Towards a Pilot Maritime Spatial Plan for the Lithuanian Sea

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Executive Summary

Planning of Lithuanian maritime space is a complementary exercise carried out in the framework of BaltSeaPlan project. In general maritime spatial planning is not yet fully introduced in Lithuania. The attempt to make necessary amendments to existing planning legislation in order to be applicable for marine environment was embedded in the National Action Plan of the Strategy of Baltic Sea environment protection 2010-2015. This supposed to be the legal background for formal MSP process to be launched in autumn 2011. Activities planned within the BaltSeaPlan where focused on development of the purposive scheme of Lithuanian MSP and implementation of relevant to date actions, such as assessment of national legal framework and identification of MSP related strategic targets, creating the marine oriented database of relevant information layers, screening the conflicting and companionate sea uses, screening for the methodology for missing data acquiring and solving specific spatial and sectorial conflicts. Significant part of this work was dedicated to public awareness raising: identification of stakeholder groups, exploratory analysis of stakeholder priorities, expert consultations and testing of alternative stakeholder involvement methods in the MSP context in Lithuania. Moreover, during the project implementation an exploratory analysis of stakeholder priorities has been conducted, Lithuanian authorities and key stakeholders have been introduced to integrated MSP concept through a variety of stakeholder involvement and novel awareness raising techniques. Thus the scene for the up-coming MSP processes was set and new experience and know-how for future stakeholder involvement area has been generated.

The process Towards a Pilot Maritime Spatial Plan for the Lithuanian Sea was organized in several consequent steps:

1st step. Identification of the team and an assessment of the organizational and institutional capacity for MSP implementation. This had to go along with the analysis of existing legal framework and feasible financial resources needed for implementation of spatial planning process – i.e. developed MSP work plan;

2nd step. Delineation of area where MSP is needed, setting the spatial and time scale for the Plan as well as identification (or mapping) of relevant stakeholders;

3rd step. Identification of interests of involved stakeholders as well as national priorities. This involves analysis of the existing visions and strategies on international, national, regional and local level; identification of strategic coherence and potential conflicts.

4th step. Analysis of existing ecological and socio-economic conditions: biodiversity assessment, evaluation of trends and possible impacts induced by climate change as well as development trends;

5th step. Mapping of current use - mapping of spatial distribution and identification of existing spatial conflicts, analysis of legal basis for existing uses including possibilities for revisions, compromise;

6th step. Identification of existing problems and conflicts ("hot spots") with regards to actual environmental sensitivity and changing socio-economic situation.

The implemented study and related stakeholder consultations and discussions confirmed that main spatial conflicts are related to new activities entering the maritime area of Lithuania. In particular those are relevant for offshore wind energy plans versus new protected areas development competing with existing commercial fishing territories.

The study did not reveal the particular conflicts, but has classified the identified uses according to the existing limitations, restrictions and potential impact for other uses. Special methodological hints have been proposed when dealing with areas of different level of limitations and spatial flexibility. The areas have been divided into:

> areas of special concern – determined by certain risks, existing assets, particular sensitivity, specific environmental conditions, etc. Sea user planning new activity in those areas just needs to consider existing risks, foresee mitigation measures, avoid specific obstacles, etc., but does not need to compete for the sea space;

> areas already reserved (occupied) by other users with specific regulations and restrictions. New uses, apart of general concerns mentioned above, have to consider compensation measures, re-planning and negotiation process;

> priority areas - most suitable for specific uses. Those are the main discussion object as different uses can apply (be nominated as potentially feasible) for the same sea space;
We also tried to speculate what kind of conflict could appear if areas of different type would compete for the same sea space. In general, the study assumes that depending on level of conflict all cases are manageable, but different actions/measures have to be taken/applied: priority assessment, mitigation measures, avoidance of specific sensitive areas/assets, compensation measures, feasibility studies including cost efficiency assessment, strong national priority status, high level priority assigned, re-planning (planning).
1. Introduction

1.1. The Pilot Project

The area of Lithuanian maritime space is not more than 7000 km² including the area of Curonian Lagoon. It boarders with marine areas of Latvia in the north, Russian Federation (Kaliningrad oblast) in the south and Sweden in the west (Fig. 1). This relatively small area accommodates multipurpose, universal, deep-water port of Klaipėda, recreational port recently being under the reconstruction in Šventoji and number of small jetties, UNESCO World Heritage site in Curonian Spit, oil terminals in Būtingė and Klaipėda, offshore military polygons. Recently, certain areas have been reserved for offshore wind energy developments and sand extraction purposes, there are also studies initiated to find suitable place for LNG terminal. All these activities together with new planned underwater high voltage electricity link to Sweden intersect with fishery areas also traverse the area of dumped chemical weapons, Natura 2000 sites.

