

Country Fact Sheet IRELAND





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Country Fact Sheet: Ireland (IE)

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If you feel there are ongoing or upcoming research projects, policy initiatives or legislations, concerning the use of biodiversity, ecosystem condition and ecosystem services knowledge in decisions and policies, missing, please contact inge.liekens@vito.be and we will update the country fact sheet (until March 2027)

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Update on projects concerning biodiversity, ecosystem condition and ecosystem services assessment and accounting since 2022

In 2016, the Irish Government commissioned a study to provide a pilot assessment and mapping report on a limited set of "prioritised" ecosystem services in Ireland. The report was published by the National Parks and Wildlife Service as part of their regular "Wildlife Manuals" publication series. The project set out to initiate discussion on how ecosystem services assessments can be integrated into multisectoral decision making processes in Ireland. The project involved engagement of local stakeholders to identify which ecosystem services should be prioritised as part of the pilot, to identify ES mapping needs and available data sets, and develop indicators for national ecosystem service mapping. The project produced a series of maps and gave recommendations for further work on ES assessment and mapping in Ireland.

This remains the only formal government-commissioned study on ES assessment and mapping in Ireland to date. There has been no further development in this area at national level since the publication of this report; however, the pilot study has provided impetus for a number of thematically related projects which have been grant-aided or part-funded by state or semi-state agencies, and which have helped build knowledge and capacity for natural capital and ecosystem services assessments and related approaches in the Irish context. These projects are also helping to inform policy making, with issues of natural capital accounting and ecosystem services now routinely referenced in several areas of national policy relating to climate change mitigation and adaptation, biodiversity conservation, agriculture, and marine and coastal zone management, amongst other areas.

A recent key project was the INCASE project (Irish Natural Capital Accounting for Sustainable Environments), funded by Ireland's Environmental Protection Agency, which ran from 2019 to 2023. This project, led by Trinity College Dublin and University College Dublin, focused on four river catchments, assessing a set of prioritised services relating to water resources, land use and carbon storage using the UN System of Environmental-Economic Accounting-Ecosystem Accounting (SEEA-EA). The project considered two key stakeholder groups: State and Semi-state agencies and Government offices; and other related research projects, in-

cluding Ordnance Survey Ireland (OSI) / EPA land cover mapping project, EPA Environmental Sensitivity Mapping (ESM) tool project, European Innovation Partnership (EIP) projects and other related research projects.

INCASE used an input-output model to assess the impact of policy change on natural capital stocks, used data visualisations to produce sectoral natural capital management frameworks, produced a gap analysis of information monitoring systems and the policies underpinning them, and conducted economic impact assessments to better understand the trade-offs between policy options in the study catchment areas. The final report from the project (2023) highlighted the importance of further development of natural capital accounting and ES assessment in Ireland, and included a number of recommendations for further research, capacity building and investment.

Another project building on the outputs from the IN-CASE project is the For-ES project, led by the same project team as INCASE. The project is also partly run by Coillte, a private sector forestry company which is owned by the Irish state (Coillte is the Irish language word for forests), with funding from the Department



of Agriculture, Food and the Marine. The project runs from 2021 until 2025 and will focus on developing natural capital accounts for selected commercial forestry sites, some of which are incorporated in the SELINA project as an aggregate Test Site. This project will develop Natural Capital Accounts for specific forest sites to capture information on forest natural capital stocks and related flows of ecosystem services. The ES to be addressed are commercial timber production, carbon sequestration, water retention, support for biodiversity and provision of recreational spaces. Bayesian Belief Network modelling will be used to understand the effects of different management decisions on ecosystem service flows, and an interactive web-based management scenario tool will be developed.

At the time of writing for this summary, a full stake-holder mapping exercise has not yet been completed for the project, however as a state-owned private forestry company the two major stakeholder groups are Coillte itself, and the Irish state, as For-ES will seek to provide data to guide sustainable forestry practices in Ireland into the future. Local stakeholder groups will be identified for each of the forestry operations being studied. In addition to members of the public visiting these forests for recreation who will be surveyed during 2024 as part of the valuation assessments (in collaboration with SELINA), other stakeholders may include local landowners and farmers, and other businesses and civil society organisations.

