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# Country Fact Sheet

# POLAND

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# Country Fact Sheet: Poland (PL)

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This fact sheet is based on what partners in SELINA know about what is going on in their country and some additional literature. 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)

## Contents

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

MAES for Poland started in the second half of 2014. The nationwide MAES project in Poland *ECOSERVPOL-Services provided by main types of ecosystems in Poland – an applied approach*, was carried out in 2020–2023. ECOSERVPOL is a project predefined by the Ministry of Climate and Environment as the Operator of the "Environment, Energy and Climate Change" program under the EEA (European Economic Area) Financial Mechanism 2014-2021. Main coordinator: Małgorzata Stępniewska.

The project aimed to increase the scientific capacity of the Polish researchers to develop ES approach, as well as raise officials' awareness of the potential of ES from the political, social and ecological point of view. The analysis covers ES provided by agroecosystems, forests, urban ecosystems, freshwaters, marine ecosystems, degraded ecosystems, and ES on the landscape level.

## 1.1 The main objectives of the project are:

- Transferring of general and specific scientific knowledge on ecosystem services which exists in Europe to the process of mapping and assessment of ecosystem services in Poland.
- Increasing the scientific potential to map and assess of ecosystem services.
- Increasing the scientific potential and the ability of administration and interested social groups to implement this approach in environmental management.
- The subject of the project is the mapping and assessment of services provided by the main types of ecosystems in Poland in a practical context.

To achieve the above, following activities have been implemented: selection relevant ecosystem services (ES) and their indicators for main ecosystem types in Poland; mapping and assessment of ES in national, regional and local scale; cross-cutting analysis of ecological, cultural and economic values of ES; identification of significant ES synergies and trade-offs and relevant ES bundles; dissemination and exchange of knowledge. The deliverables include list of ES and relevant indicators for main Polish ecosystem types, maps of main ES values, critical literature review for ecological, cultural and economic values of ES, as well as case studies in different spatial scales.

**The following groups are expected to benefit from the project:**

- Scientists – by increasing the capacity of the Polish researchers dealing with main ecosystems to develop ecosystem services (ES) approach.
- Administration on the regional and local levels and experts-practitioners – by developing officials' awareness of the potential of ES approach from the political, social and ecological point of view, as well as will building their skills for including ES assessment into process of environmental management.
- Interested social groups, including activists – by increasing their awareness of the benefits obtained through properly managing ecosystems.
- The project results are communicated to interested stakeholders through informing the media about the project and its practical social and ecological values; organising the meetings for administration representatives and expert-practitioners; presentations of project results at conferences as well as in scientific publications; providing information about the project and its results on the project website. The deliverable summarising the project results is the handbook on ES approach for environmental management (in Polish).

**Another large project is the Ecosystem Services of Polish forests – potential assessment.**

WWF Poland Foundation (Fundacja WWF Polska) Project coordination by the WWF Poland Foundation - Olga Poleszczuk-Tusińska. Coordinator of the author's team – Andrzej Affek, Institute of Geography and Spatial Organisation, Polish Academy of Sciences

**Goals**

- Estimation of the potential of various types of forests in Poland to provide key ecosystem services (total for the entire country and divided into natural forest regions*).
- Indication of types of forest ecosystems with a distinctive potential to provide many services (service hotspots).
- Determining the connections between forest ecosystem services.

The project assessed the potential to provide 17 of the most important ecosystem services provided by forests in Poland. Services from each of the three sections of the Common International Classification of Ecosystem Services (CICES V5.1), i.e. the supply, regulatory and cultural services sections, were included. The potential value for selected ecosystem services was calculated or estimated based on 16 indicators. One service does not always correspond to one indicator because the potential for some services was estimated using the same indicator, while for some services, more than one indicator was developed. Each service and its indicator were presented according to the same scheme including three text parts: (1) description of the service, (2) method of assessing the potential (including the construction of the indicator and source data) and (3) results (diversification in the country according to forest habitat types and natural forest regions)

** Natural forest region - a unit of country division used in forestry. It is an area with similar physiographic conditions where a specific type of forest develops best.*

Since 2010 every two years the countrywide Symposia on Ecosystem Services in Transdisciplinary Approach (ECOSERV) takes place in Poznań. These events are milestones for the growing interests of Polish scientists (mainly geographers and economists) on ES.

