

VALUABLE PRACTICE: Balancing social, economic and environment interests in offshore wind park development

Description

The case study aims to address land-sea interaction challenges by:

- i. Assessing the development potentials and trade-offs in the coastal areas;
- ii. Proposing spatial planning solutions, which would balance the national interest for development of the off-shore renewable energy with local community interests for maintaining of the coastal landscape and tourism development.
- iii. Proposing spatial planning solutions, which considers best options for biodiversity and ecosystem protection combining with off-shore renewable energy interests.

Multiple values of landscape and seascape were assessed.

More information on case study: https://land-sea.eu/wp-content/uploads/2022/01/LSA_Case_Study_Latvia.pdf

Practice typology

(ii) Monitoring, assessment and evaluation + (v) Others (public participation)

Topics addressed

Main	A. Climate change mitigation [A.1. Renewable energy production].
	B. Climate change adaptation [B.2 Protection of climate-sensitive marine and coastal biodiversity and ecosystems, and landscapes and B.3 Anticipation of climate change-related effects (B.3.3 Identification of unplanned areas to be used in future)].
	D. Biodiversity and ecosystem protection and restoration [D1.5 A coherent network of marine protected areas (D.1.5 Multi-use of the sea space: combination including biodiversity and ecosystem protection)].

Sectors/Activity involved

Multisector (if the practice is not related to a particular sector). The case study includes several sectors, but highlighted in particular:

- ✓ Coastal and maritime tourism;
- ✓ Offshore renewable energy;
- ✓ Landscape protection;
- ✓ Others (local community).

Stakeholders involved

The main stakeholder groups directly engaged in the case study are representatives of local authorities, national and regional environmental and nature conservation authorities, and other governmental institutions as well as representatives of the tourism and renewable energy production sectors.

Local knowledge collected from stakeholders on landscape qualities and important sites for recreation was used to supplement and verify the expert assessment. The anticipated offshore wind energy development is raising concerns among local communities regarding

negative impact on landscape and coastal tourism. At the same time, stakeholders are worried about expansive, uncontrolled tourism development and insufficient tourism infrastructure, resulting in damage to fragile coastal habitats and landscape.

Main purpose - stakeholders are involved in the co-design process of the future sustainable development strategy for the coastal area. This is done by balancing the interests of renewable (wind) energy production at sea with the development of coastal tourism, preservation of landscape and environmental quality.

Geographical scope

Local case study - the demonstration case at the Southwestern Kurzeme coast of Latvia and adjacent marine area. South-western coast of Latvia in the Eastern part of the Baltic Sea, including terrestrial part, up to 10 km inland from the shoreline, as well as a marine part, which includes the adjacent territorial waters and EEZ (Figure 1).

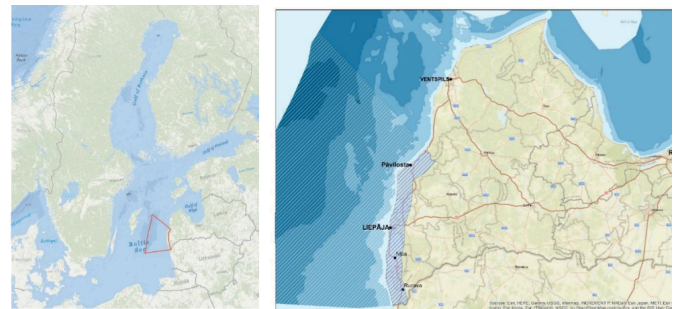


Figure 1. Local case study area.

Governance context

This practice addresses energy, environment and tourism governance at national level. However, as this is a multidisciplinary case, piloting shared competences (Horizontal - national level institutions, Vertical - sub-national level institutions) between sectorial policies, the practice was carried out in the context of MSP and coastal planning processes, that are led by Latvian Ministry of Environmental Protection and Regional Development.

How this MSP practice can support the EU Green Deal

The case study aimed to develop proposals for balancing national interest in offshore wind park (OWP) development with that of local communities in preserving the landscape and boosting coastal tourism and recreation.

For that purpose, multiple values of landscapes and seascapes were assessed by applying an ecosystem services approach. Particular attention is devoted to mapping and assessing landscape qualities.

The assessment results were applied in discussing alternative scenarios or pathways for achievement of ambitious goals for offshore wind energy production by 2050, which would be in balance with sustainable tourism development and preserving coastal landscape and nature assets. The results of scenarios development identified new areas in sea is to be considered for zoning of potential OWP development in revision process of national MSP.

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Challenges/gaps/inconsistencies still to be addressed

The main limitations of the approaches tested by the case study are related to scarcity of data and knowledge on structures and functions of marine ecosystems. In Latvia detailed mapping of benthic habitats have been performed so far only in the coastal waters for designation of marine protected areas.

Another important limitation is shortage of knowledge of cumulative impacts of different pressures caused by construction of OWP. Accumulation of evidence-based knowledge on adaptation of marine ecosystems to OWP infrastructure could produce contrasting results with regard to analysed ecosystem functions (i.e., underwater constructions of OWPs can serve as artificial reef providing habitat for algae or mussels) thus also changing provision of ecosystem services and its contribution to human well-being.

Also, the assessment of the coastal inland landscapes and ecosystem services at the scale of landscape units is rather data and labour intensive (e.g., some of landscape qualities can be assessed only by experts at the site, thus requiring systematic field surveys).

Variability of parameters used - technological possibilities evolve and therefore an assessment made at a given point in time may become inappropriate after some time, for example the height of wind turbines and the visual attractiveness of the landscape.

Replicability /Elements which can be capitalised

Main approaches and concepts study case applied that might be replicable:

- i. Ecosystem services and landscape assessment using combined/multiple methods:
 - ✓ The method for mapping and assessing landscape units can be replicated based on the indicators used in the case study, as well as ecosystem service assessment.
 - ✓ There are gaps in knowledge about ecosystem services, calculation approaches may vary due to the granularity of the data (replicability may require a flexible approach in terms of indicators and data).
- ii. Participatory methods/stakeholder engagement in mapping of cultural ecosystem services and defining objectives for coastal development:
 - ✓ Participatory approaches for themselves (e.g., workshops, surveys, participatory GIS) might be used to verify results through incorporating people's experiences, perceptions, and local knowledge.
 - ✓ Participatory GIS method and surveys may be replicable to collect spatial information and opinions about sites important for stakeholders.
 - ✓ Advanced preparation required, as well as careful checking of the results (one of problem using participatory GIS – sites can be added in different scales, which may cause misinterpretations). The result may also depend on stakeholder skills.

- iii. Scenario building by applying “target-seeking scenarios method” and assessment of scenario impacts to coastal ecosystems, services and human well-being:

- ✓ Participatory scenario building methods allow to explore different development alternatives and spatial options considering stakeholders views and local knowledge.

The multi-level governance idea contained in the case study is further developed and refined in another project called Baltic Sea2Land.

More information on project results: <https://land-sea.eu/results/>

