

★ **SELINA** SCIENCE FOR EVIDENCE-BASED
AND SUSTAINABLE DECISIONS ★
ABOUT NATURAL CAPITAL

Country Fact Sheet
CROATIA



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Country Fact Sheet: Croatia (HR)

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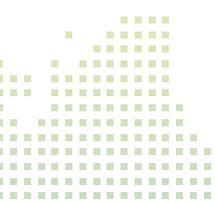
If you feel there are ongoing or upcoming research projects, policy initiatives or legislations, concerning the use of biodiversity, ecosystem condition and ecosystem services knowledge in decisions and policies, missing please contact inge.lieken@vito.be and we update the country fact sheet (until March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

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

1.1 Introduction

By becoming an EU member state in 2013 Croatia adopted EU legislative including EU Biodiversity Strategy. In that regard Croatia aligns with EU policies, which aim to map and assess ecosystem services, implement ecosystem accounting and integrate them into decision-making processes.

Mapping and Assessment of Ecosystems and Their Services in Croatia is the first study on mapping ecosystem services that was conducted at the national level. It produced a map of Croatia's ecosystems and their services in 2015. The map was created based on the 2012 CORINE Land Cover (CLC) database, in accordance with the methodology proposed by the European Commission (Maes et al., 2013, MAES Working Paper). According to this methodology, specific CLC classes are linked to corresponding classes from the EUNIS habitats classification, from which ecosystem classes are derived. Ecosystem accounting was also mentioned in this document. Study is available [here](#).

The Republic of Croatia recognised the importance of mapping ecosystem services and incorporated the concept into the document called **Strategy and Action Plan for Nature Protection of the Republic of Croatia for the period 2017 to 2025** (Official Gazette 72/17). Strategic Goal 4 (to increase knowledge and data availability on nature), Specific Objective 4.3 states: **Evaluate and map ecosystem services in order to assess their condition and improve them.**

Among the first projects in Croatia related to ecosystem services assessment was a study on **Freshwater Ecosystem Services** (2014) which was developed with a focus on water management and on lowland river ecosystem services. Further, in 2018 the Croatian Agency for Environment and Nature implemented a project titled **Reed Beds – Valuation of Freshwater Ecosystem Services**. Funded by a Eurostat grant in 2017 through the module “Knowledge Innovation Project on Accounting for Ecosystems” the aim of the project was to assess the value of ecosystem services in one ecosystem within the Republic of Croatia, with

an emphasis not only on the economic value of this ecosystem but also on testing new methods for ecosystem service valuation and promoting this approach across various layers in professional and scientific research in Croatia.

1.2 Projects since 2022

Croatia has seen significant progress in recent years related to ecosystem services, biodiversity and ecosystem condition with various studies, policy initiatives, and international projects contributing to the understanding and management of ecosystems in the country. Through Operational Programme Competitiveness and Cohesion 2014–2020 Croatia has conducted the following projects (which were all finalised at the end of 2023):

- **Coastal and bottom marine mapping habitats in the area of the Adriatic Sea under national jurisdiction – marine habitats** – Through this project the complete map for 51% of the area of coastal and bottom marine habitats in the Croatian territorial sea and epicontinental is prepared. **Data is freely available for observation.**
- **Development of a system for monitoring the state of preservation species and habitat types and reporting according to EU Birds Directive and Habitats Directive** – As part of the project, numerous studies were made in which all known data were analysed for 338 species of flora, fauna and habitat types from 18 groups: lichens, terrestrial flora and habitat types, birds, bats, small mammals, large animals (wolf and lynx), otters, freshwater fish, amphibians, reptiles, beetles, butterflies, freshwater crabs, leeches, molluscs, flatwings, dragonflies and marine invertebrates and marine mammals. This made an exceptional step forward in the knowledge of nature in the Republic of Croatia. Through the research both mapping and conservation status were analysed. Based on these analyses, Conservation Monitoring Programs for 338 species and habitat types were created. All the result are publicly available [here](#).



- **Development of a framework for environmental management for the Natura 2000 network** – Through this project, numerous research were carried out. The aim was to find out more about the distribution and condition of species and habitat types of certain natural areas for which there were too little data available so far. All results are publicly available [here](#).
- Out of recently, the Institute for Environmental and Nature Protection of the Ministry of Envi-

ronment and Green Transition is involved in the Biodiversa project **The European Biodiversity Partnership**. The activities of the Institute involve participating in the implementation of the project activities and they pertain to a) transversal themes of harmonizing nature status monitoring in the EU and b) harmonizing monitoring methodologies and programs for different groups or categories of animals, plants, and other organisms, as well as habitats and ecosystems.

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

Environmental Impact Assessment (EIA) is a process of evaluating the acceptability of a planned project concerning the environment and determining the necessary environmental protection measures to minimise impacts and achieve the highest possible preservation of environmental quality. This process is crucial for the **preservation of natural resources, human health, and biodiversity**. The assessment process is conducted at an early stage of project planning, before the issuance of a location permit or other approval for projects for which a location permit is not mandatory. This is prescribed by national legislation and harmonised with EU directives.

- **Leverage point/key moment:** becoming an EU Member State, harmonisation of national and EU legislation.
- **Uptake:** creation of legislative framework, duration of the process, administration

Assessment of Suitability for the Ecological Network is a procedure used to evaluate the impact of a strategy, plan, program, or intervention, both individually and in conjunction with other documents, on the conservation objectives and integrity of ecological network areas (Natura 2000). This assessment is important for the **preservation of natural habitats, species, and ecosystems**, and it also ensures that development projects do not jeopardise **biodiversity and the ecological functions** of these areas.