Projects such as INCASE and For-ES are helping to increase the knowledge base and serve as a template for further development of methods and data sets. The Central Statistics Office, Ireland's national statistics institute tasked with collating statistics on Ireland's society, economy and environment, established an Ecosystem Accounts Division in 2020 and has been developing a set of ecosystem accounts for prioritised services. In addition, the National Economic and Social Council, an independent advisory body reporting to the Department of the Taoiseach (Irish Prime Minister) has in 2024 produced guidance on natural capital accounting.

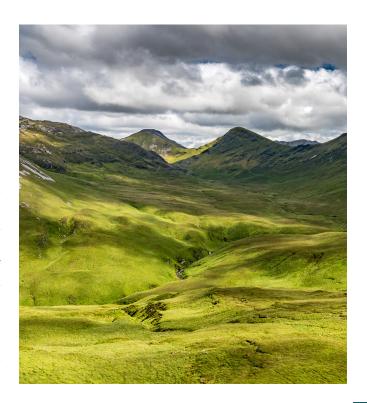
INCASE (Irish Natural Capital Accounting for Sustainable Environments, a pioneering EPA-funded project to apply Natural Capital Accounting principles to catchments in Ireland. The project team prepared accounts for four catchments across Ireland using the UN System of Environmental-Economic Accounts (SEEA) Central Framework and SEEA Experimental Ecosystem Accounts guidelines. These map the stocks and flows of ecosystem and geosystem services, highlight challenges, knowledge and data gaps, with a series of recommendations to enable and operationalise Natural Capital Accounting in Ireland. The project ran from 2018-2023. Research 441: Irish Natural Capital Accounting for Sustainable Environments (INCASE) | Environmental Protection Agency (epa.ie).



Examples of uptake in decision processes, regulations and/or legislation

2.1 Policy

The state agency responsible for preparing and implementing headline policies for the conservation and sustainable use of biodiversity in Ireland is the National Parks and Wildlife Service (NPWS). Since its original establishment in 2003, NPWS has sat as a division of various government departments, its parent department often changing in alignment with the properties of the government at that time; at the time of writing this factsheet it sits within the Department of Housing, Local Government and Heritage. Further to a strategic review of the NPWS in 2021, the government has



committed to establishing NPWS as a separate state agency, which should strengthen its mandate and ability to work across government sectors.

Ireland's fourth National Biodiversity Action Plan (the national policy document on the conservation and sustainable use of biodiversity, produced in line with the commitment to produce a National Biodiversity Strategy and Action Plan under the UN Convention on Biological Diversity), covering the period from 2023 to 2030, includes several targets and action items aimed at mainstreaming ecosystem services and natural capital across government. Examples of these are given in the table below.

Whilst these policies are not legally mandated by formal statute and are therefore not enforceable they nevertheless provide an important step forward in Ireland's commitments to action on conservation and sustainable use of biodiversity by setting a framework for developing natural capital and ecosystem services assessments on a sectoral basis, and by setting a precedent which will be further developed as the current National Biodiversity Action Plan is implemented and reviewed, and in future versions of the Plan.

As referenced above, several current national policy documents and sectoral strategic action plans -many which predate the current National Biodiversity Action

Target	Associated action(s)
By 2027, definitions, tools and safeguards to maintain and enhance biodiversity and ecosystem services associated with agroecology systems are in place	DAFM, NPWS, the Heritage Council, academia and research institutions will work together to develop measures and support tools to maintain and enhance biodiversity and ecosystem services associated with agroecology systems including High Nature Value farming and farmland
By 2027, optimised benefits in flood risk management planning and drainage schemes are in place	Office of Public Works (OPW) will work with relevant authorities to ensure that Flood Risk Management planning and associated Strategic Environmental Assessment, Environmental Impact Assessment and Appropriate Assessment (AA), minimises loss of biodiversity and ecosystem services through policies to promote more catchment-wide and non-structural flood risk management measures
	The OPW, in coordination with other relevant stake- holders, will continue to enhance its knowledge and capacity with regards to Nature-based Solutions for Catchment Management (NBS-CM) and will assess the potential NBS-CM as part of the development of the future flood relief schemes
By 2027, systems and standards for natural capital accounting are being developed and implemented in Ireland	A network of experts in Natural Capital Accounting will be established for the island of Ireland The Central Statistics Office (CSO) will collaborate to advance ecosystem accounting and reporting methods and standards in Ireland, in line with the SEEAEA framework
By 2027, mainstream the natural capital approach across sectors	Relevant bodies will develop appropriate guidance for key sectors on the use of Natural Capital Accounting.
By 2027, first national ecosystem accounts completed	CSO will develop ecosystem accounts for Ireland Relevant organisations will conduct a national assessment of stocks, flows and trends in ecosystem services to identify priority ecosystems and threats to natural capital using appropriate tools, to be coordinated with relevant authorities in Norther Ireland

Plan - make note of the importance of biodiversity, natural capital and ecosystem services (and related approaches) to meeting their core objectives. Several other government sectors have been tasked with delivering actions under the Plan, including the Department of Enterprise, Trade and Employment, the Department of Finance, the Department of Transport, and the Department of Education. Notably, the health sector has been omitted from the Action Plan.

