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 Aichi Targets

March 2019

Please cite as: JNCC. 2019. 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 Aichi Targets. JNCC, Peterborough.

For further information visit: <u>http://jncc.defra.gov.uk/page-7731</u>

Aichi Target	Assessment conclusion	Assessment summary
Strategic Goal A: Ad	ddress the unde	rlying causes of biodiversity loss by mainstreaming biodiversity across government and society
Aichi Target 1 By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	Progress towards target but at an insufficient rate	This target sets out two main <i>outcomes</i> . People in the UK should be <i>aware</i> of values of biodiversity, and of the <i>actions</i> they can take to conserve and use it sustainably. In this assessment, it has been assumed that either the majority of or an increasing proportion of the population should be aware of these issues. Across the UK, there is limited trend data and specific information on people's awareness of the values of biodiversity. However, there is information from Government surveys collecting data from approximately 10,000 individuals across the four countries of the UK to evaluate the public's awareness of the threats to biodiversity and also on whether people are taking action; for example, through volunteering. As data are collected across the countries via separate surveys with differing regularity, data from all four countries are only available for 2014. These data indicate approximately half of the UK population (48%) report at least some awareness of the threats to biodiversity. The data also indicates that 31% of the population report taking at least some action. Levels of volunteering have increased slightly over the period since 2010. There have also been a number of successful campaigns across the four countries of the UK, operated by Government, academic bodies and the voluntary sector. These have generated valuable data, created new habitat and established a range of community conservation projects. Taken together, this evidence suggests progress towards the target.
Aichi Target 2 By 2020, at the latest, the biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being	On track to achieve target	 This target sets out two main <i>actions</i>: that biodiversity should, firstly, be integrated into national and local planning processes and secondly, incorporated into national accounting and reporting systems relevant polices. Integration into poverty reduction strategies for Overseas Development Assistance is considered in section IV. This assessment is based on whether the relevant <i>actions</i> have been taken. <i>Outcomes</i> of such biodiversity mainstreaming initiatives are considered in other target assessments. In the UK biodiversity values have been integrated into a range of planning, accounting and reporting systems, including: National natural capital asset and ecosystem service accounts published by the Office of National Statistics; Infrastructure development plans;

Aichi Target	Assessment conclusion	Assessment summary
incorporated into national accounting, as appropriate, and reporting systems.		 Planning policies at the national and local level on land and at sea; Scotland's Natural Capital Asset Index; and, Well-being of Future Generations (Wales) Act 2015. Progress is therefore assessed as on track to reflect the fact that action is in place across the various plans and policies. The UK Government and Devolved Administrations acknowledge however that these polices should be kept under review and have set ambitions to go further, for example, in England, by embedding net gain polices across local and infrastructure planning.
Aichi Target 3 By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-	Progress towards target but at an insufficient rate	This target sets out two main <i>actions:</i> the elimination, phasing out or reform of <i>harmful incentives</i> ; and the development and application of <i>positive incentives</i> . This assessment is based on whether the relevant <i>actions</i> have been taken. <i>Outcomes</i> of such biodiversity mainstreaming initiatives are considered in other target assessments under Targets 5, 6, 7 and 12. The UK, in common with other countries across the European Union, has made significant progress with reforming harmful subsidies – particularly with those subsidies that incentivised over-production or overharvesting in agriculture, forestry and fisheries. In particular, the introduction of greening measures in 2013 (which built on the decoupling of agricultural support from production in 2003), along with the measures proposed in the Clean Air Strategy published in January 2019, will reduce ammonia emissions from the agricultural sector to deliver key atmospheric pollutant emission reduction targets under the National Emissions Ceiling Directive. In addition, a range of incentives have been developed and implemented to achieve biodiversity outcomes and promote sustainable management. These include agri-environment measures, sustainable woodland management payments and the introduction in 2014 of the European Maritime and Fisheries Fund. There has therefore been progress across both elements of this target. Progress is assessed as insufficient because the countries of the UK recognise some ongoing declines of woodland, farmland and marine biodiversity and that there have been some recent reductions in areas under agri-environment schemes which could impact the target if land of high biodiversity value comes out of those schemes, suggesting that there is scope to improve or target uptake of positive incentives more effectively.

