land management practices, such as crofting, benefit nationally and internationally important biodiversity.</p> |  |
|  | <p>E19 Knowledge improved, shared and applied Scotland has made significant efforts in data delivery and data management systems with The NBN Atlas Scotland, Scotland's Environment Web, and the Marine Scotland data publishing portal all contributing greatly to improving sharing and application of Scotland's knowledge. Volunteers and researchers make large contributions to the numbers of species and habitats records and the way we use them. More work is required to address data recording and analysis gaps. Improved information on the consequences in the loss, values, and functions of Scotland's biodiversity, could aid us in prioritising conservation action.</p> |  |
|  | <p>E20 Financial resources increased The UK indicator shows a long term increase in financial resources for biodiversity, but a recent short term decline. There is currently no Scottish indicator for this target. Total funding figures for most of the Scottish organisations that have some biodiversity remit have also declined in the last 5 years. Work is required to produce a Scotland indicator.</p> |  |