

Interim Review of the Implementation of Actions for Biodiversity 2011-2016

Draft

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An Roinn
Ealaíon, Oidhreachta agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht



Actions for Biodiversity 2011-2016

Ireland's Vision for Biodiversity

“That biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.”

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Ireland's second National Biodiversity Plan, Actions for Biodiversity 2011-2016, was published in November 2011. It built upon the achievements of Ireland's first National Biodiversity Action Plan and focused on actions that were not fully completed as well as addressing emerging issues.

The 2nd plan is a statement by a range of Government Departments and agencies for the period 2011-2016. Its ambitions were considerable. Much has been achieved, and continues to be achieved. New opportunities and challenges have emerged since the Plan was drafted, and while some implementation was hampered by reduced resources during the review period, there has been an increasing awareness of the need to protect biodiversity and indeed the duty to do so, under Irish and EU legislation.

2. GLOSSARY OF ABBREVIATIONS

AA	Appropriate Assessment
AFBINI	Agri-Food and Biosciences Institute Northern Ireland
BnM	Bord na Móna
CAP	Common Agriculture Policy of the European Union
CBD	Convention on Biological Diversity
CFP	Common Fisheries Policy of the European Union
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
COFORD	The National Council for Forest Research and Development
COP	Conference of the Parties to multilateral Conventions, such as the CBD
CSO	Central Statistics Office
DAHG	Department of Arts, Heritage and the Gaeltacht
DAFM	Department of Agriculture, Food and the Marine
DCENR	Department of Communications, Energy and Natural Resources
DECLG	Department of the Environment, Community and Local Government
DES	Department of Education and Skills
DFAT	Department of Foreign Affairs and Trade
DJEI	Department of Jobs, Enterprise and Innovation
DPER	Department of Public Expenditure and Reform
DTTS	Department of Transport, Tourism and Sport
EAFM	Ecosystems Approach to Fisheries Management
EPA	Environmental Protection Agency
EIA	Environmental Impact Assessment
EIONET	European Environmental Information and Observation Network
ELD	Environmental Liability Directive of the European Union
EUTR	European Union Timber Regulation
FAO	Food and Agriculture Organisation of the United Nations
FETAC	Further Education and Training Awards Council
GIS	Geographic Information System
GFP	Good Farming Practice
ICES	International Council for the Exploration of the Seas
IFI	Inland Fisheries Ireland
INPBR	Irish National Platform for Biodiversity Research
ISDI	Irish Spatial Data Infrastructure
LA	Local Authorities
LBAP	Local Biodiversity Action Plans
MI	The Marine Institute
MSFD	Marine Strategy Framework Directive
NBAP	National Biodiversity Action Plan

NBDC	National Biodiversity Data Centre
NDP	National Development Plan
NESC	National Economic and Social Council
NIEA	Northern Ireland Environment Agency
NGO	Non-Governmental Organisation
NHAs	National Heritage Areas
NRA	National Roads Authority
NPWS	National Parks and Wildlife Service of DAHG
NUIG	National University of Ireland, Galway
NWWRAC	North Western Waters Regional Advisory Council
OSPAR	Convention for the Protection of the Marine Environment of the Northeast Atlantic
OPW	Office of Public Works
OSI	Ordnance Survey Ireland
RBM	River Basin Management
RDP	Rural Development Plan
REPS	Rural Environmental Protection Scheme
SACs	Special Areas of Conservation for habitats and species
SAPs	Species Action Plans
SEA	Strategic Environmental Assessment
SFM	Sustainable Forest Management
SFPA	Sea-Fisheries Protection Authority
SIR	Site Inspection Reporting
SPAs	Special Protected Areas for Birds
UCC	University College Cork
UCD	University College Dublin
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
TCD	Trinity College Dublin
WIT	Waterford Institute of Technology
WFD	Water Framework Directive of the European Union

3. MEMBERS OF THE INTER-DEPARTMENTAL WORKING GROUP ON THE IMPLEMENTATION OF THE ACTIONS FOR BIODIVERSITY 2011-2016.

Name	Department/Body
Ciaran O’Keeffe	Dept. of Arts, Heritage and the Gaeltacht
Frank Donohue	Dept. of Arts, Heritage and the Gaeltacht
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Fergus Healy	An Garda Síochána
Frank Griffin	Dept. of Public Expenditure and Reform
Orla Kenny	Dept. of Justice and Equality
Michael O’Sullivan	Dept. of Defence
Paul Memery	Dept. of Children and Youth Affairs
Michael Starrett	Heritage Council

4. INTRODUCTION

4.1 BIODIVERSITY, NATURAL CAPITAL AND ECOSYSTEM SERVICES

Biological diversity' means the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.

The United Nations Conference on Sustainable Development ("Rio+20", June 2012), reaffirmed the intrinsic value of biological diversity, as well as the ecological, genetic, social, economic, scientific, educational, cultural, recreational, and aesthetic values of biological diversity and its critical role in maintaining ecosystems that provide essential services, which are critical foundations for sustainable development and human well-being; recognized the severity of the global loss of biodiversity and the degradation of ecosystems; emphasized that these undermine global development, affecting food security and nutrition, the provision of and access to water and the health of the rural poor and of people worldwide, including present and future generations

The international initiative The Economics of Ecosystems and Biodiversity estimated that biodiversity and ecosystem damage may cost 18% of global economic output by 2050. An initial conservative valuation of ecosystem services in Ireland, in terms of their contribution to productive output and human utility, was estimated at €2.6 billion per annum (Bullock et al., 2008). This was considered to be an underestimate, as it did not include significant services such as waste assimilation by aquatic biodiversity and the full range of benefits that soil biota provide to productivity, carbon recycling and storage or the contribution of biodiversity to health and wellbeing.

Further sources of information relevant to international and national biodiversity are provided in Appendix I.

4.2 UNITED NATIONS CONVENTION ON BIOLOGICAL DIVERSITY STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

The UN Convention on Biological Diversity (CBD) resulted from the Earth Summit held in 1992 in Rio de Janeiro. Ireland signed the Convention in 1992 and ratified it in 1996. The CBD is pre-eminent amongst nature/biodiversity-related Conventions, both in terms of its widespread support (188 countries are Parties) and its comprehensive scope. The convention has three objectives, which are:

- the conservation of biological diversity
- the sustainable use of its components
- the equitable sharing of the benefits arising out of the utilisation of genetic resources

The 10th meeting of the Conference of the Parties, held in 2010 in Nagoya, Aichi Prefecture, Japan, adopted a revised and updated Strategic Plan for Biodiversity, including the "Aichi Biodiversity Targets" for the 2011-2020 period. This plan provides an overarching framework on biodiversity, not only for the biodiversity-related conventions, but for the entire United Nations system and all other partners engaged in biodiversity management and policy development.

Vision

The vision of this Strategic Plan is a world of "Living in harmony with nature" where "By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."

The Mission of the Strategic Plan

The mission of the Strategic Plan is to "take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being, and poverty

eradication. To ensure this, pressures on biodiversity are reduced, ecosystems are restored, biological resources are sustainably used and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; adequate financial resources are provided, capacities are enhanced, biodiversity issues and values mainstreamed, appropriate policies are effectively implemented, and decision-making is based on sound science and the precautionary approach."

Parties agreed to translate this overarching international framework into revised and updated national biodiversity strategies and action plans within two years and that the fifth national reports, due in 2014, should focus on the implementation of the 2011-2020 Strategic Plan and progress achieved towards the Aichi 2020 Biodiversity Targets. The Aichi Targets and corresponding goals are listed in Appendix II. The Strategic Goals of the Aichi 2020 Biodiversity Targets are as follows:

Aichi Goals	
A	Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
B	Reduce the direct pressures on biodiversity and promote sustainable use
C	To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
D	Enhance the benefits to all from biodiversity and ecosystem services
E	Enhance implementation through participatory planning, knowledge management and capacity building

Ireland's 5th National Report to the CBD, submitted in 2014, outlines the measures which Ireland has taken for the implementation of the provisions of the Convention

4.3 EU BIODIVERSITY STRATEGY TO 2020

In May 2011, the European Commission adopted a new strategy that laid down the framework for EU action over the next ten years in order to meet the 2020 biodiversity headline target set by EU leaders in March 2010. The strategy is built around six mutually supportive targets which address the main drivers of biodiversity loss and aim to reduce the key pressures on nature and ecosystem services in the EU.

EU 2050 long-term vision

"by 2050 EU Biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human well-being and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided."

EU 2020 headline target

"halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss."

Each target is further translated into a set of time-bound actions and other accompanying measures. The strategy is being implemented through a Common Implementation Framework involving the European Commission and Member States in partnership with key stakeholders and civil society. It is

underpinned by a solid EU baseline on the state of biodiversity and ecosystems in Europe which will be used as a basis for monitoring progress. A full list of the actions and corresponding targets is seen in Appendix III. EU Biodiversity Strategy to 2020 targets are as follows:

Targets of EU Biodiversity Strategy to 2020

- 1** Fully implement the Birds and Habitats Directives
- 2** Maintain and restore ecosystems and their services
- 3** Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity
- 4** Ensure the sustainable use of fisheries resources
- 5** Combat Invasive Alien Species
- 6** Help avert global biodiversity loss

4.4 IRELAND'S NATIONAL BIODIVERSITY PLAN 2011-2016

Ireland's second National Biodiversity Plan, Actions for Biodiversity 2011-2016, was developed in line with the EU and International Biodiversity strategies and policies, and launched in November 2011. It built upon the achievements of the first plan and focused on actions that were not fully completed as well as addressing emerging issues.

5. INTERIM REVIEW OF THE IMPLEMENTATION OF THE ACTIONS FOR BIODIVERSITY 2011-2016

This report is the interim report on implementation of the plan. It outlines progress and the status in relation to all of the outlined Actions and involved consultation with the public bodies in the Inter-Departmental Working Group on the Implementation of the Actions for Biodiversity 2011-2016.

In undertaking this Interim Review, where possible, the current status of progress on each action was provided directly from the relevant public bodies responsible for the implementation of that action. The assessment of progress on each action, although subjective, was achieved through consensus with the respective agencies and the rapporteurs of the Interim Review.

5.1 SYNTHESIS OF STATUS OF IMPLEMENTATION

Overall, this Interim Review concludes that of the 102 Actions, 24 are implemented, 67 are ongoing and, for 11, substantial further action is required. It should be noted that 40 of the 102 actions are of an ongoing or open-ended nature and that the assessment their level of implementation was achieved through consensus with the relevant agencies.

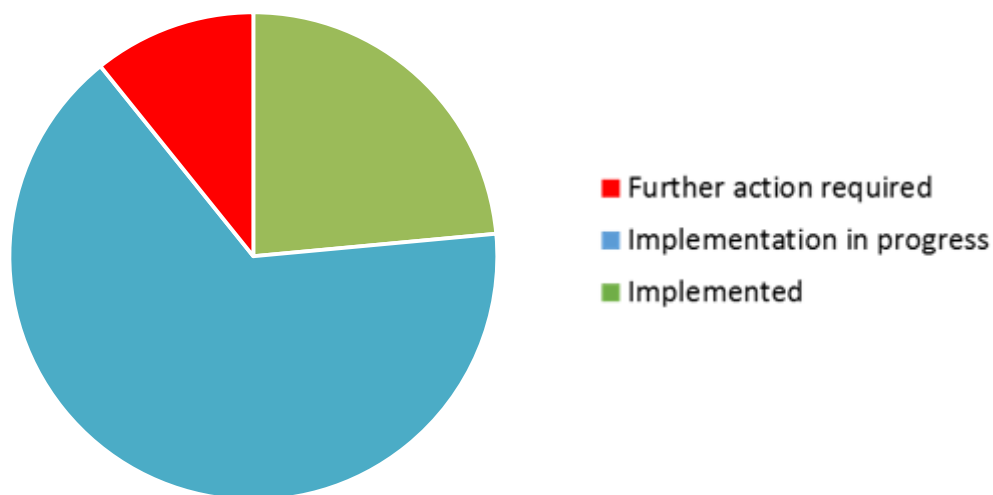


Figure 1. Qualitative assessment of overall progress on implementation of the Actions for Biodiversity 2011-2016.

As highlighted in Figure 2, significant progress has been made, but there are still areas of the Plan where increased efforts will be required to meet its targets and objectives.

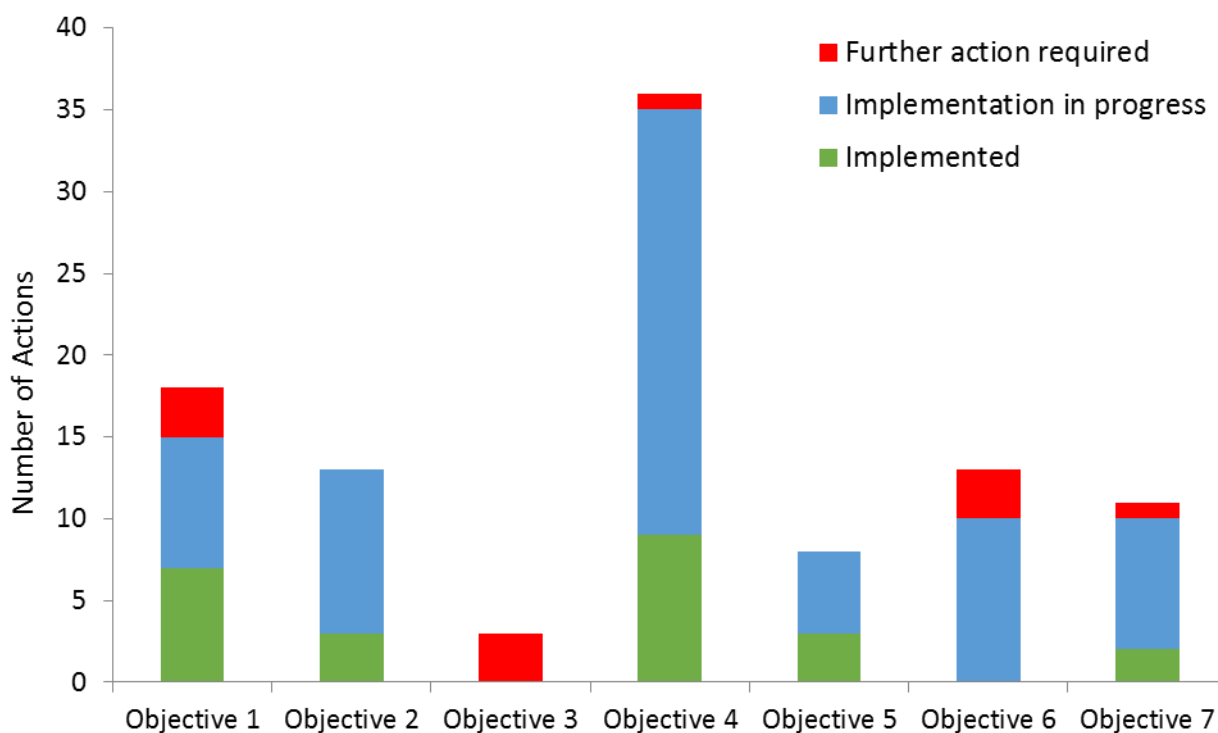


Figure 2. Qualitative assessment of progress on implementation across objectives within the Actions for Biodiversity 2011-2016.

A detailed commentary on the progress within each action is provided in section 5.2 of this document. The tables below highlight some of the key achievements since 2011 under each objective of the Actions for Biodiversity 2011-2016:

OBJECTIVE 1: To mainstream biodiversity in the decision making process across all sectors

- 1** An Interdepartmental Working Group on Biodiversity was established in 2012 to gain the engagement of key Government Departments and State Agencies in the implementation of the Actions for Biodiversity 2011-2016. To date, the group has met four times since the inaugural meeting in December 2011. The members of the Working Group are listed on pg. 7.
 - 2** The transposition of the EU Habitats Directive and the EU Birds Directive into national legislation was improved in the European Communities (Birds and Natural Habitats) Regulations 2011.
 - 3** The National SEA Forum has been established with all five environmental authorities (DAHG, DECLG, DAFM, DCENR, EPA) represented, with regional SEA/AA Fora established in association with the regional authorities. Fora meet annually with the full participation of local authorities in each region. With regard to specific public bodies, Fáilte Ireland is undertaking a SEA of the development of Discovery Points along the Wild Atlantic Way, and an SEA has been carried out on Ireland's Rural Development Plan 2014-2020, as well as the Seafood Operational Programme 2014 - 2020 and the National Strategic Plan for Aquaculture 2014 – 2020. The European Communities (Environmental Impact Assessment)(Agriculture) Regulation (S.I.456/11) was introduced in 2011 to give effect to the new provisions and procedures compliant with the Environmental Impact Assessment Directive.
 - 4** The implementation of the “Green Tenders – An Action Plan for Green Public Procurement” is ongoing through the Green Tenders Implementation Group (GTIG) established in 2012 and co-chaired by the DPER and the DECLG. The National Procurement Service was a member of the GTIG, however, it has now been replaced by the newly established Office of Government Procurement (OGP). The OGP has assumed a greatly expanded role in public procurement and the DECLG has met with the OGP to discuss the role of the OGP in the GTIG and the impact the new organisation might have on the Action Plan.
 - 5** The Forestry Act was passed into law on the 26 October, 2014. Once commenced, the Forestry Act 2014 (Act No. 31 of 2014) will replace the current 1946 Forestry Act. The Act:
 - sets out the specific role of Minister of Agriculture, Food and the Marine in safeguarding the environment;
 - includes overarching provisions relating to the protection of the environment;
 - integrates the requirements and procedures under the EIA Directive, the Birds and Habitats Directives, and the Water Framework Directive;
 - creates greater flexibility to the Minister in term of attaching environmental conditions to an approval or licence, and enforcing those conditions; and
 - enables the Minister to produce supplementary regulations, if needed to give effect to the principles and policies set down in the Act, under various headings, including " (y) *protection of the environment, habitats and biodiversity;* "

The provisions of the Forestry Act 2014 will only come into effect, in whole or in part, as and when the Minister for Agriculture, Food and the Marine signs commencement orders for its various sections. Until that happens the Forest Act 1946 (as amended) remains fully in force and constitutes the primary piece of legislation governing forestry activities.