Aichi Target	Assessment conclusion	Assessment summary		
economic conditions.				
Aichi Target 4 By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of	Progress towards target but at an insufficient rate	This target sets out one main <i>action</i> and one main <i>outcome</i> . It requires plans for sustainable consumption and production to be in place, and that implementation of these plans keeps the UK's natural resource use within safe ecological limits. 'Safe ecological limits' are not well defined for UK production and consumption, and the assessment is based here on the potential to further reduce the UK's consumption of natural resources, improvements in the rate of reuse and recycling of resources used, and whether the impact of the use of resources on the natural environment has substantially reduced. Across the UK, the Government and the Devolved Administrations have developed and are implementing a number of plans for sustainable production and consumption. For example, the Industrial Strategy and Clean Growth Strategy. The UK is committed to becoming a low carbon economy and has made significant reductions in greenhouse gas emissions already; the Climate Change Act sets legally binding targets for emissions. The UK is on track to exceed targets leading up to 2022 - though acknowledges that further action is required to replicate progress in the energy sector across the wider economy, including emissions from soil ecosystems. The UK continues to develop its circular economy by increasing recycling and reducing waste and has strategies in place to support further progress. Evidence also indicates that over 90% of large companies in UK consider environmental issues in their supply chain and the majority have a form of environmental		
natural resources well within safe ecological limits.		management system in place. It is therefore assessed that progress has been made. The target also requires that plans for sustainable production and consumption keep the use of natural resources within safe ecological limits. Such plans need action by a variety of organisations, including governments, NGOs and businesses. Although 'safe ecological limits' are not fully understood, the UK's global material footprint (raw material consumption, accounting for imports and exports of materials) fell 26% from a peak of 890 million tonnes in 2001 to around 659 million tonnes in 2013.		
		The progress to this target is assessed as insufficient to reflect the fact that the UK Government has acknowledged in its 25 Year Environment Plan that more can be done to reduce the impact of UK consumption on the rest of the world. Evidence indicates that there are further opportunities for businesses to generate substantial financial savings by increasing resource efficiency. A 2017 study found that a series of no or low-cost interventions by businesses could deliver business savings of around £3 billion per year through a more resource efficient use of materials and waste.		
Strategic Goal B: R	Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use			
Aichi Target 5 By 2020, the rate of loss and	Progress towards target but at	This target requires two <i>outcomes</i> : a reduction in the rate of loss and an improvement in condition and connectivity of natural habitats (and in this section, the UK has interpreted this as including both natural and semi-natural habitats).		

Aichi Target	Assessment conclusion	Assessment summary
degradation, and fragmentation, of natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	an insufficient rate	Evidence on the changes in extent and condition of natural and semi-natural habitats in the UK is incomplete. However, data on the condition of key protected habitats and recent trends in extent of terrestrial broad habitats show that the rate of loss and degradation of natural habitats in the UK has slowed or stabilised following extensive loss and fragmentation during the 20th century. Positive trends in the extent of some terrestrial broad habitats shows some evidence of recovery and positive results have also arisen from targeted restoration programmes such as the peatland examples referred to in this 6 th National Report. There is evidence of improving condition and connectivity for some natural and semi-natural habitats. Data on protected areas in the UK show improving condition of the habitats they protect, but action over a considerable timescale will be needed to restore all of them to favourable condition. The area of the UK covered by broadleaved woodland is increasing and each of the countries of the UK has also taken action to restore and re-create habitat outside the protected site series. Set against these improvements, there have been some ongoing losses of natural and semi-natural habitat, for example through neglect or development, as well as ongoing declines of a number of species groups. In addition, a proportion of habitats remain in a degraded state, particularly those outside protected sites. While understanding of marine habitat condition continues to develop, there is evidence of widespread human disturbance of marine habitats in UK waters. There has been significant progress in reducing rates of loss and degradation in natural and semi-natural habitats, and some progress in improving condition and connectivity, for example in woodland habitats, but the target is assessed as insufficient, given the ongoing imperative to maintain action to further reduce past degradation and fragmentation.
Aichi Target 6 By 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in	Progress towards target but at an insufficient rate	This target requires <i>action</i> to ensure that fish stocks are harvested sustainably and threats to those stocks are addressed. Although the target also covers invertebrates and aquatic plants, the UK assessment is based solely on an assessment of the status of fish stock using information on progress towards achieving maximum sustainable yield (MSY). The UK has made significant progress in introducing sustainable fisheries measures, including landing obligations, gear subsidies and incentives, accreditation schemes, and area-based management measures. UK fish stocks are now showing signs of recovery following their historic over-exploitation as the proportion of stocks fished at or below the level capable of producing MSY, and the proportion of stocks with biomass above the level capable of producing MSY, have increased significantly since 1990; both to around 50%. In addition, increases in the proportion of large fish in demersal fish populations have been recorded in UK regional seas. Progress is assessed as insufficient because recovery of fish populations has not been consistent across all UK regional seas and ongoing action is required to ensure all stocks are fished at sustainable levels.

