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Description automatically generatedReview of the Implementation of the

National Biodiversity Action Plan 2017–2021

November 2023

Prepared by the Department of

Housing, Local Government and Heritage

**gov.ie**

National Biodiversity Action Plan 2017–2021

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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# Executive Summary

Global biodiversity loss continues at an unprecedented rate, higher than at any point in recent history, so much so that we are considered to be in the midst of a global sixth mass extinction event. Human activities have and continue to be the primary driver behind biodiversity loss at this scale.

The conservation of biodiversity is vital for many reasons. Aside from the ethical arguments that natural systems should thrive with minimal human interference in their own right, biodiversity underpins the resilience and stability of ecological systems on which all of humanity relies – the ecosystem services of food, clean air and freshwater (Maron et al., 2017), as well as many positive effects on human wellbeing and culture (Dereniowska & Meinard, 2021).

The WWF/ZSL 2022 Living Planet report (WWF, 2022) estimates that there has been a 69% decline in wildlife populations over the last 50 years due to alteration of the land surface, oceans, atmosphere and biosphere. Land use change continues to be the primary driver of biodiversity loss and the most impacted habitats and species are those associated with freshwater. Climate change is predicted to become the major driver of declines in coming decades, unless global temperature rise is limited to 1.5oC. Recovery of populations requires ambitious targets which both accelerate restoration and address the underlying drivers of biodiversity losses – population recovery is feasible by 2050 if land use change is constrained and global temperature rises meet set targets.

Ireland’s 3rd National Biodiversity Action Plan 2017-21 is an over-arching government policy that is comprised of a suite of objectives, targets and actions which aim to achieve 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.”

In the period since 2017 significant progress has been made in implementing the actions which were set out in the strategy. Highlights include:

* Two National Biodiversity Conferences were held over the plan’s lifespan - in February 2019 ‘New Horizons for Nature’ and June 2022 ‘Act Now For Nature’.
* Ecological expertise within local authorities, government departments and other public bodies grew significantly. The Heritage Council, with the support of the NPWS, launched the Biodiversity Officer Programme, which will appoint biodiversity officers in each local authority, to drive local action for nature conservation – most counties now have Biodiversity Officers. Community Foundation Ireland funded the development of community-based biodiversity plans.
* Bord Na Móna implemented restoration/rehabilitation plans for peatland habitats; by March 2023, nearly 30,000ha had been rehabiliated.
* A River Basin Management Plan (2018-21) was published with a further updated draft published covering the period for 2022-27.
* The Business for Biodiversity platform was launched at the 2nd National Biodiversity Conference in June 2022 with seed-funding from DAFM and DHLGH.
* The independent, multi-phase Review of the NPWS was completed in February 2022 and culminated in fifteen recommendations to renew the NPWS and make it a more resilient, effective organisation, fit to meet the challenges of the twenty-first century.
* The Strategic Action Plan for Renewal of the NPWS was published by Minister Darragh O’Brien, TD and Minister Malcolm Noonan TD in May 2022 and provides the NPWS with the organisational and management structure to deliver fully on its mandate, driving the protection and restoration of Ireland’s habitats and species and managing our National Parks and Nature Reserves. The Plan sets out an ambitious timeline for a full organisational restructuring of the NPWS, and a substantial €55m additional investment in the organisation across three budgetary cycles, together with the early recruitment of 60 key staff for critically important roles.
* Ireland established the first National Citizen’s Assembly on Biodiversity Loss, with the 99 members of the Assembly agreeing 159 recommendations. These include 73 high-level recommendations and 86 sectoral-specific actions and priorities. Ireland’s first Children and Young People’s Assembly on Biodiversity Loss published its final report in April 2023, calling for biodiversity to be at the centre of decision-making and for children and young people to be included in decisions as to how we respond to biodiversity loss.

Whilst there is more to do and we must continually strive for more ambitious targets for the conservation of a great range and number of species and habitats, significant progress has been made – this review provides a detailed assessment of our progress in this regard.

# Introduction

The Earth is experiencing loss in biodiversity at an unprecedented pace at a global scale (Butchart et al., 2010; Secretariat of the Convention on Biological Diversity, 2020). Despite some positive signs at local level and increasing responses (including extent and biodiversity coverage of protected areas, sustainable forest management, policy responses to invasive species, and biodiversity-related aid), the rate of global biodiversity loss has not appreciably declined (Butchart et al., 2010).

Comparing current extinction rates with the pre-human ‘background’ rate based on the fossil record with rates that prevailed between the five previous mass extinctions, indicates an exceptionally rapid loss of biodiversity over the last few centuries. This has been so severe that it indicates that we are already in the midst of the Earth’s sixth mass extinction (Barnosky et al., 2011). Recent examination of the pattern of biodiversity loss in marine ecosystems from the Permian-Triassic extinction (during which 95% of life on Earth were wiped out - 19 out of every 20 species), shows that this mass extinction occurred in two phases (Huang et al, 2023). In the initial phase, though over half of the Earth’s species were lost, ecosystems remained relatively stable. In the second phase, some 60,000 years later, ecosystems were pushed to a tipping point from which they could not recover. The authors conclude that a biodiversity crash (such as we are currently experiencing at an unprecedented rate) may be the harbinger of a more devastating ecosystem collapse (WWF, 2022). Ceballos et al. (2015) suggest that ‘averting a dramatic decay of biodiversity and the subsequent loss of ecosystem services is still possible through intensified conservation efforts, but that window of opportunity is rapidly closing.’

Wildlife populations have declined by 69% over the last 50 years due to alteration of the land surface, oceans, atmosphere and biosphere (WWF, 2022). Land use change continues to be the primary driver of biodiversity loss and the most impacted habitats and species are those associated with freshwater. Climate change is predicted to become the major driver of declines in coming decades unless global temperature rise is limited to 1.5oC. Recovery of populations requires ambitious targets which both accelerate restoration and address these key underlying drivers – population recovery may be feasible by 2050 if land use change is constrained and global temperature rises meet set targets.

As a party to the UN Convention on Biological Diversity (CBD), Ireland has made a commitment to prepare Action Plans towards the achievement of the Convention’s targets, namely, to secure the conservation of biological diversity, sustainable use of its components, and the equitable sharing of the benefits arising out of the utilisation of genetic resources. Ireland’s 3rd National Biodiversity Action Plan (NBAP) 2017-21, arising from these commitments, sets out actions through which a range of government, civil and private sectors will undertake to achieve Ireland’s Vision for Biodiversity that ‘biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally’.

This 3rd NBAP 2017-22 contains 119 actions under a framework of seven high-level strategic objectives. These encompass: (i) mainstreaming biodiversity into decision-making across all sectors, (ii) strengthening the knowledge-base for conservation, management and sustainable use of biodiversity, (iii) increasing awareness and appreciation of biodiversity and ecosystem services, (iv) conservation and restoration of biodiversity and ecosystem services in the wider countryside, (v) conservation and restoration of biodiversity and ecosystem services in the marine environment, (vi) expanding and improving management of protected areas and species, and (vii) strengthening international governance for biodiversity and ecosystem services.

The Department of Housing, Local Government and Heritage (DHLGH) is the government department responsible for oversight of the implementation of the NBAP and for co-ordinating other Public Authorities, eNGOs and private sector organisations involved in the process. The Biodiversity Working Group (BWG) comprises representatives of a variety of government departments, agencies and other bodies that have a role in the NBAP’s implementation. The BWG has met regularly during the life of the 3rd NBAP and has periodically reviewed progress on the plan’s implementation.

As well as reviewing progress against the seven strategic objectives, this review has also drawn from Ireland’s 2019 6th National Report to the CBD. This 4-yearly report reviewed Ireland’s progress in relation to the five Strategic Goals and 20 Aichi Biodiversity Targets set by the CBD in 2010 for implementation by 2020.

With ongoing cross-sectoral activity and a new (4th) NBAP in preparation, the review presented here takes place against a constantly moving background, progress on many items happening daily. Whilst every effort has been made to comprehensively summarise progress on all actions, there is a possibility that some actions have advanced further than reported here. As implementation actions are under continual review, significant progress on actions will be incorporated in future reviews.

In the closing remarks of his keynote address at the 2nd National Biodiversity Conference in June 2022, the then Taoiseach, Micheál Martin, said “Nature and biodiversity underpin human life on earth, and our lives are all the poorer for their loss. When we look to the future and contemplate the world we are leaving for our children and grandchildren, we know instinctively that a healthy, thriving natural world is integral to their wellbeing and to their own future prospects. The rich tapestry of the natural world has been our inheritance. In many ways we have fallen short in protecting it. But knowing what we know, we can resolve to change our approach and put the protection of nature and climate at the heart of our decision-making.”

# Highlights for Biodiversity in This Timeframe

During the lifetime of this review there has been much progress on biodiversity conservation and awareness of issues surrounding biodiversity within the country. This progress is manifested in the very significant and accelerating progress on individual actions within the seven strategic themes.

A selection of general highlights on progress on implementation of the 3rd NBAP in Ireland 2017-21 include:

* There has been an increased awareness of and threats to biodiversity across Europe and especially in Ireland, where over 40% of the population understand the meaning of the term biodiversity. The increase in awareness was amongst the highest in the EU, showing a 16% increase between 2015 and 2018.
* The Programme for Government of June 2020 included a commitment to review the remit, status and functioning of the NPWS. The independent, multi-phase Review was completed in February 2022 and culminated in fifteen recommendations to renew the NPWS and make it a more resilient, more effective organisation, fit to meet the challenges of the twenty-first century.
* Two National Biodiversity Conferences were held (in 2019 and 2022) which brought together many elements of Irish society to identify challenges and solutions to reversing biodiversity loss nationally.
* Progress was made towards providing a legislative footing to ensure that all public bodies be obliged to have regard to policies, guidelines and objectives to promote biodiversity and NBAPs within their functions.
* Ireland established the first National Citizen’s Assembly on Biodiversity Loss. Following seven meetings held between May 2022 and January 2023, the Recommendations and Report was launched on 5 April 2023. Amongst many high-level recommendations and sectoral-specific actions and priorities, the need for the State to take prompt, decisive, and urgent action to address biodiversity loss and restoration and to provide leadership in protecting Ireland’s biodiversity for future generations was highlighted. The Assembly has also recommended that nature be provided with protections within the constitution to allow it to provide ecosystem services now and in the future.
* Significant funding for biodiversity protection and enhancement has come via a range of recent and ongoing EU LIFE projects, most of which focus on landscape-scale projects to protect, manage and restore habitats which support threatened and protected species. These include projects on breeding waders on machair, Corncrake, raised and blanket bogs, tern conservation, wetlands, raptors, Atlantic salmon and Brook Lamprey. In many cases, these projects are significantly adding to survey and monitoring datasets, to positive engagement including training and workshops with landowners, and active intervention works to try to restore and enhance populations of threatened species – many of which will not show immediate results.
* Ecological capacity within local authorities (via Biodiversity Officers) and within a range of government departments and public sector bodies has increased the capacity and expertise to implement the range of functions and services focussing on ecology and biodiversity. This includes considerable increases in the number of county Biodiversity Officers, and ecologists within OPW, DAFM, Teagasc and other bodies. Within NPWS itself, a large recruitment and restructuring occurred in 2022-23, significantly increasing capacity at both regional and central levels.
* DAFM has funded 23 EIP (European Innovation Partnership) projects that focus on ground-up biodiversity gains across a range of landscapes and for a range of species. These include projects for Hen Harrier, Freshwater Pearl Mussel and Curlew across the gradient of intensive to low-intensity farmland.
* All-island engagement on a range of areas continues to make positive progress – these include co-operation on management and monitoring of Alien Invasive Species, on the production of all-island red lists for a variety of species and species groups, and monitoring and surveillance of species/species groups including bats and bumblebees.
* Increased provision for citizen-science training, engagement and activity has been enabled through increased support via a range of funding streams including inter alia The Heritage Council Communities Grant Fund, Heritage Council funding to local authorities, and NPWS Small Recorder Grant scheme. Ongoing support and increased capacity within the National Biodiversity Data Centre has increased skills and capacity, engagement and participation by the public in surveys and the volume of data collected on Irish species and habitats.
* There has been significant investment in research and towards enhanced protection of the marine environment. A National Marine Research and Innovation Strategy was published in 2017 and significant progress has been made on mapping marine biodiversity above and below the sea, research on individual species and assessment of individual stressors in the marine environment, including microplastics. The publication of a National Marine Planning Framework has been a significant step towards sustainable management of the marine resource.
* Knowledge and understanding on the socio-economic benefits and value of ecosystem services has improved. Research into the concept of Natural Capital Accounting is being undertaken via the INCASE project by the EPA, and a number of projects are assessing socio-economic and non-economic values, benefits and impacts and how biodiversity underpins these values.

# Review of the Implementation of the National Biodiversity Action Plan 2017-2021

This report is the final review of the implementation of Ireland’s 3rd National Biodiversity Action Plan. It outlines progress with respect to the seven core objectives and associated actions as outlined in the 3rd NBAP, carried out in consultation with the Biodiversity Work Group of the National Biodiversity Action Plan 2017-21. This review considers actions right through to late drafting stages in spring 2023.

In undertaking this review, we have sought to provide a comprehensive account of the status of tasks based on information provided by the bodies responsible for the implementation of that action. The associated assessment of progress of each action as implemented, in progress or limited progress is inevitably somewhat subjective but achieved through consensus with the respective agencies and the rapporteurs of interim and this final review.

Many of the actions are open-ended and progress continues to be made in a manner by which they some will never be completed in the period of an NBAP – such actions can be considered ‘on-going’ and include monitoring programmes (which often occur on cycles) or increasing the areas under protection, which are reviewed periodically.

## Overview of Status of Implementations

Overall, we conclude that of the 119 actions specified in the 3rd NBAP 2017-21, 28 (24%) are implemented, 80 (67%) are in progress and 11 (9%) show limited progress (Figure 1). It is important to note that 88 of the 119 actions are of an on-going or open-ended nature (such as setting conservation objectives or monitoring) and thus assigning implemented status will never be appropriate. In such cases, the assessment of the level of implementation was achieved through consensus with the relevant agencies responsible for implementation. As a proportion of the total number of actions, progress towards implementation has been greatest (33%) for Objective 2: Strengthen the knowledge base for conservation, management, and sustainable use of biodiversity (Figure 2), with further actions required mostly for Objectives 1: Mainstream biodiversity into decision-making across all sectors and 4: Conserve and Restore biodiversity and ecosystem services in the wider countryside.

Figure 1: Qualitative assessment of overall progress on the implementation of the 3rd National Biodiversity Action Plan 2017-21.

Figure 2: Qualitative assessment of progress on the implementation of actions listed within the 7 objectives (see Section 4.2 below) of the 3rd National Biodiversity Action Plan 2017-21.

## Key Achievements of the Plan

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| OBJECTIVE 1: Mainstream biodiversity into decision-making across all sectors | |
| 1 | An amendment to the Wildlife (Amendment) Bill 2016 was passed by the Seanad in November 2019, proposing that every relevant public body will be obliged, in the performance of its functions, to have regard to policies, guidelines and objectives to promote the conservation of biodiversity and the NBAP. The Bill had completed all stages in the Dáil and Seanad and amendments were pending further consideration but lapsed with the dissolution of the 32nd Dáil in January 2020. Minister Noonan announced in December 2022 that his department would seek to restore the Bill to the Dáil Order Paper for consideration, with the hope that the Bill will recommence its journey through the House of the Oireachtas.[[1]](#footnote-1) |
| 2 | At the 1st National Biodiversity Conference in 2019 the ‘Seeds for Nature’ charter was announced. Signed by 14 government department heads and senior leaders of state agencies, the private sector and NGOs, the charter comprises a suite of commitments for nature and biodiversity that go beyond the signatory’s current work programmes to support, scale-up and fast-track the implementation of the NBAP. Progress was reviewed and presented at the 2nd National Biodiversity Conference in 2022, showing significant progress across the full breadth of the signing parties. |
| 3 | Ecological expertise within local authorities, government departments and other public bodies grew significantly, in particular since 2019-20. Restructuring and recruitment within NPWS at central and regional levels increased capacity significantly, as has the recruitment of ecologists within DAFM agriculture and forestry sectors and within Teagasc and OPW. The majority of local authorities now have their own Biodiversity Officers. |
| 4 | Natural Capital Accounting made significant progress in several respects. The CSO established an Ecosystem Account Division in 2020 aligned to the UN System of Environmental Economic Accounts (SEEA); a Review of National Biodiversity Expenditure was published in 2018. A range of large organisations/bodies including Coillte, Bord Na Móna, Dublin Port Company and Bord Iascaigh Mhara are using Natural Capital Asset Accounts to demonstrate the value of public expenditure on their estates. |
| 5 | EU LIFE funding continues to provide significant resources for conservation, management and enhancement of priority habitats which are important for threatened and protected species. Recent and on-going projects include those for Corncrake, high-status waterbodies, machair breeding waders, pollinators and their habitats, and large-scale peatland restoration. |
| OBJECTIVE 2: Strengthen the knowledge base for conservation, management and sustainable use of biodiversity | |
| 1 | Article 17 reporting to the EU reported on the status, trends and distributions of all habitats and species listed on the EU’s Habitats Directive and Article 12 of the Birds Directive was published in 2019. This report and many underpinning surveys and monitoring assessments are available online from NPWS (npws.ie). The National Biodiversity Data Centre databases hold over 170 mapped datasets and over 6 million records, and the Irish Spatial Data Exchange over 1,700 spatial datasets, many from EPA, NPWS and others. |
| 2 | Research on socio-economic valuations of ecosystem services was progressed via the EPA INCASE (Natural Capital Accounting for Sustainable Environments) project in 2019-2023. Over 12 additional on-going projects also undertake such assessments and include SmartBog, HNV\_FarmForBio, and the Cultural Value of Coastlines. |
| 3 | The NPWS Grants for Small Recording Projects has run annually since 2019. With increased funding available, uptake has increased and a total of 108 projects were supported between 2019 and 2022, focussing on providing support for citizen-scientists with little or no alternative financial support for their work. |
| 4 | DHLGH and EPA co-funded a research call through the EU BiodivERsA strand, investigating the consequences of climate change of biodiversity and the potential of nature-based solutions for mitigating climate change. Irish institutions are participating in a number of collaborative projects with partners across Europe. |
| 5 | Building capacity in the identification and surveying of a range of taxa was achieved through a large number of training workshops run by inter alia the NDBC. |
| 6 | A number of red-list assessments were completed or updated, including on terrestrial mammals, stoneflies, amphibians and freshwater fish. The fourth five-yearly assessment of the status of birds on an all-Ireland level was published. |
| 7 | DAFM have supported, through several research calls, research on climate and biodiversity across the agricultural, forestry and fisheries sectors including projects informing developments in bio-economy, rewetting benefits for carbon storage, value of semi-natural habitats for biodiversity and carbon storage, and adaptation of forest systems to climate change. |