The primary purpose of the Bill is to reform and update the legislative framework relating to forestry and to support the development of a modern forest sector, which operates in accordance with good forest practice and with a view to the protection of the environment.
 - 6** Although not foreseen in the Biodiversity Plan, the European Union (Birds and Natural Habitats) (Seafisheries) Regulations 2013 provide for the responsibilities of the Minister
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OBJECTIVE 2: To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity

- 1** A report to the EU on the status, trends and distribution of all habitats and species of Community interest listed the Habitats Directive was submitted in 2013. A similar report under the Birds Directive was submitted in early 2014. The assessments were underpinned by detailed survey and monitoring scientific research. Detailed vegetation analysis has been undertaken for Uplands, grasslands, limestone, turlough and Juniper habitats. Scientific papers on trends and/or assessment methodologies have been published on turloughs, Bats, Otter and Frog. Recent surveys have also been undertaken on Bees, Butterflies, Rare plants and semi-natural grasslands. Relevant PhD studies are ongoing or recently completed for turloughs, Petrifying springs, Killarney fern, the impact of excluding large herbivores from woodlands, and protected Bryophytes.
- 2** The National Vegetation Database (NVD) has been developed by the National Biodiversity Data Centre in collaboration with the NPWS. It contains more than 30,000 relevés, or vegetation sampling units, stored in TURBOVEG software. It brings together data from academics, environmental consultants and state bodies. The NVD continues to be updated, and additional relevés provided by NPWS in 2014 are due to be incorporated. The database provides a core building block for a future Irish vegetation classification system.
- 3** The Integrated Mapping for the Sustainable Development of Ireland's Marine Resource (INFOMAR) programme is creating a range of integrated mapping products of the physical, chemical and biological features of the seabed in the near-shore area.
- 4** A national working group was established in 2012 to progress the development of a national landcover and habitat map. The group includes representatives of the Environmental Protection Agency, Heritage Council, Ordnance Survey of Ireland, Department of Arts, Heritage and the Gaeltacht, the Department of Agriculture, Food and Marine, and Teagasc. The group is working on a joint proposal for the development of a national landcover mapping programme in light of the emerging National Spatial Data Strategy and National Landscape Strategy. The technical specifications for a national landcover mapping programme have been developed using County Roscommon as a case study.
- 5** In 2012, the National Platform for Biodiversity Research, run under contract to NPWS and EPA, produced a set of biodiversity research recommendations under five thematic areas. The themes were: i) marine, ii) agriculture, grassland and soil, iii) freshwater, iv) uplands, peatlands and wetlands, and v) alien invasive species. As part of the Irish presidency of the EU, Ireland hosted a meeting of the European Platform for Biodiversity Research Strategy (EPBRS) on 'Research priorities to attain targets of the EU Biodiversity Strategy 2020' in May 2013. It is proposed to renew the contract for the running of IPBRS to continue the work of the Platform linking to the European Platform for Biodiversity Research Strategy and other European and international biodiversity networks.
- 6** The EPA Ecorisk project examined the prospects for quantifying the economic value of ecosystem services for use within the Environmental Liability Directive (ELD), namely for compensatory remediation. However, other outputs include a review of ecological research that has been conducted in Ireland relevant to the assessment of ecosystem services, in combination with national and international reviews of economic valuations of ecosystems or environmental goods. This information will be developed into a database whereby policy makers and practitioners would be able to search for data and advice on the methods needed to assess various levels of environmental risk or damage, indicating also the types and sources of data required.
- 7** The EPA funded SIMBIOSYS Project, completed in 2013 involved the field assessment of

the effects of land-use on biodiversity three systems: bioenergy crops, landscaped road corridors and aquaculture; incorporating field-based studies quantified biodiversity at the genetic, species and habitat levels under current commercial regimes, compared with traditional practices, and investigated ecosystem service delivery in all three sectors. Evidence-based specific policy actions were subsequently developed to enhance biodiversity are required to increase the delivery of ecosystem services, not just in protected areas, but in also in highly managed and exploited sites.

- 8 The COFORD funded FORECON project provided an economic evaluation of the relative benefits of forest management practice to recreation, biodiversity, landscape, water quality and carbon sequestration. The relative public benefits of public and private forestry were assessed, as well as the direct and indirect contribution of tradable goods and services of forestry to the national and regional economies.

OBJECTIVE 3: To increase awareness and appreciation of biodiversity and ecosystem services

- 1 Natural Capital: Ireland's Hidden Wealth Conference was held in April 2014. Actions arising from this conference include the establishment of Irish Forum on Natural Capital (IFNC) steering committee to coordinate and advance a comprehensive economic assessment of the goods and services provided by the Irish environment via Natural Capital Accounting (NCA). NCA has the potential to better inform policies that effectively promote, enhance and restore ecosystems and the human wellbeing that depends upon them. In addition, the EPA issued a call in June 2014 for proposals for research, including under the theme of Natural Capital.

OBJECTIVE 4: To conserve and restore biodiversity and ecosystem services in the wider countryside

HEADLINE TARGET: In the wider countryside biodiversity loss reduced by 2016 and showing substantial recovery by 2020

- 1 Ireland has secured €2.2bn in EU funding for the new Rural Development Programme up to 2020 and DAFM has committed substantial national funding, giving an overall total of over €4bn, thus demonstrating a strong commitment for rural development including the environment as it includes a substantial commitment for a new agri-environment scheme (building up to approx. 50,000 participant farmers over the period of the programme). It is envisaged that the programme will be formally agreed by mid- 2015, with implementation of measures commencing in the latter part of the year. A number of biodiversity actions have been included within the new agri-environment scheme, including specific priority actions targeted at vulnerable habitats and threatened species, as well as some general actions which will have wider biodiversity benefits.
- 2 The European Communities (Environmental Impact Assessment)(Agriculture) Regulation (S.I.456/11) was introduced by DAFM in September 2011 to give effect to the new provisions and procedures compliant with the EIA Directive. Under these Regulations, DAFM operates a screening process for farmers, by examining the effects of certain proposed activities namely: restructuring of holdings, commencing to use uncultivated/semi-natural land for intensive agriculture and land drainage works (other than wetlands), and determining whether the proposed activities can proceed without an Environmental Impact Assessment.
- 3 Initiated through Invasive Species Ireland, there is good national coordination of information flows on Invasive Species in Ireland as a prerequisite for delivery of a Rapid Response system. Agreement has been reached by the key national bodies on sharing of information on newly recorded species, a process coordinated by the National Biodiversity Data Centre. A team of national experts has been identified who provide verification of records of newly arrived sightings of invasive species, and following verification of reported sightings, species alerts are issued by the National Biodiversity Data Centre. Inland Fisheries Ireland has a very proactive response to invasive species and has provided basic

training for its staff in respect of aquatic and riparian invasive species identification and how to report new sightings in an accurate and timely manner. In respect of Rapid Response, IFI has effectively eradicated chub (*Leuciscus cephalus*) and yellow water primrose (*Ludwigia* spp) by mounting rapid and intensive control campaigns once the first confirmed reports of the species were made. A dedicated Invasive Species Group, comprising personnel from each of the River Basin Districts, has also been established.

- 4** In 2013 Inland Fisheries Ireland in corporation with European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC) hosted an international conference on Freshwater Invasives – Networking for Strategy (FINS). This meeting was attended by national and international experts on Invasive species to and resulted in the publication of a paper entitled ‘Tackling Invasive Alien Species in Europe: the Top 20 Issues’ published in the journal *Management of Biological Invasions*. This paper was offered to national and EU policy makers to support addressing the threat of aquatic invasive species.

IFI is involved with partner organisations on the Interreg VIA CIRB, Mulkear Life and IRD Duhallow Life projects which are tackling riparian invasive species (e.g. Japanese knotweed, Himalayan balsam, Giant hogweed) on a catchment basis.

The National Biodiversity Data Centre published a report on the “Invasive and Non-native Species in Ireland - Trends in Introductions”, which was the first review of the arrival dates of non-native species in Ireland. Part of this work involved a horizon scanning exercise to identify potential new invaders to Ireland to assist policy formulation and introduction of mitigation measures. Invasive Species Risk Assessments have been undertaken for 41 high risk species by IFI/NBDC/NPWS to enable the full implementation of Regs. 49, 50 and 79 of the European Communities (Birds and Natural Habitats) Regulations 2011.

- 5** The Water Framework Directive National Monitoring Program is in place. Water Framework Directive Programs of Measures project ongoing which is aimed at standardising WFD data and getting it into a common information system for management. New governance arrangements are almost finalised. The Water Framework Directive Governance is being reconsidered with the potential that the responsibilities between DECLG, EPA and LAs would be revised for 2nd cycle of RBM planning.

- 6** Bord na Móna produced a Biodiversity Action Plan 2010- 2015 to strengthen its role in enhancement of biodiversity within the company's overall corporate objectives. It is currently carrying out baseline ecological surveys of its cutaway bogs to identify the areas of greatest biodiversity value. This involves identification and designation of key biodiversity hotspot as Bord na Móna Biodiversity Areas.

- 7** The management of fisheries is the principal and most direct intervention used in Ireland to protect and restore salmon stocks. Conservation Limits (CL) for individual salmon rivers were developed in 2007 and since then advice on the status of salmon stocks and appropriate catch levels in 143 rivers, to ensure compliance with conservation requirements, is provided annually. IFI evaluates the status of salmon stocks against each river-specific CL. The independent Standing Scientific Committee on Salmon (SSCS), comprising scientists from IFI, NPWS, MI, ESB, BIM, AFBI, Loughs Agency, UCC and the EPA, annually reviews all data and provides independent scientific advice to IFI on the predicted status of stocks. IFI fisheries managers implement a management regime to protect salmon and also undertake river habitat improvement programmes on an ongoing basis. Anglers and commercial fishermen contribute 50% of their annual fishing licence fee to support salmon conservation; IFI manages this fund to support projects aimed at conservation of salmon and their habitat which targets rivers currently failing to meet salmon CLs.

- 8** BirdWatch Ireland developed group Species Action Plans for Ireland's "priority, migratory and dispersed" birds based on their habitat requirements. The focus of the project are species Red- or Amber- listed in “Birds of Conservation Concern in Ireland”, as well as regularly occurring birds in Ireland found in Annex I of the European Birds Directive, and a few additional bird species needing protection.

OBJECTIVE 5: To conserve and restore biodiversity and ecosystem services in the marine environment**HEADLINE TARGET: In the wider marine environment, biodiversity loss reduced by 2016 and showing substantial recovery by 2020**

- 1** The Marine Coordination Group, which includes senior representatives from the departments and agencies with marine responsibilities, have developed and published an Integrated Maritime Plan (IMP) entitled *Harnessing Our Ocean Wealth* in 2012 as part of Ireland's engagement with the Integrated Maritime Policy for the EU (2007) and the EU strategy for the Atlantic (2011). The IMP provides a framework for cross-sectoral planning and actions regarding the management of the marine environment. One of the three high-level goals of the IMP is the protection and conservation of marine biodiversity and ecosystem services.
- 2** The development of a marine spatial planning framework in Ireland was considered by a dedicated task force established under the auspices of the Marine Coordination Group. The task force finalised its report in late 2013. The Marine Coordination Group has considered the report in detail and a decision on how best to progress its implementation will be taken in parallel with decisions on the implementation of the proposed EU Directive on Maritime Spatial Planning. It is expected that the Directive will be adopted in mid-2014.
- 3** With regard to the Marine Strategy Framework Directive, work on the Initial Assessment (Articles 8), the determination of Good Environmental Status (Article 9) and the establishment of Environmental Targets (Article 10) have been completed and uploaded to the Commission website (EIONET), and Ireland has met its obligations in that regard. To further facilitate public participation a national report which provides narrative information on the status of Irish marine waters has also been prepared and was published on 1 November 2013 along with Ireland's Marine Atlas.
- 4** Common Fisheries Policy stocks are managed within MSY framework in accordance with CFP and MSFD targets. Harvest control rules are in place to bring stocks to MSY in 2015 where possible. There has been a strong reduction in fishing pressure of fish stocks in Irish waters in the last decade. The MSFD 2012 initial assessment, indicated that of the marine fish stocks in Irish waters, which are fully assessed, 62 % are now fished at or below MSY, while 60% of stocks are within safe biomass limits.
- 5** DAFM have completed assessments for Natura 2000 sites and mitigation plans published online at www.fishingnet.ie. Risk assessment of sea-fisheries interactions with protected habitats and species for the rest of the Irish coast (within 12 nautical miles) is close to completion. Mitigation strategies are being developed and will undergo consultation prior to conclusion and implementation. A number of Natura 2000 sites are closed on a precautionary basis to certain fishing practices.
- 6** The new Common Fisheries Policy provides for measures to be put in place to adjust the fishing capacity of the fleets to levels of fishing opportunities consistent with MSY targets with a view to having economically viable fleets without overexploiting marine biological resources. Ireland will be reporting on the balance on an annual basis. If those reports show an imbalance, an action plan for adjustments must be put in place.
- 7** Common Fisheries Policy Spatial fisheries management measures are in place in the Irish EEZ to protect vulnerable marine habitats in offshore NATURA 2000 sites (e.g. corals); spawning aggregations, juvenile fish and depleted stocks. The management measures range from the prohibition of fishing with bottom impacting fishing gear to temporal closures of fishing for different species and/or with different gears. No take zones for benthic impacting fishing gears are currently being considered in inshore Natura 2000 sites (managed nationally) to protect sensitive habitats and associated biodiversity.

OBJECTIVE 6: To expand and improve on the management of protected areas and legally protected species**HEADLINE TARGET: Biodiversity loss of protected habitats and species halted by 2016**

- 1 The steps required to provide legal protection to Ireland's terrestrial network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) were largely completed. A final formal designation of SACs is underway, although legal protection is already in place.
- 2 Ireland's Prioritised Action Framework for Natura 2000, identifying conservation priorities for the next financial cycle (2014-2020), has been approved by Government and submitted to the EU.
- 3 Detailed site-specific conservation objectives have been published by NPWS for 65 SACs and 32 SPAs. A further 23 are scheduled for completion by the end of 2014.
- 4 Considerable progress has been achieved in protecting the best remaining examples of raised bogs in Ireland. In May 2010, the Government prohibited turf cutting on 31 raised bog SACs, and decided that turf-cutting would cease on a further 24 raised bog SACs at the end of 2011. Work is continuing to prevent damage through unauthorised turf-cutting on raised bog SACs and NHAs, and a number of key cases are due to be heard in the Courts. A draft National Peatlands Strategy, Raised Bog SAC Management Plan and Review of the Raised Bog NHAs were published in early 2014. The objective of the Peatlands Strategy is to set down clear principles which will guide Government policy in relation to all Irish peatlands. These principles will be applied through their incorporation into the more detailed sectoral plans, policies and actions adopted and undertaken for each policy area. A programme has been initiated for the production of detailed conservation objectives for 53 raised bog SACs over the next two years.
- 5 In 2012 the DECLG developed a medium to long-term framework for advancing sustainable development and the green economy in Ireland entitled "Our Sustainable Future". The framework aims to integrate sustainable development into key areas of policy, to put in place effective implementation mechanisms and to progress sustainable development. The framework prioritises action on the development of an integrated approach to green infrastructure into sectoral policies, and the creation of green corridors which can be of benefit to biodiversity and enhance connectivity and resilience of the protected areas network
- 6 Since 2011, five EU Life projects have been commenced: the Aran LIFE and Burren Geopark LIFE projects; the LIFE Kerry Freshwater Pearl mussel conservation project; the Raptor LIFE project focussing on connecting and restoring habitats for Hen Harrier, Merlin, Atlantic salmon and Brook Lamprey; and the WISER LIFE project involved with developing best practice for waste reuse and preparation for reuse.
- 7 The Minister for Agriculture announced an expansion of the Burren For Conservation Programme as it is integrated into the RDP over the period towards 2020. The programme aims to support high environmental value farming in the Burren, continuing work begun in the Burren LIFE Project.

OBJECTIVE 7: To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services

- 1 In May 2013 Ireland launched a new policy for International Development "One World One Future: Summary of Ireland's Policy for International Development" which places importance on Biodiversity as part of the priority area for action on Climate Change and Development. Of the six priority areas for action, the action relating to 'Climate change and development', specifically states that Ireland will "support developing countries to conserve and sustainably use their biodiversity, securing local ecosystems that are vital to their development efforts".
 - 2 In 2013 Irish Aid allocated grants totalling €30,682,000 in respect of activities that were biodiversity relevant or had biodiversity elements. Of this funding approx. €15,591,000 was substantively biodiversity relevant. In addition, grants totalling €300,000 were allocated for
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biodiversity specific projects. Activities include developing sustainable seed systems, agroforestry using indigenous trees, promoting the growing local woodlots, watershed management and protection of natural resources, protection of habitats, support for sustainable food and energy systems particularly for indigenous and pastoralist groups, community involvement in protecting forests and ecotourism.

- 3** With regard to the controlling imports of illegally harvested timber into Ireland, the EU Timber Regulation came into effect in March 2013 and does not require any further national legislation per se to for its key provisions to have the force of law in Ireland. EU Members States are also obliged to complement its key provisions with supplementary legislation at national level, setting out the detail of the rules on penalties as well as mechanisms for enforcement.

5.2 STATUS OF IMPLEMENTATION

OBJECTIVE 1: TO MAINSTREAM BIODIVERSITY IN THE DECISION MAKING PROCESS ACROSS ALL SECTORS

TARGET 1: Shared responsibility for the conservation of biodiversity and the sustainable use of its components is fully recognised, and acted upon, by all sectors

Action	Department/ Agency Responsible	Comments	Status
1.01 Relevant Government Departments and State agencies to prepare sectoral Biodiversity Action Plans in line with the National Biodiversity Action Plan to ensure and promote the conservation and sustainable use of biodiversity.	DAHG	<ul style="list-style-type: none"> EPA and BnM have biodiversity plans (see section 10.1). However other Departments represented on the Biodiversity Working Group indicated that it would be a more effective use of reduced resources to pursue actions set out in the National Biodiversity Action Plan rather than prepare sectoral Biodiversity Action Plans. 	Further action required
1.02 Raise awareness of the implications of policy and decisions on biodiversity and the requirements to engage in the preparation of biodiversity action plans.	DAHG	<ul style="list-style-type: none"> NESC have issued a proposal to examine aspects of environmental policy and policy integration at different levels and in diverse spheres, including in relation to biodiversity and Food Harvest 2020 In 2014 the DPER published a policy document entitled “Partnership Agreement Ireland”, outlining how European Structural and Investments Funds allocated to Ireland will be applied. The needs analysis for funding priorities highlights enhancing institutional capacity and an efficient public administration, specifically ensuring that Ireland meets its objectives regarding agricultural ecosystems under the RDP and the EU 2020 Biodiversity Strategy and EU Habitats and Birds Directives. Biological diversity is included in the Irish Aid training and learning platforms by DFAT for 2014. In particular, biodiversity related to sustainable food production, forestry and watershed management. 	Implementation in progress
1.03 Establish Steering Group and re-establish Interdepartmental Working Group on Biodiversity to advance implementation of this Plan.	DAHG	<ul style="list-style-type: none"> The High level Steering Group met on one occasion since the publication of the Plan. An Interdepartmental Working Group on Biodiversity was established in 2012 to gain the engagement of key Government Departments and State Agencies in the implementation of the National Biodiversity Plan 2011-2016. There were 26 representatives in the Working Group, and a further three have recently joined: Teagasc, Uisce Eireann and The Marine Institute. To date, the group has met four times since the inaugural meeting in December 2011. 	Implemented
1.04 Include in legislation a biodiversity duty to ensure that	DAHG	<ul style="list-style-type: none"> The aim of incorporating biodiversity duty into legislation is to require all public bodies fully integrate biodiversity conservation when carrying out their functions. DAHG is reviewing the effectiveness of the Biodiversity Duty legislation implemented in Northern Ireland. 	Implementation in progress