![Figure 1 Pilot area - Lithuanian Sea](image)

The area of Lithuanian EEZ is delineated by sets of coordinates (WGS 84) defined according to the Decision of Government of Republic of Lithuania (issued on 6th of December, 2004, No. 1597, Vilnius). Boarder in the South between Republic of Lithuania and Russian Federation is defined as set of nodes:

- N 55° 16', 850', E 20° 57, 223';
- N 55° 23', 040', E 20° 39, 227';
- N 55° 38', 175', E 19° 55, 466';
- N 55° 55', 420', E 19° 02, 805';
- N 55° 55', 921', E 19° 01, 268'.

Boarder in the West between Republic of Lithuania and Sweden is defined as set of nodes:

- N 55° 55', 921', E 19° 01, 268';
- N 55° 57', 300', E 19° 03, 983';
- N 55° 58', 867', E 19° 04, 817';
- N 56° 02, 433', E19° 05, 600';
1. Introduction

Boarder in the North between Republic of Lithuania and Republic of Latvia is defined as set of nodes:

N 56° 02, 725', E 19° 05, 783'.

1.2. Project Objectives

The demand for maritime space in Lithuania increased dramatically during past several years. Main driving force is offshore wind energy development, initiated by national and foreign investors. Additionally, reconstruction of existing and development of new port facilities; underwater electricity and oil pipelines concepts; plans to develop LNG terminal; expansion of Natura 2000 sites; implementation of the Strategy for the Baltic Sea Region1 targets – all this requires comprehensive maritime space planning and proper management.

Planning of Lithuanian maritime space is a complementary exercise carried out in the framework of BaltSeaPlan project. In general maritime spatial planning is not introduced in Lithuania. The attempt to make necessary amendments to existing planning legislation in order to be applicable for marine environment was embedded in the National Action Plan of the Strategy of Baltic Sea environment protection 2010-2015 (by order of the minister of Ministry of Environment No. D1-934, 2010-11-19). This supposed to be the legal background for formal MSP process to be launched in autumn 2011. That is why activities planned within the BaltSeaPlan where focused on development of the purposive scheme of MSP and implementation of relevant to date actions, such as compilation of current sea uses in order to identify potential conflicts and synergies, to assess the national legal framework and identify MSP related strategic targets. Significant part of this work was dedicated to public awareness raising: identification of stakeholder groups, exploratory analysis of stakeholder priorities, expert consultations and testing of alternative stakeholder involvement methods in the MSP context in Lithuania. Further planning actions were not involved within the scope of current study, but will be completed within in the framework of national project “Extension of spatial solutions in the marine area of Republic of Lithuania” announced in November 2011.

It could be stated that BaltSeaPlan project had a significant influence on national MSP process by creating the marine oriented database of relevant information layers, screening the conflicting and companionate sea uses, screening for the methodology for missing data acquiring and solving specific spatial and sectorial conflicts. Moreover, during the project implementation exploratory analysis of stakeholder priorities has been conducted, Lithuanian authorities and key stakeholders have been introduced to integrated MSP concept through a variety of stakeholder involvement and novel awareness raising techniques. Thus the scene for the up-coming MSP processes was set and new experience and know-how for future stakeholder involvement area has been generated.