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

So far, we haven't diagnosed explicit uptake of ecosystem services assessment in specific legislation or policy process in Poland.

# 3 Perceived barriers and needs to enhance uptake

## 3.1 Barriers

- Lack of knowledge among participants of environmental management processes about methods and data sources for assessment of ecosystem condition and ecosystem services,
- Insufficient integration of green infrastructure, nature-based solutions and ecosystem services approaches in legislation and strategic documents.

## 3.2 Needs

- Disseminate existing knowledge about the assessment of ecosystem services among administrative staff at different levels and embed a definition of ecosystem services in Polish law.
- Training activities for participants in environmental management processes.
- Enhancing the recognition of green infrastructure, nature-based solutions and ecosystem services in relevant national legislation and strategic planning.

These abovementioned barriers and needs were diagnosed in Cities' Partnership Initiative: Sustainable Development of Polish Cities in Areas of Digital, Green Infrastructure and PPP Solutions. Final report. The World Bank, 2023.

## 3.3 Recommendations

- Ecosystem services have particular potential for use in spatial planning when considering the effects of decisions on various land uses.
- It is necessary to include this approach in legal acts and disseminate it among experts.
- Ecosystem services should be introduced into legal regulations regarding environmental impact assessment for planned projects and strategic documents.
- With regard to urgent interventions, environmental impact assessment procedures should be accelerated, with due use of nature compensation in situations of overriding public interest.
- The implementation of ecosystem services in environmental management should take into account the analysis of all the natural, cultural and economic benefits provided by ecosystems.
- Assessment of aquatic and water-dependent ecosystem services should be developed within the framework of legal regulations regarding the reimbursement of costs of water services.
- The implementation of ecosystem services should be linked to ecosystem restoration activities resulting from the European Biodiversity Strategy 2030.
- The European Environment Agency plays an important role supporting the process of dissemination and implementation of ecosystem services into practice, which can and should be used by experts and in the activities of public institutions.

The above set of recommendations results from a seminar for representatives of central institutions on implementing ecosystem services as an approach to environmental management (22-23/06/2022), carried out as part of the "ECOSERVPOL" project "Services provided by the main types of ecosystems in Poland – approach applied.

# 4 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 reorganisation 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

23 participants took part in the first Polish CoP meeting. They represented 12 organisations and institutions.

### Representatives of the city hall and city authorities

- Municipal Affairs Department, Poznan City Hall (1 representative);
- Project Coordination and City Revitalisation Office, Poznan City Hall (3 representatives);
- Department of Environmental Protection and Agriculture, Gorzów City Hall (1 representative);
- Poznań City Council (1 representative).
- Poznań Metropolis Association (1 representative).

### Business

- EnviMap Co. (1 representative);
- Invest-Eko Co. (1 representative);
- Aquanet Retention Ltd. (2 representatives).

### Governmental organisations

- State Water Holding, Polish Waters, Regional Water Management Board, Poznan (1 representative);
- "Ujście Warty" National Park (1 representative).

### Science

- Department of Integrated Geography – SELINA project participants.

### NGOs

- Polish Allotment Gardeners Association, Gorzów Wielkopolski Branch (3 representatives);

The aim of the meeting was to exchange experiences, ideas and observations on how to achieve benefits from the environment while harming it as little as possible and how to implement solutions related to BD, EC and ES into practice that improve the quality of the human living environment.

The aim of the meeting was also to diagnose, on the one hand, the limitations and barriers in implementing BD, EC, ES issues into practice, and, on the other hand, to diagnose those factors that had a positive impact and stimulated the implementation of projects and programs related to BD EC and ES.

Although at the first meeting, we did not define seeds of change that could become the basis for transformational changes, we did diagnose stimulants and de-stimulants in the process of implementing BD EC and ES issues into programs and projects.

