SELINA

SCIENCE FOR EVIDENCE-BASED AND SUSTAINABLE DECISIONS ABOUT NATURAL CAPITAL

Country Fact Sheet
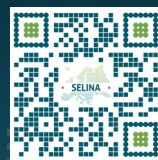# ITALY

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Country Fact Sheet: Italy (IT)

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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 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

The National Ecosystem Assessment of Italy, began in 2014, and just completed its biophysical evaluation with the production of the map of Ecosystems of Italy. The methodology used to produce the map is based on the integration of the CORINE Land Cover 2006 – CLC; the map of natural potential vegetation, which integrates climate, geo-morphology and vegetation data; the biogeographic regions.

The second, updated version of the Ecosystems Map of Italy, used as a reference for the implementation of biodiversity-related policies in the country, was released in 2023. The new version includes updated crosswalks between the Italian ecosystem typology and Corine Land Cover and EUNIS habitats, and a new crosswalk with the IUCN Global Ecosystem Typology.

The updated map was at the basis of the compilation of the Italian Red List of Ecosystems, also published in 2023. The identification follows the criteria and categories of risk defined by IUCN.

A large project funded by the European Union Next Generation EU was launched in 2023 with the name of National Biodiversity Future Center (NBFC). It is one of five national centres dedicated to frontier research and it involves an extensive national network of more than 1,500 researchers and 48 partner institutions, including universities, research centres, associations, and other private and social entities, committed to studying and preserving Italian ecosystems and biodiversity. In 2024, NBFC released the first annual report on biodiversity in Italy.

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

In February 2022, an amendment to the Italian Constitution added to Article 9 an explicit reference to biodiversity and ecosystems (*[The Republic] protects the environment, biodiversity, and ecosystems, car-* *ing also about future generations*). Moreover, the new version of Article 41 specifies that economic development must respect and protect health and environment along with safety, freedom, and human dignity.

3 ↗ Perceived barriers and needs to enhance uptake

The Italian National Biodiversity Strategy 2030 identifies needs and transversal areas of action in order to overcome existing barriers and to achieve its goals for 2030.

The main areas of action are:

- Strengthening the implementation and enforcement of environmental legislation

- Promoting a business way of thinking in favour of biodiversity

- Mobilizing funds in favour of biodiversity

- Improving knowledge, education, and training

- Ensuring the active involvement of civil society in decision-making processes and in the implementation and evaluation of policies

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 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

The Italian Community of Practice consists so far of 92 participants representing diverse sectors, including associations and non-profits, the private sector, research institutions, and public sector representatives. This first CoP meeting brought together 42 participants and focused on getting to know each other, finding cross-cutting objectives, and fixing how to operate within the community to foster collaboration and knowledge exchange.

The participants' main expectations are to create a network for exchanging experiences, knowledge, and best practices and to promote interdisciplinary dialogue. They wish to discuss best practices and analyse effective decision-making processes to improve biodiversity and ecosystem service management strategies. There is a shared interest in connecting with concrete knowledge and practices to enhance territorial planning strategies and actions. In this regard, the CoP is an opportunity to support policymakers in territorial planning.

The importance of creating networks and collaborations with entities and stakeholders within the CoP to facilitate idea exchange and cooperation on future projects has also emerged. In particular, there is a desire for dialogue with experts to understand how to facilitate decision-making processes and foster innovation.

The Italian CoP focuses on planning processes at different scales and for different sectors. Moreover, it aims to become a place for continuous learning and finding solutions to ecosystem services and biodiversity problems. It will enable dialogue among the scientific community, the private sector, associations, the public sector, and policymakers aiming to integrate these themes into their practices.

Participants have generally expressed a willingness to engage in activities that can contribute to developing and advancing methodologies for assessing ecosystem services and involving stakeholders in planning. Suggested activities include:

- Developing methodologies for biophysical and economic assessment of ecosystem services, including spatial modelling and creating sets of shared indicators.

- Designing outreach and engagement activities to raise awareness of communities about the importance of biodiversity.

- Elaborating common projects and project proposals on topics that have emerged during CoP activities and transdisciplinary collaboration on shared case studies.

4.2 Seeds of transformative change

Through an online survey a comprehensive list of 24 projects were submitted by CoP participants as potential "seeds of change". The following five projects have been provisionally selected for further and more in-depth analysis by virtue of their topicality and representativeness of different sectors and contexts.

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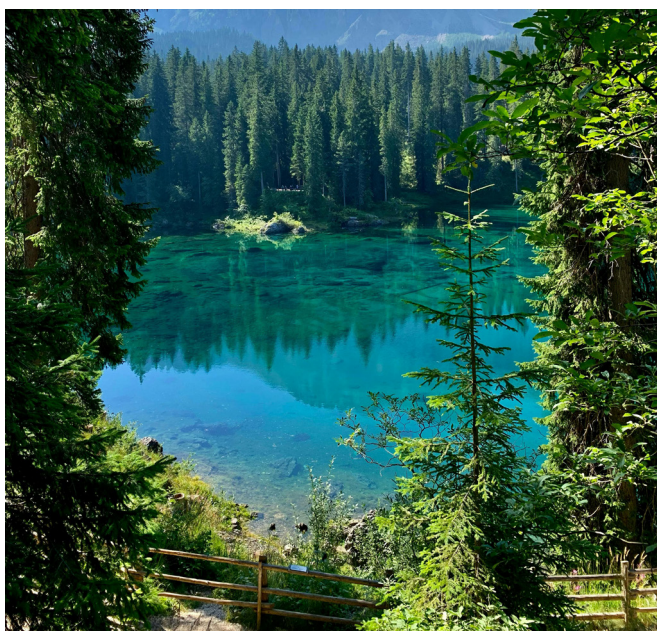
Vital – Restore Venice Lagoon Saltmarshes

- Vital - Restore Venice Lagoon Saltmarshes is an ambitious project aimed at the comprehensive restoration of the Venice lagoon ecosystem, integrating environmental sustainability with social benefits on a large scale

PROGIREG project – Reconverting post-industrial areas in the city of Tourin.

- The PROGIREG project in Turin focuses on transforming the post-industrial area of Mirafiori Sud into green infrastructure using innovative nature-based solutions (NBS). This effort is part of a larger initiative funded by the European Commission's Horizon 2020 program aimed at urban regeneration using natural methods.

'Forestami' – Increasing urban forests in the city of Milan.

- Forestami aims to transform Milan's urban landscape through extensive afforestation efforts by 2030, significantly boosting tree canopy cover and natural capital. Collaborating with partners like Politecnico di Milano, Città Metropolitana Milano, and local municipalities, the project engages a diverse array of stakeholders—from research institutions and public administrations to social cooperatives and businesses.

'Montagna, servizi ecosistemici e strumenti di governance in Toscana' – Enhance Ecosystem Services provided by mountains ecosystems.

- The "Montagna, servizi ecosistemici e strumenti di governance in Toscana" project is a comprehensive initiative aimed at valorising ecosystem services in the Tuscan mountains through innovative governance tools, notably Payments for Ecosystem Services (PES). Its primary goal is to develop robust management models, particularly under the framework of Italy's Law 221/2015, focusing on water-related ecosystem services in the Amiata and Mugello regions of Tuscany.

Urban, peri-urban, and extra-urban forestation initiatives in Italy' Metropolitan Cities

- The urban, peri-urban, and extra-urban forestation initiative is a pioneering effort aimed at tackling air pollution, climate change impacts, and biodiversity loss across Italian Metropolitan Cities.

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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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
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- National Research Institute for Agriculture, Food and the Environment
- 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

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