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| OBJECTIVE 3: Increase awareness and appreciation of biodiversity and ecosystem services | |
| 1 | Two National Biodiversity Conferences were held in February 2019 ‘New Horizons for Nature’ and June 2022 ‘Act Now For Nature’. Both brought together a wide range of attendees from across a wide spectrum of Irish society including, amongst others, policy-makers,NGOs, academics, ecologists, farmers, community groups, politicians and local authorities. The first (2019) conference had over 500 delegates including 89 speakers and aimed to identify the challenges and explore the solutions as to how to work together to achieve our common on goal of reversing biodiversity loss and implementation of the NBAP. The 2022 conference formed part of the public consultation on the 4th NBAP and aimed to bring together a cross-section of society to discuss challenges, identify solutions and establish ways to collaborate to implement it. |
| 2 | Funding for training in the biodiversity sector increased considerably in a number of ways, including via the Local Biodiversity Action Fund (LBAF) and funding for local authority Biodiversity Officers. By 2023 the LBAF had increased to €3 million and an expected 25 Biodiversity Officers are expected to be in post by the end of 2023. |
| 3 | Awareness of biodiversity increased at a higher rate in Ireland than in most other European countries. The results, published in a special Eurobarometer survey in 2018, indicated that people in Ireland believed that pollution, man-made disasters and climate change were the three greatest threats to biodiversity. |
| 4 | A number of initiatives aimed at awarding and showcasing biodiversity enhancement projects continued or commenced including the new Together for Biodiversity Awards (launched at the 1st National Biodiversity Conference in 2019) and the Farming for Nature awards. |
| 5 | Substantial progress was made to promote the benefits of conservation in the agricultural and marine aquaculture sectors. This has occurred via several projects including the DAFM-led European Innovation Partnership (EIP) scheme under the RDP and a number of landscape-scale EU LIFE projects. |

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| OBJECTIVE 4: Conserve and restore biodiversity and ecosystem services in the wider countryside | |
| 1 | The GLAS and (since 2023) ACRES agri-environmental schemes (AES) and EIP projects have biodiversity and broader sustainable environmental benefits at their centre, providing in excess of €1 billion across the farming community. An evaluation of GLAS, focussing on biodiversity including birds, reported that actions under the GLAS scheme had mitigated further declines in targeted habitats but due to lack of targeted restoration actions in peatland and commonage areas, habitat conditions were not likely to improve without significant further action. ACRES is designed with greater targeting of these habitats and is largely built on a results-based structure which will incentivise greater impact and beneficial outcomes for habitats and species. |
| 2 | A number of EU LIFE projects are underway focussing on conservation of priority species and habitats, many of which are the most threatened in the country. These include projects on Hen Harrier, Corncrake, waterbodies (Waters of LIFE), peatland restoration (Wild Atlantic Nature) and breeding waders on machair. |
| 3 | Bord Na Móna implemented restoration/rehabilitation plans for peatland habitats, announcing at the launch of their 2016-21 action plan that they already rehabilitated 12,000ha of their peatlands. By 31st March 2023, Bord na Móna have rehabilitated nearly 30,000 ha. |
| 4 | A large proportion of actions within the All-Ireland Pollinator Plan have been implemented and considerable outreach and educational activities undertaken. |
| 5 | A dedicated Wildlife Crime Unit was established within NPWS to support front-line enforcement work of regional NPWS staff in enforcement activities and with the organisation and delivery of law enforcement related training in coming years. |

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| OBJECTIVE 5: Conserve and restore biodiversity and ecosystem services in the marine environment | |
| 1 | Implementation of Ireland’s Integrated Marine Plan Harnessing Our Ocean Wealth continued with the sixth Annual Review of Progress, published in 2019. The EU Directive establishing a Framework for Maritime Spatial Planning was transposed into national legislation in 2018 and the National Marine Planning Framework was published and submitted to the European Commission in 2021. |
| 2 | A River Basin Management Plan (2018-21) was published with an updated draft covering the period for 2022-27. These plans set out the actions that Ireland is taking to improve water quality and achieve ‘good ecological status’ in water bodies (rivers, lakes, estuaries and coastal waters). Irish Water are implementing a range of measures in relation to urban wastewater pressures at four designated bathing water areas. |
| 3 | The European Maritime and Fisheries Fund 2017-20 (EMFF) is funding a series of new and on-going MSP projects. Through these, the Marine Institute are collecting, collating and mapping accurate, up-to-date spatial and temporal information on marine ecosystems and human activities taking place within Ireland’s waters. The products developed will aid informed decision-making through the National Marine Planning Framework and also support the implementation of a number of cross-cutting EU policies, such as MSFD, NATURA, Climate Change and CFP. |
| 4 | 62 beaches received Green Coast awards in 2022 compared to 63 in 2021 and 61 in 2017.  32 towns and villages were discharging untreated sewage into Irish coastal waters in 2021, representing nearly half of our urban wastewater. This represents a decrease from the 38 towns and villages discharging untreated sewage in 2017. |
| 5 | In 2021, 36,379 patrols were carried out by IFI. A New Mobile Support Unit (MSU) and a new sea-going fleet were brought in in 2021. 40 fisheries officers were trained as coxswains in 2021 to enable greater levels of coastal patrolling. This is an increase in patrols compared to 2017 when 31,501 patrols were carried out.  IFI prosecuted 103 illegal fishing offences and seized 1,261 pieces of illegal fishing equipment in 2021. |

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| OBJECTIVE 6: Expand and improve management of protected areas and species | |
| 1 | As of December 2021, final formal designation through Statutory Instrument of 346 of 439 Special Areas of Conservation was completed. The work of drafting Statutory Instruments for the remaining sites continues to be priority work and, in the interim, the remaining sites are all protected under law. All 154 Special Protection areas are designated by Statutory Instrument. |
| 2 | The LIFE Raised Bog Restoration Project (LIFE14 NAT/IE/000032 LIFE Irish Raised Bogs) which concluded in the summer of 2022, completed restoration works on over 2,650 hectares within 12 raised bog SACs, with a number of these sites undergoing enhanced restoration measures.  Since 2018, restoration measures on over 1400 hectares within 10 raised bog SACs and 600 hectares within 7 raised bog NHAs have been completed by NPWS, with restoration measures near completion on two further raised bog SACs. |
| 3 | As of March 2023, there were 479 (of 593) Site Specific Conservation Objectives published for 50 SPAs and 429 SACs. |
| 4 | Since 2017, nearly €20m in programme funding was directed towards conservation, operational management and upgrading of our 87,000 hectare network of National Parks and Nature Reserves. Wicklow Mountains National Park was extended and the area of Ballycroy National Park expanded with the transfer of Coillte’s significant holdings at Wild Nephin to create 11,000 hectares of wilderness on State-owned lands. |
| 5 | Implementation of actions in the National Peatland Strategy has progressed, with reports on the implementation of the strategy for 2018 and 2019 published in 2020, and the mid-term review and Implementation Plan were published in 2021. |

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| OBJECTIVE 7: Strengthen international governance for biodiversity and ecosystem services | |
| 1 | In 2019 the DFA launched it’s a Better World, outlining Ireland’s international development priorities. The Vision emphasises Equality, Peace and Sustainability, the latter including a recognition of the importance of the protection of the natural world. |
| 2 | Ireland has contributed data and information to the Global Biodiversity Information Facility (GBIF), the European Alien Species Information Network (EASIN) and EASIN NOTSYS, the IUCN’s Global Register of Introduced and Invasive Species (GRIIS), the EEA’s European Grassland Butterfly Index, the European Vegetation Archive and the Global Index of Vegetation-Plot Databases during the course of this plan.  Almost 2 million occurrence records were submitted from the NDBC to the GBIF up to the end of 2021. |
| 3 | A good level of cross-border co-operation continued on a number of projects including inter alia EU INTERREG VA projects: CABB (Co-operation Across Borders for Biodiversity 2017-22: improving the condition of uplands SACs and SPAs); CANN (Collaborative Action for the Natura Network), another INTERREG project with Northern Ireland and Scotland, is working to save peatlands and other wetlands supporting threatened species such as curlew and hen harrier. In 2022, a significant new investment of €15 million in peatlands restoration will benefit cross-border collaboration, knowledge sharing and expertise building, particularly in the area of Results Based Agri-environment Payment Schemes (RBAPS). The EU-funded Wild Atlantic Nature LIFE Integrated Project will receive €10 million from the government’s Shared Island Fund and an additional €5 million in co-funding through the National Parks and Wildlife Service, in collaboration with the Northern Ireland Environment Agency (NIEA) and NatureScot. |
| 4 | A number of All-Ireland initiatives continued to make good progress during the life of this NBAP including new all-island red-lists (stoneflies, birds and terrestrial mammals), and monitoring and surveillance of a range of species groups and habitats including Bumblebees, Marsh Fritillary, bat monitoring and cetaceans. |
| 5 | International co-operation on illegal harvesting and importation of timber, and rare and vulnerable animals via the European Timber and Timber Products and CITES regulations continues via the Irish government’s transposition of regulations into Irish law and/or ongoing engagement with other signatory governments. |

## Summary Update by Action

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| OBJECTIVE 1: Mainstream biodiversity into decision-making across all sectors | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 1.1.1 | Incorporate into legislation the requirement for consideration of impacts on biodiversity to ensure that conservation and sustainable use of biodiversity are taken into account in all relevant plans and programmes and relevant new legislation | DHLGH | In Progress | As part of the amendment to the Wildlife (Amendment) Bill, it is proposed that every relevant public body will be obliged, in the performance of its functions, to have regard to policies, guidelines and objectives to promote the conservation of biodiversity and the national biodiversity action plan. This Bill was passed by the Seanad in November 2019 with amendments. In December 2022, Minister Noonan announced that he proposed to bring a memorandum to Cabinet to seek to restore the Bill to the Dáil Order Paper, with a view to it recommencing its journey through the houses of the Oireachtas. A range of senior leaders including those of all 14 government departments launched a ‘Seeds for Nature’ charter which comprises a suite of commitments for nature and biodiversity that go beyond the signatory’s current work programmes to support, scale-up and fast-track the implementation of the NBAP. Progress was reviewed and presented at the 2nd National Biodiversity Conference in 2022, showing significant progress across the full breadth of the signing parties. |
| 1.1.2 | Public and Private Sector relevant bodies will use best practice in SEA, AA and other assessment tools to ensure proper consideration of biodiversity in policies and plans | Public Authorities Private Sector | In progress | DHLGH initiated a project at the end of 2019 to produce guidance for planning authorities in consideration of matters arising from Article 6(3) and Article 6(4) of the Habitats Directive.  The AA procedure for forestry projects was updated in July 2021 and all forestry projects are now subject to AA screening and a revised public consultation procedure whereby there is full public participation in decision-making around projects that may have an effect on Natura 2000 sites.  The EPA published ‘Guidance on Strategic Environmental Assessment (SEA)’ in 2020 and Guidance on Strategic Environmental Assessment (SEA) Statements and Monitoring in 2021. In 2017, the EPA published a Progress Update on the progress made in the delivery of the actions in the SEA Effectiveness Review in Ireland Action Plan 2012-16, some actions within which were not or only partially delivered. To drive progress, an updated SEA Action Plan 2018-20 was published alongside the Progress Update, a Second Review of SEA Effectiveness in Ireland in January 2020 and SEA Action Plan for 2021-25.  The Public Consultation phase of the Draft Forestry and Freshwater Pearl Mussel SEA has been completed, with submissions being reviewed.  The EPA published a guidance note on ‘Integrating Climatic Factors into Strategic Environmental Assessment’ in 2019.  DAFM has commenced a full review of the Environmental Impact Assessment (Agriculture) Regulation, which is expected to conclude in 2024. |
| 1.1.3 | All Public Authorities and private sector bodies move towards no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in Blue-Green infrastructure | Public Authorities Private Sector | Limited Progress | OPW has set up a biodiversity working group and a staff Biodiversity Conference was held in May 2021. A Biodiversity Action Strategy ‘Biodiversity in Action’ (2022-26) was launched in May 2022). Biodiversity Audits of 10 historical were undertaken in 2022 with a further 10 historic sites to be surveyed in 2023. |
| 1.1.4 | Strengthen ecological expertise in local authorities and relevant government departments and agencies | Public Authorities; The Heritage Council | In Progress | Capacity in ecological expertise has increased in a number of Government Departments and public bodies. These include in:  Teagasc (20 new advisory posts in the Agricultural Sustainability Support and Advice Programme (ASSAP), the aim of which is the improvement of the environmental sustainability of farmers through 1-1 advice and group/public meetings, with an initial focus on water quality  DHLGH appointed a Head of Ecological Assessment, Head of Ecological Guidance and Advisory Unit, 6 Divisional Ecologists and 6 additional scientific staff in NPWS. There has been significant recruitment and restructuring within the organisation nationally  OPW have hired an ecologist to work in their drainage section  DAFM have implemented three significant recruitment drives since 2017 to increase in-house ecological expertise, in the agricultural sector and ca. 18 new ecological staff in forestry, with further offers under consideration from the most recent recruitment drive in April 2023  Capacity within Local Authorities increased following an ongoing recruitment exercise with a total of 25 local authority biodiversity officers expected to be in post by the end of 2023  The Heritage Council has filled the long vacant Wildlife Officer post and has also recruited a Head of Climate Change & Heritage post at senior level. A new Heritage Council Biodiversity Officer Network programme, with the support of CCMA & NPWS, has seen the number of LA Biodiversity Officers grow significantly and will be offered to all LAs by end of 2023. |
| 1.1.5 | Local Authorities will review and update their Biodiversity and Heritage Action Plans | Local Authorities, DHLGH, The Heritage Council, DBBP | In Progress | The majority of Local Authorities continue to prepare and implement local BAPs, some of which are incorporated into Local Heritage Plans. 14 standalone Biodiversity Action Plans (not combined with County Heritage Plans) were produced by local authorities, usually with an operational period of four or five years. Whilst 18 local authorities have plans which include and extend beyond 2022, 12 local authorities need updated plans post-2021.  It is expected that, with the roll out of LA Biodiversity Officers, and general MoUs, a broader consensus will emerge as to the nature and content of these plans in future years. Much of this work will begin by a revision of the 2003 Local Authority Action Plan Guidelines. |
| 1.1.6 | Local Authorities will review and update their Development Plans and policies to include their policies and objectives for the protection and restoration of biodiversity | Local Authorities, DHLGH | Implemented | Explicit policy objectives which refer to Natural Heritage/Biodiversity protection and restoration feature prominently in the published Local Authority Development Plans, the majority of which cover the period up to and including 2028/ 2029. |
| 1.1.7 | Develop a Green Infrastructure at local, regional and national levels and promote the use of nature-based solutions for the delivery of a coherent and integrated network | Local Authorities | In progress | Provision for Green Infrastructure has been built into Climate Adaptation Plans at a local level. Following a commitment made by DHLGH as part of the ‘Seeds for Nature’ charter announced at the First National Biodiversity Conference, DHLGH published ‘Development Plans: Guidelines for Planning Authorities’ in 2022. These support integrated planning for green infrastructure within statutory land use plans, in line with the objectives of the National Planning Framework. There are eleven Local Authorities with Green Infrastructure Strategies/Guidelines in place, with a further eight Local Authorities progressing their strategies. |
| 1.1.8 | Continue to produce guidance on the protection of biodiversity in designated areas, marine and wider countryside for Local Authorities and relevant sectors | DHLGH, EPA, Local Authorities, The Heritage Council | In Progress | In order to develop best practice in Appropriate Assessment for public authorities, the National Appropriate Assessment Forum was established in 2019 and has since met twice per year. DHLGH work on producing guidance in relation to burning and wildlife is almost complete, in addition to Guidelines in relation to Article 6(3) and 6(4) of the Habitats Directive outlining the procedure to be followed when planning new developments which might affect a Natura 2000 site. Guidance for public authorities on the strict protection of animal species, was published in 2021.  The EPA has published a number of SEA Good Practice documents on SEA Sectors (Water, Waste, Forestry, Energy) and aspects of SEA (SEA Statements & Monitoring, Screening, Cumulative effects and Local Authority Land Use Plans).  Two guidance documents on strict protection of animal and plant species under the Habitats Directive were published in 2021: one for those intending to apply for a derogation licence and one for public authorities. |
| 1.1.9 | Integrate Natura 2000 and Biodiversity financial expenditure tracking into Government Programmes internal paying agency management procedures including linkages to the Prioritised Action Framework and this NBAP | Relevant Government Departments | Limited Progress | A National Biodiversity Expenditure Review for Ireland was published in 2018 (Morrison & Bullock, 2018). Reviewing national expenditure between 2010 and 2015, 79% of national biodiversity expenditure (€1.176 billion) was spent on Objective 4 of the 3rd NBAP (Conserve and restore biodiversity and ecosystem services in the wider countryside).  Between 2010-15 annual expenditure on biodiversity averaged at ca. €250,000 which is just 0.31% of total government expenditure. Expenditure on Objective 6 (linked to working on compliance with the Natura 2000 Directives) amounted to €1.9 million over the 6-year study, equivalent to 12% of biodiversity expenditure.  NPWS programmatic expenditure during 2010-2015 was largely focussed on Objective 6, accounting for 68% (€56 million) of total expenditure over the period (approximately €10 million/year). |
| 1.1.10 | Develop a Natural Capital Asset Register and national natural capital accounts by 2020, and integrate these accounts into economic policy and decision-making | CSO, IFNC, DHLGH | In Progress | The Central Statistics Office established the Ecosystem Accounts Division in 2020, with responsibility for developing Ecosystem Accounts for Ireland. Two publications on ecosystems have already been published (Peatlands and Heathlands 2018; Grasslands and Croplands 2018), with more to follow. Methodologies used are aligned with the UN System of Environmental Economic Accounts - Ecosystem Accounting (2021). |
| 1.1.11 | Initiate natural capital accounting through sectoral and small-scale pilot studies, including the integration of environmental and economic statistics using the framework of the UN System of Experimental Ecosystem Accounting (SEEA) | CSO, IFNC, Irish Water, DHLGH, EPA, NESC | In Progress | (See also 1.1.10)  The EPA initiated the Irish Natural Capital Accounting for Sustainable Environments (INCASE) project in 2019 which runs until 2023. The proposed transdisciplinary, multi-institutional research project develops Natural Capital Accounting (NCA) systems in Ireland. By reviewing approaches and data sources, and incorporating world-leading best-practice and approaches, this dynamic project will develop ecosystem and environmental flow accounts for four Irish catchments. In addition, it will develop tools for data visualisation, quality assessment and framework development.  As part of the UN System of Environmental Economic Accounts (SEEA), the Central Statistics Office (CSO) have responded to requirements of Environmental Accounts Regulations 691/2011 and 538/2014 and intend to begin the process of compiling Ecosystem Accounts, following the development of a data collection instrument. Organisations including Coillte, Bord na Móna, Dublin Port Company and Bord Iascaigh Mhara are using Natural Capital Asset Accounts to demonstrate the value of public expenditure on their estates. |
| 1.1.12 | Establish a national Business and Biodiversity Platform under the CBDs Global Business Partnership | IFNC, BITCI, Sustainable Nation | Implemented | The Business for Biodiversity platform was launched at the 2nd National Biodiversity Conference in June 2022 with seed funding from DAFM and DHLGH. The new platform helps businesses to measure, design and demonstrate their biodiversity impact, drawing on a network of expertise led by Natural Capital Ireland, the National Biodiversity Data Centre and Business in the Community Ireland. |
| 1.1.13 | Ensure Origin Green produces tangible benefits for biodiversity with increased emphasis on conservation and restoration of biodiversity | Bord Bia, Teagasc, DAFM | In Progress | Bord Bia collaborated with 187 farms in a pilot project on the use of aerial imagery to assist in sustainability assessments for farm habitat methodology, the results of which were published in 2020 (Finn & Moran, 2020). Between 2016 and 2021, a Teagasc Biodiversity Practice Index is being developed and has been applied to 149 Waterford dairy farms and 800 farms in the National Farm Survey. An EU-funded SmartAgriHubs project was initiated in September 2018 to assess farmland habitat type and area on a subset of ~300 Teagasc NFS farms. |
| 1.1.14 | Implement actions from Ireland’s Biodiversity Climate Change Sectoral Adaptation Plan | Relevant Government Departments | In Progress | The Climate Change Sectoral Adaptation Plan was prepared under the National Adaptation Framework and published by DHLGH in 2019 following consultation in spring 2019. It aims to ‘protect biodiversity from the impacts of climate change and to conserve and manage ecosystems so that they deliver services that increase the adaptive capacity of people and biodiversity while also contributing to climate change mitigation’. Many of the actions are covered in this 3rd Biodiversity Action Plan, related in particular to bog restoration, green infrastructure and engagement activities. |
| 1.1.15 | Identify and take measures to minimise the impact of incentives and subsidies on biodiversity loss, and develop positive incentive measures, where necessary, to assist the conservation of biodiversity | Relevant Government Departments | In Progress | DHLGH and IRC are currently funding a Financial Needs Assessment to determine the costs of fulfilling national biodiversity policy objectives. The research will assess the effectiveness of the use of current funding streams and provide an extensive assessment of the full range of potential financing mechanisms (e.g. payments for ecosystem services, biodiversity offsets, restoration of carbon sinks and fiscal transfers), together with improved targeting of existing measures for biodiversity. A Policy and Institutional Review will analyse positive and negative policies and subsidies to fully outline the challenge of not only mobilising finance, but of ensuring policy and environmental fiscal reform.  Payments for ecosystem Services are primarily supported through the CAP via various voluntary AES schemes (GLAS to 2022; the €1.5 billion ACRES scheme 2023 onwards and, Ecoschemes), where landowners receive a payment for delivery of voluntary specific and targeted agri-environmental measures. The European Innovation Partnerships (EIPs) have been and continue to be important for the development, testing and expansion of innovative techniques and approaches beneficial for biodiversity in the agricultural sector.  Further payment for ecosystem services are delivered through the EU LIFE funding stream. There are a number of DHLGH EU LIFE projects ongoing during the lifetime of this NBAP including KerryLIFE, Raised Bog LIFE, LIFE IP Wild Atlantic Nature, LIFE Atlantic Crex (Corncrake LIFE) and LIFE on Machair.  Biodiversity funding totalling €2.4 million was provided by DHLGH to county Heritage/Biodiversity officers to implement local biodiversity actions during the period 2018-21. The available resource has increased by 380% over that period; Over €3 million is available for 2023 alone. |
| 1.1.16 | Establish and implement mechanisms for the payments of ecosystem services including carbon stocks, to generate increased revenue for biodiversity conservation and restoration | Relevant Government Departments | In Progress | The EU LIFE funding stream has been an important source of funding in the payment of ecosystem services during the timeframe of this plan. DHLGH were awarded funding for an EU LIFE Integrated Project, 'Waters of LIFE', started in January 2020 which will allow for the establishment of a Results-Based Agri-Environmental Payment Scheme (RBAPS) for the protection of High Status Waterbodies. NPWS, with associated beneficiaries, successfully bid for funding in a number of LIFE projects which involve results-based payment schemes, including the newly-awarded LIFE Atlantic Crex (Corncrake), and LIFE Wild Atlantic Nature (WAN), and LIFE on Machair.  The Woodland Environmental Fund (WEF) provides an access point for individual businesses to help expand Ireland’s native woodland resource, by providing additional incentives to encourage landowners to plant new native woodlands. Its continuation until at least 2027 forms part of the Forest Service’s Forest Strategy Implementation Plan. |
| 1.1.17 | Develop and implement a National Biodiversity Finance Plan to set out in detail how the actions and targets of this NBAP will be delivered from 2017 and beyond | DHLGH, BWG | In Progress | A National Biodiversity Expenditure Review was published 2018 using the UNDP BIOFIN model. Current work on a Financial Needs Assessment and a Resource Mobilisation Strategy will inform a future Finance Plan. |
| 1.1.18 | Monitor the implementation of this Plan | BWG, Biodiversity Forum | Implemented | Submissions were requested and received from the BWG and other relevant stakeholders. This information has been supplemented by the information collated for the 6th National Report to the Convention on Biological Diversity and by a review of relevant policies/websites. |
| 1.2.1 | Review existing legislation and identify gaps | DHLGH | Implemented | The European Union (Birds and Natural Habitats) (Amendment) Regulations 2021 (S.I. No. 293 of 2021) amended the European Commission (Birds and Natural Habitats) Regulations 2011 to provide that public participation at Appropriate Assessment stage is mandatory, not discretionary, as required by EU Jurisprudence. |
| 1.2.2 | Consolidate the Wildlife Acts in a new Bill | DHLGH | Limited Progress | Not progressed within the timeframe of this review. |
| 1.2.3 | Review Flora (Protection) Order and Schedule 5 of the Wildlife Act in light of published regional and global Red Lists and other information | DHLGH | Implemented | The review of the Flora Protection Order was completed, the Flora (Protection) Order 2022 coming into effect on 16th May 2022.  Progress on the review of Schedule 5 has been made, with additional work required to consider the results of recently published Red Lists. The Basking Shark Cetorhinus maximus was added to the protected species list on 23rd October 2022 of the Wildlife Act 1976 (Protection of Wild Animals) Regulations 2022. |
| 1.2.4 | Ensure the various provisions of the Forestry Act 2014 that strengthen the protection of biodiversity, water and the wider environment are brought into effect on commencement of the Act | DAFM | Implemented | The Forestry Act (2014) was commenced under the Forestry Regulations (2017) S.I. 191 of 2017 which came into effect on the 24th May 2017. The Act provides detailed rules for the control of forestry activities in the areas of felling, afforestation, forest road works and aerial fertilisation. The Regulations also give further effect to the European Directives relating to Environmental Impact Assessment.  The Act:  Sets out the specific role of the 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, Birds, Habitats and Water Framework Directives  Creates greater flexibility to the Minister with respect to attaching environmental conditions to the approval of licences and their enforcement  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 “protection of the environment, habitats and biodiversity”. |
| 1.2.5 | Publish legislation to address required provisions under the EU Regulation on Invasive Alien Species (No. 1143/2014) and on responsibilities and powers regarding Invasive Alien Species, giving IFI responsibility for aquatic invasive species | DHLGH, DCCAE, IFI | In Progress | The Regulation is in force in Ireland. National legislation to give effect to certain aspects of the Regulation is at an advanced draft stage with the OPC in the Attorney General’s Office.  A Horizon Scan of IAS in Ireland was published in 2020 (Lucy et al., 2020). |
| 1.2.6 | Ratify the Nagoya Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity and enact necessary regulations | DHLGH | In progress | Ireland is a signatory to the Nagoya Protocol. A motion to ratify the Protocol passed through the Dáil in February 2023. DFAT are currently finalising the formal process of ratification with the UN General Secretariat in New York. |
| 1.2.7 | Publish legislation to provide a legal basis for National Parks | DHLGH | Limited Progress | Not progressed within the timeframe of this review. |

