

# REPLICABILITY AND TRANSFERABILITY STRATEGY

LIFE19 NAT/LV/000973 LIFE REEF

Research of marine protected habitats in EEZ  
and determination of the necessary  
conservation status in Latvia

Deliverable of Action A.6



## Introduction

Latvian coast of the Baltic Sea belongs to the most exposed shores of the Baltic Sea, hosting two habitats protected by Habitats Directive – 1110 Sandbanks and 1170 Stony Reefs. Sandbanks permanently covered by seawater are typically elevated over the surrounding seabed and colonised by a burrowing fauna of worms, crustaceans, bivalve molluscs. Sandbanks



are important fish nurseries and feeding grounds, attracting also diving bird species. Stony reefs are one of the most prominent, ecologically significant habitat types in the Eastern part of the Baltic Sea, and considered as a biodiversity hotspot for attracting invertebrates, fish, birds and plants. Stony Reefs are areas of hard substrate (rocks, boulders and pebbles) surrounded by patches of sand.

**The goal** of the LIFE REEF Replicability and Transferability strategy is to share knowledge, experience and advice to encourage not only Baltic Sea region but also other Marine Biogeographical regions in Europe to ensure protection of unique marine habitats and species. Analysis of obtained data, developed plans and indicators will make a significant contribution for implementation of other projects. Strategy will make a role in development and implementation of policy and planning documents affecting Baltic Sea, for example wind-park development, extraction of hydrocarbons, planning of fishery plots etc.

According to requirements of guidelines of LIFE programme and to ensure sustainability of LIFE REEF project results, replicability and transferability of the project has wide context. Replicability and Transferability strategy include not only practical recommendations to facilitate transfer of LIFE REEF results in other organisations, sectors, entities, regions and states, but also provides short descriptions of technical needs to implement concrete actions in field and actions that need to be assured in order to replicate LIFE REEF results.

**The main tasks** of the replicability and transferability strategy is to:

- identify potential target groups and stakeholders to disseminate results,
- identify channels of the communication and networking to replicate practical solutions;
- ensure description of technical needs to implement concrete actions in field and papers.

Replicability and transferability strategy is going in close steps with Communication Plan of the LIFE REEF project to ensure extensive application of results not only during the project but also long term after it ends.

## Sinergy of the project activities and results

In order to ensure replicability and transferability of the LIFE REEF project results, it is important to identify relevant project actions that fit for replication. Therefore synergy between actions of the project plays important role.

Through results of actions A.1 and A.2, action A.3 is implemented in field to identify potential marine protected sites to develop MPA network in the Baltic Sea. Further results of A.3 will be summarized in development of proposals (action C.1) for new marine protected areas for Natura2000 network and in development of management plan (action C.2) for all marine protected areas in Latvian marine waters. Results of action A.3 will play important role in preparation of documentation in actions C.3 and C.4 where action plans for limiting invasive alien species and scientific advice for updating national fishery management in Latvia will be prepared. It may be considered that transferability of the project results will be reached through all preparatory and conservation actions, implementation of these actions can be rated as important tool for similar marine regions with similar needs to develop network of marine protected areas and protection of marine habitats and species.

## Communication and communication channels



Transfer of knowledge and results of LIFE REEF goes in a close synergy of action E.4, where Communication Plan of the project is designed. The main aim of the LIFE REEF Communication Plan is to provide high-quality information on the needs of identified audiences, promote audience-friendly attitudes and engage in the achievement of the Project objective by promoting sustainable use of the results of the project. Successful

transferability and replication of the project knowledge would promote impact of LIFE REEF results



not only in Latvia but also abroad. There are identified several channels through which awareness of marine ecosystem of Baltic Sea will be raised within the help of communication, for example through agencies of News, television, radio, social media, environmental advertising points, posters, seminars, workshops and direct contacts such as individual appointments and discussions etc.

