

**Sixth National Report to the
United Nations Convention on Biological Diversity:
United Kingdom of Great Britain and Northern Ireland**

Overview of the UK Assessments of Progress for the GSPC Targets

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Aichi Target	Assessment conclusion	Assessment summary
Objective I: Plant diversity is well understood, documented and recognized		
GSPC Target 1 <i>An online flora of all known plants.</i>	On track to achieve target at national level	This assessment is based primarily on the UK's significant contribution to the development of online documentation of the world's flora. The UK has also made a substantial additional contribution to scientific and public understanding of the value of plant diversity, through its national and international science programmes.
GSPC Target 2 <i>An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action.</i>	On track to achieve target at national level	The assessment is based on the UK's progress with conservation status assessments of native plants. Assessments for all vascular plants, lichens, bryophytes and some fungi are complete. A new plant monitoring scheme is being implemented, and a third Atlas of British Flora is due to be published in the next couple of years. Information is also presented below on new analysis techniques using Bayesian statistics allow trends to be calculated for many of UK species, including a selection of bryophytes and lichens. The UK has also made a substantial contribution to international plant status assessments.
GSPC Target 3 <i>Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared.</i>	On track to achieve target at national level	The Royal Botanic Gardens, Kew, Royal Botanic Garden Edinburgh, and the National Museum of Wales have international reputations for science, and are taking extensive and effective action to make data, mapping and assessment tools widely available and to engage the public in conservation science. The UK has a long history of plant research and publications, ranging from the publication of the first British flora (the Cambridge Catalogue) by John Ray over 350 years ago, through to the first Atlas of the British Flora in 1962, a revised Vascular Plant Red List in 2005, to the publication of genetic barcodes for all vascular plants in Wales in 2012 – a world first, which has then been followed up in the rest of the UK. Information on the distribution of species can be found online via the National Biodiversity Network Atlas https://nbnatlas.org/ , and the BSBI website https://bsbi.org/maps-and-data . Plant Link UK, and the country Plant Links provide means for sharing and disseminating information and methods (http://www.plantlife.org.uk/uk/our-work/working-partners/plantlink/plant-link-uk-plink-uk).
Objective II: Plant diversity is urgently and effectively conserved		
GSPC Target 4 <i>At least 15 per cent of each ecological region or vegetation type secured through</i>	Progress towards target at national level but at an	The UK's climate, landscape, and geology combine to support a broad range of plant communities. A large proportion of the good quality habitat that remains is protected by statutory designations such as Sites of Special Scientific Interest (Areas of Special Scientific Interest in Northern Ireland). The vast majority of such sites have management plans that are actively being implemented, however it takes time to restore land in unfavourable condition back to favourable condition – for that reason the condition of many areas is classed as 'unfavourable recovering'. There is therefore evidence of protecting and improving the condition of many

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<i>effective management and/or restoration.</i>	insufficient rate	species and habitats. However, some habitat types, especially in uplands, have a significant proportion of their resource outside protected sites. It has not been possible to make an assessment of the proportion involved, or whether this habitat is managed effectively through agri-environment schemes or woodland management programmes. It is therefore not possible to say whether progress has been sufficient, hence the choice of the 'insufficient but progressing' category. Implementation of GSPC Target 4 should also be seen in the context of implementation of Aichi Target 15 – see Section III of this report for a description of work to restore woodlands and peatlands.
GSPC Target 5 <i>At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity.</i>	On track to achieve target at national level	This assessment is based primarily on the extent of action to protect and manage plant diversity in the UK, although the UK has also made significant contributions to the identification and protection of plants overseas. There are 165 Important Plant Areas (IPAs, Plantlife: http://www.plantlife.org.uk/uk/nature-reserves-important-plant-areas/important-plant-areas) in the UK; more than 90% of which are protected at least in part through statutory designations such as Sites of Special Scientific Interest and Special Area of Conservation. Plants will form some of the features of interest for which sites are notified both directly where species are notified in their own right, but also as part of the habitats that are more commonly the notified features on protected areas. The percentage of features, or area, of A/SSSIs in favourable or unfavourable-recovering condition increased from 67% in 2005, to 86% in 2013, and remained stable at 85% in 2018. The proportion of features or area of land in unfavourable-recovering condition has increased from 14% in 2005 to 35% in 2018. These changes reflect improved management of sites, but may also be affected by a greater number of sites/features having been assessed over time.
GSPC Target 6 <i>At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity.</i>	Progress towards target at national level but at an insufficient rate	The assessment is based on progress with uptake of sustainable management practices in UK forestry and agriculture (which has grown over the last 10-20 years, although remains below 75%. Progress is therefore assessed as towards the target, but insufficient, although some conditions, such as the UK Forest Standard, apply to all areas, irrespective of uptake of specific incentive schemes. Since 2007, the proportion of UK woodland certified as sustainably managed has been about 43%. The area of land in targeted Agri-environment schemes has however declined since 2010; in 2017 2.8 million hectares (16% of the usable agricultural area of 17.5 million hectares) was managed within a higher-tier agri-environment scheme.
GSPC Target 7 <i>At least 75 per cent of known threatened plant</i>	Progress towards target at national level	This assessment is based on the UK's progress with securing favourable condition or positive management to the suite of protected sites, although it has not been possible to say whether the quantitative target has been met. The 2018 update of the Great Britain red list assessment of vascular plants concluded that 329 species were in the categories Extinct in the Wild, Critically Endangered, Endangered or Vulnerable. Twenty-one UK