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| OBJECTIVE 2: Strengthen the knowledge base for conservation, management and sustainable use of biodiversity | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 2.1.1 | Review priority needs for biodiversity research in 2019 | EPA, DHLGH, Academia and Research Institutions, eNGOs, Government Agencies | In Progress | While there has been no stand-alone review, biodiversity has featured prominently under the 3 pillars of the EPA Research programme: Climate, Water and Sustainability and also the Marine Research Programme administered by the Marine Institute.  The All-Island Climate and Biodiversity Research Network (AICBRN) published a research needs report in 2021, identifying a need for substantial and sustained new funding support (~€10 million per annum) to deliver innovative science and solutions at scale.  In 2019 NPWS provided funding and signed an agreement with TCD for the All-Island Climate and Biodiversity Research Network (AICBRN) to undertake stakeholder mapping, and assessment of policy and industry needs for climate & biodiversity research, including a prioritisation and gap analysis of research needs.  The 2018 National Biodiversity Expenditure Report (2018) identified a need for a number of future projects in the area of biodiversity finance.  The DAFM conducted a review of their research funding programme and, in December 2020, updated the programme to include five strands. This has improved the opportunity for research funding in areas relating to sustainable food systems, bioeconomy, biodiversity and climate adaptation and mitigation relevant to the agricultural, forestry and fisheries sectors. |
| 2.1.2 | Develop a classification scheme for terrestrial vegetation and marine and freshwater communities | DHLGH, NBDC | In Progress | Through funding from NPWS, BEC Consultants, NPWS and the NBDC established a project to produce a comprehensive national vegetation classification.  All vegetation communities (Irish Vegetation Classification) have been classified. |
| 2.1.3 | Complete national terrestrial habitat, land cover, land use, and ecosystem service maps | DHLGH, OSI, EPA, The Heritage Council, Teagasc, DAFM | In Progress | The National Landcover Map was officially launched on March 21st 2023, produced by the National Mapping Division of Tailte in partnership with the EPA and with the support of members of the cross-governmental national landcover and habitat mapping (NLCHM) working group.  The first phase of the Land Use Review, which was committed to in the Programme for Government, Our Shared Future, was published on 10th March 2023. This review provides an evidence-base to determine the environmental, ecological and economic characteristics of land types across Ireland.  Recommendations from this review, include specific recommendations on mapping capabilities. This Land Evidence Review recommends that Ireland continues to build on these advances in three areas: land-use mapping, soil mapping and ecosystem mapping which all complement each other. In this regard, Recommendation 18 reflects the need to maintain investment in land mapping capabilities to ensure that we have the evidence we need to inform land-use decisions. |
| 2.1.4 | Implement common data standards and quality assurance procedures in line with the INSPIRE Directive and ensure that data and mapping rare, threatened and protected species and habitats are freely available | DHLGH, Marine Institute, EPA, The Heritage Council, NBDC, DPER | In Progress | The NBDC databases hold over 170 mapped datasets and over 6 million records and the ISDE (Irish Spatial Data Exchange) data repository over 1,700 spatial data sets on a wide range of environmental parameters (hosting data from a range of organisations including inter alia the GSI, DHLGH, EPA).  There are currently 67 NPWS datasets as open data on data.gov.ie and NPWS’s own website hosts regularly updated information on surveys; those and protected sites data are available via the publicly accessible mapping portal. Scientific outputs such as NPWSs own Irish Wildlife Manual Series are posted there and include a 2019 Checklists of Protected and threatened species in Ireland. |
| 2.1.5 | Support research on economic and societal valuations and non-economic valuations of ecosystem services and benefits and how biodiversity underpins these values | EPA, DHLGH, DAFM, IFNC, NESC, CSO, Academia and Research organisations, BnM | Implemented | The EPA initiated the Irish Natural Capital Accounting for Sustainable Environments (INCASE) project in 2019 which runs until 2023. The proposed transdisciplinary, multi-institutional research project develops Natural Capital Accounting (NCA) systems in Ireland. There are a number of on-going and recently completed research projects with various funders and lead institutions. Projects include SmartBog, Farm-Carbon, HNV\_FarmForBio, Heath & Wellbeing (BlueGreen space access) and water quality, POLLIVAL, INCASE, METRODIVER, WaterMARKE, COSAINT, Blackstairs EIP, PearlMussel EIP, FARM ECOS, Hen Harrier EIP, and Cultural Value of Coastlines.  Reviews of the ecosystem services provided in a number of sectoral areas already published include forestry and agriculture or multi-sectoral.  The Marine Institute publish an annual Ireland’s Ocean Economy survey jointly with SEMRU, NUI Galway;  The National Economic and Social Committee (NESC) has published and is conducting ongoing studies on Just Transition and other areas relevant to sustainable economic, social and environmental development. |
| 2.1.6 | Undertake surveys and assessments of status, trends and distribution of all habitats and species of EU interest and additional habitats and species of national and regional importance | DHLGH, EPA, IFI, NBDC, Academia and Research Institutions, eNGOs | Implemented | National reporting under Article 17 of the Habitats Directive and Article 12 of the Birds Directive were submitted to the EU and published in 2019. The data which informs these assessments is collated from a number of sources including NPWS/DCCAE-commissioned surveys which includes those which are undertaken on a cyclical basis (e.g., Annex 1 habitats) or annually (e.g. wintering waterbirds).  The NDBC operate a number of schemes including those on rare plants, Dragonflies and damselflies, Bumblebees, Marsh Fritillary, Butterflies and partners projects including inter alia Leaf miners, Irish Stoats, and Hedgehogs. |
| 2.1.7 | Support and encourage the volunteer network and local communities to carry out biological recording and other citizen science projects | Relevant Government Departments and agencies, NBDC, eNGOs, Community Groups | Implemented | NPWS have run a Grants for Small Recording Projects each year since 2019 to support citizen scientists who have little or no access to alternative financial support for their work. A total of 108 projects were supported 2019-22, worth over €210,000 and the scheme is open again in 2023.  NDBC encourage, support and facilitate a large number of annual and one-off citizen-science projects. Typically, around 20 projects are signposted on the NDBC website at any one time, with guidance and training available to support participation in all cases. The database comprises over 1 million records of 12,189 species contributed by over 22,000 observers. ESRI authors produced a paper on The Citizens in Citizen Science: demographic, socioeconomic, and health characteristics of biodiversity recorders in Ireland.  NGOs including BWI, VWT, BCI and the IWDG continue to contribute large volumes of data for a range of significant monitoring schemes including I-WeBS (wintering waterbirds), CBS (countryside breeding birds), mammals, bats and cetacean observations and strandings. |
| 2.1.8 | Ensure that international collaborative funding opportunities are effectively targeted to assist implementation of this NBAP through consultation between funders, researchers and users of research | DHLGH, DCCAE, EPA, Academia and research Institutions | Implemented | The BioDIVClim joint call was launched in 2019. The EPA represents Ireland as a full member of the BiodivERsA network and is participating in three Horizon 2020-funded ERAnet actions: BiodivERsA3, BioDIVscen and BioDICclim. In addition, there were two large Innovation Actions on implementing Nature-based Solutions in cities.  The 2020-21 BiodivERsA call was themed Conservation and restoration of degraded ecosystems and their biodiversity, including a focus on aquatic systems. Ireland is participating in the project DEEPREST – conservation and restoration of deep-sea ecosystems in the context of deep sea mining with NUI Galway as the lead Irish partner. UCC are leading a project which combines citizen-science, whale watching and combined eDNA sampling for stakeholder-driven marine biodiversity protection as part of the 2021/22 Biodiversa+ Joint Transnational call award.  The SeaRover programme, which mapped offshore reef habitat, was funded under the EMFF marine biodiversity scheme. The EPA are supporting research participation in the European Network on Ecosystem Services co-ordinated by UCD and the EPA are the national point of contact for a range of other Horizon 2020 Societal Change 5: Climate Action, Environment, Resource Efficiency and People projects: EU Life Peatlands & People, EUTROSED, ABAWARE, REFORM, WATERPEAT, RainSolutions, AIHABs, CoCliME, WATExR, Land to Sea, ANTIVERSA, METRODRIVER, BioRodDis, and FunProd.  EU LIFE IP Wild Atlantic Nature, Waters of LIFE, LIFE on Machair, LIFE Lough Carra, Aran LIFE, Burren LIFE, Raptor LIFE, Kerry LIFE, Roseate Tern LIFE and LIFE Atlantic Crex (Corncrake LIFE) are all underway during the life of this NBAP. Around 60 PhD projects are funded researching aspects of biodiversity since 2017, with an additional ca. 95 research projects being run as post-doctoral or Master’s projects, or in another capacity.  A number of smaller scale Local Authority Biodiversity Action Fund and community heritage projects are of a research nature, including for example, urban swift surveys, site inventories or tracking studies. |
| 2.1.9 | Enhance knowledge of the most significant direct and indirect causes of biodiversity and ecosystem loss including combined and cumulative stressors; develop and test prevention and mitigation options | DHLGH, Academia and Research Institutions, EPA, DAFM, DCCAE | In Progress | DAFM continues to monitor ongoing research projects funded through its Stimulus and COFORD research programmes some of which address this action.  DAFM, with co-funding from the EPA, are funding several research projects relating to sustainable agricultural practices, including nutrient management. The following research is of particular relevance to mitigating stressors on biodiversity: protecting terrestrial ecosystems through sustainable pesticide use; hydrological and sediment impacts of forestry operations in Ireland and abating ammonia in agriculture. The ReConnect project examined the impact of river barrier removal, e.g. weirs, on aquatic biology, sediment movement and hydrology (UCD. EPA funded).  The SAMFHIRES project researched Saltmarsh Function and Human Impacts on Ecological Status (TCD/EPA funded).  The PROTECTS project investigated the Protection of terrestrial ecosystems through sustainable pesticide use (NUIG/TCD. DAFM funded).  The National Marine Research & Innovation Strategy 2017–2021 was published in late 2017. Three thematic research areas were identified as: Harnessing Our Ocean Wealth – A Thriving Maritime Economy, Healthy Marine Ecosystems and Engagement with the Sea. |
| 2.1.10 | Continue forest research programme on forest biodiversity, the delivery of wider ecosystem services (e.g., protection of water), carbon accounting and the interaction of climate change and forest systems | DAFM, COFORD, Forest Service, Academia & Research Institutions | In Progress | The DAFM Council for Forest Research and Development (COFORD) Programme provides funding for "public good" research to Irish research performing organisations on a competitive basis. DAFM issues calls for research periodically. The seven thematic areas of Forest Research in Ireland (FORI) help guide the Programme, with Biodiversity covered under Theme 3.6 'Ecosystem Services'.  The National Botanic Garden has been active in research on characterisation of forest genetic resources.  NBG collaborated on the FORGEN project and undertook genetic characterisation of native forest species - alder, birch and Scots pine.  DAFM, with co-funding from the EPA, are funding research on the next steps in managing the impact of ash dieback and the response of tree species to climate change.  In December 2019, the OPW secured funding from DAFM for a proposed project (GENENET) to characterise a network of gene conservation sites for native tree species. The GENENET project aims to establish a gene conservation network for native tree species in Ireland. The project will undertake a mapping exercise to identify potential sites for the network. The sites will then be surveyed and characterised to determine levels of genetic diversity and putative origins through comparison to European data. The data generated will be built into a geographical information system that can be used for future management of this valuable genetic resource. |
| 2.1.11 | 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 through training programmes | Academia and Research Institutions, DHLGH, National Botanic Gardens, NBDC, CIEEM, BSBI | In Progress | A variety of bodies (state, NGOS etc.) run outdoor and indoor/online training courses on the identification of and surveying techniques for a wide range of species including vascular plants, invertebrates, bryophytes, stonewort’s, and moths;  The NBDC runs an extensive programme of events each year geared at staff, biological recorders and the general public. A total of 72 training workshops were run by the NBDC during 2017-19, covering a variety of topics, including the identification of wetland birds, cetaceans and vascular plants, recording of biodiversity, and monitoring workshops; Covid-19 restrictions significantly curtailed activities in both 2020 and 2021. The NBG filled some key positions during the timeframe of this review, including Taxonomist, Botanist and Herbarium Assistant. |
| 2.1.12 | Hedgerow surveys will be continued by Local Authorities | Local Authorities, DHLGH, Woodlands of Ireland, NBDC, HLAI | In progress | Hedgerow weeks have been run by Teagasc since 2019-2021.  A re-survey of Monaghan hedgerows was completed in 2021 (Heritage Council funded). Based on that survey they estimated an annual hedgerow rate of loss of 0.9%, considerably higher than the EPA national rate estimate.  The Local Biodiversity Action Fund (LBAF) operated by the NPWS provides funding to assist local authorities, with the implementation of projects that promote actions contained in the Plan. Since the Fund was first launched in 2018, 14 local authorities have applied for and spent over €300,000 to carry out hedgerow work, including surveying, providing recommendations for the protection, restoration and enhancement of hedgerows and raising awareness of the importance of hedgerows as refuges for biodiversity. |
| 2.1.13 | Undertake Red List assessments for taxonomic groups (for which sufficient data can be gathered) and repeat existing Red List assessments at appropriate intervals | DHLGH, DAERA, NBDC, CEDaR, IFI | In Progress | The Ireland Red List No.12 on Terrestrial Mammals was completed in 2019. The list includes data on all 27 terrestrial species native to or naturalised in Ireland before 1500. Of these, one was found to be regionally Extinct (grey wolf Canis lupus), one achieved a threat status of Vulnerable (black rat Rattus rattus), and the remaining 25 were assessed as being of Least Concern. The Red List (No.13) on Stoneflies was published in 2020 and the 2011 Red List on Amphibians, reptiles and freshwater fish has been updated, the new version of which will be published shortly.  The 5-yearly All-Ireland Birds of Conservation Concern project was conducted jointly by BWI and RSPB-NI, covering the period 2020-26. |
| 2.1.14 | Build upon Red List assessments to identify conservation priority species and identify knowledge gaps for those prioritised species | DHLGH, NBDC, IFI | In Progress | The Natterjack Toad was identified in Ireland’s Red List No. 5 as a priority for action and significant conservation work is underway to improve the range, habitats and population trend for this species. Substantial investment in enhancing lesser horseshoe bat breeding and hibernation roosts is ongoing as is conservation work on Great Yellow Bumblebee in NW Mayo.  Surveys of amber- or red-listed breeding bird species including Red Grouse, Common Scoter, Curlew, Whinchat, Golden Plover, Chough, Ring Ouzel, Twite and Corncrake have all examined contemporary status, distribution, population trends and identified species recovery steps – for reporting purposes, and to inform the development of conservation actions and the direction of further research. |
| 2.1.15 | Identify and maps nationally important Key Biodiversity Areas (KBAs) of Ireland’s terrestrial and marine territories, including Ecologically or Biologically Significant Marine Areas (EBSAs) | NBDC, DHLGH, Marine Institute, DAFM, DCCAE | In Progress | Fair Seas published a report in 2022 in which they analysed existing data on marine species and habitats around Ireland in order to choose the most important areas for MPA consideration.  Work is underway at the Marine Institute to map the range and habitat suitability for endangered skate and flat shark species.  A UCD research project continues to look at biases in taxonomic databases held by the Data Centre which will inform the value of using existing data as a basis for identification of Key Biodiversity Areas.  As Ecologically or Biologically Significant Marine Areas (EBSA) has been described for the Hatton Rockall bank. This is being referred to CBD COP 15 for a decision on its inclusion it the EBSA repository. |
| 2.1.16 | Prioritise needs fort research arising from the Biodiversity Climate Change Sectoral Adaptation Plan | EPA, Academia and research Institutions, DHLGH, Marine Institute | In Progress | The Biodiversity Climate Change Sectoral Adaptation Plan was launched in October 2019.  DHLGH are funding research to develop our understanding of the potential impact of climate change on bat species and the Natterjack toad.  Two EPA-funded research programmes relating to phenology at UCC have been reported – PHENOCIMLATE and PHENOGRASS.  The BioDIVClim Joint call was launched in 2019 with several projects arising (see update 2.1.8). The research needs arising from the BCCSAP will be fully reviewed in the preparation of the next EPA Research Strategy (currently being updated). |
| 2.1.17 | Encourage long-term monitoring schemes to enable tracking of biodiversity change over time | DHLGH, NBDC, EPA, Academia and research Institutions, EPA, Marine Institute, DHLGH | Implemented | All species and habitats listed on the Habitats and Birds Directive are underpinned by long term monitoring. In addition, the National Biodiversity Data Centre operates five long-term monitoring programmes: All-Ireland Butterfly Monitoring Scheme, The Bumblebee Monitoring Scheme, The Marsh Fritillary Monitoring Scheme, Rare Plant Monitoring Scheme and Solitary Bee monitoring scheme.  The Marine institute identified their monitoring research priorities and a call for proposals was published in 2019.  The EPA established a network of ecosystem monitoring stations for the National Ecosystems Monitoring Network required under Article 9 of the National Emission Reduction Commitments Directive (NEC Directive 2016/2284) to measure, track and assess the impacts of air pollutants on natural and semi-natural habitats. As of 2022 there were 114 Level 1 sites (Ecological surveys) covering a range of habitats, and a further nine sites where additional atmospheric monitoring is underway including of ammonia. |
| 2.1.18 | Conduct research into the threat posed to Ireland’s marine biodiversity by marine litter including microplastics, ocean acidification, light and noise | Academia and research institutions, EPA, Marine Institute, DHLGH | Implemented | Research on marine microplastics is ongoing at NUI Galway, including the IMP.act project on microplastics, which aims to develop a long-term framework dedicated to the management of marine anthropogenic litter and microplastic pollution. The Marine Institute annually publish a report on marine nutrient levels and ocean acidification in Irish marine waters. They also are collecting litter data through the Irish Groundfish Survey and has published four reports and 13 peer-reviewed publications during the action plan timeframe, in addition to participating in the Clean Atlantic Interreg Project, where the objective is to protect biodiversity and ecosystem services in the Atlantic Area by improving capabilities to monitor, prevent and remove (macro) marine litter.  NUI published a study in 2021 which showed that 91% of SACs and SPAs had man-made materials buried in sediments, the majority of which originated from clothing and fishing equipment. Marine Litter surveys are being repeated in 2023 as part of the OSPAR and MSFD national commitments. These are repeat surveys along five established beach survey areas around all coasts.  ORCA Ireland in 2021 launched a project to measure marine noise in the Celtic sea.  UCC, BWI and NI and Scottish partners conducted research as part of InterReg VA MarPAMM project. |
| 2.1.19 | Update the Marine Research Strategy | Marine Institute, DAFM | Implemented | The National Marine Research & Innovation Strategy 2017-21 was published in 2017. Three thematic research areas were identified as: Harnessing our Ocean Wealth – a thriving maritime economy, Healthy Marine Ecosystems and Engagement with the sea. |
| 2.1.20 | Explore biodiversity offsets as a means to achieve no net loss of biodiversity under this Plan and as a source of revenue for biodiversity conservation and restoration | DHLGH | Limited Progress | DHLGH and IRC funded a Financial Needs Assessment to determine the costs of fulfilling national biodiversity policy objectives. The research Mobilising Finance for Biodiversity: A policy and institutional review of finance arrangements for biodiversity conservation in Ireland, led by UCD researchers assessed the effectiveness of the use of current funding streams and of the full range of potential financing mechanisms (e.g. payments for ecosystem services, biodiversity offsets, restoration of carbon sinks, and fiscal transfers), together with improved targeting of existing measures for biodiversity. |
| 2.1.21 | Identify areas/instruments and tax enablers that could be developed to incentivise biodiversity/conservation project funding by the private sector | Academia, research institutes, relevant public bodies | In Progress | See Action 2.1.20. |
| 2.1.22 | Research and gather information on biodiversity implications of synthetic biology and novel genetic techniques to inform policy and regulatory issues | Academia, research institutes, relevant public bodies | Limited Progress | Not progressed in the timeframe of the Plan. |
| 2.1.23 | Encourage the use of emerging technology especially in barcoding and genomic research to acquire relevant knowledge on Irish species | Academia, research institutes, relevant public bodies | Implemented | The use of emerging technology is being widely explored. To inform future monitoring and management for Irish species, DHLGH recently joined the EU COST Action group Genomic Biodiversity Knowledge for Resilient Ecosystems.  The Marine Institute, under a MoU with DHLGH, are using eDNA to track the distribution in Ireland of Crayfish Plague, White-clawed Crayfish Austropotamobius pallipes and non-indigenous crayfish species.  The NBG utilises genetic and genomic technologies, including DNA barcoding to characterise genetic diversity in plant species; DHLGH have also collaborated on work in this area.  An EPA 2022 Research call awarded a project on Integration of DNA-based assessment tools into water quality and biodiversity monitoring to UCD (co-funded with DAFM).  DAFM’s Genetic Resources Grant Aid Scheme has an annual call for projects aimed at supporting the conservation and sustainable use of genetic resources for food and agriculture. Many of the projects awarded have included genomic research. |
| 2.1.24 | Build on the National Biodiversity Indicators to develop state, pressures, and response indicators to allow assessment of Ireland’s national and international biodiversity commitments by 2020 including this the 3rd NBAP, the EU Biodiversity Strategy, the Convention on Biological Diversity, and the Sustainable Development goals | NBDC, DHLGH | In Progress | The National Biodiversity Indicators are collated by the National Biodiversity Data Centre – the NBDC website hosts both the indicator framework and the latest report up to 2020 Status and Trends Report. They updated their Indicators in 2021, reporting on 71 sub-indicators under eight main headings which cover a range of direct metrics such as the growth in protected areas or changes in insect populations, but also indirect indicators such as changing attitudes towards wildlife protection or the number of local authority biodiversity action plans currently in place. |