- **Leverage point/key moment:** establishment of Natura2000 network

- **Uptake:** creation of legislative framework, establishment of Natura2000 sites, writing plans and management programs for the Natura2000 network





3

Perceived barriers and needs to enhance uptake

3.1 Barriers

- Numerous stakeholders involved in the process that need to be coordinated.
- A lot of administration
- Business as usual
- Weak connectivity and exchange of experiences among stakeholders and ministries

3.2 Needs

- More funding for basic research that would enhance current knowledge and bring Croatia to a similar level with other EU states.
- Comprehensive overview of the status of ecosystem services, ecosystem condition, and biodiversity on a national level.
- Better connection and exchange of experiences among stakeholders and ministries.

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 really 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

The SELINA Community of Practice in Croatia was officially launched on January 11, 2024, with an on-line meeting hosted via Microsoft Teams. The event brought together 17 participants from 13 public and private institutions in Croatia, spanning sectors such as nature protection, environmental protection, higher education, water management, and government. At the meeting a representative from the Ministry of Economy and Sustainable Development responsible for nature protection was also present.

The kick-off meeting was organised by the Croatian Forest Research Institute, followed by an introductory

presentation on the SELINA project, highlighting its aims and objectives, with a particular focus on establishing the Croatian Community of Practice.

Throughout the meeting, participants engaged in discussions on various topics, including ecosystem conditions, ecosystem services, and ecosystem management, all of which are highly relevant to the SELINA project. Additionally, participants shared insights into their past and ongoing projects. e transfer of existing knowledge on this subject.



4.2 Seeds of transformative change

Through the online survey 5 projects were nominated as Seeds of transformative change:

■ **Green Urban Renewal Strategy for the City of Zagreb**

- Systematic and sustainable green and blue spaces management
- Zagreb green infrastructure network development
- Establishing circular space and building management
- Inclusive governance of green infrastructure development and circular space and building management

■ **CarEx – Care for Extensive grasslands**

- The CarEx project underscores key objectives focused on managing threatened dry grasslands in Natura 2000 sites: Kozjansko Park (Slovenia) and Žumberak Samoborsko gorje Nature Park (Croatia). The primary aim is to develop effective grassland management practices, with a central emphasis on mowing, ensuring biodiversity conservation, and evaluating its impact.
- The project endeavours to raise awareness about connecting corridors through educational activities, workshops, lectures, and participation in regional events. Dissemination of findings and best practices for dry meadow biodiversity preservation will be achieved through collaboration with other protected areas.

■ **Ecosystem services of reedbeds: mapping the selected reedbeds and discovering their ecosystem services**

■ **CA20138 – NETWORK ON WATER-ENERGY-FOOD NEXUS FOR A LOW-CARBON ECONOMY IN EUROPE AND BEYOND (NEXUSNET)**

- The main aim of NEXUSNET is to empower collaborations between European Union (EU) and international researchers and stakeholders with the objective to synthesise the

existing empirical Nexus research, and to define a concerted research agenda that promotes an integrated approach and produces an intellectual toolkit, demonstrating a clear link to improved resource management and governance outcomes that underlie the value of Nexus.

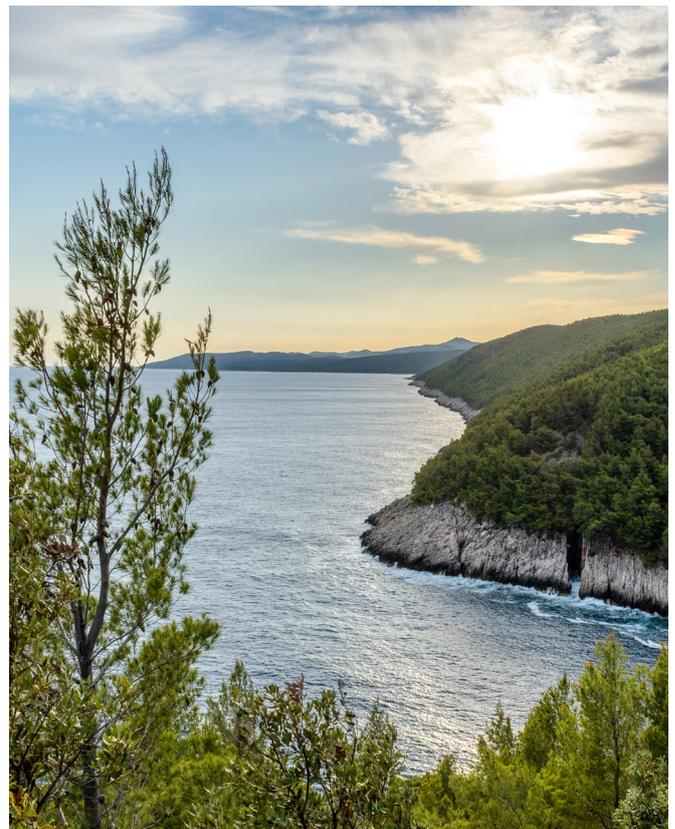
■ **Wetlands for brighter future**

- Riparian proper functioning condition assessment

■ **Restore4Life**

- Its 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”.

Partnership (The European Biodiversity Partnership | Biodiversa-plus | Project | Fact sheet | HORIZON | CORDIS | European Commission (europa.eu))



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
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-  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