1.3. Working Environment

The activities planned within the framework of the project where perfectly in line with changes in thinking regarding management of marine environment, land-sea interconnection and development of new sector of commercial activities that demand for allocation of sea space for certain uses. Implementation of EU recommendations and directives, especially those that have direct impact on marine environment and sea-land interconnection, i.e. Recommendation on implementation of Integrated Coastal Zone Management (2002)2, Marine Strategy Framework Directive (2008)3, Habitat (1992)3 and Birds (2009)5 Directives, made the MSP topic

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www.baltseaplan.eu
1. Introduction

extremely apposite. Despite the European level initiatives to foster maritime spatial planning, the demand for maritime space allocation for specific uses was continuously increasing due to the new sea users, such as wind energy developers, oil extraction prospects emerging and developing. At the same time quite a number of marine related projects have been planned, those are – offshore LNG terminal development, reconstruction of Šventoji sea port, NORDBALT offshore HVDC energy link between Sweden and Lithuania, deepening of the Klaipeda port and thereby changing the shipping traffic pattern, new projects related to expansion of Natura 2000 sites and other matters. General support from the Ministry of Environment – authority responsible for the spatial planning in Lithuania and development of marine research, education and business centre – “Baltic Valley” made working environment at the Coastal Research and Planning Institute (CORPI) of Klaipeda University extremely suitable for coordinated actions in the field of integrated management of marine related affairs.

Meanwhile, it has to be taken into account that stakeholder involvement had to actually be modelled outside of the official MSP process which has not yet been started in Lithuania at the time, somewhat hindering effective participation of some interest groups. Therefore project activities were mainly focused on stakeholder analysis, consultation, public awareness raising and education based on the primary objective of setting the scene and creating preconditions for consolidating actors and mitigating potential conflicts identified during the initial planning stages.

2. Planning Organisation and Process

2.1 Working Group

The Pilot MSP for the Lithuanian Sea was implemented by two project partners – CORPI and Baltic Environmental Forum Lithuania (BEF Lithuania). The workload and responsibilities have been distributed according to experience, fields of interest and relevant competences.

CORPI was responsible for the analysis of legal basis and strategies relevant for MSP, stocktake, future activities and demand on sea space use. The project team included:

- 2 senior scientists having experience of terrestrial planning, ICZM, SEA and EIA, natural resources exploration, ports development, coastal protection etc.;
- 2 research assistants dealing with implementation of environmental impact and risk assessment, strategic documents and legislation;
- GIS specialist responsible for development of marine and coast related database and maps needed for the presentation and reporting;
- External expertise was organized in order to assess and improve the entire report structure and content as well as prepare the recommendations for MSP implementation in Lithuania.

Non-governmental organization BEF Lithuania was responsible for stakeholder involvement activities including stakeholder identification, conflict analysis, consultation and awareness rising through information dissemination, events and media involvement. The project team included:

- 2 environment and communication expert positions with significant practical know-how in stakeholder involvement which was utilized for the implementation of above-mentioned activities;
- 2 staff members responsible for technical assistance, administration and financial management.

2.2 Planning Steps

The MSP process can be divided into four main phases: pre-planning; stocktake; planning; implementation of the Plan and monitoring; through the successive steps.

I. Pre-planning:

1st step of MSP process has to identify clearly the team and assess the organization and institutional capacity for MSP implementation. This has to go along with the analysis of existing legal framework and feasible financial resources needed for implementation of spatial planning process – i.e. developed MSP work plan;

2nd step is actually pre-planning process including delineation of area where MSP is needed, setting the spatial and time scale for the Plan as well as identification (or mapping) of relevant stakeholders;

3rd step is devoted to identification of interests of involved stakeholders (1st meeting with stakeholders) as well as national priorities. This involves analysis of the existing visions and strategies on international, national, regional and local level; identification of strategic coherence and potential conflicts.

II. Stocktake:

4th step is analysis of existing ecological and socio-economic conditions: biodiversity assessment, evaluation of trends and possible impacts induced by climate change as well as development trends;

5th step is mapping of current use - mapping of spatial distribution and identification of existing spatial conflicts, analysis of legal basis for existing uses including possibilities for revisions, compromise;

6th step is identification of existing problems and conflicts (”hot spots”) with regards to actual environmental sensitivity and changing socio-economic situation.

III. Planning:

7th step is focused on finding the relevant solutions (interests harmonization) taking into account identified priorities and benefits. If possible several possible solutions/visions has to be drafted and presented to
2. Planning Organisation and Process

stakeholders (2nd meeting with stakeholders) in order to explain delineated functional zones, targets, costs and benefits of each developed scenario;

8th step is the preparation of the Plan itself. Taking into account the feedback achieved through the stakeholders participation meetings and benefit analysis, final targets, objectives and measures for each delineated zone has to be set and drafted into the Plans graphic and descriptive parts. The Plan should also include management plan and monitoring program.