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| OBJECTIVE 3: Increase awareness and appreciation of biodiversity and ecosystem services | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 3.1.1 | Engage with local communities and stakeholders to help achieve the objectives of this plan | Relevant government departments and agencies, eNGOs, community groups including CWF, and SECAD | Implemented | Ireland’s First National Biodiversity Conference (NBC) ‘New Horizons for Nature’ was held in Feb 2019. A second NBC was held in June 2022 ‘Act Now For Nature’. Both brought together a wide range of attendees from across a wide spectrum of Irish society including amongst others policy-makers, NGOs, academics, ecologists, farmers, community groups, politicians and local authorities. The first conference aimed to identify the challenges and explore the solutions as to how to work together to achieve our common on goal of reversing biodiversity loss and implementation of the NBAP. The 2022 conference formed part of the public consultation on the 4th NBAP and aimed to bring together a cross-section of society to discuss challenges, identify solutions and establish ways to collaborate to implement the NBAP.  National Biodiversity Week, supported by DHLGH, hosted hundreds of events nationally in 2019, 2021 and 2022.  The Citizens Assembly on Biodiversity Loss held meetings between May 2022 and their final meeting in January 2023.  The Farming for Nature initiative has run since 2018 to encourage and support farmers who incorporate more nature-friendly elements to their enterprises, recognising their work in supporting nature on their farm and I their community.  The Peatlands Community Engagement Scheme made €450,000 available from 2019-2021 to encourage local communities, local groups, schools and other interested parties to engage with DHLGH in relation to the conservation and revitalisation of raised bog SACs, NHAs and other raised bog areas and promote public engagement and awareness of our natural heritage.  In 2019, the Community Foundation Ireland (CFI) developed a Biodiversity Funding Strand within their Environment and Nature Fund; Between 2019 and 2021, over €1m was provided to 141 projects to develop and implement Community Biodiversity Action Plans. Lean Business Ireland supported a Community Biodiversity Grant scheme in 2018 and the Dublin Port Company funded the Together for Biodiversity Awards, which were part of the National Biodiversity conference 2019.  DAFM have through CAP and LIFE programmes supported Knowledge Exchange groups and Knowledge Transfer programmes which include, or are focused primarily on, environmental and climate challenges associated with the agri-sector. |
| 3.1.2 | Enhance training, communication, cooperation and concerted action between relevant sectors in support of biodiversity conservation | Relevant government departments and agencies, eNGOs and community groups | In Progress | Funding for training, communication, cooperation and concerted action in the biodiversity sector/conservation increased to €3 million in 2023 through the Local Biodiversity Action Fund. In the period 2018-21 a total of €2.4 million was drawn down. A new Biodiversity Officer Funding Scheme was also announced in 2019. Recruitment of Local Authority Biodiversity Officers grew significantly with expected recruitment of 25 nationally by the end of 2023.  A 2018 Special Eurobarometer survey showed increased awareness of biodiversity across Europe, although the majority of European’s still either hadn’t heard of biodiversity or were not aware what the term meant. In Ireland, 43% of respondents heard of the term and this had increased by 16% since 2015 (the 3rd highest rate change in Europe). Irish people believed pollution, man-made disasters and climate change were the three greatest threats to biodiversity.  Environmental NGOs and relevant Government Departments were represented at the National Ploughing Championships. This included the Biodiversity Division stand within the DAFM tent; there was a strong environmental and climate presence at the Government of Ireland Village. |
| 3.1.3 | Raise awareness in private sector organisations of impacts and dependencies on biodiversity and ecosystem services | Private sector organisations including: IFNC, BITCI, IBEC, ISME, IFA, IOOA, Sustainable Nation | In Progress | The Biodiversity Handbook for Business was published in 2019. This handbook aims to aid companies in developing biodiversity action plans, as well as listing key contacts and tips;  The Business for Biodiversity Platform was established in 2022, aiming to direct Ireland towards a nature-positive economy.  Through incentivisation of businesses to measure, design and demonstrate their biodiversity impact. This is being undertaken with the assistance of Natural Capital Ireland, the National Biodiversity Data Centre, and Business in the Community Ireland. |
| 3.1.4 | Support radio, TV, web-based and other media products that emphasise or are centred around showcasing biodiversity, its importance, and current or future challenges | DHLGH, DCCAE, EPA, The Heritage Council, NBDC, Academia, eNGOs | In Progress | BWI launched “In Your Nature” Podcast in conjunction with Laois and Offaly County Councils in March 2021;  Ireland’s leading radio show, Morning Ireland, mentioned environmental matters in 0.92% of broadcasts over two weeks in 2018;  The Heritage Council commissioned a short film on the consequences of biodiversity loss, created by Crossing the Line Productions, for National Biodiversity Week 2021. The Creative Ireland Programme 2017-22 produced the A Note for Nature RTE documentary, broadcast in December 2022.  RTE are partners on the Wild Atlantic Nature LIFE programme.  The use of online resources increased as a result of the Covid pandemic and likely increased participation through increasing accessibility on platforms such as video-conferencing facilities, podcasts and You Tube streaming. |
| 3.1.5 | Establish an island-wide Biodiversity Awards initiative where local, sectoral and educational projects or groups with a ‘biodiversity enhancement’ focus compete for innovative prizes that will support their ongoing work and provide a springboard for public awareness and participation | DHLGH, DAERA | Implemented | The Together for Biodiversity Awards were launched at the first National Biodiversity Conference in 2019, sponsored by The Dublin Port Company and IWT.  The awards ranged from personal to corporate-level awards, with the ceremony held at the National Biodiversity Conference;  The Farming for Nature awards were established in 2019 to incentivise farmers to take actions to enhance and retain biodiversity. |
| 3.1.6 | Include biodiversity and ecosystem services in relevant courses in primary, secondary and tertiary level education | DES, Academia and Research institutions, DHLGH, An Táisce, eNGOs, The Heritage Council | In Progress | Schools are participating in increasing numbers in biodiversity awareness activities via, for example, talks provided by the Heritage Council’s Heritage in Schools scheme (currently only Primary Schools – Seeds for Nature expect to rollout a secondary schools programme upon new post recruitment) and through the An Táisce Green Schools programme, under which 1,000 schools have been awarded a biodiversity flag. School educational programmes are also run by Biodiversity in Schools, Bord na Móna, the Burren Beo Trust, the Irish Peatland Conservation Council, the Marine Institute, National Parks, Inland Fisheries Ireland and the EPA.  NCAA published the “short course” Climate Action in July 2021 (pilot programme) for Junior Cycle Students.  The Biodiversity in Schools Programme launched in 2021 but receives no state funding. It focuses on educating primary and secondary schools on the importance of biodiversity. The organization is a social enterprise. Climate Change & Sustainable Development is to be piloted into the leaving-cert cycle from 2024, with a development plan initiated from 2022.  There were 123 undergraduate and 51 graduate courses related to Environmental Sciences in 2021.  Munster Technological University (MTU) in conjunction with the NPWS and Leave No Trace began to offer a certificate in Nature Animation in 2022. This course acts as a foundation for people interested in careers in conservation and ecology. |
| 3.1.7 | Develop and implement a communications campaign in support of public and sectoral understanding of the value of biodiversity and full implementation of this NBAP | Relevant Government Departments and agencies, Local Authorities | In Progress | The number of events for National Biodiversity week increased from 70 to 130 between 2017 and 2019 and were inhibited in 2020 and 2021 by the Covid-19 pandemic.  The 2018 Eurobarometer survey for Ireland defines 43% of Irish people being aware of biodiversity and its meaning. 27% have heard of biodiversity but don’t know its meaning, whilst 30% have never heard of the term. 82% of those surveyed have never heard of Natura 2000.  The Biodiversity Handbook for Business was published in 2019 and the Business for Biodiversity platform was established in 2022.  The NPWS Action Plan recognises the need for external communications by NPWS to be professionalised, and to prioritise vigorous and timely engagement with social and other media, and a more open and collaborative engagement with civil society groups and others. The NPWS Strategic Plan announced the establishment of a new Engagement and Corporate Support Services Directorate within NPWS, to include a Communications Professional. |
| 3.1.8 | Engage landowners, farming and aquaculture sectors to promote the benefits of conservation and sustainable use of biodiversity | DHLGH, DAFM, Marine Institute, Teagasc, LIFE projects, farmer representative groups and eNGOs | In Progress | Substantial progress has been made during the timeframe of this plan to promote the benefits of conservation to the landowning community. The DAFM European Innovation Partnership Agri Initiative, under the Rural Development Programme, has generated interest from farmers and landowners in contributing positively to the environment and in the sustainable use of biodiversity, funding two large projects and a further 22 smaller projects. DAFM supported Knowledge Transfer groups and mandatory environmental training under AES have increased the engagement of landowners on topics in relation to environment, climate and sustainability.  The ongoing and completed LIFE and EIP programmes (e.g. Curlew EIP, LIFE Crex, LIFE on Machair, LIFE IP Wild Atlantic Nature) engage a large number of landowners through the RBAPS, engagement and training activities. The Teagasc Environment Programme engages a large number of landowners in a wide range of agricultural biodiversity issues, including management of farmland habitats through GLAS Courses, upland management through Commonage Management Planning and the threat posed by Invasive Alien Species through the Teagasc National Invasive Alien Species Working Group.  Teagasc have also promoted biodiversity management Best Practice through Hedgerow Week, the inclusion of Biodiversity in the weekly Signpost sustainability webinars for the agricultural industry, and development of a Biodiversity Management Practices Self-Assessment Tool for Linear Habitats. Teagasc have also developed and delivered a biodiversity module to farmers farming under the Nitrates Derogation, and run the Teagasc Enterprise KT Programmes.  The Native Woodland Conservation Scheme, led by the Forest Service and Woodlands of Ireland, provides financial incentive to farmers/landowners to enhance/restore existing native woodlands for conservation. Native Woodland Conservation Training Courses are provided on regular basis to Foresters Ecologists and Woodland Owners.  The National Farming for Nature Award was established in 2018, to promote and share stories of farmers across Ireland who are adjudged to be managing their land and livestock in a way that benefits nature in their area. |