Aichi Target	Assessment conclusion	Assessment summary
place for all depleted species, fisheries have no significant adverse impact on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.		
Aichi Target 7 By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	Progress towards target but at an insufficient rate	This target requires management measures to be in place, and the assessment has interpreted 'ensuring conservation of biodiversity' by examining whether typical species populations associated with agricultural ecosystems, aquaculture and forestry are stable or increasing. Progress has been made in regulation and incentives to improve the sustainability of agriculture, aquaculture and forestry in the UK. Monitoring, particularly of our agri-environment incentives has demonstrated a significant positive impact on biodiversity, particularly where they are targeted to areas of high existing value or potential, although such positive impacts are often localised. There has been a steady increase over the last 20 years both in the area of land in higher-level or targeted agri-environment agreements in the UK and in the proportion of woodland certified as being sustainably managed. The former, however, has started to fall in the last few years and the latter has been broadly stable at around 43% since 2010. Furthermore whilst indices of abundance for woodland birds show some stabilisation in recent years; and despite some targeted recovery for some farmland bird species the overall farmland bird index has continued to decline. Aquaculture in the UK is dominated by Scottish salmon production. The industry is strongly regulated, and plans are in place to manage potential issues such as sea lice, and to ensure the sustainability of the fishery.
Aichi Target 8 By 2020, pollution, including from	Progress towards target but at	The target requires <i>action</i> to reduce pollution from all sources, with a particular focus on nutrient run-off and deposition from the atmosphere. The assessment considers both the trajectory of pollution levels and the distance from levels where they are considered not detrimental using standards applied in the UK.