Action	Department/ Agency Responsible	Comments	Status
conservation and sustainable use of biodiversity are taken into account in all relevant plans and programmes and all new legislation.			
1.05 Review key existing legislation to determine the need for provisions requiring the conservation of biological diversity.	DAHG	<ul style="list-style-type: none"> Both the transposition of the Habitats Directive into the Planning and Development Act 2010 and the EC (Birds and Natural Habitats) Regulations 2011 are under ongoing review. DAHG continues to draft amendments further supporting implementation and enforcement, clarifying administrative procedures and related issues that have arisen in the course of operation. It has not been possible due to staffing constraints to commence a full review of the Wildlife Acts. In 2014 NPWS commissioned Invasive Species Risk Assessments on species known to be traded which are listed in the Third Schedule to the European Communities (Birds and Natural Habitats) Regulations 2011, to enable commencement of Regulation 50 of the EC (Birds and Natural Habitats) Regulations 2011. 	Implementation in progress
1.06 Ensure that all development plans comply with environmental legislation and in particular with the nature directives so as to prevent and minimise any potential damages to biodiversity.	Relevant Departments	<ul style="list-style-type: none"> The provisions of the Planning and Development Act 2010 Part XAB ensure that both plans and individual projects are compliant with the Habitat and Birds Directives. The DECLG is the competent authority in executing the Planning and Development Act and DAHG the statutory consultee in relation to plans or projects that may impact on Natura 2000 sites and species. See also Action 1.09 below. 	Implemented
1.07 Each local authority to publish a Local Biodiversity Action Plan or review existing plans.	LAs	<ul style="list-style-type: none"> While some dedicated Local Biodiversity Plans are being produced, most recently in Co. Clare, biodiversity actions by the local authorities generally have been incorporated into the Heritage Plan process. Heritage Plans were produced by 29 local authorities since the start of 2000, usually with an operational period of four or five years. There are 10 Heritage Plans that are current for 2014 and subsequent years, but many local authorities still use the older Heritage Plan as the framework for progressing heritage (including biodiversity) actions. Local authorities that have current Heritage Plans are Clare, South Dublin, Fingal, Galway (county), Mayo, Monaghan, Offaly, Roscommon, South Tipperary and Wicklow. 	Implementation in progress
1.08 Each local authority to designate a suitably qualified officer for natural heritage conservation matters in its area.	LAs	<ul style="list-style-type: none"> Only four local authorities, Fingal, Dún Laoghaire-Rathdown, Clare and Galway County, have appointed dedicated Biodiversity Officers. The general approach has been for the local authorities to give the responsibility for biodiversity to the Heritage Officers. There are currently 28 Heritage Officers posts within the Heritage Council network, all of whom work to a great or lesser extent on delivery of biodiversity actions within their local authority area. 	Further action required

Action	Department/ Agency Responsible	Comments	Status
1.09 Fully implement the SEA Directive.	EPA, DECLG	<ul style="list-style-type: none"> The National SEA Forum has been established with all five environmental authorities (DAHG, DECLG, DAFM, DCENR, EPA) represented, with regional SEA/AA Fora established in association with the regional authorities. Fora meet annually with the full participation of local authorities in each region. The SEA Effectiveness Review and Action Plan was published in 2012, indicating that implementing legislation in Ireland is broadly appropriate and no significant difficulties arose with interpretation to date that would warrant substantial changes. In 2013, the EPA compiled and published a SEA Pack which provided guidance, checklists and reference material for use in the SEA and Plan making process, as well as a SEA Environmental Integration Guidance Document to assist Planning Authorities in the preparation and implementation of SEA for Plans, Programmes and Strategies in Ireland to comply with the SEA Directive. With regard to specific public bodies, Fáilte Ireland is undertaking a Strategic Environmental Assessment of the Wild Atlantic Way Operational Programme 2015-2019, which includes the possible development of the candidate Discovery Points which have been identified, and DAFM is undertaking SEAs in relation to the preparation of the Seafood Operational Programme 2014 - 2020 and the National Strategic Plan for Aquaculture 2014 – 2020. An SEA has been completed for the national Rural Development Plan in 2014-2020, which is currently awaiting Commission approval. 	Implemented
1.10 Fully implement the Environmental Liability Directive and issue appropriate guidance.	EPA	<ul style="list-style-type: none"> In 2011, the EPA produced guidance on the European Communities (Environmental Liability) Regulations 2008 and continue to enforce the regulations as required. In 2013, the EPA published the research reports of the ECORISK project exploring the potential for economic valuation of ecosystem services in the context of the Environmental Liability Directive and enforcing remediation, and in 2014 the EPA published guidance on systematically assessing and costing environmental liabilities. 	Implemented
1.11 Continue to publish appropriate guidance to local authorities regarding biodiversity.	DAHG, DECLG	<ul style="list-style-type: none"> DAHG developing guidelines on screening for AA for Planning Authorities, prepared jointly with DECLG. The EPA are also developing best practice guidance for use of GIS in SEA, for cumulative effects assessment in SEA and for better practice in SEA for the Energy Sector. 	Implementation in progress
1.12 Develop and use the means to integrate the economic value of biodiversity and ecosystems into national accounts, national and local development strategies and planning processes. (See also Action 3.9).	DAHG	<ul style="list-style-type: none"> The EPA funded a new project on natural capital as part of the 2014 Research Call. Funded through the Beaufort Marine Research Award and in partnership with Teagasc and the Marine Institute, the Socio-economic Marine Research Unit of NUIG is leading a project on the valuation of the benefits derived from marine ecosystem services, including non-market or recreational values associated with Irish lakes, rivers and seas and direct values of provisioning services such as fishing, aquaculture and shipping. Following a conference on entitled “Natural Capital: Ireland’s Hidden Wealth”, in May 2014, a Natural Capital Forum will be established with the support of public and private agencies to assist in prioritising action and coordination regarding the integration of natural capital in national accounting. 	Implementation in progress
1.13 Publish and implement the	DECLG	<ul style="list-style-type: none"> The implementation of the “Green Tenders – An Action Plan for Green Public Procurement” is ongoing through the Green Tenders Implementation Group (GTIG) established in 2012 and co-chaired by the DPER and the DECLG. 	Implemented

Action	Department/ Agency Responsible	Comments	Status
National Action Plan for Green Procurement (See also Actions under Target 21).		<p>Members of the Group are each responsible for the implementation of actions in their own area. The GTIG has been supported by a sub group who examined a range of issues around the implementation of actions including cost effectiveness, and in particular to identify “quick wins” for the implementation. The EPA completed the complementary guidance on GPP in July of 2014 which provides a practical overview of the issues, best practice examples as well as detailed criteria for insertion in tenders.</p> <p>http://www.epa.ie/pubs/reports//other/corporate/olg/green%20business/greenprocurementguidanceforpublicsector.html</p> <p>The National Procurement Service was a member of the GTIG, however, it has now been replaced by the newly established Office of Government Procurement (OGP). The OGP has assumed a greatly expanded role in public procurement and the DECLG has met with the OGP to discuss the role of the OGP in the GTIG and the impact the new organisation might have on the Action Plan.</p>	
1.14 Identify and take measures to ensure that incentives and subsidies do not contribute to biodiversity loss, and develop positive incentive measures, where necessary, to assist the conservation of biodiversity.	DAFM, D/Finance, DAHG	<ul style="list-style-type: none"> • Positive incentive measures have been included in the rural development programme (RDP) which is currently awaiting Commission approval. A Strategic environmental assessment and an appropriate assessment have been carried out on the programme to ensure there are no adverse effects on biodiversity from the measures when implemented. • DAFM has planned for the continuation and expansion of the Burren Farming for Conservation Programme from RDP funds (see action 5.06) • The AranLIFE project, funded by the EU LIFE+ funding programme (75%) and DAHG, Teagasc, The Heritage Council, DAFM, Galway Co. Council and Fáilte Ireland (25%), is a demonstration project operating on three Aran Islands from 2014-2017. It will seek to develop and demonstrate the best conservation management practices of local farmers on the designated Natura 2000 sites. Specifically, farm management plans detailing grazing practices, field access, scrub control, access to water for stock and grassland nutrient management will be developed for ca. 70 farms. • Fáilte Ireland is also a contributor to the Burren Geopark LIFE Project. It is using a tourism and environment monitoring programme which was established as part of the LIFE programme as a pilot environmental monitoring programme for the Wild Atlantic Way. Details of the environmental monitoring programme will be included as part of the SEA for the WAW OP 2015-2019. The Draft Environmental Monitoring Strategy has been issued to the six Environmental Authorities (including DoE NI) for comment before it is finalised • The Natterjack Toad Scheme continues to pay farmers in Co. Kerry to provide pond habitat for the expansion of the toad’s range and population. • The European Parliament has endorsed the European Maritime and Fisheries Fund (EMFF). With a budget of €6.5 billion for 2014-2020, the fund will finance projects to implement the new reformed Common Fisheries Policy (CFP) and provide financial support to fishermen, fish farmers and coastal communities to adapt to the changed rules. The Fund will also finance projects to boost 'blue' growth and jobs under the EU's Integrated Maritime Policy (IMP). The new EMFF will provide investment and funding opportunities to help reduce the impact of fisheries on the marine environment and to rebuild fish stocks. The fund will also help eliminate discarding practices – a key aspect of the new policy. It will also assist the coordination of the Integrated Maritime Policy. Funding will focus on initiatives that benefit multiple sectors such as maritime spatial planning, integrated maritime surveillance and marine knowledge. • The Forest Service of the Department of Agriculture, Food & the Marine is the consenting authority in relation to the 	Implementation in progress

Action	Department/ Agency Responsible	Comments	Status
		main forestry operations of afforestation, forest road construction, thinning, clearfelling and replanting, and the aerial fertilisation of forests. Through core forestry legislation and related environmental legislation (e.g. national legislation transposing the Habitats Directive and the Water Framework Directive), the Forest Service assesses the environmental impact of any particular proposal and will only issue consent where that proposal is compatible with the protection of the environment. This is achieved through a system of GIS-based and field inspections, the application of AA Screening and screening for EIS, referral with statutory consultees, the application of various mandatory 'guidelines', requirements and protocols, and the attachment of environmental conditions to any licence or consent issued, as required. Various measures are also in place to actively promote biodiversity, ranging from the necessity to include 15% Areas of Biodiversity Enhancement within all new afforestation projects, to the development and implementation of the Native Woodland Scheme, a specific Forest Service funding package developed in partnership with NPWS, Inland Fisheries Ireland, Woodlands of Ireland and others, and aimed specifically at protecting, enhancing and expanding native woodland and the delivery of associated eco-system services (see 5.07).	

TARGET 2: Legislation in support of tackling biodiversity loss in Ireland strengthened

Action	Department/ Agency Responsible	Comments	Status
2.01 By 2013 publish legislation to provide a legal basis for National Parks	DAHG	<ul style="list-style-type: none"> This has not been progressed due to current staff resources. 	Further action needed
2.02 Publish a Bill by 2014 to consolidate the Wildlife Act.	DAHG	<ul style="list-style-type: none"> Work to date has focussed on specific aspects of the Wildlife Acts. It has not been possible to commence a full review of the Wildlife Acts. 	Implementation in progress
2.03 Introduce legislation to reduce further the risk to wildlife caused by the use of poisons in the environment.	DAHG	<ul style="list-style-type: none"> Since the passing of the Restrictions on Use of Poison Baits Regulations in 2010, no further specific legislative actions have been identified as immediately useful 	Implemented
2.04 Introduce revised forest legislation which will support the conservation, protection and sustainable management of forest biological diversity.	DAFM, D/Finance, DAHG	<ul style="list-style-type: none"> The Forestry Act was passed into law on the 26 October, 2014. Once commenced, the Forestry Act 2014 (Act No. 31 of 2014) will replace the current 1946 Forestry Act. The primary purpose of the Bill is to reform and update the legislative framework relating to forestry and to support the development of a modern forest sector, which operates in accordance with good forest practice and with a view to the protection of the environment. The Act: <ul style="list-style-type: none"> sets out the specific role of Minister of Agriculture, Food and the Marine in safeguarding the environment; includes overarching provisions relating to the protection of the environment; integrates the requirements and procedures under the EIA Directive, the Birds and Habitats Directives, and the Water Framework Directive; creates greater flexibility to the Minister in term of attaching environmental 	Implemented

			<ul style="list-style-type: none"> conditions to an approval or licence, and enforcing those conditions; and enables the Minister to produce supplementary regulations, if needed to give effect to the principles and policies set down in the Act, under various headings, including " (y) protection of the environment, habitats and biodiversity; " The provisions of the Forestry Act 2014 will only come into effect, in whole or in part, as and when the Minister for Agriculture, Food and the Marine signs commencement orders for its various sections. Until that happens the Forest Act 1946 (as amended) remains fully in force and constitutes the primary piece of legislation governing forestry activities A number of provisions are included in the Bill (under Sections 5, 7, 11, and 30) which are designed to integrate the protection of the environment and associated legal requirements under various relevant EU Directives and transposing national legislation into the central decision-making processes regarding the granting of approvals and licences etc. by the Department. 	
2.05	Introduction of legislation to Implement OSPAR recommendations on Habitats and Species into Irish law	DECLG	<ul style="list-style-type: none"> Future legislation to facilitate implementation of relevant and appropriate OSPAR recommendations on the protection of Habitats and Species into Irish Law is required as these recommendations are not currently enforced. 	Future action needed

OBJECTIVE 2: TO SUBSTANTIALLY STRENGTHEN THE KNOWLEDGE BASE FOR CONSERVATION, MANAGEMENT AND SUSTAINABLE USE OF BIODIVERSITY

TARGET 3: Knowledge on biodiversity and ecosystem services has substantially advanced our ability to ensure conservation, effective management and sustainable use by 2016

Action	Department/ Agency Responsible	Comments	Status
3.01 Enhance research and progress assessments on status, trends and distribution of all habitats and species of Community interest and of additional habitats and species of national and regional importance	DAHG, IFI	<ul style="list-style-type: none"> The 2013 report to the EU under Article 17of the Habitats Directive provides in formation on status, trends and distribution of habitats and species listed in the Directive. Meanwhile, the report submitted in early 2014 under Article 12 of the Birds Directive provides information on the trends and range of birds. These data are currently being analysed. Many of the assessments are underpinned by scientific research. PhDs are ongoing or recently completed for Turloughs, Petrifying springs, Killarney fern and Protected Bryophytes. Detailed vegetation analysis has been undertaken for Uplands, grasslands, limestone, turlough and Juniper habitats. Scientific papers on trends and/or assessment methodologies have been published on Turloughs, Bats, Otter and Frog. Recent surveys have also been undertaken on Bees, Butterflies, Rare plants and semi-natural grasslands. Inland Fisheries Ireland have put in place an investigative programme on conservation fish in place for 2013 – 2018. Furthermore, both IFI and MI contributed to Red Data Book on fish, amphibians and reptiles in 2011, and sharks, skates and rays in 2014. The COFORD funded PLANFORBIO research programme involving UCC, TCD and WIT relating to sustainable forest management and monitoring was completed in 2013. 	Implementation in progress

3.02	Continue to update the National Vegetation Database and use it to develop a refined Vegetation Classification System for Ireland	DAHG	<ul style="list-style-type: none"> • The National Vegetation Database (NVD) has been developed by the National Biodiversity Data Centre in collaboration with the NPWS. It contains more than 30,000 relevés, or vegetation sampling units, stored in TURBOVEG software. It brings together data from academics, environmental consultants and state bodies. The NVD continues to be updated, and additional relevés provided by NPWS in 2014 are due to be incorporated. The database provides a core building block for a future Irish vegetation classification system. • There are currently three European wide projects underway that are expected to deliver European classification systems by 2016-2017. These are focussed on woodland, grasslands and aquatic/marsh vegetation. Irish data has been provided to these projects, and when they are developed the Data Centre will investigate whether they provide a broad vegetation classification structure that can be further modified for use nationally in Ireland. In parallel, the NPWS in association with BEC Consultants has published, or is in process of completing, Irish vegetation classification systems for a number of habitat types: woodlands, semi-natural grasslands, uplands;- a national salt marsh classification system has also developed in collaboration with the EPA. • These classifications are based on a standardised methodology and will gradually build up a national picture. It has been agreed that the Data Centre will host a website which will make national vegetation classification systems for Ireland available as they are gradually developed. The first classification system will be for the semi natural grasslands, which will be made available via the website following field testing of the classification system and key in 2014. It is hoped it can be followed by woodlands, uplands, and salt marsh classification systems in 2015. Academic links are also being used to progress development of national vegetation classification systems. A current Ph.D. project coordinated by UCD and the Data Centre is developing a national classification system for Irish rivers-this is due for completion in 2016. 	Implementation in progress
3.03	Establish a working group by 2011 to progress the development of a national terrestrial and marine habitat map by 2015	DAHG, EPA	<ul style="list-style-type: none"> • A national working group of public bodies was established in 2012 to progress the development of a national landcover and habitat map. The group includes representatives of Environmental Protection Agency, Heritage Council, Ordnance Survey of Ireland, National Parks and Wildlife Service, Department of Agriculture, Food and Marine and Teagasc. A proposal for the development of a national landcover mapping programme is being prepared by the Group taking into account the emerging National Spatial Data Strategy and national Landscape Strategy. The technical specifications for a national landcover mapping programme have been developed using County Roscommon as a case study but the work is not expected to be completed by 2015. • The Integrated Mapping for the Sustainable Development of Ireland's Marine Resource (INFOMAR) programme is creating a range of integrated mapping products of the physical, chemical and biological features of the seabed in the near-shore area. 	Implementation in progress
3.04	Adopt and apply a set of headline biodiversity indicators by 2012	DAHG	<ul style="list-style-type: none"> • Indicative list of 87 indicators was released for consultation, feedback received and 44 of these have been completed and reviewed. The website developed to host the national biodiversity indicators will be released for consultation in 2015. 	Implementation in progress
3.05	Establish and continue to promote common data standards and quality assurance	EPA, DAHG	<ul style="list-style-type: none"> • The inter-agency INSPIRE/Irish Spatial Data Infrastructure steering committee (involving NPWS, EPA, DECLG, MI, OSI, Geological Survey of Ireland, National Transport Authority, Met Eireann, Local Authority GIS Users Group and the Property Registration Authority of 	Implementation in progress