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| OBJECTIVE 4: Conserve and restore biodiversity and ecosystem services in the wider countryside | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 4.1.1 | Development and implementation of agri-environment schemes (AES) under the current and next Rural Development Programme (i.e. Green Low-Carbon Agri-Environment Scheme (GLAS) and locally-led AES (LLAES). Ensure AES achieve a quantifiable net gain for biodiversity and ecosystem services including significant habitat maintenance and restoration measures | DAFM, Teagasc | Implemented | The Green, Low-Carbon, Agri-Environment Scheme (GLAS) has a budget of €1.4bn, with 53,178 (in 2021) participating farmers as part of the Rural Development Programme 2014-2020. As of 2019, area-based actions under this scheme cover over 796,000ha. The most popular action is Low-Input Permanent Pasture (LIPP) with approximately 75% of GLAS participants choosing LIPP as one of their actions, followed by protection of watercourses from bovines for which uptake is approximately 38%. ‘Evaluation of the Green Low-Carbon Agri-Environment Scheme’ (GLAS) – Final synthesis of evidence following year 3 ecology fieldwork report’ from 2021 states that 53,178 farmers were taking part in the GLAS scheme and that this makes up 40% of all agricultural land in Ireland. The evaluation by ADAS performed a longitudinal biodiversity and bird field survey across 320 participant farms. They also performed baseline and follow-up surveys on the attitudes towards sustainable land management & impact on water quality. They reported that actions under the GLAS scheme were mitigating further declines in targeted habitats. They concluded that commonage and peatland habitats were not likely to improve due to a lack of restoration activity.  The Burren Programme is a Locally-Led Agri-Environment Climate (LLAEC) measure, also under the current RDP, the key objectives of which is the sustainable agricultural management of high nature value (HNV) farmland in the Burren. 328 farmers currently participate in the programme, covering a total of 23,191 ha. Other locally-led projects include the Hen Harrier Programme (total area of land selected for contract under this scheme is currently 57,732ha), the Pearl Mussel EIP Project (area covered 21,405ha).   The GLAS scheme is no longer open to new applicants and is being replaced by ACRES as Ireland’s new €1.5 billion scheme under the CAP Strategic Plan from January 2023. The scheme has accepted 46,000 participants in the first tranche across ACRES General and ACRES Co-operative. |
| 4.1.2 | Describe High Nature Value (HNV) farmland and develop measures and support tools to maintain and enhance its biodiversity and ecosystem services | DAFM, DHLGH, Teagasc, The Heritage Council, Academia and Research Institutions | Implemented | The IDEAL-HNV project funded by the Research Stimulus Fund/DAFM identified the distribution and extent of agricultural land of High Nature Value (IDEAL-HNV) in Ireland. A national scale map of HNV farmland likelihood was created at an Electoral Division scale along with a user-friendly farm-scale HNV farmland identification app.  DAFM, with co-funding from the EPA, have funded a HNV FarmForBio project which commenced in 2020, to develop a (geo-spatial) methodology to identify, characterise and map the national extent of HNV farmland and forest areas. It investigates an approach towards assessing the quality (in terms of biodiversity and ecosystem service provision) of HNV farmland and forests. The research models incentives for the maintenance and enhancement of HNV farmland and forest areas, not only for biodiversity, but also for associated ecosystem services (including carbon storage and water quality). This approach will facilitate the development of an integrated policy framework incorporating a range of innovative agri-environment climate measures and areas of biodiversity enhancement for forests and farmland. The project will provide recommendations on the management of HNV farming and forest areas and it will establish systems for monitoring change.  Teagasc has engaged with all biodiversity EIPs (European Innovation Projects) on Operational Groups and actively engaged with the development and trialling of AES.  The Heritage Council, working with partners of the Farming For Nature Technical Group, submitted an in-depth submission policy directed at the CAPSP, this was broadly well-received and while many of its’ actions were adopted in kind, much more ambition is required to effect the change required. |
| 4.1.3 | Implement Bord na Móna’s Biodiversity Action Plan 2016-21 and any revisions of the Plan | BnM | Implemented | Bord na Móna continues to engage with a range of stakeholders, including the Peatlands Strategy Implementation Group, in relation to the delivery of actions and objectives of the Bord na Móna Biodiversity Action Plan. A pilot Natural Capital study was carried out in 2018-19. During the launch of the 2016-21 action plan, BnM announced that they had already rehabilitated almost 12,000ha of their peatlands, 15% of their land holdings. This included 1,000ha of raised bog.  In 2021 BnM restored a further 5,200ha of peatland habitat. By 31st March 2023, Bord na Móna had rehabilitated nearly 30,000 ha.  As part of a company re-structure in 2019, a dedicated operational unit was set up to plan, progress and report on de-commissioning and rehabilitation. This, in addition to the cessation of industrial peat extraction across a significant area of the Bord na Móna estate, will significantly progress peatland rehabilitation in 2020 and beyond. |
| 4.1.4 | Implement actions in the Forestry Programme 2014-20, ensuring maximised positive outcomes for biodiversity and ecosystem service and restoration of areas impacted by inappropriate forestry, including the implementation of recommendations of HYDROFOR study | DAFM | In Progress | The Forestry Programme 2014-2020 Mid-term Review (MTR) was completed in February 2018 and proposed measures to address issues raised in the MTR are now being implemented. These include specific measures to increase the level of broadleaf afforestation and refinements to the Native Woodland Scheme package.  In 2020, 34% of afforestation in Ireland was composed of broadleaf forest.  The Review of the Native Woodlands Conservation Scheme found that only 14% of a target of 1950ha had been achieved. The native woodland establishment scheme, in comparison, achieved 70% of a 2700ha target in the same period.  Coillte Nature was launched in 2021 with the aim of increasing broadleaf forest and implementing biodiversity measures including restoration of over 30,000ha of forest. |
| 4.1.5 | Progress implementation of BirdWatch Ireland’s Group Species Action Plan for birds (e.g. lowland farmland birds, riparian birds, woodland and scrub birds, upland birds and lake, fen and turlough birds | BWI and other partners listed in their plans | Limited Progress | BirdWatch Ireland’s Group Species Action plans for birds were developed on foot of the outcome of the European Court of Justice Ruling (Birds Case (C-418/04)) against the Irish State in relation to the lack of coherent planning and conservation of a suite of bird groups. In 2015 BirdWatch Ireland undertook a prioritisation exercise of the actions. The responsibility for the implementation of the actions lies with a range of stakeholders including government departments such as NPWS, various other agencies, NGOs (including BirdWatch Ireland) and other bodies. Funding was sought from government to coordinate the implementation of these actions especially in relation to co-ordination of actions amongst a wide breadth of partners but this was not forthcoming. This has hampered delivery of the actions.  BirdWatch Ireland has progressed several actions within its responsibility. Several actions are completed and some partially completed with funding being a limiting factor. Those include, but are not limited to: Bird sensitivity mapping (completed); Trial of seabird sensitivity mapping for marine renewable energy development (underway), Feasibility of bird forestry sensitivity mapping (some progress), Seabird 4 (completion 2023), ongoing monitoring of wetland and countryside birds through funding for I-WeBS and CBS from NPWS.  A range of Single Species Actions have been prepared on species including Barn Owl and Swifts. An assessment of bird populations in relation to forest management measures and different forest cover scenarios (e.g. Merlin and bird populations) was undertaken via the Avian Diversity and Afforestation Planning Tools Project (ADAPT) and the Supporting Hen Harrier in Novel Environments (SHINE). |
| 4.1.6 | Review, update and publicise the National plant Conservation Strategy including updating the strategy in line with current global targets | National Botanic Gardens, DHLGH | Implemented | A review of National Strategy for Plant Conservation was completed and progress on actions was published in 2019. |
| 4.1.7 | Implement the National Genetic Conservation Strategies for animals and plants | DAFM, Irish Seed Savers Association | In Progress | Work is ongoing at the National Botanic Gardens on genetic variation of heritage varieties/landraces of barley, oat and wheat. The OPW have approved funding for the National Seed Bank and the bank was operational in 2020. By November 2022, 88 unique species were collected, representing 7% of Ireland’s native flora. GENENET launched a forest genetics symposium in 2021.  DAFM support the Genetic Resources Grant Aid scheme since 1996 and has an annual call for projects aimed at supporting the conservation and sustainable use of genetic resources for food and agriculture. Projects supported during the 3rd NBAP period include projects investigating genetic characterisation and in-situ testing of crop wild relatives, native pollinators, fish and apple varieties and native livestock genetics. |
| 4.1.8 | Implement the All-Ireland Pollinator Plan including: making the Irish countryside more pollinator-friendly; raising awareness of pollinators; supporting beekeepers and growers; expanding knowledge of pollinators; and collecting evidence to track changes | NBDC and other actors listed in the Plan | In Progress | Out of 186 actions in the plan, 81% were achieved in 2021. Only 8% of actions for conserving rare pollinators were achieved in 2021. The Bumblebee Monitoring Scheme trend 2012-2020 seems to show a slight increase in honeybee populations.  58% of actions towards making farmland pollinator friendly were achieved.  In 2022 Teagasc reported that less than 2% of agricultural land in Ireland was being organically cultivated. |
| 4.1.9 | Implement ‘Deer Management Strategy in Ireland – A Framework for Action’ | Irish Deer Management Forum, DAFM | In Progress | The Irish Deer Management Forum (IDMF) was first established in 2014 with the last meeting held in 2018. A Deer Management Strategy Group made up of the DAFM, NPWS) and Coillte, was re-established in 2022. The group is tasked with developing a sustainable deer management strategy for Ireland in consultation with stakeholders.  A public consultation on deer management in Ireland was launched in December 2022 and was closed on February 10 2023. |
| 4.2.1 | Continue to protect, enhance and monitor the ecological status of water during the second cycle of the Water Framework Directive (2015-21) including reducing risks to water quality and utilising ecological expertise in decision-making, and in analysis of cumulative effects | Academia and Research institutions, Waterways Ireland, Marine Institute, LAWPRO | In Progress | The EPA reported an overall decline in water quality in their 2021 report, declining further in 2022. They attribute the deterioration largely due to agricultural run-off and nitrogen emissions.  The government published the River Basin Management Plan (RBMP) for Ireland 2018-21. All measures within the RBMP either have been implemented or are being implemented on an on-going basis. |
| 4.2.2 | Irish Water to implement its Water Services Strategic Plan (2015-40), in particular, its objective to protect and enhance the environment | Irish Water, DHLGH | In Progress | The Water Services Strategic Plan has a specific objective to protect and enhance the environment. The strategic aims of this objective include to:   * Ensure that Irish Water (IW) services are delivered in a sustainable manner which contributes to the protection of the environment * Operate over water services infrastructure in a manner that supports the achievement of water body objectives under the Water Framework Directive and our obligations under the Birds and Habitats Directive, and * Manage all our residual waste in a sustainable manner.   IW is preparing a Sustainable Energy Strategy and a Climate Change Adaptation and Mitigation Strategy.  As identified in the RBMP, over the period 2017-21, IW will invest approximately €1.7 billion in waste-water projects, programmes and asset maintenance. This investment will include €880 million for 255 major waste-water treatment projects, €350 in capital investment in collection systems in 41 areas and €465 million for capital maintenance and national upgrade programmes.  Of the 255 projects, 101 were planned to be completed by the end of 2018, a further 87 by the end of 2021 and the remaining 67 by the end of 2025. IW has developed and is implementing its National Wastewater Sludge Management Plan and is preparing its’ National Water Sludge Management Plan as part of the National Water Resources Plan.  In addition, IW has completed Ecological Management Plans for 55 of its sites, which identifies site specific measures to enhance to local biodiversity at each site. |
| 4.2.3 | Implement recommendations of EPA Strive Report Series No. 99 (Management Strategies for the Protection of High-Status Waterbodies) including, amongst other measures: prioritisation for protection measures; planning/licencing control; assessment of cumulative impacts; and integrated monitoring and protection | EPA, Local Authorities, DAFM, LAWPRO | In Progress | Recommendations have been taken on board in the context of the RBMP published in April 2019. The establishment of the Blue Dot catchment programme is an important measure in the RBMP which aims to protect and restore high ecological status to a network of river and lake catchments (Blue dot waters being those that achieve the highest ecology quality). DAFM Forest Service is currently working closely with the EPA and LAWPRO regarding measures including native woodland establishment and native woodland conservation for the protection of high ecological status waterbodies. In addition, DAFM Forest Service and Coillte are active participants in the Blue Dot Programme and are co-beneficiaries of Water for Life LIFE IP.  DAFM launched the Creation of Woodlands on Public Lands Scheme in November 2020, which targets the creation of new native woodlands on public lands. LAWPRO has appointed a Blue Dot Scientist to facilitate the Blue Dot Catchment Steering Group to specifically address the high status objective waters, based on the STRIVE Report. The Steering group organised a ‘Visioning Workshop’ in March 2020. |
| 4.3.1 | Ensure that Flood Risk Management (FRM) planning and associated SE, EIA, AA, minimise loss of biodiversity and ecosystem services through policies to promote more catchment-wide and non-structural flood risk management measures | OPW | In Progress | EPA and OPW in 2019 made recommendations for Nature-based Catchment Management Solutions in Ireland which included a report called ‘Natural Water Retention Measures Overview and Recommendations for Use in Ireland’. OPW are carrying out research entitled Slow Waters on catchment-wide, non-structural flood risk management in cooperation with EPA and TCD. OPW is funding a PhD on Natural Water Retention Measures in cooperation with EPA and TCD.   A new tender brief has been developed by OPW for the delivery of new Flood Relief Schemes in response to the CFRAM Catchment Management Plans. The brief asks consultants to give greater consideration to non-structural measures where they are viable. |
| 4.3.2 | All significant drainage (arterial drainage), including both initial drainage and maintenance drainage will be assessed for its implications for biodiversity, particularly for wetlands | OPW, IFI | In Progress | The OPW has produced new Environmental Guidance on Drainage Maintenance and Construction, a practical handbook for drainage maintenance staff in carrying out their activities, which considers the implication for drained wetlands, among other habitats and has also created a position in drainage for an Ecologist. |
| 4.4.1 | Ratify the International Convention for the Control and Management of Ships’ Ballast Water and Sediments | DTTAS, DFAT | Limited Progress | Ireland has not ratified this Convention but, as of March 2021, the Department of Transport were seeking to commence ratification with ‘drafting underway on implementing the instrument’. |
| 4.4.2 | Develop national whole-island plans to implement the EU Invasive Alien Species (IAS) Regulation and relevant sections of Ireland’s EU (Birds and Natural Habitats) Regulations 2011 including: development and adoption of biosecurity plans in relevant state bodies; a Rapid response Protocol for the island of Ireland; and co-ordination and collation of invasive species surveillance and monitoring data; and work with Northern Ireland and UK authorities on invasive species of mutual concern | DHLGH, DAERA, NBDC, IFI, TII, Waterways Ireland, Local Authorities, local community groups, eNGOs and the Loughs Agency, LAWPRO | Limited Progress | There is ongoing whole-island cooperation in the context of implementation of the EU IAS Regulation and cooperation on implementation of respective national legislation. This cooperation takes place in the context of discussions among several EU Member States, including UK and IE, on dealing with the threat posed by Pontic-Caspian species. Additionally, the British Irish Council (BIC) INNS Working Group convenes occasionally to build on discussions and communications between member administrations, including NI authorities and Irish Government, on IAS matters arising.  The Invasive Alien Species Forum gathers and disseminates information on IAS on farmlands. Training on IAS is mandatory for IFI field staff and is delivered in other public bodies, including inter alia OPW and Local Authorities.  DAFM published a Plant Health & Biosecurity Strategy 2020-25 and a National Farmed Animal Biosecurity Strategy 2021-24.  LAWPRO has been actively working during 2018-19 towards the control of the spread of the crayfish plague in Irish rivers, including working closely with the NPWS on introducing and advertising biosecurity measures.  The Shared Island Fund announced €1m in funding for an all-island invasive species and biosecurity initiative, to commence in 2023. |
| 4.4.3 | Continue and enhance measures for eradication, where feasible, control and containment of invasive species | IFI, DHLGH, Local Authorities, TII, Waterways Ireland, National Botanic Gardens, local community groups, LAWPRO | In Progress | DHLGH piloted the Local Biodiversity Action Fund (LBAF), a targeted grant scheme for local authorities in 2018 to assist with the implementation of actions contained in this Plan which included a funding stream to specifically target IAS. The scheme has continued through the lifetime of this plan with increased funding and grants been awarded to a range of projects across the 31 Local Authorities. Six Local Authorities have IAS plans with 13 more Local Authorities preparing plans. The NBG, in conjunction with Fingal Co Co, has carried out a survey of alien garden escapes in Howth. Organic herbicide trials are ongoing. The OPW has conducted a survey of invasive plant species in OPW Historic Properties. There is an ongoing programme of management of Rhododendron and other invasive species in the National Parks, with intensive control plans underway in a number of areas including Connemara, Glenveagh and Killarney in 2022-2023 onwards. LAWPRO is working with local communities and councils in a number of areas across the country on the eradication of invasive alien species from the water environment.  IFI continue to support extensive year-round control operations to reduce the socioeconomic and ecological burden of the invasive weed Lagarosiphon in Lough Corrib. |
| 4.4.4 | Encourage horticultural nurseries to produce native species, varieties and landraces from appropriate native sources for public and private sector plantings. Public bodies will endeavour to plant native species in order to reduce the importation of non-native species, varieties and landraces | DAFM, Coillte, Local Authorities, TII, DHLGH, OPW | In Progress | Nurseries in Ireland that supply native trees for the DAFM GLAS measure ‘Planting a grove of native trees’ are required to be registered with the Forest Service to certify that the plants sold are of native origin. Under DAFM’s Native Woodland Schemes, if there is a shortage of native oak supply, a temporary derogation may be issued to permit the use of certified plants from other EU countries of similar climatic conditions. The plants must have Master Certificates of provenance - a requirement under the Forest Reproductive Material (FRM) Directive (Council Directive 1999/105/EC). There is a requirement under the Forest Programme 2014-2020 Mid-term review to increase broadleaf planting to a minimum of 15% in afforestation applications.  The NBG showcases native plants in the "Wild Ireland" area. The NBG helps also through teaching about native planting on the Teagasc Horticulture courses.  Training workshops have been developed for a range of Local Authority staff and relevant community groups by the Heritage Council.  The Phoenix Park has initiated a pilot project of native seed collection for its tree planting programme. |
| 4.4.5 | Continue to produce Risk Assessments for potentially invasive non-native species | NBDC, DHLGH | In Progress | 22 risk assessments were completed in 2014. Two Rapid Risk Assessments completed in the lifetime of this NBAP, neither qualified for progression for comprehensive risk assessment. |
| 4.4.6 | Publish legislation to address required provisions under the EU Regulation on Invasive Alien Species (No. 1143/2014) and on responsibilities and powers regarding invasive alien species, giving IFI responsibility for aquatic invasive species | DHLGH, DCCAE, IFI, NBDC | In Progress | In 2018 a set of regulations for managing non-native crayfish was published. |
| 4.4.7 | Work with horticultural and pet trades to prevent the introduction and spread of Invasive Alien Species | DHLGH, NBDC | In Progress | Invasive Alien Species Ireland produce guidance available on invasives.ie and IFI do so for freshwater species. In 2021 DAFM published a Code of Practice for Pet Shops, which incorporates guidance from NPWS on IAS. Additionally, communication with the trade will form part of wider awareness raising efforts on publication of the new national legislation (see also 1.2.5). |
| 4.5.1 | Enhance understanding and role of DAFM, An Garda Síochána, Revenue’s Customs Service and the judiciary in enforcing wildlife legislation, including provision of specific training and guidance | DHLGH, An Garda Síochána, Revenue’s Customs Service, DAFM, Dept. of Justice | In Progress | In 2018 NPWS hosted a Wildlife Crime Workshop and Conference in conjunction with An Garda Síochána, IFI and UK colleagues. NPWS and An Garda Síochána cooperated during the life of the Plan in numerous wildlife crime investigations and prosecutions. NPWS delivered training and presentations to An Garda Síochána on aspects of wildlife crime such as illegal hunting of hares and illegal hunting of deer at night. NPWS developed and delivered three practical training days in NPWS Divisions on illegal hunting of hares. An Garda Síochána and Dog Wardens were in attendance and contributed. This relationship was taken to a new level in 2021 when the NPWS and An Garda Síochána formally signed a joint protocol on cooperation and collaboration on wildlife crime issues. Meetings are held regularly between both bodies in relation to the protocol.  NPWS also collaborated with Revenue’s Customs Service on CITES-related issues, including joint participation in meetings of the EU’s CITES Enforcement Group. NPWS collaborated with DAFM during the period in relation to the investigation and prosecution of offences relating to tree felling and vegetation burning or clearance. NPWS liaised and collaborated with ISPCA on wildlife crime and animal cruelty issues where they cross-cut.  The CITES Scientific Authority, based at the time in the National Botanic Gardens, provided training sessions to staff who manage CITES listed species during 2019 and, as the CITES Scientific Authority, can provide training courses on CITES species issues to other organisations. There is ongoing co-operation between An Garda Síochána and the CITES Management Authority with regard to CITES offences. |
| 4.5.2 | Provide adequate training in Wildlife Crime detection and enforcement to all DHLGH enforcement staff | DHLGH | In Progress | The CITES Scientific Authority provided CITES training to NPWS staff during this period. There continues to be ongoing and more formalised interaction between NPWS and other Government Departments and An Garda Síochána in relation to wildlife crime e.g. RAPTOR (NPWS, DAFM and DPER), Operation Bambi (NPWS and AGS) and on the ground engagement (e.g. with AGS, DAFM, IFI, Local Authorities). In 2019 An Garda Síochána held their first ever wildlife crime training seminar jointly with NPWS.COVID 19 restrictions limited possibilities for practical training events from 2020 to 2022.  New Conservation Rangers have been sanctioned as Authorised Officers and have completed induction training, in addition to on the job training on topics and practical scenario modules such as enforcement, traps and snares and investigating wildlife offences. Formal wildlife legislation and enforcement training was also given to NPWS staff during this period by external training providers. For the first time as an outcome of the Review of the NPWS there is now a dedicated Directorate of Wildlife Enforcement and Nature Protection established in NPWS. This Directorate will provide support to the front-line enforcement staff and will be involved in organising and delivering law-enforcement related training in the coming years. Further training is planned for 2023 by the CITES Scientific Management Authority now based in UCD for NPWS staff on CITES plants and the CITES licensing process. |
| 4.5.3 | Publish national CITES enforcement plan | DHLGH, An Garda Síochána, Revenue’s Customs Service, EPA, DAFM | Limited Progress | Not progressed in the lifetime of this NBAP. |
| 4.5.4 | Continue to enforce the Wildlife Acts and Regulations, in particular the Habitat Regulations | DHLGH, And Garda Síochána, Revenues Customs Service, EPA, DAFM | In Progress | As of June 2023, a total of 193 cases were submitted to the Chief State Solicitor's Office for prosecution under the Wildlife Acts and the EU Birds and Habitats Regulations between 2017 and 2023.  DAFM carry out approximately 1,300 cross-compliance inspections annually, including checks for birds, habitats and species under the Habitats Regulations. |
| 4.5.5 | Continue to enforce and report upon implementation. Of the European Communities (Environmental Liability) Regulations | EPA | In Progress | The EPA maintains an Article 18 register in the form of an internal spreadsheet maintained by the ELD team. The Commission was sent a report for Ireland a number of years ago (covering cases no more recent than 2013).  While no formal reports have been issued since, EPA has co-operated with Commission consultants in 2021 to update this information.  In practice, when it comes to implementing ELD assessments in Ireland, the EPA relies on the NPWS to assist in determining the significance of incidents vis-a-vis ELD. |
| 4.5.6 | Train enforcement officers in other agencies that operate in the field on wildlife law | DAFM, Agricultural Inspectors, Fisheries Officers, EPA | Implemented | All DAFM AES agricultural inspectors receive training on habitats and species identification, and wildlife law (national and EU) by DAFM ecologists and training on invasive species in September 2018 by INVAS external consultants. Training on habitat identification, including Annex I habitat identification, was provided by the Forest Service Ecologist and professional ecologists, to Forest Service District Inspectors and Registered Foresters in 2017 and 2018. The Native Woodland Scheme training courses, held periodically by the DAFM and Woodlands of Ireland, are open to officers of various statutory bodies, including NPWS, IFI and Local Authorities. The most recent course was held in Nov 2019.  The NBG, as the CITES Scientific Authority, provides training courses on CITES species ID and workshops explaining CITES regulations. |