It is anticipated that the implementation of the EU Nature Restoration Law (adopted by the European Parliament in 2024) and actions in support for the Global Biodiversity Framework will see further development of policy instruments and capacity on these themes.

2.2 Processes/laws

The use of biodiversity information is required under Irish law implementing the EU legislation on Strategic Environmental Assessment and Environmental Impact Assessment, and under other legal instruments concerned with regulation of sectoral activities that may negatively impact upon biodiversity (particularly where consideration of potential impacts for Natura 2000 sites is required).

However, the use of Ecosystem Service assessments of any kind is not obligatory in any part of the planning or decision-making process.

2.3 Key leverages

Politically, the participation of the Green Party within the coalition government established in February

2020 has had a significant impact on how and to what extent issues of biodiversity, natural capital and ecosystem services have been considered cross a range of national policies, as indicated by the incorporation of these and related concepts into various sectoral plans and strategies in the intervening years. This has created an internal focus on the wider costs and benefits of biodiversity conservation in Ireland and created space for enhanced consideration of biodiversity within in inter-departmental processes and working groups.

In 2022, a formal act of the Irish parliament established a Citizens Assembly on Biodiversity Loss, which tasked a randomly selected group of members of the public from all regions of the country to consider he extent and implications of the biodiversity crisis in Ireland and globally. The Assembly held its final meeting in February 2023 and prepared a report and list of recommendations for action to the parliament. Whilst many of these actions are yet to be implemented, the Assembly nevertheless gained significant media attention and helped to further raise awareness of the crisis on a national scale.

The adoption of the Global Biodiversity Framework at the 15th Conference of Parties of the UN Convention on Biological Diversity in December 2022 and the adoption of the EU Nature Restoration Law in 2024 are also seen as key leverage points which will help with mainstreaming of biodiversity, natural capital and ecosystem services and support current policies under the National Biodiversity Action plan towards adopting an all-of-government, all-of-society approach to the biodiversity crisis.





Perceived barriers and needs to enhance uptake

3.1 Barriers

- The major barrier to uptake of concepts of ecosystem services and natural capital in decision making across government remains a general lack of awareness of these concepts, their importance and how they can be applied, outside of the environment and nature conservation agencies. This is exacerbated by operational and financing models which reinforce silo-based thinking. However, as a result of the projects referenced above, awareness is improving steadily, as evidenced by consideration of natural capital, nature-based solutions and / or ecosystem services within several national policy documents across several sectors in recent years; for example, Ireland's National Forestry Policy 2023 - 2030, the annual Climate Action Plans (most recent being 2024), the National Marine Planning Framework to 2040 (published 2021) and Food Vision 2030 (published in 2022). Key sectors where awareness is low and where uptake has not yet been adequately demonstrated include housing, transport, human and veterinary health, finance, and education.
- Another difficulty is that the increasing awareness has not yet been supported by increased delivery of key communications or data tools, such as local, regional, or updated national ecosystem service mapping or sector-specific environmental economic accounts. However, it may be expected that additional research and pilot projects building on INCASE and For-ES will help address this, whilst implementation of the Global Biodiversity Framework and the EU Nature Restoration Law should see greater investment in capacity building across government.
- A lack of political will in some quarters also hinders uptake, as environmental measures, particularly nature conservation policies, are widely framed as anti-business, anti-rural or anti-development. Arguably this is a universal issue, and in Ireland is it particularly tied to a historically limited view of land use, with the value of land being perceived in terms of production capacity or physical development potential rather than in terms of public goods. Ireland's latest National Biodiversity Action Plan (2023-2030) commits to an all-of-government, all-of-society approach to nature conservation which may help to address this issue by more effectively mainstreaming key

concepts across all government agencies, however, will require a large-scale public information and education campaign to address specific concerns of, in particular, rural communities. Locally focused and locally managed nature conservation projects have started to change this paradigm to some extent, though they require greater and ongoing support.