Participation in planned workshops and seminars (action E.5) of the project will promote public awareness of potential and already identified stakeholders as well as will promote experience exchange with other organisations and projects dealing similar nature conservation issues and management interests.

Transferability and replicability of the project can be classified in two levels. It is planned to organize special seminars/workshops of involved scientists of the project with the experts abroad to discuss different kind of marine themes, for example development of criteria for evaluation of the protected marine habitats and seminars for fisherman to present potential round goby fisheries management methods. After the workshops knowledge that will be gathered from experienced colleagues abroad will be transferred to local society when relevant documentation will be designed in local level. This will ensure not only transfer of information but also the enhancement of knowledge and skills for stakeholders.

As the potential stakeholders were identified already in project proposal stage, it is important to determine detailed breakdown according to engagement of each stakeholder and its interests.

## Involvement of stakeholders

**Primary stakeholders** for the project are all representatives of high-level public sector, such as ministries and municipalities that can ensure high level engagement of transferability and replicability of the project results. High-level public sector is responsible for editing and confirmation of all planning documentation that is prepared by any project. High-level public sector



usually has access to all databases so the most valuable and crucial information is included in confirmation of important documents to reach most effective results and decisions. High-level public sector that is directly related to confirm all documentation prepared by LIFE REEF project are Ministry of Agriculture and Ministry of Environment and Regional Development. These ministries will directly confirm documentation prepared by LIFE REEF and pursue further development of political documents to ensure transferability of results at transnational level.



**Secondary stakeholders** for the project are research institutes and higher education institutions such as universities. The main character of these stakeholders are their knowledge and experience base and capacity to participate in development of the documentation as consultants and partners to ensure general reputation of the project results. The main secondary stakeholders in LIFE REEF project are thought to be

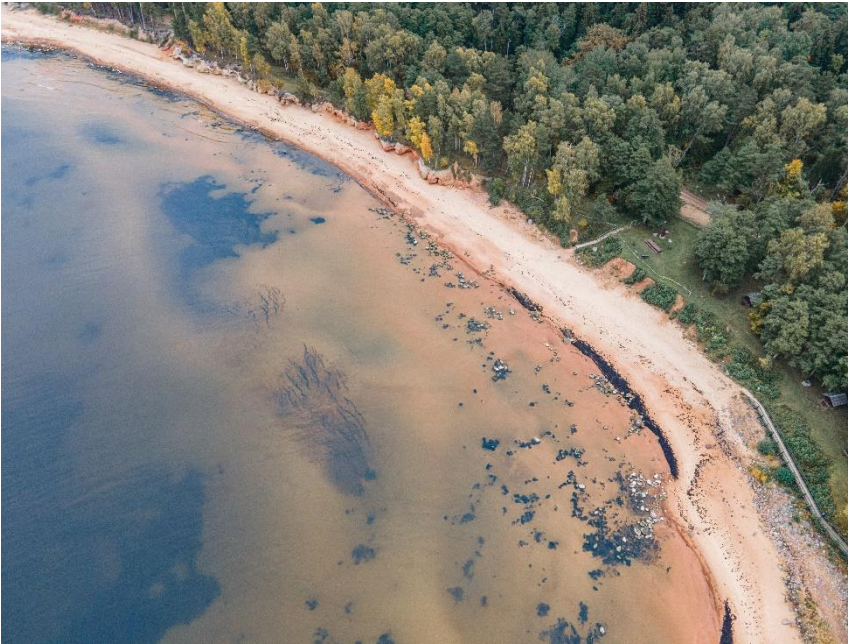
experts abroad which will be invited to discuss different kind of solutions with transferring their knowledge to educate scientists of LIFE REEF project staff.

**Third party stakeholders** are meant to be representatives of non-governmental and private sector such as fisherman, developers of wind power station parks, representatives from tourism associations, developers of hydrocarbon etc. Participation of these stakeholders to develop documentation of LIFE REEF are meant to be in high level to include and balance all of the interests through nature conservation of marine biodiversity in Baltic Sea. Third party stakeholders are thought to be the main audition that will transfer results of LIFE REEF to develop different kinds of business interests in Baltic Sea.