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| OBJECTIVE 5: Conserve and restore biodiversity and ecosystem services in the marine environment | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 5.1.1 | Develop and implement a Marine Spatial Plan for Ireland | Inter-departmental Marine Co-ordination Group, DHLGH | In Progress | Directive 2014/89/EU, establishing a Framework for Marine Spatial Planning, was transposed into Irish legislation by Part 5 of the Planning and Development (Amendment) Act 2018. The EU Maritime Spatial Planning (MSP) Directive required the Irish government to prepare an ecosystem-based maritime spatial plan by March 2021. A baseline report on the National Marine Planning Framework (NMPF) was published in 2018 for marine spatial planning in Ireland. The NMPF was published in June 2021 and submitted to the EU Commission in July 2021. Implementation of Ireland's Integrated Marine Plan - Harnessing Our Ocean Wealth - continued in 2019 with the sixth Annual Review of Progress published in June 2019. |
| 5.1.2 | Implement measures to achieve good ecological and environmental status of marine and coastal habitats as required by the Habitats Directive, Water Framework Directive and Marine Strategy Framework Directive (MSFD) and in line with the OSPAR Convention (Convention for the protection of the marine environment in the north-east Atlantic) | DCCAE, Marine Institute, DAFM, Irish Water, Local Authorities, IFI, DHLGH, EPA, An Taisce, LAWPRO | In Progress | Almost half of the factors underpinning the determination of Good Environmental Status (GES) under MSFD were achieved in 2020. Of those not fully achieved, five were partially achieved and the remainder had insufficient data to assess GES. Status of marine food webs in Ireland’s maritime area remains unknown.  A 2018-21 River Basin Management Plan (RBMP) was published, with a Third Cycle Draft River Basin Management Plan for the 2022-2027 period published in 2022.  As identified in the RBMP, Irish Water (IW) is implementing measures in relation to urban waste-water pressures at four designated Bathing Waters areas. Together with Galway County Council, IW has completed improvement works to the wastewater network infrastructure at Ballyloughane, Co. Galway, and at Clifden, Co. Galway, where further operational improvements are underway. In addition, works are underway at Rush South and Loughshinny in Co. Dublin. Investigations are also underway led by Irish Water, Dublin City Council, Dun Laoghaire-Rathdown County Council and via the Acclimatize research project, to identify potential solutions for non-compliances at Merrion Strand and Sandymount Stand, within Dublin Bay.  The 2018-21 plan sets out the actions that Ireland is taking to improve water quality and achieve ‘good’ ecological status in water bodies (rivers, lakes, estuaries and coastal waters) during this period. Actions are progressing with a particular focus on the 190 Priority Areas for Action.  An upward positive trend in blue flag awards for beaches was evident through the period with 95 in 2022, higher than in both 2021 (93) and 2017 (88). 62 beaches received Green Coast awards in 2022, compared to 63 in 2021 and 61 in 2017.  32 towns and villages were discharging untreated sewage into Irish coastal waters in 2021, representing nearly half of our urban wastewater. This represents a decrease from the 38 towns and villages discharging untreated sewage in 2017. |
| 5.1.3 | Implement OSPAR recommendation on Habitats and Species | DFA, Marine Institute, DHLGH | In Progress | Maërl beds have been mapped for ROI and, with a few exceptions, they largely occur within SACs. Within these sites they are afforded the highest degree of protection. No disturbing activity is allowed to occur over the beds and within a 50m buffer zone around them. Intertidal Mytilus edulis mussel beds are afforded similar protection where no disturbing activity is allowed to take place on the beds. Under the European Maritime and Fisheries Fund 2017-20 (EMFF), Ireland is mapping its potential offshore reef habitat. This programme intends to map the cold water coral species of Lophelia, Madrepora and Solenosmilia and deep water coral gardens and sponge fields within its EEZ. Vulnerable communities such as Sea pens have also been recorded under this survey. A number of large SACs have been designated for Cetaceans within Irish Coastal Waters. Six offshore SACs have been designated for the Annex I habitat Reefs. The reef within these designated sites include geogenic reef with examples of coral and sponge gardens and well as the biogenic cold water coral.  The EMFF 2017-20 is funding a series of new and on-going MSP projects. Through these, the Marine Institute are collecting, collating and mapping accurate, up-to-date spatial and temporal information on marine ecosystems and human activities taking place within Ireland’s waters. The products developed will aid informed decision-making through the National Marine Planning Framework and also support the implementation of a number of cross-cutting EU policies, such as MSFD, NATURA, Climate Change and CFP.  The Landing Obligation was phased in and fully implemented in 2019. The aim of multi-annual fisheries plans is to restore and maintain fish stocks at sustainable levels while ensuring the social and economic viability for fishermen operating in certain regions. The multi-annual plan for the Western Waters Region (which includes the waters around Ireland) is provided for by Regulation (EU) 2019/472. The regulation sets out a comprehensive management plan including all relevant fish stocks and sets fishing objectives for the key target species. It ensures these stocks are fished in line with the MSY principle while by-catches are managed accordingly to the precautionary approach. |
| 5.1.4 | Promote the incorporation of ecological engineering features in new and existing structures such as coastal defences | OPW, Local Authorities, Research institutes | In Progress | The OPW has produced new Environmental Guidance on Drainage Maintenance and Construction, a practical handbook for drainage maintenance staff in carrying out their activities. Procedure EP13 and EP32 of that guidance promotes ecological engineering features.  The Technical Measures Regulation (Regulation (EU) 2019/1241) requires that Acoustic Deterrent Devices (ADDs) are fitted to certain fishing gears in order to mitigate incidental bycatches of cetaceans. The Regulation also provides for at-sea monitoring schemes which apply to vessels of 15m or more in overall length operating in specified fisheries. Regulation (EU) 2019/1241 is given full effect in Irish law by the Sea Fisheries (Technical Measures) Regulations 2019 (SI No 520 of 2019). |
| 5.2.1 | Continue to ensure the Common Fisheries Policy (CFP) and marine fisheries provide for the conservation of fish species and marine biodiversity | DAFM | Limited Progress | In 2018 there were 71 fish stocks fished at our below their maximum sustainable yield (MSY), and 28 whose biomass levels were below that capable of delivering MSY. Of stocks wholly or partially occurring in Irish EEZ waters, 28 are now managed under the Western Waters Multi-Annual Plan (Regulation 2019/472). In addition three stocks are managed under the North Sea Mult-Annual Plan (Regulation 2016/0238). According to the MI Stockbook 2019, two further (straddling) stocks are managed under agreements between the EU and third countries.  In 2021, 47% of fish stocks in Ireland were fished within their MSY, representing 35 out of 75 stocks. In 2022, the number of stocks fished below MSY was 40. The Marine Institute reported a trend towards increases sustainable fishing as of 2022.  A landings obligation and discards ban applied to all total allowable catch (TAC) species in Ireland in 2019. The Marine Institute published a map in 2020 to allow for spatial avoidance of unwanted species. They also monitor discard levels within the Irish fleet. |
| 5.2.2 | Implement stock recovery plans for any fish 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 | In Progress | In 2020, 51% of stocks were over-exploited against scientific advice. Only 33 out of 74 commercially fished stocks in Ireland were being fished within sustainable levels in 2020 according to the ‘Sustainability Impact Assessment of EU Commission Proposal (2020)’ |
| 5.2.3 | Adopt and implement provisions under Common Fisheries Policy (CFP) for the establishment of appropriate management measures (e.g. no-take zones) that conserve biodiversity and fish stock levels | DAFM | In Progress | The Programme for Government (PfG) commits to “ensure that inshore waters continue to be protected for smaller fishing vessels and recreational fishers, and that pair trawling will be prohibited inside the six-mile limit.” Policy Directive 1 (2019) was introduced in March 2019 to exclude vessels over 18m length overall from trawling in inshore waters inside six nautical mile zone from 1st January 2020. Ireland has six offshore Natura 2000 sites (South-east Rockall Bank, North-west Porcupine Bank, Belgica Mound Province, Hovland Mound Province, Porcupine Bank Canyon and South-west Porcupine Bank) all of which are SACs. Fishery management measures for these sites are set out in the Technical Measures Regulation (Regulation (EU) 2019/1241).  In addition, an extensive area of SW Ireland is designated as a Biologically Sensitive Area (BSA) and established under EU law in order to protect juvenile fish and contribute to the rebuilding of fish stocks in the waters around Ireland. A specific fishing effort regime applies inside the BSA, limiting the level of fishing activity by all EU Member States for whitefish, scallop and crab fisheries.  In December 2022 the Irish government released a bill detailing the methods of implementing, monitoring, and enforcing MPAs in Ireland, but there are still no ‘no-take zones’ and there were none in the 2017-21 period. The Technical Measures Regulation (Regulation (EU) 2019/1241) simplified the rule structure for technical measures as it replaced a range of different regulations that had previously been in place. It facilitates a regionalised approach by setting out the minimum standards for a seabasin (such as the North-Western Waters region in the case of Ireland). Member States in that area, in consultation with stakeholders, may propose additional measures through a Joint Recommendation. The Technical Measures Regulation has been given full effect in Irish law by the Sea Fisheries (Technical Measures) Regulations 2019 (SI No 520 of 2019). In 2021, Member States in the North-Western Waters Region (Ireland, France, Spain, Belgium and Portugal) agreed on a Joint Recommendation setting out technical conservation measures for the NWW Region (Celtic Sea, Irish Sea and the waters off the NW of Donegal/W Scotland). |
| 5.2.4 | Take concerted action to combat illegal, unreported and unregulated fishing | SEPA, IFI | In Progress | In 2021, 36,379 patrols were carried out by IFI. A New Mobile Support Unit (MSU) and a new sea-going fleet were brought in in 2021. 40 fisheries officers were trained as coxswains in 2021 to enable greater intensity of coastal patrolling. This is an increase in patrols compared to 2017 when 31,501 patrols were carried out.  IFI prosecuted 103 illegal fishing offences and seized 1,261 pieces of illegal fishing equipment in 2021. This is in comparison to 128 illegal fishing offences recorded in 2017 when 651 pieces of illegal fishing equipment were seized. IFI publish annual reports with information on illegal fishing. |