9th step is the SEA of each measure presented in the Plan including cumulative impact to the environment. SEA report has to be complemented with issued recommendations, public hearing and collection and evaluation of all possible claims.

IV. Implementation:

10th step is the implementation of the Plan and if needed make the necessary adaptations of legal framework, make necessary political decisions in order to set the decision making process and identify responsibilities;

V. Monitoring:

11th step is the evaluation of the implementation according to the set indicators and timeframe. Plan can be revised and/or initiated from the very beginning, if necessary.

The scope of current report focuses on the implementation of first two and partly third phases of the process as further steps requires political support and changes in legislative structure which could not be achieved by project partners within project framework.

2.3 Planning Methodology

The principles of planning of Lithuanian EEZ was developed within the BaltSeaPlan project following main international strategic documents such as EU Integrated Maritime Policy, HELCOM Baltic Sea Action Plan and VASAB Long –Term Perspective for the Territorial Development of the Baltic Sea Region as well as methodology developed in PlanCoast project (2008). Planning of the maritime space is integrated, cyclic and iterative process which involves range of complex technical and political procedures:

> Identification of demand for planning. This involves analysis of ongoing initiatives requiring off/competing for- sea space occupancy and future targets defined in the maritime related strategic documents (see also BaltSeaPlan Report No 4) as well as their coherence; conflict analysis among the different stakeholders and potential sea users.

> Investigations of natural and socio-economic environment. Action that requires precise and various data sets to be developed, analysed, harmonized and interpreted in order to illustrate and set the environmental conditions for different uses, pre-define environmental limitations for certain uses; assess social positive and negative aspects, trends and obstacles important for maritime sector development; evaluate economic development trends, opportunities and threats. The crucial moment in this task is data accessibility and quality. BaltSeaPlan addresses those questions particularly by assessing the relevance of various data sources/databases to be used when specific data is missing (see also BaltSeaPlan Report 20) and modelling opportunities to fill the knowledge gaps when data from direct investigations is not yet available or too expensive to carry out (see also BaltSeaPlan Report 19).

> Analysis of institutional set up/capacities and legal framework. Implementation of the Plan, especially when it addresses the innovative solutions, modern technologies, new uses, requires setting up or adaptation of legal framework, allocation of suitable financial resources and clear distribution of responsibilities among the involved/responsible authorities.

> Acquiring public acceptance and ensuring the stakeholder involvement. This is essential element of the integrated maritime spatial planning process. Planning involves visions of future developments

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6 http://www.plancoast.eu/

and maritime space usage which should be discussed among stakeholders and supported by the general public and (see also BaltSeaPlan Report 24\textsuperscript{10}). During the project implementation in Lithuania, stakeholder involvement was modelled outside of the official MSP process in Lithuania, therefore overall focus was on exploratory analysis of stakeholder priorities, public awareness raising, education and consultations aimed at creating preconditions for consolidating national MSP actors rather than discussing specific alternatives of the Lithuanian spatial plan. Nonetheless, a mix of various communication techniques was used from publications to interactive events and media involvement. Public talks Café Scientifique on topical or sensitive marine issues involving stakeholders and general public was the main mechanism used for bringing complex interdisciplinary MSP concept closer to the public during the project implementation.

2.4 Stakeholder Involvement

2.4.1 Stakeholder Identification

Stakeholder involvement is a binding procedure regulated by the Law on Territorial Planning (12 December 1995, No. I-1120) and the Environmental Impact Assessment Law (15 August 1996, No. I-1495). Stakeholders are defined as members of society who are or may be affected by the planned activities or have interest in their implementation, including non-governmental organizations. During the project implementation a rather extensive list of stakeholders was developed. The list includes various institutions and organizations involved in current and planned marine activities: national and local government institutions, parliamentary groups, industry representatives and associations such as fisheries, energy, tourism, academic institutions, consultancies and nature conservation groups. However, based on the above-mentioned legal definition, not only government institutions and stakeholders linked with various sea uses, but also Lithuanian society at large falls under this category with regard to the Lithuanian marine space. Therefore different involvement techniques need to be employed for inclusive and effective participation taking into account the needs of all these groups.