Aichi Target	Assessment conclusion	Assessment summary
excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	an insufficient rate	The UK has made progress in reducing levels of air, water and marine pollution, these include long-term reductions in air pollutants that, in turn, have led to a decline in the area of sensitive habitats being harmed by acidification, and long-term reductions in hazardous materials in the marine environment, supported by recent initiatives to tackle plastic waste. However, progress is assessed as insufficient because specific some sources of pollution remain above target levels. Approximately 78,000km ² of UK terrestrial habitats is sensitive to acid deposition. About 73,000km ² is sensitive to eutrophication; much of this is sensitive to both. The area of sensitive habitat exceeding critical loads for eutrophication (a level above which nutrient input from atmospheric deposition is considered to impact on ecosystem function and biodiversity) has shown little change since 2010, but the area affected by acid deposition has decreased from 47% to 42% between 2010 and 2015. Sixty five per cent of inland and coastal surface waters remain below target levels for ecological status under the Water Framework Directive. Although countries across the UK have recently introduced a range of measures to tackle marine litter, since 2010, levels of marine litter, especially marine plastics, has continued to rise, on beaches, in the water column, on the seafloor and in seabird stomachs.
Aichi Target 9 By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated and measures are in place to manage pathways to prevent their introduction and establishment of invasive alien species.	Progress towards target but at an insufficient rate	This target requires <i>action</i> to be in place to stop the establishment and spread of invasive non-native species. The assessment considers the actions in place to identify priority invasive non-native species (INNS); identify and control pathways of introduction and other measures to control or eradicate INNS. The assessment also considers the <i>outcomes</i> of these measures. INNS are managed on a Great Britain and all-Ireland basis in the British Isles, with countries working closely together to co-ordinate their efforts. Priority species have been identified following extensive scientific review and expert input and a framework to prioritise their management have been developed. 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 established INNS, long term management is being undertaken to control some, but not all, of the most invasive INNS where feasible. In the recent past the GB has intercepted two species (Asian hornet and raccoon), and eradicated three species (African clawed toad, fathead minnow and black bullhead), Pathway management has focussed on a number of initial priority pathways and a comprehensive pathway prioritisation exercise in Britain is due to be completed by the end of 2018. The strategic approach adopted by UK countries has led to the successful interception and eradication of INNS with further eradications underway. Despite strong action, the number of INNS established in Britain has remained constant, in terrestrial environments, and has increased in the freshwater and marine environment. The countries of the UK acknowledge that the impact and risk from INNS species in the UK remains significant and that there is a need to continue to develop plans to reduce the risk from all high priority pathways for invasive non-native species introduction and to raise awareness of the need for strong biosecurity. For this reason, progress is assessed

Aichi Target	Assessment conclusion	Assessment summary		
		as insufficient. INNS are known to be a pressure on many of the Overseas Territories; the logistics for eradication can be hugely challenging, but some successes have been recorded.		
Aichi Target 10 By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	Progress towards target but at an insufficient rate	This target requires <i>action</i> to be in place to minimise impacts on vulnerable ecosystems. The assessment considers impacts from multiple sources, including climate change itself. It considers a range of vulnerable terrestrial, marine and coastal ecosystems in the UK and Overseas Territories. There is strong evidence that climate change is affecting UK ecosystems in a variety of complex and interacting ways, often with negative consequences, and that these impacts are likely to increase as the climate continues to warm. Terrestrial ecosystems such as uplands, woodlands, heathlands and wetlands are vulnerable to rising temperatures and changes in rainfall and seasonality. Coastal ecosystems such as saltmarsh, sand dunes and machair are vulnerable to sea-level rise and increased air and water temperature. Marine ecosystems, such as corals and other biogenic reefs, are also vulnerable to increased water temperature and ocean acidification. Information on other pressures faced by UK species and habitats are given in the assessments of progress for Targets 5 to 9. In response, the UK has made significant reductions in greenhouse gas emissions and has set ambitious targets for further reductions. Management has been introduced to minimise the impact of wider anthropogenic pressures and enhance the resilience of vulnerable ecosystems, for instance through the designation of protected areas and habitat restoration initiatives. On both cold and warm water coral reefs action has been taken across the UK and Overseas Territories to safeguard these ecosystems, for instance through the designation of protected sites and restrictions on fishing practices. However, though there have been significant reductions in the UK's greenhouse gas emissions the Government recognises the need for further reductions to minimise the impacts of climate change; ambitious future carbon budget targets have been set. Despite efforts to minimise the impacts of anthropogenic pressures and enhance ecosystem climate change; ambitious future carbon		
Strategic Goal C: In	Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity			
Aichi Target 11 By 2020, at least 17% of terrestrial and inland water and 10% of coastal and marine areas, especially areas of particular	On track to achieve target	This target sets a quantitative <i>outcome</i> (extent of protected areas – covering all protected area types identified by the IUCN, including National Parks and Ares of Outstanding Natural Beauty). The assessment also considers whether the more qualitative parts have also been addressed (representative and well-connected systems, effectively and equitably managed). The UK has made significant progress in ensuring its species and habitats of national and international importance are safeguarded in a network of marine and terrestrial protected areas. The UK's protected area network currently (as of March 2018) covers 28% of the UK's land area and 24% of its sea area, and further designation work is expected to ensure key species are adequately protected. The UK's protected area		