3.2 Needs

- The development and implementation of policies on biodiversity, natural capital and ecosystem services remain the purview of a small number of environmental agencies within government (and primarily led currently by the NPWS). A more concerted national policy led by the Irish parliament or Department of the Taoiseach to engage all sectors of government is required. Whilst steps are being taken in that direction, notably the actions prescribed across government in the 4th National Biodiversity Action plan, progress is slow and further resources are required to address issues of knowledge gaps, capacity building, and information exchange.
- Greater efforts are also required to engage the public at large in addressing the biodiversity crisis. Whilst overall awareness of biodiversity and the need for greater conservation effort is relatively high, particularly among younger age groups, there is still a lack of awareness as to the wider values of biodiversity to society and the economy, and to other public concerns such as healthcare, housing, demographic change, and employment. More consistent public information campaigns across all media are required to highlight the importance of natural capital and ecosystem services.





On the way to transformative change

The overall conclusion of the IPBES global assessment (IPBES 2019) was that Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond, may only be achieved through transformative changes across economic, social, political and technological factors.

Transformative or transformational change refers to "a fundamental, system-wide reorganization

across technological, economic and social factors, including paradigms, goals and values" (IPBES, 2019). Simply said, doing things differently, rather than doing less or optimising the system.

A means to enhance uptake is bringing people of the quadruple helix together and exchange information and learn from each other. Another is to establish projects that can show that it works and lead to possible pathways of transformative change.

4.1 Community of practice

Information on the communities of practice still to be received.

4.2 Seeds of transformative change

Study circles:

As part of the Horizon 2020 project SHARED GREEN DEAL, we have 6 Streams. In one Stream - the Biodiversity Stream - so-called Study Circles were set up in which adult participants explore cultural values related to biodiversity, the loss of biodiversity and possible solutions in rural and urban areas.

Restore4Life:

"Restore4Life's Overall Objective is to develop an online Restore4Life Wetland Restoration Decision Support System that will allow large-scale holistic wetland restoration activities in the Danube basin

- and Europe through extensive dialogue and co-creation with multiple actors (knowledge holders, policy actors, citizens) as part of the Danube basin lighthouse of the Mission "Restore our ocean and waters by 2030".
- In 2022, a formal act of the Irish parliament established a Citizens Assembly on Biodiversity Loss, which tasked a randomly selected group of members of the public from all regions of the country to consider he extent and implications of the biodiversity crisis in Ireland and globally. The Assembly held its final meeting in February 2023 and prepared a report and list of recommendations for action to the parliament. Whilst many of these actions are yet to be implemented, the Assembly nevertheless gained significant media attention and helped to further raise awareness of the crisis on a national scale.
- No further projects were yet received through the online survey.



References

Parker, N., Naumann, E-K., Medcalf, K., Haines-Young, R., Potschin, M., Kretsch, C., Parker, J. & Burkhard, B. (2016) National ecosystem and ecosystem service mapping pilot for a suite of prioritised services. Irish Wildlife Manuals, No. 95. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Ireland. Irish Wildlife Manual 95. Ecosystems

Services, Mapping and Assessment | National Parks Wildlife Service (npws.ie) 47, 10.3390/su141912847



Project duration: 1 July 2022 - 30 June 2027

Keywords: biodiversity, ecosystems, ecosystem services, natural capital accounting, evidence-based decision-making, transformative change

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- Ecostack Innovations Limited
- University of Trento
- Pensoft Publishers
- Centre for Ecological Research
- Mykolas Romeris University
- Research Centre of the Slovenian Academy of Sciences and Arts
- University of Patras
- space4environment
- National Institute of Geophysics, Geodesy and Geography
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- Flemish Institute for Technological Research
- Foundation for Sustainable Development
- Baltic Environmental Forum
- Adam Mickiewicz University
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- E Copenhagen University
- Norwegian Institute for Natural Research
- Estonian University of Life Sciences
- The Cyprus Institute
- Wageningen University
- The Finnish Environment Institute
- ► Global Change Research Institute SarVision
- Ministry of the Environment of the Slovak Republic
- Gaspar Frutuoso Foundation
- Flemish Agency for Nature and Forest
- Municipality of Trento

- Ministry of Environment of the Republic of Lithuania
- Ministry of Environmental Protection and Regional Development of the Republic of Latvia
- Research Centre in Biodiversity and Genetic Resources
- University of Haifa
- COHAB Initiative Secretariat
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