## Transferability of LIFE REEF project results

LIFE REEF will improve the knowledge base for planning the use of Baltic Sea in many directions and will contribute directly to the implementation of Plans, Nature Strategies and Directives not only in level of Latvia, but also European Union. Given list of Plans, Strategies and Directives describes more precise, how results of LIFE REEF will be transferred and replicated.





### Marine Spatial Plan 2030

Cabinet of Ministers with Order No.232 of 21 of May 2019 approved Maritime Spatial Plan 2030 for the Marine Inland Waters, Territorial Sea and Exclusive Economic Zone Waters of the Republic of Latvia. The Maritime Spatial Plan (hereinafter – MSP) is a national level long-term spatial development planning document that defines in writing and graphical form the use and conditions for the use of the sea for the inland waters,

territorial sea and exclusive economic zone waters of the Republic of Latvia.

According to the Plan of measures for the implementation of MSP, Actions A.1 and A.2 of LIFE REEF provides information for Measure 2.1, that defines to update information regarding ecologically significant areas and distribution and condition of habitats/species, based on the latest studies and monitoring data. Action A.6 of LIFE REEF provides information for MSP Measure 2.2, that defines the distribution and supply of marine ecosystem services according to internationally approved methods. Actions C.3 and C.4 of LIFE REEF provides information for MSP Measure 2.3 that defines to analyse and assess spatial distribution of significant fish spawning grounds and nursery grounds.

Figure 36 of MSP about Priority use of marine space in Baltic Sea shows that there is partial overlap between nature values research zones (B1, B2 and B3) and research areas for wind park development (E1, E2, E3 and E4). Under LIFE REEF project Action A.3, nature value research activities will be carried out in MSP areas that are overlapping – B1 and E1, E2 and B3 and E4. The results of the project will determine areas where wind park installation will not destroy nature values, wind park developers will be able to use LIFE REEF results for documentation preparation that is needed for installation of wind parks.

### EU Biodiversity Strategy 2030

According to EU Biodiversity Strategy 2030, which is a long-term plan to conserve nature and reverse the degradation of ecosystems, one of main objectives is to make at least 30% of the Earth's waters into efficiently managed protected zones. Within LIFE REEF project Latvia will take the final steps to meet requirements of EU Biodiversity Strategy 2030 in protection of marine waters in the Eastern part of the Baltic Sea. Based on Biodiversity Strategy 2030, the main aim of the project LIFE REEF is to define justified conservation status of protected habitats and contribute to a comprehensive management system of marine protected areas in Latvia.

## The Habitats Directive 92/43/EEC

Results of LIFE REEF Action A.3 will provide full species and habitat investigations in 4116 km<sup>2</sup> wide area of the Baltic Sea. All obtained results will provide data for reporting on the conservation status of habitats and species in Baltic Sea.

## Marine Strategy Framework Directive

Descriptor 1 of the MSFD provides a definition of Good Environmental Status in relation to biological diversity. Descriptor D6 of the MSFD Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems are not adversely affected. LIFE REEF with Actions A.1 and A.2 will provide data and results so the Marine Strategy Framework Directive is implemented in Latvia.

