

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

Country Fact Sheet
ESTONIA

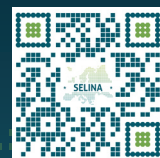


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Country Fact Sheet: ESTONIA (EE)

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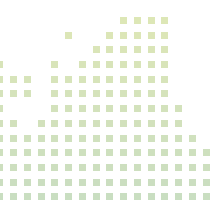
If you feel there are ongoing or upcoming research projects, policy initiatives or legislations, concerning the use of biodiversity, ecosystem condition and ecosystem services knowledge in decisions and policies missing, please contact inge.liekens@vito.be and we will update the country fact sheet (until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

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

Since 2016, Estonia has been constantly working on different aspects of ecosystem services mapping and assessment in various projects and initiatives.

In Estonia, the national MAES project ELME was launched in 2016 aiming to develop and implement novel biodiversity monitoring methods and perform EC and ES mapping and assessment in the country. After conducting several preliminary works, incl. compiling a roadmap for MAES, a countrywide mapping and assessment of the EC and ES of the main natural and semi-natural terrestrial ecosystem types was completed in 2020 (Helm et al., 2021). All map layers are open to use. **Project ELME 1 layers.**

In 2021–2023 in continuation of the ELME project, a nationwide assessment and mapping of the economic benefits of Estonian terrestrial ecosystems was performed (Helm et al. 2023). All map layers are to be found [here](#).

Marine ecosystem services (covering the exclusive economic zone area of Estonia) were assessed and mapped in 2019 within ELME and are being further elaborated in the course of other projects (e.g., project MAREA5). Several projects have also addressed urban and freshwater ecosystem services, but further work needs to be done.



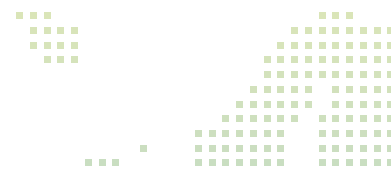
Examples of uptake in decision processes, regulations and/or legislation

The data of the ELME1 project are used in several projects and activities:

- ELME 1 Ecosystem Status Aggregate Assessment is used by the **Municipal Portal** (Status of Green Spaces in Local Authorities).
- The Estonian Environmental Development Plan KEVAD (2023-2035).
- Examples of work directly supporting spatial decisions include the **location analysis** of wind farms, which at the time of drafting this report is under further development.
- Among the examples of the use of the results of natural asset assessments, one of the most directly used applications is the biocontrol benefit assessment approach used for the intervention “Ecosystem services on farmland”, is part of payment schemes of Estonian Agri-Environmental Program. There are payment measures like, “Climate and environment action plan: conservation ecosystem services on farmland”, “Supporting bees forage area”.
- The ELME natural goods and ecosystem services layers have also been used in nature conserva-

tion planning, e.g. in the establishment of protected areas, more specifically in the justification of protection in the explanatory memoranda for the drafting of conservation regulations (e.g. Li-hula Nature Reserve).

- So far, the explanatory memoranda of the protection regulations have focused on the more easily described provisioning services (e.g. lost timber revenue from the protection), while the ELME assessments have been supplemented by climate regulation benefit assessments based on ecosystem-related carbon. However, in addition to the carbon sequestration benefit (which is one of the most frequently estimated and used in decision making in other countries), conservation management should start.



The data of the ELME 2 have already been used and will be used in several processes:

- **ENVIRONMENT – Land use planning, environmental impact assessment, master planning, green network planning, wind farm siting.**

The main research questions:

- Where are the gaps in the ecological and/or social functioning of the green network?
 - Where are there valuable ecosystems to be integrated into the network?
 - Where are the valuable ecosystems that need to be avoided?
 - Where are the places where the functioning of the network should be improved?
- **Conservation planning:** Delimitation of protected areas, habitat restoration, etc.

- **Accounting** (reporting, ecosystem accounts, etc.). Statistical Office, environmental accounts, **Municipalities**. Meeting strategic objectives (including input to indicators, metrics)
- **Measures, Support schemes.** Agri-environmental Program, Spatial planning of food production and forest management; Production that makes skilful use of nature's benefits (pollination, pest control, landscapes that avoid pesticide and fertiliser leaching, habitats that support soil fertility)
- **Basis for assessing land-use** changes, planning changes, Will be Use National Plan for 2050
- **Basis for further research,** implementation projects, Environmental awareness and everyday conscious use of nature:
- **At Universities:** Part of several courses.

3

Perceived barriers and needs to enhance uptake

3.1 Barriers

- Political will in some sectors, excessive focus on a single service (carbon sequestration), Forest sector
- Lack of significant understanding on the importance of environmental issues in general, both in society and decision-makers, especially at municipal level.
- Lack of funding for activities that are not required by the EU.

3.2 Needs

Continuous communication and knowledge rising at different levels with different stakeholders (i.e. educational activities for students; traditional mass media and social media news for society; stronger relations and dialog between science and policy representatives).





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 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

Within the context of SELINA a Community of Practice on ES was established.

In the kick-off meeting 15 participants attend, representing 8 organisations and institutions:



GOVERNMENTAL ORGANISATIONS

- Environmental Agency
- Ministry of Climate
- Ministry of Regional Affairs and Agriculture
- Agricultural Registers and Information Board (ARIB)



SCIENCE

Department Environmental Protection and Landscape Management, Estonian University of Life Sciences

The goals of the first meeting were:

- to exchange experiences, ideas, and observations on how to implement ES in practice.
- to discuss the limitations and barriers in implementing ES issues into practice.



NGOs

- Estonian Society for Nature Conservation
- Estonian Green Movement



BUSINESS

- Kobras Ltd (Environmental planning)
- Agron Ltd (Agriculture)



4.2 Seeds of transformative change

Only 1 project was nominated as a seed of change through the online survey, although in the uptake section of this country fact sheet several interesting projects are mentioned that could be potentially very transformative.

- LIFE project “Developing and demonstrating portfolio of nature based and smart solutions for improving urban climate resilience in Latvia and Estonia” (LIFE LATESTadapt)
 - Key objectives: To increase resilience of Estonian and Latvian urban areas to extreme weather events, by focusing on 4 specific objectives: nature-based solutions, digital change, quality of planning, engaged communities and skilled enablers.



5

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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
-  Rey Juan Carlos University
-  University of Salzburg
-  University of Bucharest
-  Flemish Institute for Technological Research
-  Foundation for Sustainable Development
-  Baltic Environmental Forum
-  Adam Mickiewicz University
-  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
-  SEAcop
-  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