	network has been designated following principles to help identify they are ecologically representative and well-
	network has been designated following principles to help identify they are ecologically representative and well- connected. Civil society are involved in the protected area designation and management process through appropriate consultation processes or as stakeholders in management groups. Over 60% of sites within the UK protected area network are compliant with global management effectiveness criteria, as supported by positive trends seen in the condition of the UK protected areas. Nevertheless, the UK recognises that continued management is necessary to ensure the full recovery of protected habitats and species in the UK. In particular, work to fully implement marine protected area management measures and monitor their effectiveness is ongoing.
Progress towards target but at an insufficient rate	This target relates to known threatened species and has two components: prevention of extinction and improvement in conservation status. CBD guidance recommends that assessment of status is based on IUCN red list categories, or assessments of change in the distribution or abundance of species. There is limited information change information on for IUCN status categories in the UK. The UK, has therefore used data on relative abundance and distribution of selected species. This has the advantage that data from a greater number of species can be considered in the assessment. However, these data are complex, with data showing different patterns for different groups of species and requires a qualitative assessment, rather than a simple comparison of status in 2011 vs status in 2018. The evidence of ongoing decline in conservation status is clear, and the UK has made its assessment against this background of historical, long-term, widespread decline. Good progress has been made in some limited areas, but it is acknowledged that overall conservation status of threatened species is still declining. There has been progress in improving the status (abundance and/or distribution) of some nationally and
ta ta	owards arget but at an insufficient

Aichi Target	Assessment conclusion	Assessment summary
		Government, conservation non-governmental organisation, academics and the landowning community. Examples include successful re-introductions of the white-tailed eagle, short haired bumble bee, beaver in Scotland, and chequered skipper in England as well as recovery programmes for red kite and natterjack toad. Knowledge gaps remain in the number and trends of threatened species in the UK, but progress has been made in assessing the threat of extinction to UK species, and with monitoring indicator species to help inform a broad assessment of the status of UK species and prioritise management. Overall 14% of UK species have had their conservation status assessed; 21% of these are threatened but none have gone extinct since 2010, although not all of the UK flora and fauna has been assessed.
		Progress is assessed as insufficient because evidence suggests that there have been widespread and significant ongoing declines across many species (for example for priority species as a group and for groups such as farmland birds, specialist butterflies and other pollinating insects). Whilst declines have not been on the scale seen in the last Century, progress has not been sufficient to secure an overall improvement in their status.
Aichi Target 13 By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and wild relatives, including other socio- economically as well as culturally valuable species is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic	Progress towards target but at an insufficient rate	The target requires <i>action</i> to be in place to conserve genetic diversity in farmed or cultivated species and their relatives. The UK assessment also considers the <i>outcomes</i> of those actions, including the status of native breeds of farm animals and the genetic diversity within <i>ex-situ</i> collections in gene banks. The UK is a World leader in ex-situ seed conservation. The Millennium Seed Bank at the Royal Botanic Gardens in Kew contains 75% of the UK's total native and archeophyte plant species. The total number of accessions into UK seed banks has continued to rise since 1960 and there has been a 15% increase between 2013 and 2018 in the Enrichment index – a measure of plant genetic diversity in UK gene banks. Wider measures to conserve biodiversity also safeguard genetic resources in-situ. A significant proportion of UK crop wild relatives (CWR) are conserved within the protected site network, and in some areas of the UK, for example on the Lizard Peninsula in England, site management has started to explicitly consider the ecological requirements of CWR. CWR are commonly associated with linear habitat features (e.g. hedgerows) thus it is anticipated agri-environment measures to conserve these habitats in the UK, will benefit CWR conservation. The UK has also made progress with the conservation of genetic diversity of native breeds of livestock. No native breeds of UK livestock at risk have been lost in the last two decades, despite recent declines in the effective population size of some native horse and pig breeds. Significant progress has been made on the exsitu conservation of genetic resources. The UK have a number of established genebanks for the preservation of genetic resources of plant species and animals, for example the UK National Livestock Gene Bank and the Millennium Seed Bank. The UK government also consults regularly with its expert committee on farm animal genetic resources.
diversity.		Strategic approaches to strengthen the conservation of genetic diversity are in place. For example, in England the national biodiversity strategy sets out plans for genetic conservation, including support for ex-situ collections and the integration of rare and native breeds in agri-environment management. In addition, the UK