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<i>species conserved in situ.</i>	but at an insufficient rate	plant and lichenised fungi species are listed on the annexes of the EU Habitats Directive. The UK national report on the Habitats Directive in 2013 concluded that 29% of the plant species assessed were in favourable or improving conservation status. Across the UK, lists of species have been developed to guide conservation work. There are 2,890 species in total when the four Country lists are combined. Of these 1,786 species (62%) are plants, fungi or lichens. Plants are the designated feature on many of the UK's protected areas, both directly as individual species, and as components of habitats. Most of these species are likely to be on protected sites, and where they are features of interest, will have management in place to ensure their conservation. It is not however possible to state how many sites exist for particular species, hence the assessment of 'progressing but insufficient'.
GSPC Target 8 <i>At least 75 per cent of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes.</i>	On track to achieve target at national level	The assessment is based on progress with ex-situ conservation of the UK flora, although the UK has also made a substantial contribution to ex-situ conservation of flora worldwide. RBG Kew's Millennium Seed Bank UK Programme comprises a suite of projects to secure <i>ex situ</i> collections of the UK Flora and to make these available for use in recovery and restoration programmes. As of March 2018 the Millennium Seed Bank held 7,435 wild-origin and regenerated (cultivated) collections from the UK, comprising 2,077 native and archeophyte taxa. This represents 75% of the UK's total native and archeophyte flora and 78% of threatened taxa. Seeds are made available for species recovery and habitat restoration projects.
GSPC Target 9 <i>70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, while respecting, preserving and maintaining associated</i>	Progress towards target at national level but at an insufficient rate	The UK is relatively rich in wild relatives of crops, landraces of cereal, vegetable and fruit crops, and traditional orchard trees. Defra funds a number of plant genebanks, including the national fruit collection and UK vegetable genebank. During the first five years of the UK National Tree Seed Project 10 million seeds from 60 native tree species have been collected. In addition, thousands of taxa are held in national plant collections, covering a range of horticultural species and cultivars. A study of the UK National Tree Seed Project's collections of Ash (<i>Fraxinus excelsior</i>) suggests that over 90% of the UK genetic diversity of this species has been conserved by the project. The UK has not undertaken an assessment of how many crops are stored within its genebanks, and is not therefore able to assess if that is above or below 70%. However the UK genebanks do contain considerable number of accessions of crop plants, so the assessment of 'progressing' has been made. At a global scale, the Millennium Seed Bank holds accessions for 200 taxa related to 25 of 29 of the world's most important crops.