## Law on Environmental Impact Assessment

According to Law on Environmental Impact Assessment, environmental impact assessment needs to be performed for different kinds of activities to assess the possible impact of the implementation if intended activities or a planning document on the environment and to develop proposals for the prevention or decrease of negative effects or to prohibit the initiation of an intended activity in case of the violation of the requirements laid down in laws or regulations. One of actions that require an Initial assessment, is construction of wind farms. According to Law on Environmental Impact Assessment, Cabinet of Ministers with Order No.18 of January of 2015 announced Procedures for Assessing Environmental Impact of the Expected Action and Accepting the Expected Action. Construction of wind farms can cause impact on already existing and also potential Natura2000 sites. The Cabinet of



Ministers with Order No.300 of April of 2011 announced Procedures for Assessing Impact on a Specially protected Nature Territory of European Interest. All assessment reports, according to national legislation, must contain extensive information. Results of Action A.3 of LIFE REEF project will provide already mapped habitats and species in Baltic Sea in regions where potential wind-farms



could be installed so there will be eased assessment of environmental impact of potential wind-farms in Baltic Sea.

### Guidelines of Environmental Policy 2021-2027

According to Guidelines of Environmental policy 2021-2027, Result of Political Goal *No.PR6.1. Ensure the conservation of biodiversity* is to finalise network of Natura2000 in Latvia. With the action C.1 LIFE REEF will provide developed proposals for three new MPA for Natura2000 network what will provide nature conservation of marine waters.

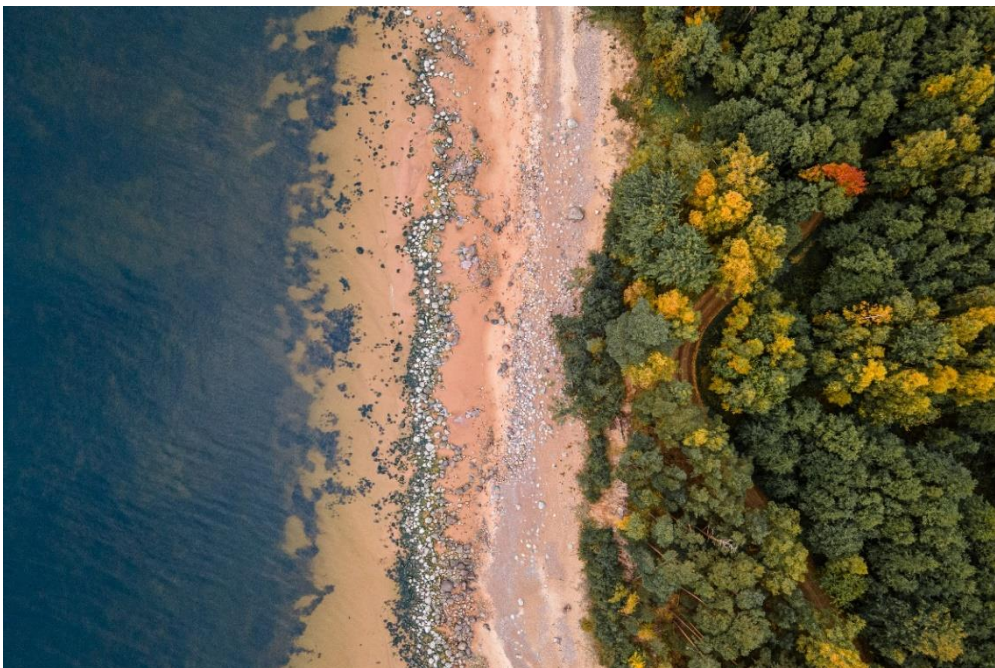
### Guidelines of Science, Technological Development and Innovation 2021-2027

According to Guidelines of Science, Technological Development and Innovation, it is important to promote the development of a smart, technologically developed and innovative society in Latvia. Significant steps will be taken to improve the recovery of research human capital in order to promote both the development of science sectors and closer links with industry and full participation in international research projects. In LIFE REEF staff there are several new scientists that participate in field studies and implementation of the project at the same time provides the introduction of these Guidelines in Latvia.