	procedures in line with the INSPIRE Directive and other data standards to enable interoperability of key biodiversity databases and inventories by 2015.		Ireland)has been established and is progressing work on common data standards. The priority of this group is to implement the INSPIRE directive and habitats are covered under the 3rd annex, which has the latest deadlines. The committee is currently focussing more on Annex 1. The OSI have built a national geoportal for access to INSPIRE data, released in 2012. EPA and NPWS are currently working together to update the Water Dependant Habitat parts of the WFD Article 6 register of protected areas.	
3.06	Based on these standards and procedures, develop a shared information system for biodiversity which makes data freely available to all interested users, streamlines reporting and supports policy evaluation and development at national, regional and global levels by 2015.	DAHG	<ul style="list-style-type: none"> The inter-agency INSPIRE/ISDI steering committee aims to finalise in 2014 an action plan for the implementation of the directive and the development of shared standards from data capture to data publishing, and develop metadata catalogues to interoperability of data across public bodies. 	Implementation in progress
3.07	Support and encourage the volunteer network that carries out biological recording.	DAHG	<ul style="list-style-type: none"> The National Biodiversity Data Centre has a comprehensive work programme to support the volunteer biological recording community in Ireland. To provide a national biological record management infrastructure it has developed an on-line record submission and mapping system linked to Biodiversity Maps. As of early May, almost 70,000 records were submitted through this system http://records.biodiversityireland.ie. This infrastructure can be customised for use by national recording initiatives by other organisations. The Data Centre also runs an extensive annual programme of training and identification workshops, many of which are run in conjunction with national organisations, to help build capacity within the recording network in Ireland. Some NGOs deliver important national surveys based on volunteer effort. Examples of this include the Bird Atlas 2007-2011, Countryside Bird Survey and Irish Wetland Bird Survey operated by BirdWatch Ireland; the Casual Sightings Scheme, Effort watches and Stranding Schemes operated by Irish Whale and Dolphin Society and the BATLAS organised by Bat Conservation Ireland. Generally these schemes operate with some level of financial support from the public sector. Biology.ie is privately funded online facility to enable recorders to submit and map their sightings. The site has promoted the recording of different taxonomic groups, such as mammals and plants, and operated targeted surveys such as the road kill, Kerry slug and ladybird survey. Since it was established, around 15,000 records have been received from the general public http://www.biology.ie/. 	Implementation in progress
3.08	Continue and expand on the work of the National Platform for Biodiversity Research guided by the recommendations of the Platform expert working.	DAHG, EPA	<ul style="list-style-type: none"> The National Platform for Biodiversity Research, run under contract to NPWS and EPA, produced a set of biodiversity research recommendations under five thematic areas. The themes were: i) marine, ii) agriculture, grassland and soil, iii) freshwater, iv) uplands, peatlands and wetlands, and v) alien invasive species. As part of the Irish presidency of the EU, Ireland hosted a meeting of the European Platform for Biodiversity Research Strategy (EPBRS) on 'Research priorities to attain targets of the EU Biodiversity Strategy 2020' in May 2013. It is proposed to renew the contract for the running of IPBRS to continue the work of 	Implemented

			the Platform linking to the European Platform for Biodiversity Research Strategy and other European and international biodiversity networks.	
3.09	Carry out further and more detailed research on the economic value of ecosystems and biodiversity in Ireland.	DAHG	<ul style="list-style-type: none"> • The EPA Ecorisk project examines the prospects for quantifying the economic value of ecosystem services for use within the Environmental Liability Directive (ELD), namely for compensatory remediation. However, other outputs include a review of ecological research that has been conducted in Ireland relevant to the assessment of ecosystem services, in combination with national and international reviews of economic valuations of ecosystems or environmental goods. This information will be developed into a database whereby policy makers and practitioners would be able to search for data and advice on the methods needed to assess various levels of environmental risk or damage, indicating also the types and sources of data required. The project will also propose, with examples, valuation methods that are appropriate for particular circumstances and make recommendations for the future application and refinement of methods within the context of the ELD and other policy needs. • Additionally, the EPA funded SIMBIOSYS Project completed in 2013 affirmed the positive relationship between species richness and ecosystem functioning, and identified scenarios where both ecosystem health and socioeconomic outputs could be maximised across three disparate system: bioenergy crops, landscaped road corridors and aquaculture. • Ireland is also involved in European projects that have relevance to ecosystem service valuation, namely OPERAs (Operationalising Ecosystem Service Values) for which UCD is a partner. UCD is also a partner of TURAS (Transitioning Towards Urban Resilience and Sustainability). In addition, UCD, UL, UCC and Teagasc are contributing to EcoValue, a one year assessment of the ecosystem service value of Ireland's forests (biodiversity, water, carbon, recreation and health) for DAFM. • The NESC have completed an exploratory study cataloguing environmental data within Ireland in 2014. The study produced a National Environmental Data Map identifying 265 data items and indicators organised by type, focus and source to identify the most policy-relevant data and data gaps for future natural capital and ecosystem service valuation exercises. • The COFORD funded FORECON project, completed in 2011, provided an economic evaluation of the relative benefits of forest management practice with regards to recreation, biodiversity, landscape, water quality and carbon sequestration. The relative public benefits of public and private forestry were assessed, as well as the direct and indirect contribution of tradable goods and services of forestry to the national and regional economies. • Completed in 2011, the DAFM funded project "An ecological economic analysis of agrobiodiversity in the Irish uplands", investigated the provision of agrobiodiversity in the Irish uplands under the reformed Common Agricultural Policy. This study used detailed ecological and socio-economic on-farm surveys in order to: evaluate the impact of the REPS and CFP schemes on agrobiodiversity loss; investigate the economic behaviour and attitudes of farm households in relation to agrobiodiversity; and make recommendations to enhance the efficacy of REPS and CFP in supporting the provision of agrobiodiversity on farms in the uplands. • A report commissioned by Woodlands of Irelands in March 2014 entitled "The Natural 	Implementation in progress

			<p>Capital Values of Ireland’s Native Woodland”, outlines a methodology for estimating the economic value of native woodlands in terms of a public amenity, tourism, public health, biodiversity utility, water quality, flood and erosion control, carbon storage and sequestration, and timber and wood fuel. The current estimate for existing native woodlands (0.17% land area) is €100-143 million p.a.</p> <ul style="list-style-type: none"> • The EPA issued a call in June 2014 for proposals for research, including under the theme of Natural Capital. • NUI Galway’s Socio Economic Marine Research Unit (SEMURU) was a partner in the MARNET project, which sought to gather reliable and reproducible marine socio economic data, including areas such as fisheries, for policy development & economic development across many marine related sectors. 	
3.10	Enhance knowledge of the most significant direct and indirect causes of biodiversity loss; develop and test prevention and mitigation options.	DAHG	<ul style="list-style-type: none"> • The status assessment report to the EU under Article 17 of the Habitats Directive, and the species trends report under Article 12 of the Birds Directive provide an overview of the leading pressures impacting the selected habitats and species and also lists any conservation measures undertaken. These data are currently being analysed. There is ongoing research into the impacts of water abstraction and pollution on dune slacks & petrifying springs (NPWS funded PhDs). • The EPA BOGLAND project, completed in 2011, demonstrated the compelling evidence of the importance of Ireland’s peatland resource in terms of: being an extensive carbon store, the negative potential for habitat degradation to augment the greenhouse effect, their positive role sequester carbon, watershed management and their contribution to national biodiversity. • The EPA funded SIMBIOSYS Project, completed in 2013 involved the field assessment of the effects of land-use on biodiversity three systems: bioenergy crops, landscaped road corridors and aquaculture; the ECO-Plan project integrating the ecosystems approach, green infrastructure and spatial planning in Ireland. • The Co-ordination, Communication and Adaptation for Climate Change in Ireland (COCO-ADAPT) project, completed in 2013 and funded by the EPA, provided a framework to develop adaptation tools, strategies and option to cope with expected climate change. The project identified gaps in existing information and seeks to address these with focused projects, especially in key areas such as urban emissions, sea-level change and impacts on key economic sectors. Barriers to fish passage are major issue for dispersal of diadromous fish. IFI has established a database to compile national GIS-based inventory of structures/barriers to fish passage to enable assessment of risk and strategies to ameliorate barrier to dispersal. Red Lists for Mayflies and Bryophytes were published in 2012 bringing the total number of all-Ireland Red Lists to 8. Further publications are due in 2014, with the development of Red Lists for Elasmobranchs, sea-weeds, vascular plants and moths well underway. • As part of the process for the completion of Appropriate Assessments of fisheries and aquaculture activities in Natura 2000 sites, the Marine Institute have commissioned a number of studies/surveys aimed at quantifying and understanding the interaction between these activities and protected species/habitats. 	Implementation in progress
3.11	Continue the existing forest	DAFM Forest	<ul style="list-style-type: none"> • DAFM through its publically funded forest research programme continues to support 	Implementation in

	research programme on forest biodiversity, carbon accounting and the interaction of climate change and forest systems.	Service, COFORD	research across a range of areas of importance to forest biodiversity and climate change.	progress
3.12	Continue to update, identify and create inventories of important genetic resources for food and agriculture, both in situ and ex situ as appropriate, in particular those genetic resources whose survival is threatened and which may not have been identified or quantified to date.	DAFM	<ul style="list-style-type: none"> The National Biodiversity Data Centre established a National Crop Wild Relative (CWR) database in 2010 to support in-situ conservation through the identification of threatened CWR hotspots. The database continues to be updated. A supporting website provides full species accounts for all 181 CWR species that occur in Ireland, including information on the location of any ex-situ collections. Ex-situ collections of plant genetic resources are held by the DAFM at Backweston, with additional supplementary collections held by Trinity College Dublin and the Irish Seed Savers Association. Additionally, the grant aid scheme for the Conservation of Genetic Resources Grant Aid Scheme for Food and Agriculture (DAFM) continues to fund projects to identify, inventory, and conserve threatened plant genetic resources in Ireland. Developed by the European Federation of Animal Science (EAAP) from 2007-2010, the European Farm Animal Biodiversity Information System (EFABIS) project merged two pre-existing databases on the status of animal breeds in Europe into a unified Open Source farm animal biodiversity information system (FABISnet). DAFM manages the national version of the EFABIS database as a communication and information tool that provides stakeholders a searchable database of breed related information, management tools and reference library. Censuses are primarily conducted by the relevant breed societies, but the Kerry, Irish Maol and Dexter cattle, Irish Draught horse, Connemara pony, Kerry Bog Pony and Galway sheep are designated as endangered, therefore DAFM directly implement management schemes for these breeds. Since 2011, 42 of 170 breeds present in Ireland have had their population data updated. Of the 72 breeds that have national-level risk assessment using FAO criteria, 1 is extinct, 16 are considered critical, 26 are endangered and 29 are not at risk. 	Implemented
3.13	Enhance the capacity to build and maintain the human resources, systems and infrastructure needed to identify, obtain, collate and curate the biological specimens that are the basis for taxonomic knowledge	Universities, National Botanic Gardens, Natural History Museum	<ul style="list-style-type: none"> The National Biodiversity Data Centre runs an annual workshop programme on species identification to assist capacity building in taxonomic and field skills. The programme runs with over 20 workshops each year, across a range of taxonomic groups. In parallel, specific workshops on monitoring and the identification of bumblebees and butterflies are provided are part of the Data Centre's national monitoring schemes for these insects. The Botanic Gardens provides a six week course each year in plant identification and with regards to public engagement, have an ongoing initiative to encourage members of the public to submit specimens for identification. In terms of taxonomic research, the Botanic Gardens hosts at minimum two international researchers per year to validate and update the taxonomy and nomenclature of the collections. IFI provides targeted workshops and demonstrations relating to biosecurity and the identification of aquatic invasive species are provided to key stakeholders, including angling clubs and boating interest groups, and for staff within IFI, as well as a primary-level education programme relating to water quality, fish diversity and angling. The SFPA provide training both internally to fisheries officers, and externally to naval fisheries officers and fishermen, on the identification of protected species, primarily elasmobranchs (sharks, skates, rays). At all designated ports, fisheries officers provide 	Implementation in progress

training upon request.

- The reference collection of plants within TCD's Herbarium is a key taxonomic resource, contains much type material of national and international significance and was the core collection used in writing the recently published Irish Flora. Annually, TCD hosts many visiting plant taxonomists who access the collections in its Herbarium and its Botanic Garden. As resources allow, on-line access is facilitated via ongoing digitisation of the herbarium's collections as part of the Global Plants Initiative (plants.jstor.org). In addition to supporting research and teaching in TCD, the Botanic Garden also hosts the Irish Rare and Threatened Plants Seedbank.
- The National Museum of Ireland – Natural History holds approximately two million zoological specimens in its collections, over half of which are insects. It is the national repository for the care and curation of zoological specimens, with collections spanning over two centuries. The museum acts as a repository for specimens from scientists involved in Irish fieldwork and continues to host scientific visitors who use the collections and library in their taxonomic work.
- The Galway Atlantaquaria endeavours to provide a taxonomic resource and infrastructure for training via the provision of a comprehensive range of educational course targeting primary-, secondary- and tertiary-level, as well as Curricular Practical Training for teachers. In parallel, external to the facilities, the aquarium coordinates local biodiversity days, seashore safaris, native species weekends and in-house events such as World Ocean Day.
- With regards to enhancing taxonomic capacity in third-level education:
 - UCC teaches taxonomy and systematics in as part of their Biological, Earth and Environmental Science B.Sc. course and in their Applied Ecology, Zoology, Plant Science, Environmental Science, Fisheries Management, Development and Conservation M.Sc. courses.
 - UCD and the NBDC collaborate on a one year Certificate in Biological Recording and Identification; UCD teaching plant and animal taxonomy and systematics as part of its B.Sc. courses in Agri-Environmental Science, Environmental Biology, Plant Biology and Zoology, and M.Sc. courses in Wildlife Conservation and Management and Applied Environmental Science.
 - TCD teaches taxonomy and systematics the Zoology and Botany as part of their Science B.A. courses and their Biodiversity and Conservation M.Sc.
 - NUIG includes taxonomy and systematics in the B.Sc. courses on Botany and Plant Science, Environmental Science and Zoology.
 - NUIM teaches taxonomy within the ecology modules of the Science B.Sc. course.
 - UL includes taxonomic training in within their field ecology components of the Environmental Science B.Sc. course.
 - Dundalk IT includes taxonomy within their applied ecology modules in the Applied Bioscience and Environmental Science B.Sc. courses
 - Limerick IT include taxonomy with their ecology modules in the Environmental and Natural Resource Management B.Sc. course.
 - Sligo IT incorporate taxonomic training within the Environmental Protection and Environmental Science B.Sc. and M.Sc. courses.

- Tralee IT includes taxonomy in the Zoology and Botany modules of the Higher Cert. in Biological and Environmental Studies.

OBJECTIVE 3: To increase awareness and appreciation of biodiversity and ecosystems services

TARGET 4: Enhanced appreciation of the value of biodiversity and ecosystem services amongst policy makers, stakeholders and the general public

Action	Department/ Agency Responsible	Comments	Status
4.01 Enhance training, communication, cooperation and concerted action between relevant sectors in support of biodiversity conservation.	DAHG	<ul style="list-style-type: none"> There are many examples of 'training, communication, cooperation and concerted action between relevant sectors in support of biodiversity conservation', but there is no overall strategy or coordination. 	Further action required
4.02 Work with relevant Departments and stakeholders to include biodiversity and ecosystem goods and services in relevant courses in secondary and third level education.	Dept. of Education	<ul style="list-style-type: none"> HEA currently do not hold central database detailing subject specific content for third-level courses, but the courses identified in Action 3.13 would represent the majority of those including the concepts of biodiversity and ecosystem services. As part of the reform of junior cycle, science is one of the first subjects to be reviewed. A new specification for Junior Cycle Science will be introduced in schools in 2015. In response to the National Biodiversity Strategy, a learning outcome specifically related to biodiversity has been included. When students are studying the biological world and sustainability they work on the following learning outcome. Students should be able to: <ul style="list-style-type: none"> evaluate how humans can successfully conserve ecological biodiversity; appreciate the benefits that people obtain from ecosystems. As well as this specific learning outcome, throughout the course, students will focus on how science works, including the contribution that science and scientists make to society. At Leaving Certificate level, the subject Biology has been reviewed. The following learning outcomes are included. Students should be able to: <ul style="list-style-type: none"> use the formula to calculate an index of diversity from suitable data interpret data relating to the effects of human activity on species diversity and be able to evaluate associated benefits and risks discuss the ways in which society uses science to inform decision making related to biodiversity It has yet to be decided when the new Biology specification will be implemented. NUIG offer undergrad and post-grad modules in marine socio-economics, including the topic of marine ecosystem goods and services. 	Further action required
4.03 Develop and implement a communications campaign in support of full implementation of this Biodiversity Action Plan and improving public and sectoral understanding of the value of biodiversity	DAHG	<ul style="list-style-type: none"> A communications campaign in support of full implementation of this Biodiversity Action Plan and improving public and sectoral understanding of the value of biodiversity has not been progressed. In celebration of International Day for Biodiversity each year, DAHG in partnership with organisations such as the Irish Environmental Network celebrate national biodiversity week by scheduling a significant number of events for the purpose of raising awareness of biodiversity and its importance. EPA sponsors a wide variety of media promoting biodiversity conservation and 	Further action required

sustainability, including: TV series such as Eco Eye, an upcoming series on marine life to be aired in June 2014 and a book in Irish Birdlife to be published in 2014. In addition, EPA provides a range education materials for students such as identification keys for common species of birds, trees and insects aimed at primary-level students, and Education Modules on 'Biodiversity in Our Wetlands' for second-level students.