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| OBJECTIVE 6: Expand and improve management of protected areas and species | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 6.1.1 | Complete designation processes for Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), in particular for marine coastal and offshore SPAs | DHLGH | In Progress | As of December 2021, final formal designation through Statutory Instrument (SI) of 346 of 439 Special Areas of Conservation was completed. The work of drafting SIs for the remaining sites continues to be priority work and, in the interim, the remaining sites are all protected under law. All 154 SPAs are designated by SI.  Work is underway within DHLGH towards the designation of marine SPAs, with the first of a number of sites nominated in 2023. |
| 6.1.2 | Develop and utilise licencing and consent systems to facilitate sustainable activities within Natura 2000 sites | DHLGH, DAFM, DHCPLG, Local Authorities, EPA | In Progress | In order to protect the ecology of Qualifying Features in SACs and SPAs, certain activities within these sites may only be undertaken with the prior consent of the relevant Minister or with the consent of another appropriate public authority. Appropriate Assessment (AA) was carried out for the RDP 2014-2022. DAFM work with DHLGH/NPWS on a case by case referral basis where EIA screening or consent occurs with Natura 2000 sites.  The Forest Service (DAFM) AA procedures are currently undergoing a significant revision in response to rulings from the European Court of Justice and the Forestry Appeals Committee. The EPA undertake Stage 1 Screening for Appropriate Assessment (AA) and, where necessary, Stage 2 Appropriate Assessment of any plan or project for which an application for consent is received.  DCCAE also has developed its assessment approach for AA (and EIA), with the setting up of its separate EAU (Environmental Assessment Unit). |
| 6.1.3 | Publish detailed site-specific conservation objectives for Natura 2000 sites | DHLGH | In Progress | As of March 2023, there are 479 of 593 Site Specific Conservation Objectives (SSCOs) published for 50 SPAs and 429 SACs and work is continuing apace through 2023 and 2024. |
| 6.1.4 | Manage National Parks and Nature Reserves to a high standard | DHLGH | In Progress | Since 2017, nearly €20m in programme funding (€11.12m current and €8.03m capital) has been expended directly on conservation, operational management and upgrading of our 87,000 hectare network of National Parks (NPs) and Nature Reserves (NRs). Wicklow Mountains National Park was extended with the addition of almost 4,900 acres of Dublin Uplands at Glenasmole, and the expansion of Ballycroy National Park expanded with the transfer of Coillte’s significant holdings at Wild Nephin to create 11,000 hectares of wilderness on State-owned lands.  In January 2017, the Department entered into a Strategic Investment Partnership with Faílte Ireland, aimed at enhancing and promoting the tourism offering at Ireland’s NPs and also conserving and protecting the natural environments of the NPs for the enjoyment of future generations. In 2018, as part of this partnership, DHLGH published Experiencing the Wild heart of Ireland – A Tourism Interpretative Masterplan for the National Parks and Nature Reserves which sets out a framework that will guide the phased development of enhanced visitor experiences and improved visitor facilities at our National Parks and Reserves, taking into account our conservational objectives and based upon research into international best practice. Two projects are presently underway, a €2.1m investment in Wild Nephin- Ballycroy National Park to develop a continuous 53km walking cycling trail from Newport to Ballycastle on the Wild Atlantic Way through the National Park, and an investment of some €1.9m in Connemara National Park targeted at alleviating pressure on the existing infrastructure there from the growth in visitor numbers. This project will also improve the visitor experience at the Park and focuses on the enhancement of the existing Recreational Trail Network as well as on infrastructure development.  In 2019, following on from the Department’s Tourism Interpretative Masterplan, and in conjunction with its ongoing successful Strategic Partnership with Fáilte Ireland, DHLGH also made a successful bid for additional funding under the Rural Regeneration Fund (RRF) for projects targeted at National Park and Nature Reserves sites. A total of 32 projects, dispersed nationally, are being (75% co-funding from the RRF, with DHLGH and Fáilte Ireland providing the remaining 25%). The total investment relating to the projects will be some €7.17m. The projects are currently underway and funding will go towards the upgrading and development of trails across the Parks and Reserves network, increased visitor facilities and improved signage and branding. Hybrid buses in selected National Parks will be purchased to assist in lowering the carbon footprint of visitor activities.  In 2022-23 a number of projects were initiated to improve habitat mapping data to inform management (e.g. bog restoration, managing invasive species including rhododendron), to understand the impact of wildfires (Killarney), rhododendron management/eradication and deer management.  In 2021, a decision was taken to rebrand and reform the six National Parks which have a dedicated website. |
| 6.1.5 | Implement the National Peatland Strategy | DHLGH, BnM | In Progress | Implementation of actions has progressed. Progress Reports on the implementation of the strategy for 2018 and 2019 were published in 2020, and the interim review of the National Peatland Strategy was published in 2021. The Mid-Term Review and Implementation Plan was published in 2023. |
| 6.1.6 | Implement the National Raised Bog Special Areas of Conservation Management Plan (2017-22) | DHLGH, BnM | In Progress | The implementation of measures as part of the Living Bog LIFE project (LIFE14 NAT/IE/000032) re-established over 43ha of Active Raised Bog (ARB) habitat on high bog in just three years on five sites, which equates to nearly 20% of the long-term target for new ARB on high bog for the 12 project sites.  As part of the accelerated programme of restoration measures that have ensured since 2018, cell-bunding measures have been implemented (or are currently being implemented) at 16 raised bogs (12 SACs, 3 NHAs and one undesignated bog). |
| 6.1.7 | Implement the conservation measures necessary to achieve the published conservation objectives for Natura 2000 sites. Develop and implement additional measures as necessary to achieve favourable conservation status both nationally and at site level | DHLGH, DAFM, Teagasc, EPA, Local Authorities, other public bodies who own/manage SACs/SPAs | In Progress | The Prioritised Action Framework (PAF) for Ireland seeks to identify measures for priority action in the relevant operating programme period. The PAF is an all-of-Government document and is designed to inform the design and targeting of measures to meet the most pressing needs in the Natura 2000 network and in the wider countryside. Priorities for the coming Multiannual period 2021-27 have been reviewed (see 6.1.9). Measures are being implemented under this framework through NPWS farm plan schemes, EU LIFE and other funding mechanisms.  Teagasc has engaged with the NPWS Farm Plan Programme on 25 farms to help develop and implement measures to achieve Favourable Conservation Status and to improve biodiversity exchange between Teagasc advisors, farmers and NPWS experts. Teagasc, with support from DAFM, had also engaged with Wild Atlantic Nature LIFE to develop and trial a biodiversity-focused Knowledge Exchange Farmer Group.  Existing forestry environmental guidelines for afforestation and felling have been revised to strengthen protection. The revised documents are: Environmental Requirements for Afforestation (December 2016) and the Standards for Felling & Reforestation (October 2019). Closely related are the Land Types for Afforestation procedure (October 2017) and the Felling & Reforestation Policy (May 2017). The former limits the type of land eligible for afforestation, while the latter provides specifications for different types of reforestation, to facilitate forest restructuring based on site sensitivity. |
| 6.1.8 | Implement measures to ensure that, taking account of climate change, there are no significant adverse effects from marine fisheries and aquaculture in and adjacent to Natura 2000 sites | DAFM, Marine Institute | In Progress | Aquaculture licencing was subjected to a full article 6 Assessment process. Since 2011, Assessments (or screening exercises) have been carried out in 70+ Natura 2000 sites covering approx. 1000 aquaculture licence decisions. Where ecological harm could not be avoided, either directly or by mitigation measures, licencing was not advised. There is a protocol for how new fisheries for bivalves will be opened in Natura 2000 sites, including risk assessment, outtake limits and management plans. Project work is underway to restore native oyster beds in Galway Bay, where they are characteristic features.  In 2022, DAFM published a ‘National Strategic Plan for Sustainable Aquaculture Development (2030), SEA Environmental Report’. |
| 6.1.9 | Review and update the Prioritised Action Framework for Natura 2000 | DHLGH | Implemented | Ireland’s PAF for the for the Multiannual Financial Framework period 2021–2027 was published. |
| 6.1.10 | Continue to collect information on sites to be considered towards the protection and enhancement of the Natural Heritage Area network | DHLGH | In Progress | Scientific information of both biological and geological nature continues to be gathered nationally to identify potential candidate sites for inclusion in the Natural Heritage Area (NHA) network. To date, assessment has been limited to a small suite of sites recommended for NHA status under the woodland/scrub, peatlands, plants/fungi and earth sciences themes, as well as assessments of sites included in habitat and species baseline and monitoring surveys. |
| 6.2.1 | Increase connectivity of the protected areas network using appropriate buffer zones, corridors, stepping stones and/or flyways | DHLGH, Local Authorities, BnM, eNGOs, DAFM | In Progress | The National Planning Framework 2040, published in 2018, outlines the strategic goals for building an integrated network of greenways, blueways and peatways as part of a nationally coordinated strategy.  There is a focus on increasing landscape connectivity within the previous AES and current CAP programming period. |
| 6.2.2 | Extend the Marine Protected Area network | DHLGH, DCCAE | In Progress | The 2020 PfG included a commitment to expand Irelands’ network of MPAs to 10% as soon as practical, aiming for 30% coverage by 2030. The latter goal was re-affirmed at the UN Ocean Conference in June 2022.  In 2019 DHLGH initiated a process of MPA network expansion via establishing an expert group, a process of stakeholder engagement culminating in the production of a final report Expanding Ireland’s Marine Protected Area Network and subsequent public consultation. The general scheme of a Marine Protected Areas Bill 2022 was published in December 2022.  Ireland’s marine SAC and SPA network is under review for sufficiency under the EU Habitats and Birds Directives.  In February 2023 DHLGH announced a programme of measures designed to target the pressures on Ireland’s Marine Environment, consisting of a broad range of actions with commitments across government departments to ensure the sustainable use of our seas and restore degraded ecosystems and species. |
| 6.3.1 | Draw up threat response plans for selected species of conservation concern and of bird species identified in the 2017 EU Action Plan for nature, people and the economy | DHLGH | In Progress | The draft Hen Harrier Threat Response Plan (2021-25) has been published and is currently out for consultation. A five-year EU-Crex Corncrake conservation project commenced in 2019.  As part of the Roseate Tern LIFE programme, special conservation measures, including vegetation clearance and deployment of nest boxes were undertaken on Rockabill island. These measures have seen the population steadily increase from 180 pairs to the present level of over 1600 pairs; this makes it the largest Roseate Tern colony in Europe.  A Lesser Horseshoe Bat Species Action Plan 2022-26 was published in 2022. |
| 6.3.2 | Set up a Curlew Task Force | DHLGH, DAFM, BWI, relevant civil society stakeholders | Implemented | In September 2019, after almost two years of engagement, the Curlew Task Force, established by DHLGH, published its recommendations. This document outlines the conservation actions required to protect and enhance the remaining breeding Curlew population in Ireland. Stakeholders now need to continue to work together to implement these actions. The Curlew Conservation Programme (CCP) has been running annually up to and including 2021, implementing conservation measures and working with local communities in core breeding areas. The results of an NPWS-commissioned national survey (in 2021) were published, which noted significant on-going declines. |
| 6.3.3 | Develop, adopt and implement restoration programmes for Lamprey, Shad species, Salmon, Sea trout and Eels. Improve passage of migratory fish species and review effectiveness of existing passes and potential hydroelectric dams and address other barriers to fish movement. Put in place traceability scheme for Eel | IFI, Marine Institute, Forest Service (DAFM), Irish Water, OPW, ESB | In Progress | The IFI long-term eel monitoring programme continues to assess the state of the eel population in Ireland following the national management plan implemented in 2009. The species is still listed as Critically Endangered by the IUCN Red List (IUCN 2014). Latest advice from ICES is that all anthropogenic impacts that ‘decrease production and escapement of silver eels should be reduced to, or kept as close as possible to, zero in 2020’. In late 2018 the DCCAE announced the Eel Fisherpersons Support Scheme which was administered by IFI during 2019. The EU carried out a public consultation on the EU Eel Regulation (1100/2007) in 2019 where the need for an EU-wide eel traceability scheme was again highlighted by IFI. Media reports on the extent of the illegal eel trade, despite the CITES ban on trade of eel outside of the EU, shows that this traceability scheme is essential for tracking the movement of eels around Europe.  Wild salmon stocks continue to decline. A range of management measures have been implemented to address the challenges facing Atlantic salmon. These include the introduction of river-specific conservation limits to sustainably manage individual fisheries and associated restrictions on fishing gear and effort, as well as extensive habitat restoration actions supported by national funding programmes such as the Salmon Conservation Stamp fund.  There has been increased focus on measures to improve fish passage in Irish rivers, notably through the State-funded IFI National Barriers Programme which has undertaken an extensive nationwide assessment of migration barriers in addition to related initiatives such as the EU-funded AMBER and EPA-funded RECONNECT projects. In 2018 the Irish Government established a steering group to examine the barriers to fish passage in the lower River Shannon, where two substantial dams associated with the Shannon hydro-electric scheme are present since the late 1920s. The Shannon is the largest catchment in Ireland and traditionally held substantial stocks of wild salmon throughout its system. The group is considering the impact of barriers to fish migration at the dams and is tasked with making recommendations for improving fish passage in the environs. IFI have also issued guidance on the planning, design, construction and operation of small-scale hydro-electric schemes to better inform their sustainable development in relation to fish passage. Recent published research by IFI has identified that a large number of these fish passage solutions do not necessarily facilitate the upstream passage of adult salmon and are even less accommodating of adult sea- and river lamprey.  To restore declining Sea Trout populations IFI produced a policy document in 2018 to provide guidance for DCCAE on delivery of conservation and management priorities for the species; a scientific paper on stock status assessment methodologies was published in 2019. Continuous monitoring of sea trout in the River Erriff, the National Salmonid Index catchment, continues to provide long-term stock trend data and marine survival rates. In 2019, a full climate change monitoring programme was initiated by IFI and the Erriff is one of the catchments where monitoring equipment has been installed. Characterising the marine phase of the sea trout life-cycle improves understanding and identification of potential survival bottlenecks; to investigate the marine phase telemetry-based studies are continuing in several sea trout systems (Erriff/Killary, Currane/Ballinaskelligs and Castletown/NE coast).  Monitoring of Shads and migratory lamprey at designated SACs indicates that these species’ migrations are being impeded by man-made structures, especially weirs. |
| 6.3.4 | Implement species action plans, including for Red Squirrel, Red Grouse, Grey Partridge, Hen Harrier and reintroduced raptors and initiate further management actions as necessary | DHLGH, GET, IGPCT, BWI, DAFM | In Progress | A draft Hen Harrier Threat Response Plan (2021-25) was published as a consultation document in 2021.  No progress was made on the implementation of the Red Grouse SAP although a national survey commissioned by NPWS was completed in 2021/22.  Implementation of the Natterjack Toad Species Action Plan is ongoing through farm pond schemes and captive rearing programmes. |
| 6.3.5 | Identify and subsequently fill critical gaps in ex-situ conservation programmes for wild species, in line with best practice | DAFM, DHLGH, Fota Wildlife Park, Tayto Wildlife Park, National Botanic Gardens, Dublin Zoo, BWI | In Progress | The Natterjack Toad was identified as a threatened species in Ireland’s Red List No. 5. Ex-situ conservation efforts, involving captive-rearing in both Fota Wildlife Park and Dingle Aquarium, resulted in the release of 6,000 toadlets at Castlegregory (Kerry) in July 2022 and on several occasions in 2023.  Botanical material is held in seed banks or as living collections at the National Botanic Gardens (NBG), Trinity College Dublin Botanic Gardens and the DAFM National Genebank, Backweston for many of Ireland’s threatened vascular plant species identified in Ireland’s Red List No. 10. Recent efforts have focussed on the collection for ex situ conservation of seed and other living material of species not or poorly represented in these collections, including inter alia Achillea maritima, Arenaria norvegica, Hieracium scullyi, H. sparsifrons, Sorbus scannelliana and Vicia orobus.  There are an estimated 120 threatened plant species in Ireland, of which six are on the verge of extinction. The NBG established an Irish Threatened Plant Species Conservation Programme, the aims of which are to characterise and grow threatened plant species and to complete a collection of critically endangered plants as ex-situ collections. Seed has been collected under licence and grown in the NBG for a small number of Flora Protection Order species. |

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| OBJECTIVE 7: Strengthen international governance for biodiversity and ecosystem services | | | | |
| **No.** | Action | Lead/key partners | Status | Report Summary Update |
| 7.1.1 | Biodiversity will be made a component of Ireland’s development co-operation programme; and support to and co-operation with, developing countries shall take into account biological diversity through the application of the CBD | DFAT | In Progress | In 2019 the DFA launched it’s a Better World, outlining Ireland’s international development priorities. The Vision emphasises Equality, Peace and Sustainability, the latter including a recognition of the importance of the protection of the natural world.  Biodiversity-related ODA has increased significantly in recent years. |
| 7.2.1 | International agreements (including CBD, CITES, CMS, OSPAR, ICES, GSPC, Ramsar, IPBES and NASCO) 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 | DCHC, DHLGH, DFAT, Academia and Research Organisations | Implemented | Ireland has been represented internationally at CBD, IPBES, CITES, CMS, IPBES and EUROBATS meetings, in addition to being an active in OSPAR. Ireland was also represented at the latest CBD COP in Montreal. Work to implement the RAMSAR Convention is carried out with the Irish Ramsar Wetlands Committee (IRWC) funded and chaired by NPWS. |
| 7.2.2 | Continue to contribute data and information to European and international networks (including Global Biodiversity Information Facility, and European Environment Agency) to support conservation research and policy | DHLGH, NBDC | Implemented | Ireland has contributed data and information to the Global Biodiversity Information Facility (GBIF), the European Alien Species Information Network EASIN and EASIN NOTSYS, the IUCN’s Global Register of Introduced and Invasive Species (GRIIS), the EEA’s European Grassland Butterfly Index, the European Vegetation Archive and the Global Index of Vegetation-Plot Databases during the course of this plan.  Almost 2 million occurrence records were submitted from the NDBC to the GBIF up to the end of 2021. |
| 7.3.1 | Continue communication and harmonized action at an all-island level on issues of common concern including the implementation of international legislation and wildlife crime | DHLGH, DAERA | Implemented | A good level of cross-border co-operation continued on a number of projects including inter alia EU INTERREG VA projects: CABB (2017-22: improving the condition of uplands SACs and SPAs), CANN (Collaborative Action for the Natura Network (CANN), another INTERREG project with Northern Ireland and Scotland, is working to save peatlands and other wetlands supporting threatened species such as curlew and hen harrier.  Good levels of co-operation continue. In the absence of a dialogue within EU structures, the British/Irish Council Invasive Non-Native Species Working Group (BIC INNS) has become an important forum for discussion and knowledge sharing on IAS issues of common concern on these islands.  The Shared Island, Waterlands and WAN LIFE IP projects are promoting the restoration of peatland habitats in the cross-border areas of Leitrim/Fermanagh and adjacent counties.  An all-island climate and biodiversity research network was launched in 2021 and the IWRC is engaging with DAERA-NI and other NI partners on awareness-raising and implementation of the RAMSAR agreement. |
| 7.3.2 | Co-operation and co-ordination (where possible and relevant) on Species and Habitat surveillance initiatives under the Habitats and Birds Directives (e.g. all-Ireland seal surveys, all-Ireland cetacean strandings scheme, all-Ireland Red List for Birds, All-Ireland Brent Goose Research Group) | DHLGH, DAERA, British/Irish Council, NBDC, CEDaR, eNGOs | Implemented | A high level of all-island co-operation has been achieved in a number of respects to co-ordinate Species and Habitat surveillance across the island.  The All-Ireland Bumblebee Monitoring Scheme & Marsh Fritillary Monitoring Scheme were co-ordinated via the NDBC in collaboration with DHLGH, NIEA & BCNI.  In the marine environment, IWDG have been running an all-Ireland database of cetacean sightings all-Ireland cetacean stranding record database for the last few decades.  All Red Lists produced by DHLGH are compiled on an all-island basis, as are two bat monitoring programmes – Daubenton’s bat waterways survey and the Car Transect Survey. The Atlas of Mammals in Ireland was an all-island initiative and production; equally the ongoing European Mammal Atlas Project receives coordinated input from NBDC and CEDaR. The All-island Marsh Fritillary Monitoring Scheme is run by the NBDC,  DHLGH liaised with BWI and RSPB in the production of the latest all-island assessment of Birds of Conservation Concern (2020-26). All-island annual or periodic surveys of Brent Geese, swans and other waterbird species occurs via the Irish Brent Goose Research Group, BWI and others, supported by the citizen-science network. |
| 7.3.3 | Further co-operation on and co-ordination of all-island Species Protection Plans and Red List assessments | DHLGH, DAERA | Implemented | Red Lists continue to be developed and prepared on an all-Ireland basis. Two new Red Lists published during this period: terrestrial mammals[[2]](#footnote-2) (2019) and Stoneflies[[3]](#footnote-3) (2020), and an all-Ireland Birds of Conservation Concern[[4]](#footnote-4) (led by BWI and RSPB-NI) in 2021. Progress has also been made towards the production of four additional Red Lists on: Irish lichens, ground beetles, hoverflies and spiders. |
| 7.4.1 | Adopt measures to significantly reduce negative impacts of trade on biodiversity and to enhance positive impacts | DHLGH, DFAT, DAFM | In Progress | There has been a growing market for sustainably derived produce. MacDonald’s sell 100% Rainforest Alliance certified coffee and 100% Marine Stewardship Council certified fish; all ALDI bananas are either Rainforest Alliance or Fairtrade Foundation-certified. Seven large food-production companies and all Aldi own-brand products all use sustainably sourced palm oil. |
| 7.4.2 | Ensure CITES Regulations are effectively implemented and enforced | DHLGH, Revenue’s Customs Service | In Progress | Irish CITES authorities continue to work with colleagues across the EU to improve Union-wide implementation of the EU Wildlife Trade Regulation and to lessen the impact of trade on vulnerable species such as elephants, rhino, tigers and dalberghia.  At CITES COP 19, Ireland’s delegates along with 2,500 other attendees 46 proposed amendments to CITES appendices which were adopted and came into effect in February 2023. These placed a range of regulations on movements of a range of animal and plant species, details for which were updated on the NPWS website.  Amongst the additional decisions was one that ‘Parties [should] ensure that professionals involved in wildlife trade and management receive training on CITES and their role in implementing the Convention and compliance with relevant national laws’. |
| 7.4.3 | Implement legislation to control imports of illegally harvested timber into Ireland. Facilitate exchange of best practise in private and public sector procurement policies favouring wood products from sustainable sources, including certifiable wood products | Forest Service, DAFM, DFAT | In Progress | The European Union (Timber and Timber Products) (Placing on the Market) Regulations 2014, SI No. 316 of 2014 apply to all EU Member States. The Forest Service Development Division of DAFM is the Competent Authority for its implementation in Ireland. The implementation measures have been taken but the best practice exchange elements are in progress.  FLEGT (Forest Law Enforcement, Governance and Trade) licences are issued by timber-producing countries that have ratified a Voluntary Partnership Agreement with the EU. The licences confirm that timber or timber products comply fully with the relevant laws of the country of export. FLEGT-licensed timber and timber products are considered to comply with the requirements of the EU Timber Regulation, which prohibits EU importers and EU timber producers from placing illegally-harvested timber and timber products on the EU market. EU importers therefore do not need to undertake further due diligence on FLEGT-licensed timber. In 2021 the Commission adopted a proposal for a Regulation to curb EU-driven deforestation and forest degradation. |
| 7.4.4 | Investigate potential measures to prevent, minimise and/or mitigate deforestation due to non-wood imports | DAFM, Bord Bia, DFAT, BnM | In Progress | DAFM have had involvement in recent EU Council Conclusions calling for this issue to be addressed urgently. |