## 4.2 Seeds of transformative change

The CoP nominated 10 projects as seeds of change. Below a selection is described:

### Green kindergartens and schools in Poznań

**Greening playgrounds with:**

1. Improved quality of learning and development space for pre-school and school children (primary objective);
2. Positive impact on the local climate (site + neighbourhood) – green islands in the city;
3. Increased awareness and knowledge through practice of environmental issues, both among children, teacher staff, parents, neighbours, etc.

### Active Blue – a water-friendly school

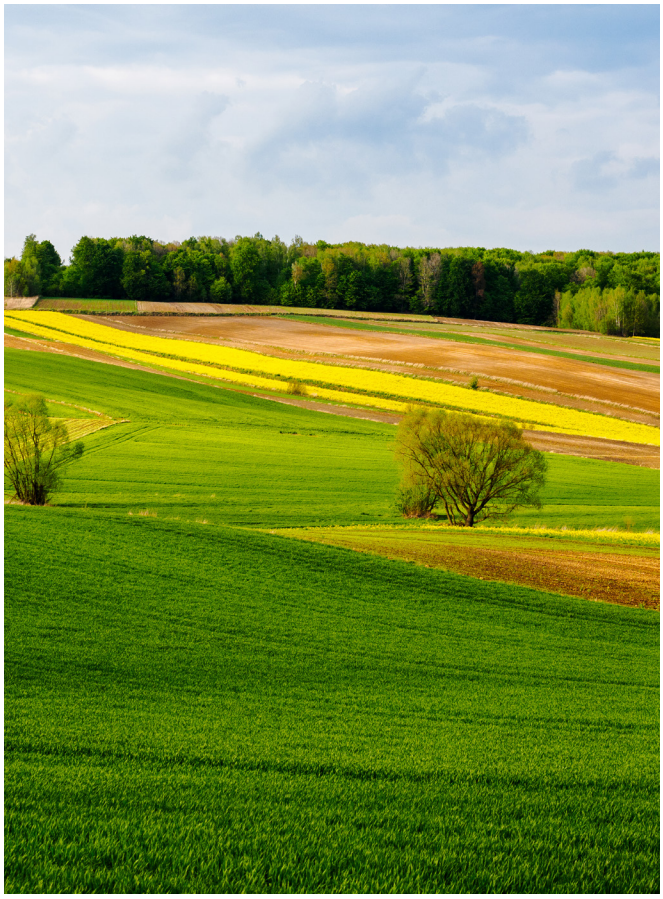
Promoting knowledge about sustainable water management, especially in environmental protection, flood protection, and preventing the effects of drought. Additionally, knowledge about water protection and the principles of safe water recreation is promoted.

### Biodiversity in allotment gardens:

1. Increasing public awareness of the role of biodiversity in allotment gardens;
2. Promoting pro-ecological attitudes and mobilising allotment gardeners to protect the environment;
3. Counteracting negative phenomena that destroy biodiversity, such as excessive use of pesticides, mineral fertilizers, burning, the problem of waste;
4. Preservation species richness of native species and varieties.

### Support of small-scale water retention and development of blue-green infrastructure in the Poznań Metropolis area

1. Protection of water resources of the Metropolis of Poznań;
2. Protection of biodiversity;
3. Development of blue-green infrastructure;
4. Elimination of urban heat islands;
5. Fight against droughts and floods;
6. Improvement of air quality.



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**Project duration:** 1 July 2022 – 30 June 2027

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

**Project coordinator:** Prof. Dr. Benjamin Burkhard, Leibniz University Hannover (LUH), Institute of Physical Geography and Landscape Ecology

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# PROJECT PARTNERS

- Leibniz University Hannover
- Stichting Capitals Coalition
- 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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- Foundation for Sustainable Development
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- 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
- KTH Royal Institute of Technology
- Croatian Forest Research Institute
- SEAcoop
- Macroplan
- University of Reunion Island
- Spatial Services
- Asplan Viak
- denkstatt
- Wolfs Company, part of Grant Thornton
- Ministry for the Ecological Transition and the Demographic Challenge
- ETH Zürich
- Joint Research Centre
- UNEP-WCMC
- South Atlantic Environmental Research Institute