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<i>indigenous and local knowledge.</i>		
GSPC Target 10 <i>Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded.</i>	Progress towards target at national level but at an insufficient rate	The UK has developed robust frameworks for the identification of invasive non-native species (INNS) and the prioritisation of their management. Comprehensive risk analysis processes are in place (including horizon scanning, risk assessment and risk management), as are new information systems and contingency plans to support rapid response. For more widespread species, long term management is being undertaken to control some, but not all, of the most problematic INNS, where feasible. In spite of this, the impact of INNS species in the UK remains significant and is continuing to increase across terrestrial, freshwater and marine environments (UK Biodiversity Indicator B6, http://jncc.defra.gov.uk/page-4246). For more details see Target 9 in Section III of this report.
Objective III: Plant diversity is used in a sustainable and equitable manner		
GSPC Target 11 <i>No species of wild flora endangered by international trade.</i>	Progress towards target at national level but at an insufficient rate	Illegal wildlife trade is an urgent global issue, which not only threatens some of the world's most iconic species with extinction, but also damages sustainable economic growth and the livelihoods of vulnerable people in rural communities. In October 2018 the UK hosted the fourth in a series of global conferences on illegal wildlife trade. The conference declaration (https://www.gov.uk/government/topical-events/london-conference-on-the-illegal-wildlife-trade-2018/about) affirmed the participants' determination to tackle illegal wildlife trade as serious transnational organised crime, to work in partnership, and to reduce demand. More details of work undertaken by the UK are provided in the assessments of Targets 12 and 20 in Section III of this report.
GSPC Target 12 <i>All wild harvested plant-based products sourced sustainably.</i>	Progress towards target at national level but at an insufficient rate	The scale of wild harvesting of plant-based products is unknown, but considered to be relatively small in scale. The legalities of foraging are governed by three main pieces of legislation in England: The Theft Act, 1968, The Wildlife and Countryside Act, 1981 and the Countryside Rights of Way Act, 2001. Equivalent legislation applies in Scotland, Wales, and Northern Ireland. Foraging for wild food stuffs has the potential to impact local populations if it is carried out in an unsustainable fashion: some landowners, such as the Woodland Trust, do not allow foraging to take place for commercial purposes, only for personal use https://www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging/foraging-guidelines/ , and Scottish Natural Heritage have published a wild mushroom code https://www.nature.scot/plants-animals-and-fungi/fungi . In the absence of information about the levels of wild harvest that are occurring a conservative assessment of 'progress towards target' has been made, as if the 'on track' assessment were to be made that would have to be with a high degree of uncertainty.

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GSPC Target 13 <i>Indigenous and local knowledge innovations and practices associated with plant resources maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care.</i>	No significant change at national level	In the UK and Overseas Territories there are no indigenous peoples and local communities (IPLCs) as defined in Article 8j of the Convention. As a result, GSPC Target 13 has been assessed as no significant change. The needs, knowledge and practices of IPLCs are recognised and integrated into the UK's international work.
Objective IV: Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on earth is promoted		
GSPC Target 14 <i>The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes.</i>	On track to achieve target at national level	A wide variety of communication, education and public awareness programmes are carried out across the UK, ranging from those at substantial visitor attractions such as the the Royal Botanic Gardens, Kew and Royal Botanic Garden Edinburgh, to activities of NGOs such as Plantlife and the Botanical Society of Britain and Ireland, and displays at many local attractions which often put plants in to a local and historical context. Traditional and social media outreach is also carried out, including gardening television programmes with elements on plant conservation.
Objective V: The capacities and public engagement necessary to implement the Strategy have been developed		
GSPC Target 15 <i>The number of trained people working with</i>	Progress towards target at national level	Training courses, both for professionals and amateurs, are widely available, and there is a multitude of UK expertise which can be drawn upon to teach local and international students in UK Universities. The UK has world leading institutions, but it is difficult to assess what would constitute an 'appropriate' number of people and facilities. Having noted that, it is likely that the number of taxonomic specialists in UK institutions has

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<i>appropriate facilities sufficient according to national needs, to achieve the targets of this Strategy.</i>	but at an insufficient rate	decreased in the last twenty years. Conversely, the development of the internet and online identification resources has made taxonomic resources and identification guides much more easily accessible.
GSPC Target 16 <i>Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy.</i>	On track to achieve target at national level	At various scales the UK has networks and partnerships for plant conservation in place. The forums Plant Link and PlantNetwork have been established to further plant conservation and the delivery of the Global Strategy for Plant Conservation regional and nationally. Internationally, the UK is a world leader. RBG Kew and RBGE are members of a number of global partnerships including the Global Partnership for Plant Conservation. Moreover, in RBG Kew and RBGE the UK has world renowned institutions for plant conservation.