# Next Steps

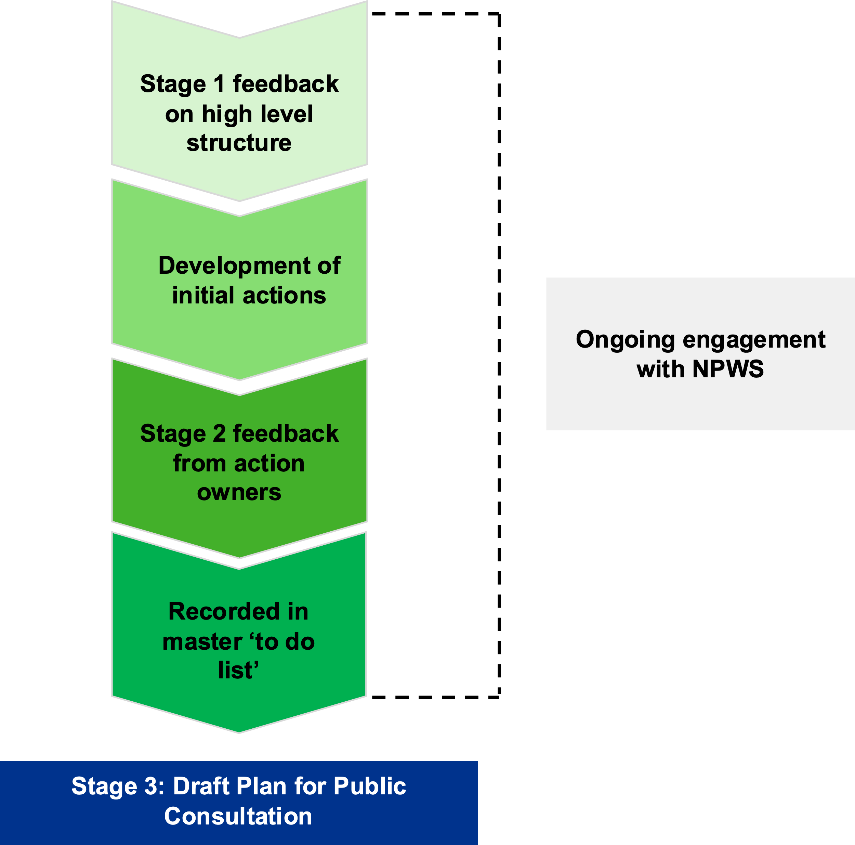
## Developing Ireland’s 4th National Biodiversity Action Plan

Ireland’s 4th National Biodiversity Action Plan (NBAP) has been in development since October 2021. Key considerations in the development of the draft NBAP are set out below:

* Build on the successes of previous NBAPs, while addressing shortfalls and implementation challenges
* Expand the governance and oversight of the NBAP and develop a robust Monitoring and Evaluation Framework to track progress
* Achieve buy-in and ownership of the NBAP across all levels of government and society
* Achieve greater coherence between biodiversity policy and other policy areas
* Strengthen compliance and enforcement of existing legislation
* Increase focus on addressing the root causes and drivers of biodiversity loss rather than consequences of biodiversity loss
* Determine biodiversity priorities, allocate financial and other resources, internalise the value of nature and recognise the cost of inaction
* Significantly strengthen the science base and enhance data accessibility.

## Stakeholder Engagement Processes to develop the 4th NBAP

The stakeholder engagement process for the 4th NBAP was designed to incorporate three distinct stages, each of which targeted a different stakeholder group.



Stage 1 Stakeholder Consultation – The first stage ran from January to February 2022 and focussed on the high-level structure and direction of the 4th NBAP, including the proposed Vision, Objectives and Outcomes for biodiversity in Ireland.

Stage 2 Stakeholder Consultation – This stage ran between February and July 2022 and targeted organisations and bodies that are likely to be directly impacted by the 4th NBAP or involved in its implementation. Stakeholders were asked to provide specific feedback on the Actions proposed under the Draft 4th NBAP. Several concurrent feedback loops were used to capture relevant feedback from different stakeholders at this stage.

Stage 3 Public Consultation – Stage 3 comprised an open public consultation. A draft 4th NBAP was published on the 1st of September 2022. A public consultation period was launched on the same date and ran for ten weeks, closing on the 9th of November 2022. During this period, all interested parties were invited to provide comments via an online survey and/or to make submissions via email or by post to the NPWS. The NPWS serviced a stand at the National Ploughing Championships in September 2022 to encourage submissions from the agricultural sector.

Bilaterals continued across Government to refine actions in response to the public consultation. A summary report of the responses to feedback received through this public consultation has been published to accompany this Plan.

## Citizens’ Assembly on Biodiversity Loss

The Recommendations and Report of the Citizens’ Assembly on Biodiversity Loss was published in April 2023. The report was produced following seven meetings of the Assembly from May 2022 through to the end of January 2023. It concluded with the 99 members of the Assembly agreeing 159 recommendations. These include 73 high-level recommendations and 86 sectoral specific actions and priorities.

The recommendations of the assembly will now be deliberated by the relevant committee in the Houses of the Oireachtas. The Committee will, in turn, bring its conclusions to the Houses for debate. The Government will provide a response to each recommendation of the Assembly in the Houses of the Oireachtas.

## Children and Young People’s Assembly on Biodiversity Loss

Ireland’s first Children and Young People’s Assembly on Biodiversity Loss published its final report in April 2023, calling for biodiversity to be at the centre of decision-making and for children and young people to be included in how we respond to biodiversity loss.

The Assembly met over two weekends in October and aimed to ensure Ireland’s youngest citizens have their say in how Ireland responds to the challenge of biodiversity loss. Over 500 children and young people aged 7-17 years from across Ireland applied to be part of the assembly, of which 35 were selected representing a diverse cross-section of society.

# Glossary of Abbreviations

|  |  |
| --- | --- |
| Name | Definition |
| AA | Appropriate Assessment |
| ACRES | Agri-Climate Rural Environment Scheme |
| ADAPT | Avian Diversity and Afforestation Planning Tools Project |
| AFBI-NI | Agri-Food & Biosciences Institute, Northern Ireland |
| AGS | An Garda Síochána |
| AICBRN | All-Island Climate and Biodiversity Research Network |
| ASSAP | Agricultural Sustainability Support and Advice Programme |
| BAP | Biodiversity Action Plan |
| BCCSAP | Biodiversity Climate Change Sectoral Adaptation Plan |
| BIC-INNS | British/Irish Council Invasive Non-Native Species Working Group |
| BITCI | Business in the Community Ireland |
| BnM | Bord na Móna |
| BSBI | Botanical Society of Britain and Ireland |
| BWG | Biodiversity Working Group |
| BWI | BirdWatch Ireland |
| CABB | Co-operation Across Borders for Biodiversity (EU-InterReg) |
| CANN | Collaborative Action for the Natura Network (EU-InterReg) |
| CAP | Common Agricultural Policy (of the European Union) |
| CBD | Convention on Biological Diversity |
| CBS | Countryside Bird Survey (run by BWI, funded by NPWS) |
| CCP | Curlew Conservation Programme |
| CeDAR | Centre for Environmental Data and Recording (NI) |
| CFI | Community Foundation Ireland |
| CFP | Common Fisheries Policy |
| CFRAM | Catchment-based Flood Risk Assessment and Management |
| CIEEM | Chartered Institute of Ecology and Environmental Management |
| CITES | Convention on the International Trade in Endangered Species of Wild Flora and Fauna |
| CMS | Convention on Migratory Species |
| 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 |
| CWF | Community Wetlands Forum |
| DAERA-NI | Department of Agriculture, Environment & Rural Affairs (Northern Ireland) |
| DAFM | Department of Agriculture, Forestry and the Marine |
| DCCAE | Department of Communications, Climate Action and Environment |
| DES | Department of Education and Skills |
| DFAT | Department of Foreign Affairs and Trade |
| DHLGH | Department of Housing, Local Government and Heritage |
| DJEI | Department of Jobs, Enterprise and Innovation |
| DPER | Department of Public Expenditure and Reform |
| DTTAS | Department of Transport, Tourism and Sport |
| EBSA | Ecologically, or Biologically Significant Marine Areas |
| EIA | Environmental Impact Assessment |
| EIONET | European Environmental Information and Observation Network |
| EIP | European Innovation Partnership |
| ELD | Environmental Liability Directive of European Union |
| EMFF | European Maritime and Fisheries Fund |
| eNGOs | Environmental Non-government Organisations |
| EPA | Environmental Protection Agency |
| EUROBATS | Agreement on the Conservation of Populations of European Bats |
| EUTR | European Union Timber Regulation |
| FAO | Food and Agriculture Organisation of the United Nations |
| FETAC | Further Education and Training Awards Council |
| FORI | Forest Research in Ireland |
| GBIF | Global Biodiversity Information Facility |
| GET | Golden Eagle Trust |
| GFP | Good Farming Practice |
| GIS | Geographical Information System |
| GLAS | Green Low-Carbon Agri-Environment Scheme |
| GRIIS | Global Register of Introduced and Invasive Species |
| HLAI | Hedge Laying Association of Ireland |
| HNV | High Nature Value Farming |
| IAS | Invasive Alien Species |
| ICES | International Council for the Exploration of the Seas |
| IDMF | Irish Deer Management Forum |
| IFI | Inland Fisheries Ireland |
| IFNC | Irish Forum on Natural Capital |
| IGPCT | Irish Grey Partridge Conservation Trust |
| INCASE | Irish Natural Capital Accounting for Sustainable Environments |
| INPBR | Irish National Platform for Biodiversity Research |
| IPBES | Intergovernmental Platform on Biodiversity and Ecosystem Services |
| IPCC | Irish Peatland Conservation Council |
| IRC | Irish Research Council |
| ISDI | Irish Spatial Data Infrastructure |
| ISME | Irish Small and Medium Enterprises Association |
| IVC | Irish Vegetation Classification |
| IW | Irish Water |
| IWeBS | Irish Wetland Bird Survey (run by BWI, funded by NPWS) |
| IWT | Irish Wildlife Trust |
| KBA | Key Biodiversity Area |
| LA | Local Authorities |
| LAWPRO | Local Authority Water Programme |
| LBAP | Local Biodiversity Action Plan |
| LIPP | Low Input permanent pasture |
| LoM | LIFE on Machair (EU-LIFE) |
| MarPAMM | Marine Protected Area Management and Monitoring (EU InterReg) |
| MI | The Marine Institute |
| MPA | Marine Protected Area |
| MSFD | Marine Strategy Framework Directive |
| MTU | Munster Technological University |
| NBAP | National Biodiversity Action Plan |
| NBC | National Biodiversity Conference |
| NBDC | National Biodiversity Data Centre |
| NBG | National Botanic Gardens |
| NCA | Natural Capital Accounting |
| NDP | National Development Plan |
| NESC | National Economic and Social Council |
| NFS | National Farm Survey |
| NGO | Non-Governmental Organisation |
| NHAs | Natural Heritage Areas |
| NIEA | Northern Ireland Environment Agency |
| NPWS | National Parks & Wildlife Service |
| NRA | National Roads Authority |
| NUIG | National University of Ireland, Galway |
| NWWRAC | North-West Waters Regional Advisory Council |
| OPW | Office of Public Works |
| OSI | Ordnance Survey of Ireland |
| OSPAR | Convention for the Protection of the Marine Environment of the Northeast Atlantic |
| PAF | Prioritised Action Framework |
| PCES | Peatland Community Engagement Scheme |
| PFG | Programme for Government |
| RBAPS | Results-Based Agri-Environmental Payment Scheme |
| RBMP | River Basin Management Plan |
| RDP | Rural Development Plan |
| REPS | Rural Environment Protection Scheme |
| RRF | Rural Regeneration Fund |
| SAC | Special Area of Conservation (Designated under the EU Habitats Directive) |
| SAMFHIRES | Saltmarsh Function and Human Impacts in Relation to Ecological Status |
| SAPs | Species Action Plans |
| SEA | Strategic Environmental Assessment |
| SECAD | South & East Cork Area Development |
| SEEA | System of Environmental Economic Accounts |
| SEPA | Sea-Fisheries Protection Authority |
| SPA | Special Protection Area (Designated under the EU Birds Directive) |
| TCD | Trinity College Dublin |
| TII | Transport Infrastructure Ireland |
| UCC | University College Cork |
| UCD | University College Dublin |
| UNEP | United Nations Environment Programme |
| WAN-LIFE | LIFE IP Wild Atlantic Nature (EU LIFE) |
| WEF | Woodland Environmental Fund |
| WFD | Water Framework Directive |
| WIT | Waterford Institute of Technology |

# Members of the Biodiversity Working Group 2017-2021

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| --- | --- |
| Name | Organisation |
| Andy Bleasdale (Chairperson) | National Parks & Wildlife Service |
| Deirdre Lynn | National Parks & Wildlife Service |
| Claire Cooper | National Parks & Wildlife Service |
| Dermot McGreal | National Parks & Wildlife Service |
| Niall Ryan | Department of Agriculture, Food and the Marine |
| Pamela Boyle | Department of Agriculture, Food and the Marine |
| Marc Kierans | Department of the Environment, Climate and Communications |
| Anne Murray | Department of Education |
| Colin Byrne | Department of Housing, Local Government and Heritage |
| David Flynn | Department of Housing, Local Government and Heritage |
| Denis McGowan | Department of Rural and Community Development |
| Tadhg O'Mahony | Environmental Protection Agency |
| Cathal Gallagher | Inland Fisheries Ireland |
| Brian Deegan | Irish Water |
| Graham Johnston | Marine Institute |
| Liam Lysaght | National Biodiversity Data Centre |
| Colin Kelleher | Office of Public Works |
| Tony Brew | Office of Public Works |
| Margaret Gormley | Office of Public Works |
| Catherine Keena | Teagasc |
| Lorcán Scott | Heritage Council |
| Mark McCorry | Bord Na Móna |
| Paul Neary | County and City Management Association |
| David Murphy | Department of Foreign Affairs |
| Eileen Scollan | Department of Foreign Affairs |
| Sylvie Clappe | Central Statistics Office |
| Tasman Crowe | UCD - Chair of Biodiversity Forum |
| Naoise Grisewood | Department of Transport |

# Biodiversity Forum

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| Name | Organisation |
| **Tasman Crowe (Chair)** | University College Dublin |
| **Noeleen Smyth** | University College Dublin |
| **Padraic Fogarty** | Irish Wildlife Trust |
| **Janice Fuller** | Coillte |
| **Elaine McGoff** | An Taisce |
| **James Moran** | Atlantic Technological University |
| **Aebhinn Cawley** | Chartered Institute of Ecology and Environmental Management |
| **Oonagh Duggan** | Birdwatch Ireland |
| **Siobhán Ryan** | Heritage Officer, Sligo CoCo |
| **Anne Murray** | Biodiversity Officer, DLR CoCo |
| **John Butler** | FACE Ireland / NARGC |
| **Christoph Schwitzer** | Dublin Zoo |
| **Seamus Boland** | Irish Rural Link |
| **Simon Berrow** | Irish Whale and Dolphin Group |
| **Ken Bradley** | Department of Agriculture, Environment and Rural Affairs (NI) |
| **Mark Preston** | Department of Agriculture, Environment and Rural Affairs (NI) |
| **Claire Convery** | Department of Agriculture, Environment and Rural Affairs (NI) |

# References

Anon. (2020) Secretariat of the Convention of Biological Diversity: Global Biodiversity Outlook 5. Montreal.

Barnosky, A.D. *et al.* (2011) Has the Earth’s sixth mass extinction already arrived? *Nature* 471: 51-57

Butchart, S.H. *et al.* (2010) Global biodiversity: indicators of recent declines. *Science* 328: 1164–1168.

Ceballos, G. *et al.* (2015) Accelerated modern human-induced species losses: entering the sixth mass extinction. *Science Advances* 1 (5) doi:10.11/26/sciadv.1400253

Dereniowska, M. & Meinard, Y. (2021) The unknownness of biodiversity: its value and ethical significance for conservation action. *Biological Conservation* 260: 109199.

Finn, J.A. & Moran, P. (2020) A pilot study of methodology for the development of farmland habitat reports for sustainability assessments. *Irish Journal of Agricultural and Food Research*. 59(1): 56-69. DOI: 10.15212/ijafr-2020-0103.

Huang, Y. *et al.* (2023) The stability and collapse of marine ecosystems during the Permian-Triassic mass extinction *Current Biology* doi:10.1016/j.cub.2023.02.007.

Lucy, F.E. *et al.*, (2020) Horizon scan of alien invasive species for the island of Ireland. *Management of Biological Invasions* 11 (2): 155-177.

Maron, M. *et al.* (2017) Towards a threat assessment framework for ecosystem services. *Trends in Ecology & Evolution* 32: 240-248.

Morrison, R., & Bullock, C. (2018) A National Biodiversity Expenditure Review for Ireland, University College Dublin.

WWF. (2022) *Living Planet Report 2022 – Building a nature-positive society*. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (Eds). WWF, Gland, Switzerland.

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1. The Wildlife (Amendment) Act 2023 was commenced in November 2023. [↑](#footnote-ref-1)
2. Marnell *et al*. (2019) <https://www.npws.ie/sites/default/files/publications/pdf/Red%20List%20No.%2012%20Mammals.pdf> [↑](#footnote-ref-2)
3. Feeley *et al*. (2020) <https://www.npws.ie/sites/default/files/publications/pdf/Ireland%20Red%20List%20No.%2013%20Stoneflies%20%28Plecoptera%29.pdf> [↑](#footnote-ref-3)
4. Gilbert *et al*. (2021) Birds on Conservation Concern in Ireland 4: 2020-2026. *Irish Birds* 43: 1-22 [↑](#footnote-ref-4)