Aichi Target	Assessment conclusion	Assessment summary
		has contingency plans in place to provide protection to at risk breeds in the event of exotic disease outbreak, within the constraints of controlling the disease. Despite significant progress implementing strategies for the conservation of genetic resources, particularly for ex-situ seed conservation, progress is assessed as insufficient in recognition of published declines in the effective population size of some native animal breeds. Furthermore, the UK Government is exploring options for in-situ management of crop wild relatives.
Strategic Goal D: E	nhance the bene	efits to all from biodiversity and ecosystem services.
Aichi Target 14 By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities and the poor and vulnerable.	Progress towards target but at an insufficient rate	This target requires that the provision of essential ecosystems services, such as climate mitigation, flood protection, pollination and wildlife conservation should be maintained. The assessment considers whether the status of key services has been assessed, and the status of supporting habitats and species. Significant progress has been made assessing the value and condition of ecosystem services in the UK, including the development of natural capital accounting systems. A variety of initiatives have been implemented to safeguard ecosystems in the UK, including the designation of protected areas to safeguard ecosystems at large and policy to protect specific services, such as national pollinator strategies. Positive trends have been recorded in the provision of climate regulation services by terrestrial ecosystems, such as woodlands, and trends in some key services have stabilised or are recovering following historic decline, for example the indicator on the proportion of large fish in the North Sea. Through the Darwin Initiative, the UK is also funding biodiversity conservation projects that support developing countries and which also reduce poverty and gender inequality. The Darwin Initiative uses criteria and guidance to ensure all projects take account of the needs of local communities, the welfare and wellbeing of local people, and gender equality. This integration is tested through monitoring and evaluation of projects.
Aichi Target 15 By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has	Progress towards target but at an insufficient rate	This target has two main components. It requires that the contribution from ecosystems to carbon stocks has been enhanced; and that 15% of degraded ecosystems have been restored. The assessment considers the contribution of natural, semi-natural and agricultural ecosystems to carbon stocks using information from the Land Use, Land Use Change and Forestry inventories. For the target to be met these habitats should be in favourable condition (for wildlife conservation) and carbon stocks should be increasing. It has not been possible to directly measure whether 15% of degraded ecosystems have been restored – there are some difficult definitional issues in deciding at what point in time a degraded ecosystem is

Aichi Target	Assessment conclusion	Assessment summary
been enhanced, through conservation and restoration, including restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.		restored following management intervention, including, for example, the baseline against which to assess success. The UK has ambitious future targets on the reduction of carbon emissions and in the Clean Growth Strategy set out actions to achieve these. The importance of key ecosystems, namely peatlands and woodland, in the sequestration of carbon is recognised. There has been significant progress in enhancing carbon stocks through the management of terrestrial ecosystems in the UK. The Land Use, Land Use Change and Forestry greenhouse gas inventories show that the contribution of terrestrial ecosystems to reducing greenhouse gas emissions since 1990, particularly from the forestry sector, and as arable land has been converted to grassland. A number of initiatives are being implemented to help restore key ecosystems and enhance their contribution to biodiversity and carbon storage, including peatland and woodland restoration projects – see elsewhere in this report for details of successes in rewetting peatlands by blocking drainage ditches and re-establishing vegetation cover. There is also a growing understanding of the role of marine ecosystems as blue carbon sinks in the UK.
Aichi Target 16 By 2015, the Nagoya Protocol on Access to Genetic resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	On track to achieve target	The UK signed the Nagoya Protocol in 2011. It was then implemented into UK law through The Nagoya Protocol (User Compliance) Regulations 2015. The Department of Business, Energy and Industrial Strategy (BEIS) have been appointed the competent authority responsible for the implementation of the Nagoya Protocol in the UK. They are also responsible for awareness raising and training of UK-based users of genetic resources, supporting users to access resources in line with national access legislation and complying with relevant EU Regulation.
Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building		