OBJECTIVE 4: TO CONSERVE AND RESTORE BIODIVERSITY AND ECOSYSTEM SERVICES IN THE WIDER COUNTRYSIDE

HEADLINE TARGET: In the wider countryside biodiversity loss reduced by 2016 and showing substantial recovery by 2020

TARGET 5: Optimise use of opportunities under agricultural, rural development and forest policy to benefit biodiversity

Action	Department/ Agency Responsible	Comments	Status
5.01 Develop measures in future rural development programmes for the protection and enhancement of ecosystem services and biodiversity.	DAFM, DECLG	<ul style="list-style-type: none"> Ireland secured €2.2bn in EU funding for the new rural development programme up to 2020 and DAFM has committed substantial national funding, giving an overall total of over €4bn, thus demonstrating a strong commitment for both rural development and the environment as it includes a substantial commitment for a new agri-environment scheme, GLAS (building up to approx. 50,000 participant farmers over the period of the programme). The scheme is opened to applicants in 2015 and implementation of measures will commence in the latter part of 2015. A number of biodiversity actions are included within the new agri-environment scheme, including priority actions targeted at vulnerable habitats and threatened species, as well as some general actions which will have wider biodiversity benefits. The new Scheme will also have a water quality and climate action focus which will have added benefits for ecosystem services. A number of biodiversity related output-based measures will also be incorporated into the RDP over the period of the programme. The CAP reform process which falls within the responsibility of DAFM, has been finalised, with input/ advice/training provided by NPWS, as requested. The NPWS farm plan scheme has assisted in trialling prescriptions that can now be mainstreamed in DAFM schemes and EU financed operating programmes. NPWS would like to see this role formalised through a Memorandum of Understanding for Natura lands in particular. The LEADER elements of the Rural Development Programme (RDP) will be programmed by DECLG under Priority 6: Promoting social inclusion, poverty reduction and economic development in rural areas however there are also 3 cross cutting objectives of innovation, environment and climate change which can also be integrated into these locally funded projects where relevant. 	Implementation in progress

5.02	Further develop criteria to identify High Nature Value farmland and develop measures to address threats.	DAFM, DAHG	<ul style="list-style-type: none"> • The Heritage Council grant-aided the European Forum for Nature Conservation and Pastoralism (EFNCP) to undertake work on high nature value (HNV) farming since 2010. EFNCP has produced three reports on how HNV farming can be better supported in three case study areas: the Aran Islands, North Connemara and the Iveragh Peninsula. • As a follow on from the EFNCP, funding has been received through the EU LIFE programme for a project to improve the conservation status of limestone pavement, orchid-rich calcareous grasslands and machair on the Aran Islands. See 1.14 for further information. Further work on HNV is being done by EFNCP in association with Institute of Technology, Sligo. • A significant development for the identification and mapping of HNV farmland in Ireland was the identification of 1,192 grassland sites within the NPWS Irish Semi-natural Grasslands Survey 2008-2013. • A research project commenced in mid 2013 to identify the distribution and extent of agricultural land of High Nature Value (Ideal-HNV) in Ireland. It is funded through the Research Stimulus Fund of the Department of Agriculture, Food and the Marine (DAFM). The project is a collaboration between Teagasc and IT Sligo and will run for a duration of 2 years. • A joint Irish/Spanish project funded by DG Environment will commence in 2015 and run to 2018 to test pilot on-farm results based remuneration schemes in Ireland and Navara. This is co-ordinated by EFNCP, with support in Ireland from IT Sligo, NPWS, BirdWatch Ireland and other partners and will operate in the Shannon Callows and in a HNV area in Co. Leitrim. 	Implementation in progress
5.03	Ensure effective implementation of cross-compliance, statutory management requirements and Forest Service guidelines/requirements to ensure conservation of biodiversity.	DAFM	<ul style="list-style-type: none"> • Forest Service Appropriate Assessment Procedure Information Note (Consolidated version March 2013) , setting out how the procedure is applied by the Forest Service to applications for afforestation, forest road construction, thinning, clearfelling / replanting, and aerial fertilisation of forests. As set out in the Information Note, specific procedures are in place regarding Hen Harrier and Freshwater Pearl Mussel, and guidance given regarding the compilation of NATURA Impact Statements. • The Forest Service is currently not issuing approvals for afforestation within Hen Harrier SPAs, pending the formulation of the Threat Response Plan for the species, led by NPWS. • The Forest Service is currently drafting Catchment Forest Management Plans for the priority 8 Freshwater Pearl Mussel Catchments. Based on the Forest Service AAP and a forestry operations options matrix, the plan will ensure that all forestry operations regulated by the Forest Service in these catchments is compatible with the protection and conservation of FPM and its habitat. • Revision of forestry environmental guidelines by the Forest Service, DAFM, underway. These include guidelines directly related to biodiversity, and guidelines indirectly related (e.g. water quality guidelines). Revision to fully integrate requirements under Birds & Habitats Regs., Water Framework Directive, etc. and to reformulate the guidelines around specific operations, for clarity and ease of use. 	Implementation in progress

			<ul style="list-style-type: none"> To receive a payment under the Single Payment Scheme farmers must follow a variety of regulations including environmental regulations. This system is known as Cross Compliance. The regulations to follow are called Statutory Management Requirements (SMRs). There are two (main) SMR types with regard to farming and biodiversity and these have been updated from 2015 onwards: SMR2 - Conservation of Wild Birds and SMR3 - Conservation of Natural Habitats and of Wild Flora and Fauna. Guidance has been produced for farmers to assist in understanding these requirements. Any clear breaches of cross compliance in relation to SMR 2 and 3 encountered by DAHG staff are reported to DAFM. 	
5.04	Conduct a systematic evaluation process for any agri-environmental schemes delivered, involving a robust ecological monitoring programme.	DAFM, DAHG, Teagasc	<ul style="list-style-type: none"> The draft RDP has undergone a strategic environment assessment and appropriate assessment prior to submission to the Commission by DAFM. An evaluation plan has also been submitted as part of the RDP for Commission approval. This plan provides an overview of the methods and resources required to carry out a systematic evaluation of the measures being implemented. Monitoring of outputs will rely heavily on the use of environmental indicators, but measure or action specific ecological monitoring is also being considered to give additional insights on the effectiveness of measures. 	Implementation in progress
5.05	Review the control of overgrazing and undergrazing.	DAFM, DAHG	<ul style="list-style-type: none"> Recommendations from NPWS have been submitted to the DAFM with respect to the ongoing RDP consultation in relation to both improving the management of commonages with regards to undergrazing and overgrazing, and the potential incompatibilities in habitat management between Pillars 1 and 2 of the RDP. The provision of a commonages action in GLAS will incentivise farmers to manage these areas more sustainably addressing these aforementioned issues. 	Implementation in progress
5.06	Continue the Burren Farming for Conservation Programme.	DAFM, DAHG	<ul style="list-style-type: none"> The DAFM has incorporated plans for an expansion of the Burren For Conservation Programme (subject to Commission approval), as part of the RDP over the period to 2020. The programme aims to support high environmental value farming in the Burren, continuing and mainstreaming the findings of the BurrenLIFE Project (2005-2010). 	Implementation in progress
5.07	Continue to promote the Native Woodland Scheme which features establishment and conservation elements aimed at encouraging the development and conservation of native woodlands.	DAFM (Forest Service)	<ul style="list-style-type: none"> The Forest Service Native Woodland Scheme (NWS), developed and implemented in partnership with NPWS, Woodlands of Ireland, Inland Fisheries Ireland and others, is aimed at protecting and expanding Ireland's native woodland resource. Two separate elements under the scheme provide funding to landowners for: (i) the appropriate restoration management of existing native woodlands (including conversion of non-native forest to native woodland) (NWS Conservation) and (ii) the creation of new native woodland on 'greenfield' sites (NWS Establishment). The NW Conservation has been suspended over the recent years. However, the reopening of this element is proposed under the new forestry programme 2014-2020, and a clear role for it is envisaged under the Freshwater Pearl Mussel-focused KerryLIFE project and the Top 8 FPM Catchment Forest Management Plans, specifically to fund the conversion of conifer forests into native woodlands at key points along FPM watercourses. NWS Establishment has remained open and has undergone two major reviews in (Aug11 and Feb13), to increase its attractiveness and uptake. With support from 	Implementation in progress

			<p>NPWS, Woodlands of Ireland, Inland Fisheries and others, the Forest Service reached agreement with Ireland's EPA to amend the existing protocol regarding afforestation in acid sensitive areas, to facilitate the creation of new native woodlands in these areas, for (inter alia) water protection. A 2-day NWS training Course, aimed at foresters, landowners and personnel from relevant statutory bodies, was held in December 2014 in Co. Wicklow, and was attended by over 50 participants.</p> <ul style="list-style-type: none"> The revised NWS proposed under the Forestry Programme 2014-2020 will be based on ecologically-driven criteria regarding the identification of priority sites in terms of native woodland ecosystems, wider habitat linkage, and relevant eco-system service delivery (e.g. water quality). Compatible wood production using close-to-nature silviculture, will remain a key element, where appropriate. Various new measures will also be developed, including a component for emergent native woodland ('scrub'). 	
5.08	Consider and develop guidance on alternative forestry management options which aim to deliver additional biodiversity benefits.	DAFM (Forest Service)	<ul style="list-style-type: none"> The following initiatives will involve the promotion of alternative and traditional silvicultural management practices aimed at the delivery of (inter alia) biodiversity benefits, including those relating to aquatic habitats and species: Freshwater Pearl Mussel-focused KerryLIFE project; the Top 8 FPM Catchment Forest Management Plans; and the proposed Native Woodland Scheme and agro-forestry measure under the incoming forestry programme. Each of these will involve the provision by the Forest Service and others (e.g. Woodlands of Ireland) of guidance (publications, training) to forest owners and foresters, regarding management practices and decisions. 	Implementation in progress
5.09	Strengthen measures to ensure conservation, and availability for use, of genetic diversity of crop varieties, livestock breeds and races, and of commercial tree species and promote in particular their in situ conservation.	DAFM	<ul style="list-style-type: none"> The grant aid scheme for the Conservation of Genetic Resources Grant Aid Scheme for Food and Agriculture (DAFM) fund projects to identify, inventory, and conserve threatened genetic resources in Ireland. A National Genetic Conservation Strategy Document for animal genetic resources was published in 2013 by DAFM. Ireland lists seven populations of livestock as endangered. These include three populations of cattle, three populations of equines and one population of sheep. The 2013 strategy provides recommendations to ensure the conservation and use of animal genetic resources in Ireland. An equivalent strategy document will be produced for plant genetic resources in 2014. These national strategy documents will then be used to direct funding towards priority areas in future years, with the draft RDP giving priority access to funding for breeders of listed livestock. 	Implementation in progress

TARGET 6: Principal pollutant pressures on terrestrial and freshwater biodiversity substantially reduced by 2015

Action	Department/ Agency Responsible	Comments	Status
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6.01	Ensure implementation of operational monitoring programmes, publication of River Basin Management Plans and establishment and implementation of River Basin District Programmes of Measures, in line with provisions of the Water Framework Directive.	DECLG, EPA, LAs	<ul style="list-style-type: none"> The Water Framework Directive National Monitoring Program is in place. Water Framework Directive Programs of Measures project ongoing which is aimed at standardising WFD data and getting it into a common information system for management. New governance arrangements are almost finalised. The Water Framework Directive Governance is being reconsidered with the potential that the responsibilities between DECLG, EPA and LAs would be revised for 2nd cycle of RBM planning. Implementation of cycle 1 Programmes of Measures by DECLG is ongoing. Preparations for the second cycle of river basin management planning is underway. New governance arrangements are being put in place and a work programme for delivery of new RBMPs will be published for public consultation in June 2014. 	Implementation in progress
6.02	Continue investment in Water Service Investment Programme, and ensure biodiversity concerns are considered in the programme.	DECLG, LA's, IW	<ul style="list-style-type: none"> €286m was allocated for Water Services Investment in 2013 and a further €310m in 2014. The responsibility for Water Services now lies with Irish Water. Irish Water published its Capital Investment Plan(CIP) for 2014 to 2016 in May 2014. CIP funding is outlined as €410 per annum for both 2015 and 2016. This will see a continuation of works already underway. Improvement in wastewater treatment remains a key consideration in the CIP. Under Section 33 of the Water Services (No. 2) Act 2013 Irish Water must prepare and submit to the DECLG a Water Services Strategic Plan. This Water Services Strategic Plan will state the objectives of Irish Water in relation to the provision by it of water services in respect of the period of 25 years following the approval of the plan by the DECLG and the means by which it proposes to achieve those objectives, including in relation to the prevention of abatement of risks to the environment relating to the provision of water services. 	Implementation in progress
6.03	Significantly reduce pollutant pressures on terrestrial and freshwater ecosystems through implementation of relevant EU Thematic Strategies and Directives (e.g. Water Framework Directive, Sustainable Use of Pesticides and Nitrates).	DECLG, EPA, LAs DAFM	<ul style="list-style-type: none"> Licensing of waste water regime is now in place and septic tank inspections are being carried out with a target of 1,000 risk-based inspections p.a. Ireland's 3rd Nitrates Action Programme was given legal effect in January by the European Union (Good Agricultural Practice for Protection of Waters) Regulations 2014. Implementation is on-going. It will be reviewed by end 2017 as required by the Nitrates Directive. 	Implementation in progress

TARGET 7: Optimised Benefits for biodiversity in Flood Risk Management Planning

Action	Department/ Agency Responsible	Comments	Status
7.01 Incorporate objectives to minimise biodiversity loss and degradation of	OPW	<ul style="list-style-type: none"> A Multi Criteria Analysis (MCA) framework is being developed which will guide the 	Implementation in progress

	ecosystem services, and to optimise biodiversity gains, in flood risk management plans.		<ul style="list-style-type: none"> selection of options to manage flood risk. This MCA will be used for the options appraisal phase in 2015 as a component of the flood risk management plans and will account for environmental objectives including habitats and species in tandem with technical, social and economic objectives. 	
7.02	Continue to ensure that all significant drainage, including both initial drainage and maintenance drainage, is assessed for its implications for biodiversity and particularly for wetlands.	OPW	<ul style="list-style-type: none"> The OPW are continuing to ensure that all significant drainage, including both initial drainage and maintenance drainage, is assessed for its implications for biodiversity and particularly for wetlands. Under the national Environmental River Enhancement Programme 2013-2017, fisheries type enhancement works are carried out on a series of arterial drainage channels annually. These enhancement works create a more natural and diverse channel form which benefits not only fish, but the broader biodiversity of the river corridor. 	Implementation in progress

TARGET 8: Harmful invasive alien species are controlled and there is reduced risk of spread of new species

- (Note: Invasive Species Ireland, an all-island project co-funded by DAHG and DoE(NI), contributed substantially to this work. Renewal of the project is under consideration. DOENI are monitoring the project website.

Action	Department/ Agency Responsible	Comments	Status
8.01 Prepare, by 2011, detailed species and pathway risk assessments and develop exclusion and contingency plans for priority pathways and high impact species that are likely to invade Ireland.	Invasive Species Ireland	<ul style="list-style-type: none"> Invasive Species Ireland produced biosecurity guidance in the form of Codes of Practice for key activities that are known to facilitate the introduction of invasive species to Ireland and Northern Ireland. Codes of Practice were developed specifically for Aquaculture, Marina Operators, Water Users and Horticulture. Invasive Species Risk Assessments were carried out for 41 species subject to trade to enable the full implementation of Regs. 50 and 79 of the European Communities (Birds and Natural Habitats) Regulations 2011. Some state bodies have very proactive biosecurity protocols to mitigate the threat posed by invasive species, in particular Inland Fisheries Ireland and National Roads Authority. The National Biodiversity Data Centre published a report on the “Invasive and Non-native Species in Ireland - Trends in Introductions”, which was the first review of the arrival dates of non-native species in Ireland. Part of this work involved a horizon scanning exercise to identify potential new invaders to Ireland to assist policy formulation and introduction of mitigation measures. In 2013 IFI hosted an international conference on Freshwater Invasives – Networking for Strategy (FINS). Resulting from this meeting and workshop sessions a paper entitled ‘Tackling Invasive Alien Species in Europe: the Top 20 Issues’ was published in the journal Management of Biological Invasions. 	Implemented

			<ul style="list-style-type: none"> The EU LIFE+ Project CAISIE (Control of Aquatic Invasive Species and Restoration of Natural Communities in Ireland) concluded in January 2013. The broad objective of the project was to contribute to the halting of biodiversity loss in Ireland by preventing further impacts on native biodiversity from high impact aquatic invasive species. The extensive infestations of Lagarosiphon that obstructed angling and boating in Lough Corrib have been brought to manageable levels during the life of this project. Work to maintain the fishery and navigation in operational condition since the project ended in January 2013 has been coordinated by IFI, with assistance from a number of State agencies. 	
8.02	Continue and enhance measures for eradication, where feasible, control and containment of invasive species.	DAMF, DAHG, IFI, LAS	<ul style="list-style-type: none"> Progress was made with the control and eradication of some recently arrived invasive species. Inland Fisheries Ireland has an active work programme and devotes resources to the control, eradication and containment of aquatic and riparian invasive species. Ongoing work has been undertaken to eradicate Chub (<i>Leuciscus cephalus</i>) and Water primrose (<i>Ludwigia grandifolia</i>) from Irish waters. The CAISIE project has resulted in <i>Lagarosiphon</i> being brought back to manageable levels in Lough Corrib, and in the process, new and novel control techniques have been developed. Inland Fisheries Ireland continues to research methods for the control of Asian clam (<i>Corbicula fluminea</i>), which has spread from River Barrow to the River Shannon. The National Botanic Gardens has been running an intensive eradication program along with Conservation Volunteers and the Heritage Council of the Hottentot Fig (<i>Carpobrotus edulis</i>) on Howth Head. This project has met with remarkable success. Other state bodies and local authorities have recognised the threat posed by invasive species and have on-going projects. NPWS continues to clear <i>Rhododendron ponticum</i> in National Parks. Substantial progress has been made. 	Implementation in progress
8.03	Examine options for rapid response when new invasive species are discovered.	ISI, IFI	<ul style="list-style-type: none"> Initiated through Invasive Species Ireland, there is good national coordination of information flows on Invasive Species in Ireland as a prerequisite for delivery of a Rapid Response system. Agreement was reached by the key national bodies on sharing of information on newly recorded species, a process coordinated by the National Biodiversity Data Centre. A team of national experts has been identified who provide verification of records of newly arrived sightings of invasive species, and following verification of reported sightings, species alerts are issued by the National Biodiversity Data Centre. Since 2011, alerts for three species, Japanese Kelp, Squirrel Pox Virus and Raccoon, have been issued by the National Biodiversity Data Centre. For the freshwater environment, Inland Fisheries Ireland has a very proactive response to invasive species and has provided basic training for its staff in respect of aquatic and riparian invasive species identification and how to report new sightings in an accurate and timely manner. A dedicated Invasive Species Group, comprising personnel from each of the River Basin Districts, was established by IFI. Member of 	Implemented

			<ul style="list-style-type: none"> the group will be trained in rapid reaction and related methods. IFI has produced a dedicated invasive species App for use on smart 'phones and that this is being widely used by IFI staff and others to record and document records of invasive species. 	
8.04	Increase awareness within the horticultural and constructed wetlands industries of native alternatives that can be used in place of invasive species	ISI	<ul style="list-style-type: none"> Invasive Species Ireland launched a 'Be Plant Wise' awareness campaign to highlight the threat posed by plants to the aquatic environment. It involved promotion of a campaign video, guidance for retailers, gardeners and pond owners, and an information leaflet. The information focussed on alerting to the potential threat posed by five aquatic plants, New Zealand Pygmy Weed, Floating Pennywort, Curly Waterweed, Water Fern and Parrot's Feather. The National Biodiversity Data Centre initiated a project to raise awareness amongst the horticulture section of the threat posed by invasive species. It launched a 'Spot the Alien' awareness campaign and recording initiative focussed on three species for which horticulture is the major pathway, namely: red lily beetle, New Zealand flatworm and Harlequin ladybird. The work on Invasive Species Risk Assessments described under Action 8.01 includes a public consultation exercise about implementation of Regs 50 and 74 of the regulations and engagement with the horticultural and other sectors highlighting the potential threat posed by invasive species, in particular, aquatic plants. B and Q, the DIY company, produced a company policy covering Ireland as well as the UK, on invasive species. An iPhone 'Invasives Ireland' app was developed by Longford County Council with Heritage Council funding and with support by the National Biodiversity Data Centre is now available for download from i-Tunes. The android version will be released shortly. Records submitted via the app will be processed by the Data Centre and added to the National Invasive Species Database. Once the android app is published a media launch of the app is planned. IFI has produced a large number of information, educational and advocacy materials that include identification sheets for 10 aquatic and riparian species, key ring identification units, USB keys, best practice for control guides for 6 species, biosecurity protocols for specific stakeholder groups (e.g. anglers, boaters, divers, paddle sports), among others IFI released an Invasive Species App in 2012 to aid identification of invasive species and facilitate the submission of georeferenced photographs to the IFI server. 	Implementation in progress
8.05	All public bodies will endeavour to use native species, landraces and breeds and the public will be encouraged to do so.	DAFM	<ul style="list-style-type: none"> The Roads Division of DTTAS places the use of native planting in landscaping national road schemes as an integral part of the NRAs landscaping policy documentation which incorporates the requirements of the National Biodiversity Action Plan. Guidance on landscaping with native species was collated and published by Woodlands of Ireland and the Heritage Council on the ecolandscapes.ie website, funded by DAHG and DAFM. 	Implementation in progress
8.06	Implementation of Regulation(EU) No 1143/2014 of the European	DAFM	<ul style="list-style-type: none"> This new regulation, which came into force on 1st January 2015, complement the Non-indigenous Species Description included in the MSFD 	

Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species

TARGET 9: Effective hedgerow and scrub management ensured by 2016

Action	Department/ Agency Responsible	Comments	Status
9.01 Review options on regulation of scrub removal/Hedgerow Management.	DAFM, DAHG, DECLG	<ul style="list-style-type: none"> The European Communities (Environmental Impact Assessment)(Agriculture) Regulation (S.I.456/11) was introduced by DAFM in September 2011 to give effect to the new provisions and procedures compliant with the EIA Directive. Under these Regulations, DAFM operates a screening process for farmers, by examining the effects of certain proposed activities namely: restructuring of holdings, commencing to use uncultivated/semi-natural land for intensive agriculture and land drainage works (other than wetlands), and determining whether the proposed activities can proceed without an Environmental Impact Assessment. Furthermore, hedgerows, drains and ditches are designated as landscape features which must be retained under the single (basic) payment scheme, and as such form part of the eligible area for payment. 	Implemented
9.02 Production of guidance documents hedgerows/scrub.	DAFM, Teagasc	<ul style="list-style-type: none"> In 2012, Teagasc developed and delivered a 5 hour course on hedgerow management as part of the Countryside Management Series targeting stakeholders involved in agri-environment schemes. Furthermore, Teagasc continues to provide 2 day FETAC courses on hedgerow management in the Salesian Agricultural College, Limericks and host a suite of guidance documents supporting hedgerow management on the Environment Knowledge Transfer section of their website. In 2013, funded by the Heritage Council Grants Programme, Woodlands of Ireland developed and published a rigorous survey methodology and data appraisal system to support evidence-based national management of hedgerows. 	Implemented
9.03 Hedgerow surveys will be continued by local authorities.	LAs	<ul style="list-style-type: none"> As an initiative of the Heritage Council under its Heritage Officer programme, surveys of hedgerows were carried out in many local authority areas. In 2013, a national initiative coordinated by Woodlands of Ireland worked to develop a Hedgerow Appraisal System with three objectives: i) develop a Standard Recording Methodology, ii) develop a Standard and Accessible National Database, and iii) develop a Method for Hedgerow Appraisal. As a result of this initiative, a National Hedgerow Appraisal - best practice guidance on hedgerow surveying, data collection and appraisal was published. A national hedgerow database, bringing the data from hedgerow surveys carried out in 15 counties, has also been established. The database and the national standard are available for download from the National Biodiversity Data Centre website www.biodiversityireland.ie 	Implementation in progress

TARGET 10: Continued rehabilitation or restoration of biodiversity elements

Action	Department/ Agency Responsible	Comments	Status
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		Agency Responsible		
10.01	Identify areas of biodiversity value, or biodiversity hotspots, within Bord na Móna lands by 2015.	BNM	<ul style="list-style-type: none"> Bord na Móna produced a Biodiversity Action Plan 2010- 2015 to strengthen its role in enhancement of biodiversity within the company's overall corporate objectives. It is currently carrying out baseline ecological surveys of its cutaway bogs to identify the areas of greatest biodiversity value. This involves identification and designation of key biodiversity hotspot as Bord na Móna Biodiversity Areas. 	Implementation in progress
10.02	Continue ecological surveys, preparation of habitat maps and planning of rehabilitation for all Bord na Móna bog areas.	BNM	<ul style="list-style-type: none"> Baseline survey have been completed for many of the cutaway sites and some are now being resurveyed to see how the sites are developing. This ecological monitoring is used to identify sites which are most suitable for rehabilitation and draft rehabilitation plans are being produced. There is ongoing work on rehabilitation of high quality bog sites, mainly through blocking of drains, and since 2012 400ha are being actively restored. 	Implementation in progress
10.03	Continue to develop a network of biodiversity areas within Bord na Móna sites.	BNM	<ul style="list-style-type: none"> Bord na Móna is continuing its ecological surveys of the cutaways and some of the most important biodiversity areas are identified and designated as Bórd na Mona Biodiversity Areas. So designated, they are used to inform plans for future development options for cutaway bogs. 	Implementation in progress
10.04	Continue the restoration programme of reintroduction of large raptors.	Golden Eagle Trust, DAHG	<ul style="list-style-type: none"> The programme is continuing, although the importation and release of eagles and kites is now complete. Golden Eagles: 61 birds released 2001-2012 in Donegal; seven found dead, including three confirmed as poisoned; 11 wild bred chicks fledged in Donegal 2007-2014; currently three known breeding pairs Including the first Donegal bred Golden Eagle, which bred unsuccessfully in 2014. Golden Eagles have a tentative foothold in the Donegal Mountains. Illegal poisoning was the biggest threat to the released birds and it is suspected that many of the radio tagged birds, that were poisoned, were not found. The habitat condition of the Donegal Uplands is now the project's primary focus. The forthcoming collective commonage management plans will have a direct bearing on the status of vegetation in a large proportion of Donegal's eagle territories and consequently on their associated prey base (hares and grouse) of eagles. White-tailed Sea Eagles: 100 birds released 2007- 2011 in Kerry; 30 found dead including 12 confirmed poisoned, two shot and three killed by wind turbines; seven breeding attempts in 2014 in Counties Kerry (3), Galway (2), Clare (1) and Cork (1). The Pair in Mountshannon, Clare fledged 2 chicks in 2013 and 1 chick in 2014. The Mountshannon eagle nest site is open to public viewing and attracted a minimum of 7,000 visitors in 2013 and 10,000 visitors in 2014. Despite setbacks arising from illegal poisoning, this population is likely to establish itself in several discrete regions in the coming years. Food availability and nesting sites are quite widespread and if illegal persecution can be curtailed, this species may re-colonise former historical haunts gradually. Red Kites: 119 birds released 2007-2011 in Wicklow, 39 birds released in Dublin 2011; 31 found dead including 23 confirmed poisoned, one shot and three killed by trains; 109 wild bred chicks fledged in Wicklow 2010-2014. 34 territorial pairs of kites located in Wicklow in 2014. The first recorded breeding attempt of a pair of Wicklow bred kites (2010 & 2012 wild chicks) was successful in 2014. Two additional pairs 	Implemented

			<p>were noted in County Wexford. There were four pairs noted in North County Dublin, though no breeding was confirmed. 2 untagged juvenile Red Kites observed in Dublin in September 2014, could conceivably have fledged from an undetected nest in Dublin.</p> <ul style="list-style-type: none"> • Discussions are ongoing regarding a proposal to translocate some Wicklow Red Kite Donor stock into Munster, once the Wicklow population begins to produce 50 young a year. 	
10.05	Maintain target of 30% broadleaf planting in afforestation.	DAFM	<ul style="list-style-type: none"> • The Forest Service policy is to ensure that, at a national level, 30% of afforestation comprises broadleaf species. This is pursued through various measures, including: (i) the heightened level of grant and premiums available for broadleaf planting under the afforestation grant and premium schemes; (ii) the requirement to include 10% broadleaves (where site quality allows) within all new individual afforestation projects, and (iii) the Native Woodland Establishment Scheme, focused on creating new native woodlands primarily comprising native broadleaf species. It is proposed to maintain this 30% broadleaf target in the new forestry programme. 	Implementation in progress
10.06	Continue to update the inventory of native woodlands, review and, where appropriate, incorporate the results of the Native Woodland Survey into the conservation and expansion of the native woodland cover.	DAHG DAFM	<ul style="list-style-type: none"> • Woodlands of Ireland currently drafting a 5-year native woodland strategy that requires active cooperation and funding from government agencies, especially NPWS and Forest Service (DAFM) • NPWS undertook National Survey of Native Woodlands in Ireland REFER TO NPWS for details of afterlife. • Ongoing monitoring of the national forest estate is undertaken by the Forest Service, DAFM, under the National Forest Inventory. Permanent sample points include native and semi-natural woodlands, and parameters assessed include species composition, plant diversity, deadwood volume, recruitment, and biotic and abiotic threats (e.g. rhododendron, fire damage, deer damage). The second cycle of the NFI was completed in late 2012 - for results, see http://www.agriculture.gov.ie/nfi/nfisecondcycle2012/nationalforestinventorypublications2012/ • Revision of the Native Woodland Establishment Scheme (in Aug11 and again, in Feb13) included native woodland planting mixtures derived from the results of the National Survey of Native Woodlands in Ireland, thereby ensure that new native woodland planting under the scheme reflects survey findings. 	Implementation in progress
10.07	Develop, adopt and implement restoration programmes for salmon, sea trout and eels.	IFI, Marine Institute	<ul style="list-style-type: none"> • The management of fisheries is the principal and most direct intervention used in Ireland to protect and restore salmon stocks. Conservation Limits (CL) for individual salmon rivers were developed in 2007 and since then advice on the status of salmon stocks and appropriate catch levels in 143 rivers, to ensure compliance with conservation requirements, is provided annually. IFI evaluates the status of salmon stocks against each river-specific CL. The independent Standing Scientific Committee on Salmon (SSCS), comprising scientists from IFI, NPWS, MI, ESB, BIM, AFBI, Loughs Agency, UCC and the EPA, annually reviews all data and provides independent scientific advice to IFI on the predicted status of stocks. IFI fisheries managers implement a management regime to protect salmon and also undertake river habitat improvement programmes on an ongoing basis. 	Implementation in progress

- Anglers and commercial fishermen contribute 50% of their annual fishing licence fee to support salmon conservation; IFI manages this fund to support projects aimed at conservation of salmon and their habitat which targets rivers currently failing to meet salmon conservation limits.
- In 2012, the results of research and the outputs of the national eel monitoring programme were used to report on the status of Irish Eel as required under the 2007 EU Eel Regulation. A review of the management plan was forwarded to the EU in June 2012. Monitoring objectives for the time period 2012 – 2015 were outlined with the next review due in June 2015. The eel management plan contains a number of monitoring objectives to ensure compliance with the management actions. Inland Fisheries Ireland is tasked with carrying out these objectives.
- Research and monitoring of sea trout stocks is ongoing at the national sea trout index catchment at the Erriff fishery in Connemara. This long term programme, begun in 1984, is important in monitoring Erriff sea trout populations in the future and will allow assessment of the impact of environmental factors, including sea lice levels on the sea trout stock. A salmon and sea trout smolt monitoring programme, using acoustic telemetry, was initiated in 2014 in the Erriff and the adjacent Killary Harbour, to determine marine habitat utilisation at this vulnerable life stage. In 2013, the EU funded Celtic Sea Trout Project was concluded. This project greatly increased understanding of the migration, genetics, ecology and feeding of sea trout in the Irish Sea. The marine focus of the project addressed an important knowledge gap and the study also provided the first baseline of sea trout populations for rivers in this area.
- Each year advice is provided on the conservation status and management of salmon on a catchment by catchment basis. The status of salmon stocks were also reported in 2013 as part of Article 17 of the Habitats Directive.
- The 2015 salmon advice is that 55 stocks are meeting conservation limits and a harvest fishery can take place in 2015. 27 rivers are over 65% of their conservation requirement or are exceeding a minimum fry threshold in catchment wide electrofishing and can open for angling catch and release fishing. There are 61 stocks which are not attaining a sufficient proportion of their conservation requirement and therefore they will be closed for fishing entirely to protect these stocks and allow recovery and rebuilding.
- There are 16 rivers for which a separate assessment is made for larger Multi Sea Winter for 2015, 12 are meeting and exceeding conservation limits, 4 rivers are over 65% of their conservation requirement or are exceeding a minimum fry threshold in catchment wide electrofishing and can open for angling catch and release fishing
- IFI is working with OPW in enhancement of Salmonid waters in arterially-drained rivers (EREP study 2013 - 2017). Barriers have been identified as a major passage issue in many rivers and removal/mitigation measures are being progressed under WFD programme of measures
- The Marine Institute provide the international stock assessment for salmon and eels

at the relevant working groups of the International Council for the Exploration of the Seas (ICES). These are carried out with a view to maintaining biodiversity.

- Ireland are a contracting party and contribute to the implementation/reporting on the NASCO action plans for international salmon management, which have a specific focus on biodiversity.
- Ongoing research on salmon population genetics being carried out by UCC and Marine institute (with QUB and AFBI) is an important contributor to restoration programmes for salmon, sea trout and eels. The Beaufort Marine Research Award in Fish Population is profiling and cataloguing intra-specific variation to assess the impact of anthropogenic pressures at the population level. Future work will utilise the long-term monitoring facilities (the Burrishoole catchment) and deploying state-of-the-art techniques for pedigree reconstruction to study in detail the relationship between environment and genetic variation.
- Consideration of appropriate OSPAR recommendations on the protection of habitats and species (Eels(existing) and Salmon (pending))

TARGET 11: Improved enforcement of Wildlife Law

Action	Department/ Agency Responsible	Comments	Status
11.01 Enhance the role of An Garda Síochána and Customs in enforcing Wildlife legislation, through, among other actions, the provision of specific training and guidance.	DAHG	<ul style="list-style-type: none"> • A nominated officer of Revenues Customs Service is a member of the EU Wildlife Trade Enforcement Group and attends each of the bi-annual meetings at the EU Commission. The agenda covers major developments as regards trends in legal and illegal trade, significant seizures and confiscations, court cases and other enforcement and training related issues. • The Revenue Training Centre is currently designing a Cites enforcement course for Customs enforcement officers and hopes to roll it out in September 2014. • There was a National Wildlife Crime Conference held in September 2013 attended by representatives from Department, Customs, Garda Síochána and UK Wildlife Crime experts 	Implementation in progress
11.02 Ensure adequate training in Wildlife Crime detection and enforcement is provided to all NPWS enforcement staff.	DAHG	<ul style="list-style-type: none"> • Training courses have been arranged for Department’s authorised officials on courtroom skills and expert witness procedures. 	Further action required
11.03 NPWS enforcement staff will investigate along with An Garda Síochána and Revenue (Customs) officials (as appropriate) suspected and alleged wildlife crime affecting biodiversity.	DAHG	<ul style="list-style-type: none"> • Since 2011, the Revenue Customs service has made 59 seizures, of which only two were of live species, Giant Clams and Red-eared Slider Turtles. • The Revenue Customs service had one successful prosecution during the period. Two men were convicted of illegally importing eight Rhino horns at Shannon Airport in January 2010. They were each fined €500. • Joint operations have been undertaken and are continuing between An Garda Síochána and the Department which has resulted in a number of successful prosecutions for breaches of the Wildlife Acts 	Implementation in progress

11.04	Continue to enforce the Wildlife Acts and Regulations.	DAHG	<ul style="list-style-type: none"> In the period 2011 to 2013 some 100 prosecution cases were taken by the Department under the Wildlife Acts and Habitats Regulations, of which 74 were successful. 	Implemented
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TARGET 12: Monitoring providing adequate data flow for reporting on biodiversity by 2016

Action	Department/ Agency Responsible	Comments	Status
12.01 Use, and develop, monitoring tools, approaches and frameworks to reveal key trends.	DAHG	<ul style="list-style-type: none"> Monitoring programmes have been developed and initiated for upland, grassland, hard water lake, turlough, woodland, dune, saltmarsh, limestone habitats. Countryside Birds, Wintering Waterbirds, East Coast breeding Terns, Bats, Vertigo species, Seals, Crayfish, Petalwort, Sickle moss, Killarney fern, Clubmosses, Marsh Saxifrage, Marsh Fritillary, Otter, Irish hare, Frog and Natterjack toad (NPWS) and Salmon (IFI). Biodiversity elements are monitored as part of WFD monitoring undertaken by the EPA e.g. Crayfish. The NBDC undertake butterfly, bumblebee, and vascular plant monitoring programmes. Many different approaches are being considered including the development of specific apps (e.g. bats), the use of citizen science (e.g. butterfly), and real-time surveillance (NPWS Site Inspection Reporting programme). Monitoring of fish species trends is being undertaken by IFI under various programmes including the National Eel Monitoring Programme, the EU Habitats Directive (Fish) Programme which monitors 'conservation fish species', including the shads, lampreys, smelt, char, pollan and Atlantic salmon, and the Water Framework Directive Fish Monitoring programme which monitors fish populations at fixed sites using inter-calibrated techniques in river, lake and transitional waters. These programmes are delivered on a rolling basis delivering for target species and providing general fish biodiversity data. An extensive tagging programme contributes to monitoring elasmobranch distribution, movement, growth and exploitation, and coarse fish and pike are regularly monitored through direct stock assessment and tagging programmes. The use of technology (app/website) and targeted surveys of invasive fish, plant and other species contribute to identifying risks and protection of biodiversity. 	Implementation in progress
12.02 Monitor conservation status of Habitats Directive habitats and species.	DAHG, IFI	<ul style="list-style-type: none"> Assessments completed for 2013 deadline for all habitats and species listed on the Habitats Directive, although not all assessments are underpinned by monitoring programmes. Current round of monitoring and investigation (2013 - 2018) underway. 	Implemented
12.03 Monitor the status of species and species groups listed on the Birds Directive.	DAHG	<ul style="list-style-type: none"> Funded by DAHG, The Heritage Council, NIEA and EPA, and coordinated by BirdWatch Ireland, the Bird Atlas 2007-2011 provides an up to date picture of the distribution and relative abundance of Ireland's birds and reveals how they have fared since the early 1970s. The Bird Atlas 2007 – 2011 combined with single species surveys (e.g. Hen Harrier, Common Scoter) and with data from the on-going bird monitoring programmes of the Countryside Bird Survey (CBS) and the Irish Wetland Bird Survey (I-WeBS) formed the basis for Ireland's reporting under Article 12 of the Birds Directive for the period 2008 – 2012. These data sources also provided robust data to 	Implemented

inform the second revision of the Birds of Conservation Concern in Ireland. In total, 185 species were assessed, 37 were placed on the Red list and 90 on the Amber list.

- BirdWatch Ireland developed group Species Action Plans for Irelands "priority, migratory and dispersed", birds based on their habitat requirements. The focus of the project are species that are Red or Amber listed in "Birds of Conservation Concern in Ireland", as well as regularly occurring birds in Ireland found in Annex I of the European Birds Directive, and a few additional bird species needing protection.

OBJECTIVE 5: TO CONSERVE AND RESTORE BIODIVERSITY AND ECOSYSTEM SERVICES IN THE MARINE ENVIRONMENT

HEADLINE TARGET: In the wider marine environment, biodiversity loss reduced by 2016 and showing substantial recovery by 2020

TARGET 13: Substantial progress made towards "good ecological status" of marine waters over the lifetime of this Plan

Action	Department/ Agency Responsible	Comments	Status
13.01 Develop a marine spatial plan for Ireland.	DECLG	<ul style="list-style-type: none"> • The Marine Coordination Group, which includes senior representatives from the departments and agencies with marine responsibilities, have developed and published an Integrated Maritime Plan (IMP) entitled 'Harnessing Our Ocean Wealth' (HOOW) in 2012 as part of Ireland's engagement with the Integrated Maritime Policy for the EU (2007) and the EU strategy for the Atlantic (2011). The IMP provides a framework for cross-sectoral planning and actions regarding the management of the marine environment. One of the three high-level goals of the IMP is the protection and conservation of marine biodiversity and ecosystem services. As highlighted in the HOOW Progress Report 2012/2013, significant progress has been made on all 8 actions directly relating to marine ecosystem conservation. • The development of a marine spatial planning framework in Ireland was considered by a dedicated task force established under the auspices of the Marine Coordination Group. The task force finalised its report in late 2013. The Marine Coordination Group has considered the report in detail and a decision on how best to progress its implementation will be taken in parallel with decisions on the implementation of the EU Directive on Maritime Spatial Planning, which was adopted in July 2014. 	Implementation in progress
13.02 By 2015, identify programmes of measures designed to achieve good environmental status as required by the Water Framework Directive and Marine Strategy Framework Directive and in line with the OSPAR Convention.	DECLG, DAFM	<ul style="list-style-type: none"> • The Water Framework Directive Programs of Measures project is ongoing at the moment, which is aimed at standardising WFD data and getting it into a common information system for management. A 3-tier Governance structure is being put in place to deliver the 2nd cycle of River Basin Management. Water Framework Directive Governance is being reconsidered with the potential that the responsibilities between DECLG, EPA and LAs would be revised for 2nd cycle of RBM planning. • The implementation of the Marine Strategy Framework Directive is ongoing. This is the first cycle of the MSFD. The Initial Assessment of Ireland's marine waters, was completed in 2013. Development of Monitoring Programmes under Article 13 of the MSFD are being finalised for submission to the EU Commission. The development of 	Implementation in progress

Programme of Measures under Article 13 of the MSFD is ongoing. A report which provides narrative information on the status of Irish marine waters has also been prepared and was published on 1 November 2013 along with Ireland's Marine Atlas.