In this process, several other country-specific factors had to be taken into account. Many stakeholders consulted agree that existing stakeholder consultation procedures foreseen by the planning legislation in place do not facilitate adequate public participation and conflict mitigation. These procedures rely on formal information dissemination channels, recording of and response to comments and complaints rather than actual debate among interested parties. Moreover, official announcements about planning procedures on institutional websites or regional press tend to be overlooked by interested parties as they rarely provide additional information about broader implications of the process in question. As a result, territorial plans are rarely widely debated in public, only exceptions being these instances when certain (typically economic) interests of specific groups are involved. This way only limited number of stakeholders is actively involved in the planning process. And finally, when it comes to general public, previously conducted surveys\textsuperscript{11} indicate that Lithuanians give priority to recreational sea uses and tend to overlook the importance of personal action with the lowest level of personal responsibility for the Baltic Sea environment. The BaltSeaPlan project experience confirmed that general public awareness about Baltic Sea issues is low and disproportionate to inherently complex discussions about managing conflicts linked to sea uses and their effect on the marine environment in Lithuania. Moreover, experts link these tendencies to absence of marine culture in Lithuania and see the need for more focus on education and awareness rising among the general public if we were to plan for sustainable use of Baltic Sea in the future. This was also taken into account in stakeholder involvement activities in Lithuania.

2.4.2 Participation Organization

Considering the above, a mix of various participation techniques was deemed necessary during project implementation in order to be able to address the specific needs of various identified stakeholder groups\textsuperscript{12}. Most one-way information tools such as publications and web material were used targeting general audience at early stages of project implementation. Interactive involvement techniques such as public talks and roundtable discussions and surveys were introduced at later stages when some project outputs became

\footnotesize{\textsuperscript{10} Tim-Åke Pentz…. Stakeholder Involvement in Maritime Spatial Planning. BaltSeaPlan Report 24.}
\footnotesize{\textsuperscript{11} Swedish Environmental Protection Agency. 2010. Baltic Survey – a study in the Baltic Sea countries of public attitudes and use of the sea. Report on basic findings.}
\footnotesize{\textsuperscript{12} Tim-Åke Pentz…. Stakeholder Involvement in Maritime Spatial Planning. BaltSeaPlan Report 24.}
available. Roundtable discussions brought together various national authorities involved in marine issues, with the aim to discuss strategic aspects of MSP process in Lithuania, while informal discussions in a form of Café Scientifique was aimed at stakeholders discussing specific (topical or sensitive) marine issues with welcome participation of the general public. And finally exploratory analysis of key marine stakeholder priorities was carried out with the aim to point at most likely conflicts of interest across sectors that will require increased stakeholder involvement effort during the planning. The study involved an online questionnaire combined with telephone or in-person interviews with a selected number of key stakeholders representing marine sectors in Lithuania in November 2011.

Considering national MSP context, Café Scientifique was identified as the main stakeholder involvement method. It is a discussion concept developed in France in 1997 and proved popular in many countries around the world. BEF Lithuania has been involved organization of similar events in Lithuania in the past and has practical know-how that was applied during the BaltSeaPlan project.

A series of Café Scientifique events focusing on MSP-related issues featured one or several well-known speakers from academia, business and NGO sectors who introduced these issues from contrasting angles. With the help of a moderator the audience were invited for a discussion afterwards. Presentations were recorded and made available online via popular social networking channels such as Facebook and Youtube along with the slides and discussion summaries. Participants were invited to these events via mailing lists, newspaper adds, posters and radio announcements. Events attracted a total of over 150 participants who engaged in lively discussions about marine issues, confirming identified conflicts and bringing up fresh arguments for their resolution. Local and national media involvement resulted in several national and local press publications and specialized local radio programmes on marine issues and contributed not only to public awareness raising, but to project visibility as well.