### Bioeconomy Strategy 2030

One of the goals of Bioeconomy Strategy 2030 is to maintain and make sustainable use of oceans, seas and their resources to ensure sustainable development. The resources of the most important

fish species in the fishery at the sea are limited but at the same time there are species which are not fully exploited, include invasive alien species. Within the LIFE REEF project action C.3 it is planned to develop an action plan for limiting impact of invasive marine species at the same time offering possibilities to use invasive alien



species as an economically important fish species. Development of scientific advice for updating of national fishery management in Latvia (action C.4) will form the implementation of Bioeconomy Strategy at its best.



## Methods to ensure replicability of LIFE REEF investigation results

In order to ensure replicability of the LIFE REEF project, some technical specifications need to be followed and assessed as a list of steps and baseline in researching and determination of protected marine species and habitats.

The investigation of marine protected areas, species and habitats in LIFE REEF are carried out in the offshore conditions of the Eastern Baltic Sea.



Research of marine environment in LIFE REEF project covers lots of interests. For replicating LIFE REEF research results, there is suggestion to split tasks and investigations to several working groups covering all kinds of knowledge, using suitable equipment and transport to make success and to ensure most of possible information that can be collected during field studies. If in any other sites of Baltic Sea or marine biogeographical regions same tasks as in the LIFE REEF Action A.3 are done, replication of LIFE REEF will be successful.

**Investigation of benthic habitats and species by scuba-diving** is realised for collecting benthic samples which are further analysed in laboratory.

**Acoustic research with side-scan sonar** of the sediment surface layer is used to identify the geomorphological parameters of the sediment surface layer of the marine territories, supplementing them with bathymetric information. The outcome of investigations contains georeferenced map of geomorphology and depth which allows to assess the substrate's compliance with protected habitat definitions, identifying Stony Reefs 1170 and Sandbanks 1110.

**Assessment of the complex fish communities** and abundance is used for the purpose of hydroacoustic records, fish records with nets, technical production of samples of ichthyoplankton, oceanographic parameters and underwater video filming. Hydroacoustic recording in LIFE REEF project is carried out in accordance with the methodology described in "ICES Manual for International Acoustic Accounts of the Baltic Sea (SISP8-IBAS), version 2.0, 2017". For net research LIFE REEF project uses Nordic Coastal type nets. One Nordic Coastal net is 45meters long, 1,8meters high and consists of nine five-meter net panels with mesh size of different net-eye sizes – 30, 15, 38, 10, 48, 12, 24, 60 and 19 millimetres. Samples of ichthyoplankton are collected with ichthyoplankton

net IKS-80 with the eye size of 500 µm with the assistance of winch. In each station oceanographic measurements (temperature, oxygen and salinity) with the profiling hydrological probe are performed as well as underwater video filming.

**Avio-counting of birds in marine waters** is used to determine if marine waters are important for birds and which species of birds. LIFE REEF project uses avio-counting method according to methodology of "Auniņš, 2017. "Putnu uzskaites no lidmašīnas. Aviouzskaišu veikšanas metodika". Rīga, 37 lpp". Not only avio-counting results gathered during the project, but also data from state monitoring programme are transferred into data analysis to determine important sites for birds in the Baltic Sea.

All the outcomes of mentioned methods will form the basis of area designation as marine protected areas as well as outcomes will be the basis to develop all the national documentation that will be designed within the LIFE REEF project. Methods are internationally approved, adjustable, transferable and replicable for any marine biogeographical conditions.

## Conclusion

Replicability and transferability of the project results must be provided not only during the implementation of the project, but also long term after its ending. To ensure transferability of the project, it is important to determine suitable financial resources. One of the ways to ensure essential part of transferability of LIFE REEF project results would be to attract fundings from EU for new projects to continue to monitor and manage gathered results at its best possible way.

It is important to ensure transferability of LIFE REEF results not only in marine region of Baltic Sea but also in other marine biogeographical regions where marine protected habitats needs to be protected, monitored and managed.

It is possible to ensure replicability of LIFE REEF project results in other marine biogeographical regions if the same criteria of evaluation of marine habitats and assessment of marine protected areas are used.

All photo credits to Jānis Ukass