- Work continues amongst relevant Government Departments and Agencies in relation to developing a national MSFD monitoring programme and appropriate programme of measures.

TARGET 14: Fish stock levels maintained or restored to levels that can produce maximum sustainable yield, where possible no later than 2015

Action	Department/ Agency Responsible	Comments	Status
<p>14.01 Continue seeking to ensure the Common Fisheries Policy and marine fisheries provide for the conservation of fish species and marine biodiversity generally and adopting the ecosystem approach to fisheries management.</p>	DAFM	<ul style="list-style-type: none"> • Common Fisheries Policy stocks are managed within MSY framework in accordance with CFP and MSFD targets. Harvest control rules are in place to bring stocks to MSY in 2015 where possible. There has been a strong reduction in fishing pressure of fish stocks which are fully assessed in Irish waters in the last decade. The MSFD 2012 initial assessment, indicated that of the marine fish stocks in Irish waters, which are fully assessed, 62 % are now fished at or below MSY, while 60% of stocks are within safe biomass limits. • The Irish Beaufort project on the ecosystem approach to fisheries has progressed the science of the Ecosystem Approach to Fisheries Management in the following areas: <ul style="list-style-type: none"> ▪ Developing Ecological Risk Assessments for Fisheries, first in the context of cetaceans bycatch, and now for the full fishery complex in Biologically Sensitive Areas ▪ Building food web models to provide indicators of biodiversity and food web structure and function ▪ Linking Biodiversity and Productivity in temperate fished communities ▪ Developing GES indicators and objectives for pelagic ecosystems ▪ Linking local community structure to local fishing effort gradients ▪ The impact of forage fish exploitation on marine community structure ▪ Demonstrating that scavenging on trawled seabed can modify trophic size-structure in demersal fish ▪ Different recovery trajectories for community structure in the Celtic Sea ▪ Combining multiple surveys to derive regional-scale assessments of the status of fish communities from subregional-scale datasets ▪ Demonstrating that spatial heterogeneity in fishing can create <i>de facto</i> refugia for endangered Celtic Sea elasmobranchs ▪ Developing harvest ratios and MSY proxies for data poor vulnerable fish species – i.e. elasmobranchs ▪ Developing improved Marine Strategy Framework Directive foodweb indicators ▪ Developing Maximum Sustainable Yield proxies to include ecological, economic and social sustainability ▪ Developing alternative spatially explicit management approaches to include 	Implementation in progress

		<ul style="list-style-type: none"> fishery and ecosystem objectives. ▪ Demonstrating both direct and indirect interactions between seals and commercial fisheries. ▪ Cataloguing climate change impacts on marine fish and shellfish around the British Isles. ▪ Working with industry and NGO stakeholders to develop Ecosystem Approach plans in the Celtic Sea. • The new Common Fisheries Policy reform agreement, negotiated to completion under the Irish Presidency will mean real meaningful reform to how EU waters are fished in the future. The agreement is designed to ensure the long term sustainability of fishing in Ireland and throughout EU waters, utilising best scientific advice as a key determinant in setting annual fishing quotas in the future. • Setting fishing levels on the basis of the MSY Principle (Maximum Sustainable Yield) will lead to rebuilding of fish stocks. Setting annual fishing quotas respecting best scientific advice will inevitably lead to more sustainable fishing patterns over time. • A practical and phased discards policy is being introduced that will mean that fishermen will have time to adjust and implement changes that will allow for the avoidance of non target species where there are particular problems with the relevant by-catch (such as that the stock is overfished and needs to be allowed to rebuild). • Technical measures are being introduced to avoid and minimise catches of juvenile fish and the reforms contain a commitment to continue and further strengthen conservation measures in the biologically sensitive area off the South and West coast of Ireland (new Irish box). The commitment to develop and strengthen biologically sensitive areas, with spawning grounds and high populations of juvenile fish will also protect the livelihoods of coastal communities by ensuring that fish are allowed to grow to maturity, are more plentiful and fished in an environmentally responsible manner. • National measures are in situ for a number of species important to the inshore fleet. • Following review and consultation, revised measures are under consideration for lobster, shrimp and crawfish to address stock sustainability. • Plans are also under consideration for razor clam fishing in the North Irish Sea. 	
<p>14.02 Continue and complete national measures to research and reduce adverse effects of marine fisheries, aquaculture, etc. on biodiversity in particular within Natura 2000 areas.</p>	<p>DAFM</p>	<ul style="list-style-type: none"> • Common Fisheries Policy reform process underway. Effects of marine fisheries on the marine ecosystem are being evaluated as part of MSFD and CFP in relation to fisheries impact on VMEs, bycatch (e.g. cetaceans and seabirds) and fish biodiversity. Risk assessments and mitigation plans for fisheries in and close to NATURA sites are ongoing. • Marine fisheries: completed assessments for Natura 2000 sites and mitigation plans are published online at www.fishingnet.ie. Risk assessment of sea-fisheries interactions with protected habitats and species for the rest of the Irish coast (within 12 nautical miles) is close to completion. Mitigation strategies are being developed and will undergo consultation prior to conclusion and implementation. A number of Natura 2000 sites are closed on a precautionary basis to certain fishing practices. 	<p>Implementation in progress</p>

			<ul style="list-style-type: none"> • Aquaculture licence procedures incorporate a comprehensive environmental analysis in all applications. A systematic process for the assessment of the potential significant impacts of fishing and aquaculture, "the Roadmap to Compliance" is ongoing in agreement with the European Commission. • The carrying out of detailed surveys of marine habitats and species in Natura 2000 sites that support aquaculture has been completed. Conservation Objectives have been set for a significant number of sites and Appropriate Assessments are being completed on an ongoing basis. Licensing determinations have commenced in the assessed Natura 2000 sites and Conclusion Statements outlining how aquaculture activities in these sites are being licensed in compliance with the Birds and Habitats Directives are published at www.agriculture.gov.ie in parallel with licensing decisions. 	
14.03	Prepare plan of action to implement stock recovery plans as soon as needed for any stocks outside safe biological limits, and management plans to maintain other stocks at safe biological levels as determined by the standards for Good Environmental Status in the Marine Strategy Framework Directive.	DAFM	<ul style="list-style-type: none"> • All CFP stocks are managed within MSY framework in accordance with CFP and MSFD 2015 and 2020 targets. For stocks fished in Irish EEZ, there are a number of long term management plans and recovery plans such as for West of Scotland Cod, Irish Sea Cod and Northern Hake, NEA mackerel, NEA Blue whiting, Herring VIaN, North Sea and west of Scotland Saithe and Herring VIIaSVIIg. • Management plans are currently prepared or in the evaluation phase for other stock without formal agreement yet: e.g. west of Scotland Haddock, Rockall Haddock, Celtic Sea Cod, Herring VIaS, VIIbc, western Horse Mackerel, NEA Boarfish. Ireland has played a key role in initiating and developing some of these plans. In addition, Ireland is involved in Scientific support and coordination of the NWWRAC development of a mixed-fisheries management plan for the Celtic Sea (VIIf, g) and the NWWRAC initiative for a skates and rays management plan. • The new CFP demands that in order to reach the objective of progressively restoring and maintaining populations of fish stocks above biomass levels capable of producing maximum sustainable yield (MSY), the maximum sustainable yield exploitation rate shall be achieved by 2015 where possible and, on a progressive, incremental basis at the latest by 2020 for all stocks. The new CFP provides for the development of multi-annual plans that shall contain conservation measures to restore and maintain fish stocks above MSY level. These plans may cover single species or multi-species for mixed fisheries. The CFP also promotes the development of fish stock recovery areas in areas of biological sensitivity, including areas where there are heavy concentration of juvenile fish. • See 14.01 in relation to national measures for certain stocks. 	Implemented
14.04	Adjust fishing capacity to improve balance between fishing capacity and available fish stocks.	DAFM	<ul style="list-style-type: none"> • The new Common Fisheries Policy provides for measures to be put in place to adjust the fishing capacity of the fleets to levels of fishing opportunities consistent with MSY targets with a view to having economically viable fleets without overexploiting marine biological resources. Ireland will be reporting on the balance on an annual basis. If those reports show an imbalance, an action plan for adjustments must be put in place. • Capacity adjustment is an integral part of the reformed CFP (article 22) and MS need to balance capacity and fishing opportunities. There has been an overall decrease in the in Gross tonnage and kW of the Irish fleet which is mainly attributed to the 	Implemented

			decommissioning of larger vessels. A reduction in fishing effort occurred in the demersal fleet due to effort management schemes associated with e.g. management plans of cod. Fishing capacity (GTs, KWs or licences) is ring-fenced for certain non-TAC species of shellfish (scallop, cockles, oysters) in order to balance fishing opportunity, socio-economic value and available stocks and also to avoid escalation of activity in Natura 2000 sites.	
14.05	Adopt and implement provisions under Common Fisheries Policy for the establishment of no-take zones that conserve biodiversity and fish stock levels.	DAFM	<ul style="list-style-type: none"> Common Fisheries Policy Spatial fisheries management measures are in place in the Irish EEZ to protect vulnerable marine habitats in offshore NATURA 2000 sites (e.g. corals); spawning aggregations, juvenile fish and depleted stocks. The management measures range from the prohibition of fishing with bottom impacting fishing gear to temporal closures of fishing for different species and/or with different gears. No take zones for benthic impacting fishing gears are currently being considered in inshore Natura 2000 sites (managed nationally) to protect sensitive habitats and associated biodiversity. The new CFP reform contains a commitment to continue and further strengthen conservation measures in biologically sensitive areas with spawning grounds and high populations of juvenile fish including off the South and West coast of Ireland. 	Implemented
14.06	Take concerted action to combat illegal, unreported and unregulated fishing.	DAFM	<ul style="list-style-type: none"> The Sea-Fisheries Protection Authority (SFPA) is mandated under EU and National Law to take action against Illegal, unreported and unregulated (IUU) fishing activities. The Sea-Fisheries and Maritime Jurisdiction Act 2006 places primary responsibility for the regulation of sea-fisheries conservation law with the SFPA. In order to carry out this remit, the SFPA produces an annual National Fisheries Control Plan. This plan is used for the management of monitoring, surveillance and control of sea-fisheries at sea by the Naval Service, through aerial surveillance by the Air Corps and at landing ports in Ireland by SFPA staff. This plan outlines the benchmark requirements for inspections both at sea by the Naval Service and ashore by the SFPA. The annual plan uses agreed risk management strategies to develop these benchmarks which produce baseline inspection benchmarks for all vessels operating in the Irish EEZ. 	Implementation in progress

OBJECTIVE 6: TO EXPAND AND IMPROVE ON THE MANAGEMENT OF PROTECTED AREAS AND LEGALLY PROTECTED SPECIES

HEADLINE TARGET: Biodiversity loss of protected habitats and species halted by 2016

TARGET 15: Natura 2000 network established, safeguarded, designated by 2012 (2014 for marine SPAs) and under effective conservation management by 2016

Action	Department/ Agency Responsible	Comments	Status
15.01 Complete designation process for SACs and SPAs, in particular for marine coastal and offshore SACs by 2012 and marine SPAs by 2014.	DAHG	<ul style="list-style-type: none"> The steps required to provide legal protection to Ireland's terrestrial network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) were largely completed. 6 substantial new marine SACs were transmitted by the Department of Arts, Heritage and Gaeltacht to the European Commission in September 2014. A final formal designation of sites is underway, although legal protection is already in place. 	Implementation in progress

			<ul style="list-style-type: none"> Progress towards marine SPA designation has been slow, but will be based on data be produced by a programme of surveys to collect baseline ecological data in offshore areas, which will be carried out the DECNR with collaboration of DAHG in 2015-2016 	
15.02	Prepare and implement site specific conservation objectives, management advice and /or plans on Natura 2000 sites, Nature Reserves and National Parks in consultation with affected landowners and the public as appropriate.	DAHG	<ul style="list-style-type: none"> Detailed site-specific conservation objectives have been published for 57 SACs and 27 SPAs, mainly coastal and marine sites and a further 36 are scheduled for completion by the end of 2014. A draft National Peatlands Strategy, Raised Bog SAC Management Plan and Review of the Raised Bog NHAs were published in early 2014. Part of the approach is that Site-specific management plans will be put in place for all Raised Bog SACs and the intention is that this will be the case for Raised Bog NHAs in the future. 	Implementation in progress
15.03	Work with the EU Commission to ensure that the Community funding instruments are used to ensure adequate financing for Natura 2000; identify national priorities for co-financing; distribute funds (national and Community) to beneficiaries; monitor cost effectiveness of actions financed (in terms of biodiversity outcomes); audit expenditure.	DAHG	<ul style="list-style-type: none"> The Prioritised Action Framework for Natura 2000 (PAF) has been approved by Government and submitted to the EU. The Rural Development Plan which contains a number of elements prioritising biodiversity is currently awaiting formal Commission approval. 	Implementation in progress
15.04	Ensure that agri-environmental schemes provide targeted and costed prescriptions that will contribute to favourable conservation status in farmed designated sites.	DAHG	<ul style="list-style-type: none"> DAFM was actively engaged in identifying priorities, through the PAF and Habitats and Birds Directive reporting, to be addressed in the new agri-environmental schemes. An increased number of targeted actions have been included within the new agri-environment scheme. In association with DAHG, a number of targeted actions for priority habitats and species have been included as mandatory actions, where applicable to the farm (based on spatial data) . Costings for prescriptions were calculated in accordance with EU guidelines. 	Implementation in progress
15.05	Maintain the current NPWS farm plan scheme while exploring options for the most efficient delivery of targeted measures in Natura 2000 sites and NHAs.	DAHG	<ul style="list-style-type: none"> The NPWS farm plan scheme closed to new applicants in 2010 due to budgetary constraints. Existing contracts are being honoured. Many of the priority biodiversity measures that were identified in the Irish Prioritised Action Framework will now be supported through Ireland's next Rural Development Plan. A small number of new plans are being entered into by DAHG, where GLAS or other schemes are unsuitable, for example in the case of intensive farms supporting large numbers of wintering waterfowl. Farmers will also have the option of transferring to GLAS from the FPS 	Implementation in progress

TARGET 16: Sufficiency, coherence, connectivity and resilience of the protected areas network substantially enhanced by 2016 and further enhanced by 2020

Action	Department/ Agency Responsible	Comments	Status
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16.01	By 2015, review previously proposed Natural Heritage Areas and designate as appropriate under the Wildlife (Amendment) Act, 2000.	DAHG	<ul style="list-style-type: none"> Policy in regard to pNHAs is currently under review. 	Further progress required
16.02	By 2015 strengthen the coherence, connectivity and resilience (including resilience to climate change) of the protected areas network using, as appropriate, tools that may include flyways, buffer zones, corridors and stepping stones.	DAHG, LAs, BNM	<ul style="list-style-type: none"> The procedures adopted by the NRA in the planning of the national road schemes are designed to avoid or minimise impacts on protected areas. These procedures are enshrined in current best practice documents. The coherence, connectivity and resilience of the protected areas network are considerations in the selection procedures for Natura 2000 sites and for NHAs. Some raised and blanket bog NHAs have been designated by NPWS on the basis of their support function to nearby sites and to for their contribution towards a coherent national network of protected areas. In 2012 the DECLG developed a medium to long-term framework for advancing sustainable development and the green economy in Ireland entitled "Our Sustainable Future". The framework aims to integrate sustainable development into key areas of policy, to put in place effective implementation mechanisms and to progress sustainable development. With regards to connectivity and resilience of protected areas network, the framework prioritises action on the development of an integrated approach to green infrastructure into sectoral policies and the creation of green corridors to enhance biodiversity. Following Government approval, DAHG published a draft National Landscape Strategy for Ireland for public consultation in 2014. The strategy outlines a suite of national initiatives to recognise the importance of all landscapes in Ireland, implement the European Landscape Convention, promote sustainable development, and enhance and protect the environment. Following the consultation, the Strategy has been amended in preparation for submission to Government. The Waterways Ireland Corporate Plan 2011-2013 includes the aim of promoting and developing the waterways as educational and environmental assets, highlighting their natural heritage. As part of the programme to develop and restore the waterways network, key actions include the development of policies and programmes to deliver compliance with environmental legislative Directives, and evaluate natural heritage assets along the waterways. 	Implementation in progress

TARGET 17: No protected habitats or species in worsening conservation status by 2016; majority of habitats or species in, or moving towards, favourable conservation status by 2020

Action	Department/ Agency Responsible	Comments	Status
17.01 Enforce Government decision in relation to the cessation of turf cutting on raised bogs and drawing up of peatland strategy.	DAHG	<ul style="list-style-type: none"> The draft National Peatlands Strategy was issued for public consultation in 2014. DAHG is currently examining the submissions received, which number over 1,500 to date. The Peatlands Council and the Peatlands Strategy Implementation Group will advise on changes to the draft Strategy in advance of its submission to Government for adoption and aim for publication in 2015. 	Implementation in progress
17.02 By 2015 implement existing species	DAHG	<ul style="list-style-type: none"> From 2005 to 2010, Threat Response Plans were prepared by NPWS to establish a 	Further action

	action or management plans for species under threat and review and update as necessary; develop and implement additional species action or management plans for a wider range of species under threat; ensure monitoring of implementation and effectiveness of plans.		system of strict protection for species listed in Annex IV of the Habitats Directive and Species Action Plans for species of highest conservation concern under action 26 of the previous National Biodiversity Action Plan. Implementation of the plans is ongoing, with future appraisal and expansion to other species currently under consideration.	needed
17.03	Informed by the draft Action plans developed by BirdWatch Ireland, identify and implement a suite of agreed measures for the protection of categories of endangered bird species in the wider countryside. This will be delivered through the engagement and participation of all relevant stake-holders across the public, private and voluntary sectors.	DAHG	<ul style="list-style-type: none"> This work is in progress. 	Further action needed
17.04	Continue to implement measures to improve the status of habitats and species assessed as "bad" in the 2007 report under to the EU on the status of protected habitats and species, involving habitat action plans if necessary, and by 2015 have in place a full prioritised programme of work.	DAHG	<ul style="list-style-type: none"> The Prioritised Action Framework for Natura 2000 establishing conservation priorities for the next financial cycle (2014-2020) and has been approved by Government and submitted to the EU Since 2011, five EU Life projects have been successfully funded such as the Aran LIFE and Burren GeoparkLIFE projects, the LIFE Kerry Freshwater Pearl mussel conservation project (approved in May 2014) and the Raptor LIFE project focussing on connecting and restoring habitats for Hen Harrier, Merlin, Atlantic salmon and Brook Lamprey. 	Further action required
17.05	Provide and implement guidelines for local authorities and other planning bodies on the protection of species listed in Annex IV of the Habitats Directive.	DAHG	<ul style="list-style-type: none"> Guidelines have been drafted but require finalisation and circulation. 	Further action required
17.06	By 2012 identify and subsequently fill critical gaps in ex-situ conservation programmes for wild species, in line with best practice.	DARM, DAHG, Teagasc, National Botanic Gardens	<ul style="list-style-type: none"> Fota Wildlife Park currently has 15 species involved in European breeding programmes, with an average of 25 births per year over these 15 species. With regards to reintroductions since 2008, a bull Scimitar-horned oryx has been reintroduced to Tunisia, 13 European wisent have been sent to Poland and a further 2 to Romania, and a White Tailed Eagle released in the Golan Heights. Furthermore, the park has identified wild Irish species for future potential ex-situ programmes, such as the Corncrake (ongoing), Grey Partridge, Corn Bunting, Lapwing, Barn Owl, Eurasian Crane, Natterjack Toad, Kerry Slug and Freshwater Pearl Mussel. Dublin Zoo is responsible for the ex situ care of approximately 500 animals 	Implementation in progress

representing 95 different species (86 vertebrate species and 9 invertebrate species). Currently 40 of these species are part of international breeding programmes. Dublin Zoo also coordinates three international breeding programmes being the citron-crested cockatoo, Goeldi's monkey and the Moluccan cockatoo. In addition, Dublin Zoo is collecting and storing DNA samples from endangered animals as part of the Frozen Ark Project and will open a new habitat in 2015 for Californian sealion and Chilean flamingo call the Pacific Coast.