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13 www.britishcouncil.org/science-cafesci.htm
14 www.cafescientifique.org
3. Planning Context

3.1 Environmental Context

3.1.1 Sea and Coastline Character

GEOMORPHOLOGY

Geomorphologically, big part of Lithuanian Sea (Territorial waters and Exclusive Economic Zone) belongs to Klaipėda-Ventspils plateau, Northern slopes of Gdansk basin and the small part of the Northern part of the Gdansk basin itself (Fig. 2). South-Eastwards from the Gdansk basin the depression of palaeovalley of Nemunas River can be observed. The Curonian-Sambian plateau stretches in the very Southern part of the Lithuanian EEZ and TW. The western corner of the EEZ morphologically belongs to Eastern part of Gotland basin and Klaipėda Bank.

Fig. 2. Sea bottom morphology.

Klaipėda-Ventspils plateau is characterized by changeable bottom morphology and uneven distribution of lithological composition. Plateau, which extends from Riga bay, has several elevations and one of those – Klaipėda Bank where sea depths are less than 50 m. The western side of the Klaipėda Bank is quite steep slope falling into the Gotland basin. The most rugged bottom is being observed in the near shore zone (up to 50 m izobath) adjacent to the Giruliai and Palanga-Šventoji. Curonian – Sambian plateau is also quite changeable in bottom morphology, water depths in this zone varies from 18-20 to 50-60 meters. Strong currents that form during the storms do not allow fine grained sediments to settle and therefore at the depths of 40-55 m Northern slopes of the plateau are quite steep and covered by coarse particles mostly.

There are three comparatively deep areas in the Lithuanian EEZ and those are related to main depressions – Gdansk and Gotland basins and palaeovalley of Nemunas River. Water depths in the Gdansk basin are more than 80, in Nemunas River palaeovalley – more than 70 and in Gotland basin – more than 100 meters. The central part of the Lithuanian marine zone is rather flat, determined by south-westerly inclined slopes of Gdansk Basin.
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GEOLOGY

Sea bottom is covered by the Quaternary sediments that usually have 5-10 meters thickness at Klapėda-Ventspils plateau and up to 100 meters in the palaeovalley. Quaternary sediments are represented by three lithological complexes mainly – glacial sediments (glacial sandy and clayey loam); sediments deposited during different stages of Baltic Sea evolution (sandy, silty, clayey sediments) and recent marine deposits composed of sand, silt and mud (Fig. 3). First two litho-complexes are characteristic to dynamic environment, where deposition of modern sediments is rather absent - prevails bottom erosion or intensive sediment washout.

![Fig. 3. Sea bottom lithology.](image)

COASTLINE

Lithuania has a shortest part of coastline among all Baltic Sea countries. According to the genesis of Lithuanian Baltic coast two different parts can be distinguished - sandy coast of Curonian Spit and mainland coast (North from the Klaipėda state seaport entrance channel). The total length of the open Baltic Sea coast in Lithuanian is not more than 91 km and is represented by accumulative-erosional sandy beaches mainly. Only small part of the coast north to the Klaipėda port entrance channel can be dedicated to the cliff type coast and small segments are devoted to the port activity (in Būtingė and Klaipėda). The main threat to the coast is imposed by natural and artificial reasons. One the one hand sea level rise and more often stormy weather events are continuously affecting the coast. On the other hand engineering port developments – breakwaters at the entrance channel of Klaipėda port are blocking the sand migration along the shore and there why increasing the sediment deficit in the northern part. During the last 30 years (1976 – 2006) the total length of Lithuanian accumulative coastal sectors has been reducing by about 110 m every year on the average (see also Žilinskas, 2008). There why the priority is given to preservation of natural landscape and natural coastal formation processes, complex coordination of coastal protection and coastal use.

3.1.2 Other Physical Conditions

WIND, CURRENTS AND WAVE REGIME

Direct wind speed measurements in the open sea are not being carried out in Lithuania. There why modelling results are being used in order to characterize the mean offshore wind regime. According to the modelling
carried out by Maritime Institute in Gdansk (Interreg III A project “POWER”, 2008) wind speed extrapolated to the 100 m height above the sea level is in the range of 7 to 10 m/s.

Wind is the main driving force for the wave regime in the Lithuanian EEZ. The highest waves are being observed in autumn-winter period; smallest – in summer. The wave direction is also corresponding to the prevailing wind direction during mentioned seasons. The highest waves are generated by the westerly winds. The maximum height (9.8-10.6 m) of the waves is being observed in the northern part of the Lithuanian near shore (in front of Šventoji settlement), at the 15-20 m water depths (based on LEI, 2005).

