

Assessment of state of the marine environment: ECONOMIC AND SOCIAL ANALYSIS

A summary in English

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Economic and social analysis (ESA) assessment for the national updated MSFD Article 8 report

The previous economic and social analysis (ESA) of the national MSFD Article 8 report was developed in 2018.¹ The tasks of this updated ESA assessment included an improvement of the national approaches and assessments, taking into account current international and sea region approaches and recommendations, and development of the assessments for the period since the previous assessment. The results of the updated “Initial Assessment” ESA include assessments of all ESA elements specified in the MSFD (Article 8) and national regulations².

- The social and economic assessment of the use of marine waters includes assessments of the economic and social value of marine use by economic sectors (in accordance with the “marine waters accounts approach”) and a characterization of the impact of marine use activities on the marine environment, identifying significant pressures they create, an assessment of the welfare benefits to Latvian society from the marine “ecosystem services” (in accordance with the “ecosystem services approach”), and an assessment of significant social aspects related to marine use and protection.
- The assessment of future trends in marine use (also referred to as the “business-as-usual scenario”) characterizes the trends in future changes in marine use activities and the expected changes in significant pressures on the marine environment by 2030, taking into account the impact of the implementation of planned measures of the existing policies.
- The assessment of the cost of degradation of the marine environment provides monetary assessments of welfare costs to the Latvian society related to significant marine environmental problems in the Latvian marine waters.

The ESA of the use of marine waters covers economic activities that create significant pressures on the marine environment and sectors related to them that derive benefits from the marine use.

The added value and employment (in full-time equivalent) is estimated for the commercial marine fisheries (NACE A0311), fish processing (NACE C1020), maritime transport (NACE H5010 and H5020), maritime transport-related infrastructure and service sectors (NACE C3011, C3012, C3315, H5210, H5222, H5224, H5229 and F4291), sectors related to (serving) coastal tourism and recreation (based on travelling expenditure). In addition, the societal benefits are estimated in relation to the land based activities, creating significant nutrient pollution to the marine environment (such as agriculture, forestry and centralised sewage services), where the benefits are estimated based on avoided costs of nutrient treatment.

The results include also a comparison of the added value and employment for the years 2021 and 2016, and data characterising development trends of each sector since 2016, using a range of sector-specific “trend indicators”.

The socio-economic assessment of marine “ecosystem services” indicates that the **national welfare benefits from the marine “ecosystem services”** are measured in the hundreds of millions of euros per year. 60-95% of the Latvian citizens benefit from the various marine “ecosystem services”, assessing the welfare benefits as significant. The Latvian society attaches the highest importance to the welfare benefits from “regulating ecosystem services”, especially in relation to carbon sequestration and the regulation of hazardous substances, followed by the benefits from recreation by the sea and seascape enjoyment and from marine fish for human consumption. It is worth noting the significant share of Latvian citizens (81%) who attach value to the existence and preservation of marine habitats and species (the “existence value”

¹ AKTiiVS (2018) Jūras vides stāvokļa novērtējums. EKONOMISKĀ UN SOCIĀLĀ ANALĪZE. Available (in Latvian) at https://www.aktiivs.lv/wp-content/uploads/2025/08/Juras_novertejuma_ESA_2018.pdf.

² Regulation of the Cabinet of Ministers of the Republic of Latvia No. 1071 (23.11.2010) “Requirements for the assessment of the state of the marine environment, the determination of good environmental status and the development of marine environmental targets”.

of marine ecosystems), and this share is almost as large as the benefits from the marine fish for human consumption (84%).

Significant pressures on the marine environment caused by marine use activities that result in failing of GES include disturbance of species from human presence, fish extraction (including overfishing) and by-catch in fishing gear, introduction of new alien species, input of nutrients into the marine environment, water turbidity and browning, input of hazardous pollutants into the marine environment, and marine litter on the coast and in the marine environment.

The characterisation of the **future trend of changes in marine use activities** for the period up to 2030 indicates an expected significant increase in activities related to tourism and recreation on the coast, an expected increase in the volume of maritime transport activities and recreational shipping volumes, a small possible increase in economic activities on land with an impact on the marine environment (for example, in forestry), as well as expected new economic activities in the Latvian marine waters (the development of offshore wind power plants is expected). Assessments of expected changes in pressures on the marine environment, taking into account such trends in activity changes and the impact of ongoing and planned policy measures that could further reduce pressures and improve the state of the marine environment, indicate an expected decrease in most pressures, except for the species disturbance from human presence due to tourism and recreation, the water turbidity and browning, and physical disturbance to seabed (affecting soft bottom habitats). An unclear trend has been assessed for these pressures (a slight decrease or no change in pressure, or even a possible increase in the species disturbance from human presence due to tourism and recreation).

Responding to the need to better define and consider relevant social issues, a study was conducted in 2024, which aimed to clarify the **social aspects of the use and protection of the sea**, which are important for more effective protection of the marine environment, and therefore their assessment would provide support for the marine environment protection policy making. Within the scope of the ESA for the national “Initial assessment”, the analysis focused on social factors and aspects driving and influencing the use and protection of the sea, where the knowledge and information is necessary to improve the effectiveness of marine environment protection. Two themes were investigated – (i) the connection of people with the marine environment and the values related to it and (ii) the ocean literacy for behaviour change. The results provide an assessment approach and national assessments based on available data from national surveys, as well as summarise further development needs for improving the information base and for quantitative assessments and indicators to support policy-making.

The assessment of the cost of degradation of the marine environment shows the welfare losses to society from marine degradation compared to GES. The assessment covers significant marine environmental problems, where the status fails GES, including for the descriptors D1 “biodiversity” concerning benthic habitats, fish, seabirds and seals, for D2 “alien species”, for D5 “eutrophication” concerning nutrient pressure, for D8 “hazardous substances in the marine environment” and D10 “marine litter” concerning beach littering. The estimated cost of degradation to the Latvian society are on average 20.4 million euros per year (16.8 – 24.1 million euros with a 95% confidence interval). This assessment provides a value for the difference between the GES and the “business-as-usual scenario” (not the current state). The degradation costs related to hazardous substances’ pollution and marine litter are valued slightly higher than the costs related to the other assessed marine environmental problems.

A draft version of the ESA assessment was discussed with stakeholders at a national seminar organized by the Ministry of Climate and Energy on December 6 of 2024, and was provided for commenting as part of the public consultation on the national “Initial Assessment” (during January-February of 2025). The received comments and suggestions were considered for complementing the results and preparing a final version of the national ESA assessment.

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