- Tayto Wildlife Park is currently participating in the Grey Partridge reintroduction programme in association with The Irish Grey Partridge Trust and Fingal County Council, and is currently in the process of registering its Fishing Cats, Jaguarundi and Eurasian Lynx in the European Endangered Species Programme.
- The National Botanic Gardens (NBG) ex-situ conservation programme for rare and threatened flora entails assessment of population numbers and genetic diversity, establishment of living material within the gardens, seed banking and cryopreservation. The NBG currently holds 495 native plant species in a living collection, of which 58 are specimens of Red Data or Flora Protection Order species. Cryopreservation is used for rare and threatened bryophytes. Although the collections are progressing, further work is needed to reach the National Strategy for Plant Conservation targeted goal of having all threatened Irish plant species in accessible ex situ collections. In addition, the National Herbarium is housed in the NBG and holds pressed specimens of the entire Irish flora for use as a historical record of the flora and for confirmation of plant identification.
- The Galway Atlantaquaria currently hold 58 exhibits housing ca. 160 native species across a variety of freshwater and marine habitats, incorporating a range of invertebrates, vertebrate and cartilaginous fish, and amphibians. There are ongoing programmes relating to sea turtle rehabilitation and White skate conservation.

OBJECTIVE 7: TO SUBSTANTIALLY STRENGTHEN THE EFFECTIVENESS OF INTERNATIONAL GOVERNANCE FOR BIODIVERSITY AND ECOSYSTEM SERVICES

TARGET 18: Substantially strengthened support for biodiversity and ecosystem services in external assistance

Action	Department/ Agency Responsible	Comments	Status
18.01 Biodiversity will be made a component of Ireland's development cooperation programme; and support to, and co-operation with developing countries shall take into account biological diversity through the application of the CBD.	DFAT	<ul style="list-style-type: none"> • Biological diversity is a key part of sustainable food production which is a priority issue when addressing hunger in many developing countries. In May 2013 Ireland launched a new policy for International Development "One World One Future" which places importance on Biodiversity as part of the priority area for action on Climate Change and Development. The policy commits Ireland to support developing countries to conserve and sustainably use their biodiversity and to secure local ecosystems. • In 2013 Irish Aid allocated grants totalling €27,626,000 in respect of activities that were biodiversity relevant or had biodiversity elements. Of this fund approx 	Implementation in progress

€13,000,000 was substantively biodiversity relevant. In addition, grants totalling €300,000 were allocated for biodiversity specific projects. Activities include developing sustainable seed systems, agroforestry using indigenous trees, promoting the growing local woodlots, watershed management and protection of natural resources, protection of habitats, support for sustainable food and energy systems particularly for indigenous and pastoralist groups, community involvement in protecting forests and ecotourism.

TARGET 19: Enhanced contribution to international governance for biodiversity and ecosystem services

Action	Department/ Agency Responsible	Comments	Status
19.01 International agreements will be serviced to ensure that Ireland plays a role in the future of international biodiversity policy, particularly in the area of mainstreaming biodiversity and ecosystem services across all sectors.	DAHG	<ul style="list-style-type: none"> The DFAT, through Irish Aid, is actively engaged with the development of the UN Sustainable Development Goals (SDGs) including inputting to the UN Open Working Group (OWG) on the SDGs through the (OWG) seat shared between Ireland, Denmark and Norway. There have been inputs across the spectrum of OWG 'focus areas' including to the focus area on ecosystems and biodiversity. Working with the Department of Environment, Community and Local Government, the Department of Foreign Affairs and Trade, through Irish Aid, is actively engaged with the UNFCCC process. A review of the 2006 White Paper on Irish Aid was undertaken in 2012, leading to the development and publication of One World One Future: Summary of Ireland's Policy for International Development. Of the six priority areas for action, the action relating to 'Climate change and development', specifically states that Ireland will "support developing countries to conserve and sustainably use their biodiversity, securing local ecosystems that are vital to their development efforts". The Irish Government is an active Party in UNEP, the Convention on Trade in Endangered Species, the Convention on Biological Diversity, EUROBATS (part of the Convention on Migratory Species), OSPAR, the Intergovernmental Platform on Biodiversity and Ecosystem Services, and the International Whaling Organisation. 	Implementation in progress
19.02 Prepare for ratification of the Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits (ABS) and implement a national strategy, if ratified.	DAHG	<ul style="list-style-type: none"> Nagoya Protocol and EU Regulations giving effect to it have been adopted by the EU Commission. DAHG is represented on a Committee established by the commission to assist in the implementation of the Regulations. 	Implementation in progress
Reporting on the Implementation of OSPAR Recommendations on the protection of Habitats and Species.	DECLG,DAHG	<ul style="list-style-type: none"> Provision of data on an ongoing basis to the OSPAR in respect of relevant habitats and species 	Implementation in process.

TARGET 20: Enhanced co-operation with Northern Ireland on common issues

Action	Department/ Agency Responsible	Comments	Status
20.01 Ongoing communication and harmonized action on issues of common concern.	DAHG	<ul style="list-style-type: none"> There are frequent meetings on policy and technical issues between the relevant Departments/Agencies in both jurisdictions. Recent meetings have focussed on the potential for joint approaches for cross border conservation management programmes 	Implemented
20.02 Produce a strategy on Invasive Alien Species in co-operation with Northern Ireland to improve harmonisation of the policy framework.	DAHG	<ul style="list-style-type: none"> DAHG has been working with the Northern Ireland Environment Agency (NIEA) to fund and manage the Invasive Species Ireland Project since 2006. This initiative provided advice and guidance on the management of a range of invasive species, including the species referred to, which can negatively impact on the environment and on property on the island of Ireland. The project is currently terminated although the ISI website was maintained by NIEA and will shortly be hosted by the National Biodiversity Data Centre. 	Implementation in progress
20.03 Further co-operation on and co-ordination of All-Island Species Protection Plans.	DAHG	<ul style="list-style-type: none"> No further developments to report since 2011. 	Further action required

TARGET 21: Substantial reduction in the impact of Irish trade on global biodiversity and ecosystem services

Action	Department/ Agency Responsible	Comments	Status
21.01 Identify major impacts of trade on biodiversity and adopt measures to significantly reduce (in case of negative impacts) and/or enhance (in case of positive impacts) these impacts (see also action 1.13).	DAHG	<ul style="list-style-type: none"> See 1.13; otherwise no significant progress 	Further action required
21.02 Ensure CITES Regulations are adequately implemented and enforced.	DAHG, Revenue (Customs)	<ul style="list-style-type: none"> See commentary for Actions 11.01 and 11.03 	Implemented and ongoing
21.03 Analyse options for further legislation to control imports of illegally harvested timber into Ireland. Facilitate exchange of best practice in private and public sector procurement policies favouring wood products from sustainable sources, including certifiable wood products.	Forest Service, DAHG	<ul style="list-style-type: none"> The EUTR is already in effect in the jurisdiction and does not require any further national legislation per se to for its key provisions to have the force of law in Ireland. EU Members States are also obliged to complement its key provisions with supplementary legislation at national level, setting out the detail of the rules on penalties as well as mechanisms for enforcement. This process is at a very advanced stage in DAFM. It is the Minister's intention, as soon as practically possible, to lay out a scheme of effective, proportionate and dissuasive penalties to ensure full compliance with the EUTR in the jurisdiction. 	Implementation in progress
21.04 Identify non-wood imports driving deforestation and investigate the	DAFM/Bord Bia	<ul style="list-style-type: none"> The main imports into Ireland potentially driving deforestation internationally include palm oil and Brazilian beef. Palm oil imports into Ireland have grown from 18,000 	Further action required

effectiveness of any potential measures to prevent, minimise and/or mitigate this deforestation.	tonnes in 2000 to 89,600 tonnes in 2013, with a current value of €74 million. The trend in imports of Brazilian beef have been mixed. Following strong growth in the early part of the 2000's trade peaked in 2006 at 5,800 tonnes. However, from late 2007 restrictions on Brazilian beef exports to the EU slowed down trade considerably and volumes have yet to recover. In 2013 imports into Ireland stood at just 529 tonnes.	<ul style="list-style-type: none"> • REDD+ synthesis report (Kissinger <i>et al.</i>, 2012) confirms that palm oil is largely being produced unsustainably and is driving deforestation, primarily in Malaysia and Indonesia. Brazilian beef production has increased by 24% since 2004, but deforestation in Brazil has decreased by almost 75% over the same period, so the level of sustainable production is improving. Current certification standards do not differentiate sources of palm oil or Brazilian beef imports that are produced in a sustainable manner. 	Implementation in progress
21.05 Identify and implement measures aimed at substantially reducing the impact of Ireland's ecological footprint on biodiversity	DAHG	<ul style="list-style-type: none"> • Fáilte Ireland is currently preparing environmental guidelines for large events that take place in the countryside (e.g. Gaelforce, etc.), these should be finalised by the end of June 2015. • Fáilte Ireland is also a contributor to the Burren Geopark LIFE Project. It is using a tourism and environment monitoring programme which was established as part of the LIFE programme as a pilot environmental monitoring programme for the Wild Atlantic Way. Details of the environmental monitoring programme will be included as part of the SEA for the WAW OP 2015-2019. The Draft Environmental Monitoring Strategy has been issued to the six Environmental Authorities (including DoE NI) for comment before it is finalised. • In 2012 the DECLG developed a medium to long-term framework for advancing sustainable development and the green economy in Ireland entitled "Our Sustainable Future". The framework aims to integrate sustainable development into key areas of policy, to put in place effective implementation mechanisms and to progress sustainable development. With regards to reducing Ireland's Ecological Footprint, the framework identifies a number of national policies and programmes relating to areas such as: sustainable consumption and production; conservation and management of natural resources; climate change and clean energy; sustainable agriculture; sustainable transport; and education, communication and behaviour change. • Completed in 2011 and funded by the EPA, a University of Limerick project trailed a programme entitled "Development of a Community-Based Ecological Footprint", to conduct a carbon benchmarking of consumption exercise at a community-level and facilitate both an Ecological Footprint measurement, and the development of an Environmental Action Campaign as part of a community outreach initiative. • Funded by FP7 to the One Planet Economy Network EU, detailed carbon, ecological and water footprint indicators have been developed for each EU member state which can be queried using the EUREAPA tool as an online scenario modelling and policy 	Implementation in progress

assessment tool created to enable decision makers to explore the effects of policy on environment, consumption, industry and trade. The tool provides the full supply chain impacts associated with 62 product categories covering the food consumption, housing, transportation and a variety of other goods and services.

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International Biodiversity

Convention on Biological Diversity:
www.cbd.int

TEEB Initiative on Economics of Ecosystems and Biodiversity: www.teebweb.org

Millennium Development Goals:
www.un.org/millenniumgoals

Bonn Convention on Migratory Species:
www.cms.int

Bern Convention on the Conservation of European Wildlife and Natural Habitats:
www.coe.int/t/dg4/cultureheritage/nature/Bern/

Convention on Trade in Endangered Species (CITES):
www.cites.org

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)
www.ipbes.net

EU Biodiversity

European Commission
ec.europa.eu/environment/nature/index_en.htm

European Biodiversity Clearing House Mechanism:
biodiversitychm.eea.europa.eu/

National Biodiversity

National Parks and Wildlife Service:
www.npws.ie

Notice Nature:
www.noticenature.ie

Coillte: www.coillte.ie

Office of Public Works: www.opw.ie

Ireland's Environmental NGOs:
www.ien.ie/membership

Local Biodiversity Action Plans:
www.heritagecouncil.ie/wildlife/heritagecouncilinitiatives/localbiodiversityactionplan

Department of Environment, Community and Local Government: www.environ.ie/en

Invasive Species Ireland www.invasivespeciesireland.com

Environmental Protection Agency: www.epa.ie

Marine Institute: www.marine.ie

COFORD Forestry Research www.coford.ie

Landowner Organisations

The Irish Farmers' Association:
www.ifa.ie

Irish Cattle and Sheep Farmers Association:
www.icsaireland.com

Macra na Feirme: www.macra.ie

Article 17 Portal:
bd.eionet.europa.eu/article17

Global Biodiversity Information Facility
www.gbif.org

Ramsar Convention on Wetlands:
www.ramsar.org

International Treaty on Plant Genetic Resources for Food and Agriculture: www.planttreaty.org

CITES in Ireland:
www.npws.ie/legislationandconventions/cites/cite-sintheeuireland

Access and Benefit Sharing provisions of the Convention on Biological Diversity:
www.cbd.int/abs

European Environment Agency
www.eea.europa.eu/themes/biodiversity

Biodiversity Information System for Europe
biodiversity.europa.eu/info

National Biodiversity Data Centre:
www.biodiversityireland.ie

National Biodiversity Research Platform:
www.biodiversityresearch.ie

Inland Fisheries: www.fisheriesireland.ie

Irish Aid: www.irishaid.gov.ie

The Heritage Council:
www.heritagecouncil.ie

Department of Agriculture, Food and the Marine:
www.agriculture.gov.ie

Department of Communications, Energy and Natural Resources: www.dcenr.gov.ie/

Irish Legislation: www.irishstatutebook.ie

Bord Na Móna: www.bordnamona.ie

Teagasc www.teagasc.ie

Irish Creamery Milk Suppliers Association:
www.icmsa.ie

Irish Timber Growers Association:
www.itga.ie

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society**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.

**Target 2**

By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

**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 economic conditions.

**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 natural resources well within safe ecological limits.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use**Target 5**

By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

**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 place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

**Target 7**

By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

**Target 8**

By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

**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.

**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.

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity



Target 11

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.



Target 12

By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.



Target 13

By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of 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 diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services



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.



Target 15

By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.



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.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building



Target 17

By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

**Target 18**

By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

**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.

**Target 20**

By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

Targets of EU Biodiversity Strategy to 2020¹**1 Fully implement the Birds and Habitats Directives**

To halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant and measurable improvement in their status so that, by 2020, compared to current assessments: (i) 100% more habitat assessments and 50% more species assessments under the Habitats Directive show an improved conservation status; and (ii) 50% more species assessments under the Birds Directive show a secure or improved status.

Action 1: Complete the establishment of the Natura 2000 network and ensure good management

Action 2: Ensure adequate financing of Natura 2000 sites

Action 3: Increase stakeholder awareness and involvement and improve enforcement

Action 4: Improve and streamline monitoring and reporting

2 Maintain and restore ecosystems and their services

By 2020, ecosystems and their services are maintained and enhanced by establishing green infrastructure and restoring at least 15% of degraded ecosystems.

Action 5: Improve knowledge of ecosystems and their services in the EU

Action 6: Set priorities to restore and promote the use of green infrastructure

Action 7: Ensure no net loss of biodiversity and ecosystem services

3 Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity

3A) Agriculture: By 2020, maximise areas under agriculture across grasslands, arable land and permanent crops that are covered by biodiversity-related measures under the CAP so as to ensure the conservation of biodiversity and to bring about a measurable improvement in the conservation status of species and habitats that depend on or are affected by agriculture and in the provision of ecosystem services as compared to the EU 2010 Baseline, thus contributing to enhance sustainable management.

3B) Forests: By 2020, Forest Management Plans or equivalent instruments, in line with Sustainable Forest Management (SFM), are in place for all forests that are publicly owned and for forest holdings above a certain size (to be defined by the Member States or regions and communicated in their Rural Development Programmes) that receive funding under the EU Rural Development Policy so as to bring about a measurable improvement in the conservation status of species and habitats that depend on or are affected by forestry and in the provision of related ecosystem services as compared to the EU 2010 Baseline.

Action 8: Enhance direct payments for environmental public goods in the EU Common Agricultural Policy

Action 9: Better target Rural Development to biodiversity conservation

Action 10: Conserve Europe's agricultural genetic diversity

¹ Full details of the actions can be seen in EC (2011).

Targets of EU Biodiversity Strategy to 2020¹

Action 11: Encourage forest holders to protect and enhance forest biodiversity

Action 12: Integrate biodiversity measures in forest management plans

4 Ensure the sustainable use of fisheries resources

Achieve Maximum Sustainable Yield (MSY) by 2015. Achieve a population age and size distribution indicative of a healthy stock, through fisheries management with no significant adverse impacts on other stocks, species and ecosystems, in support of achieving Good Environmental Status by 2020, as required under the Marine Strategy Framework Directive.

Action 13: Improve the management of fished stocks

Action 14: Eliminate adverse impacts on fish stocks, species, habitats and ecosystems

5 Combat Invasive Alien Species

By 2020, Invasive Alien Species (IAS) and their pathways are identified and prioritised, priority species are controlled or eradicated, and pathways are managed to prevent the introduction and establishment of new IAS.

Action 15: Strengthen the EU Plant and Animal Health Regimes

Action 16: Establish a dedicated instrument on Invasive Alien Species

6 Help avert global biodiversity loss

By 2020, the EU has stepped up its contribution to averting global biodiversity loss.

Action 17: Reduce indirect drivers of biodiversity loss

Action 18: Mobilise additional resources for global biodiversity conservation

Action 19: 'Biodiversity proof' EU development cooperation

Action 20: Regulate access to genetic resources and the fair and equitable sharing of benefits arising from their use