Aichi Target	Assessment conclusion	Assessment summary
Aichi Target 17 By 2015, each Party has developed, adopted as a policy instrument, and has commenced implemented, an effective, participatory and updated national biodiversity strategy and action plan.	On track to achieve target	The four UK countries have together developed and are implementing the UK Post-2010 Biodiversity Framework which describes how the work of each of the countries joins up with work at a UK level to contribute to the Strategic Plan for Biodiversity 2011-2020 and to the EU Biodiversity Strategy. In addition, the countries have together developed the UK Marine Strategy in response to the European Union's Marine Strategy Framework Directive, which sets out the actions that the UK will take to achieve Good Environmental Status in its marine waters by 2020. Each of the four metropolitan UK countries, plus some UK's Overseas Territories and Crown Dependencies, have developed and are implementing their own biodiversity strategies. The strategies include further priorities and are supported by additional measures and indicators, reflecting the countries' different responsibilities, needs, views and environmental circumstances.
Aichi Target 18 By 2020, the traditional knowledge, innovations and practices of indigenous and local communities that are relevant for the conservation and sustainable use of biodiversity and their customary use of biological resources, are respected, subject to national legislation and relevant	No assessment made	In the UK and Overseas Territories there are no indigenous peoples and local communities (IPLCs) as defined in Article 8j of the Convention and Target 18 has therefore not been assessed. The needs, knowledge and practices of IPLCs are recognised and integrated into the UK's international work.

Aichi Target	Assessment conclusion	Assessment summary
international obligations, and fully integrated and reflected in the in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.		
Aichi Target 19 By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	On track to achieve target	This target requires <i>action</i> to make data available and undertake research, and <i>outcomes</i> around knowledge sharing and its application. Progress on this target has been assessed against both whether initiatives to make data available, undertake research, share information and build knowledge are implemented as well as effectiveness of these initiatives at improving the knowledge and science base. The UK is a world leader in scientific research and is developing the use of innovative technologies to inform biodiversity conservation. Open data policy means that Government data relating to biodiversity in the UK are available by default rather than by request. The UK has made significant progress with data management and knowledge sharing systems, which continue to increase in size (for example the National Biodiversity knowledge. In addition, the UK has a range of research and knowledge sharing networks to help foster collaboration and the integration of science and policy to ensure the success of conservation and sustainability efforts. The assessment is judged to be sufficiently on track on the basis that a number of initiatives are in place to improve the knowledge and science base. Furthermore, evidence indicates the availability of data and information in the UK has substantially increased over the last decade.
Aichi Target 20 By 2020, at the latest, the mobilisation of financial resources	Progress towards target but at an insufficient rate	This target requires <i>action</i> to mobilise financial resources to support the implementation of the Strategic Plan for Biodiversity 2011–2020 particularly to help developing countries to meet their commitments. The UK has mobilised significant resources in support of the Strategic Plan for Biodiversity 2011–2020. The UK financial contribution in support of biodiversity in developing countries, especially for least developed countries, has risen from a baseline of £77.4m p.a between 2006 and 2010 to over £180m in 2015. Since 2015

Aichi Target	Assessment conclusion	Assessment summary
for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilisation should increase substantially from the current levels.		the UK has announced a range of new funds for international biodiversity. For example, the UK is investing £5.8bn to support International Climate Finance between 2016 and 2021, which is helping to halt deforestation and help communities to protect and restore forests. The programme has supported the inclusion in Marine Protected Areas of over four million square kilometers of marine environment across the UK Overseas Territories. International financing is therefore assessed as progressing and on track. The overall assessment of insufficient is an acknowledgement that whilst international financing has increased, expenditure indicators show a fall in Government spend on biodiversity in the UK. Each of the UK countries has plans in place to mainstream biodiversity into other sectors and to mobilise resources from the private sector, and further work is required to capture the full scale of investment in domestic biodiversity.