The knowledge on the prevailing currents is mainly focused to the near shore zone, where currents induced by the changing wind conditions are being observed. Those (wind induced currents) in fact are of the highest velocity (can reach up to 0.50 cm/s during the storm events). The strongest currents can reach up to 150 cm/s, but in general, mean current velocity does not exceed 10 m/s (~65 % of all recorded currents). Along the shore current direction is also determined by the wind direction: north oriented currents are being induced by the W, SW, S and SE winds; south oriented currents are resulting due to the N, NW, E and NE winds.

WATER TEMPERATURE, SALINITY AND ICE COVER

Mean water temperature at the open sea is ranging from 2°C in winter to 22°C in summer. Summer thermocline (temperature gradient at the thermocline is 0.5-1.0 °C/m) is being observed at the depths of 20-30 m.

Salinity in the open sea can reach 7 ‰, at the bottom the salinity is about 10.5-12 ‰. Taking into account the constant inflow of fresh water from the Nemunas river (around 5-7 m³), near shore salinity is much lower and can reach not more than 5 ‰ or even less.

According to the long term observations, ice cover in the Lithuanian maritime zone is quite rare – occurs during the harsh and very harsh winters. Observation made in the Curonian lagoon, near shore and open sea reveals that continuous ice cover can form at the distance up to 1.5 km from the shore line. Drifting ice (up to 10 cm thick) forms ice jams at the near shore, but can reach even up to 7 km distance from the shore. There is no information regarding the ice cover further from the shore.

3.1.3 Valuable Environmental Areas

HABITATS

Habitats at the Lithuanian near shore zone (up to 20 m water depth) are investigated in detail, remaining part is classified on low EUNIS level and in general is based on lithology of the sea bottom (Fig. 3). There are 9 main habitats identified (according to EUNIS HABITAT CLASSIFICATION of MARINE HABITAT TYPES, revision of September, 2004) in the area (Fig. 4), those are:

A2.851 – Hydrolittoral sandy substrata: level bottoms with little or no macrophyte vegetation;
A2.872 – Hydrolittoral mixed sediment substrata: dominated by macrophyte vegetation;
A5.21 – Sublittoral sand in low or reduced salinity;
A5.273 – Baltic sandy bottoms of the aphotic zone;
A5.378 – Baltic muddy bottoms of the aphotic zone;
A5.411 – Baltic level mixed sediment bottoms of the infralittoral photic zone with little or no macrophyte vegetation;
A5.452 – Baltic mixed sediment bottoms of the aphotic zone;
A5.6272 – Baltic mussel beds of the infralittoral photic zone dominated by macrophyte vegetation
A5.721 – Periodically and permanently anoxic sublittoral muds.
3. Planning Context

NATURE PROTECTION

The main EU level protected areas designated in the Lithuanian marine zone (Fig. 5) are:

Baltic Sea near shore (LTPALB001) – NATURA 2000 area important for bird protection. Designated after the order of Government of RL in 2005-09-07 (order No. 561, Žin., 2005, 110-4012). The area is important for wintering and migrating Gavia stellata, Polysticta stelleri, Bucephala clangula, Mergus merganser, Larus minutus.

Baltic Sea near shore (LTPAL0001) – NATURA 2000 area important for habitat protection. Designated after the order of the minister of Ministry of Environment in 2009-04-22 (order No. D1-210, Žin., 2009, Nr. 51-2039). The protected asset – stony bottom that forms specific habitat – reef. Around 40 macrophytes and 60 macrofauna species have been identified in this area. Characteristic plants: Cladophora glomerata, Enteromorpha intestinalis, Ulotrix subflaccida; Fucellaria fastigiata, Ceramium spp.; animals: Mytilus edulis; Balanus improvisus, Electra crustulenta. Those are important for wintering birds.

Curonian Spit – NATURA 2000 area important for both - birds and habitats protection. As a habitat protected area it was approved by the minister of Ministry of Environment on 15th of June, 2005 (order No. D1-302). The protected habitats are dune related – terrestrial assets.

Status of bird protection area was approved by the Government of RL on 8th of April, 2004 (order No. 399, Žin., 2004, Nr.55-1899). The important migrating and wintering species to be protected are: Milvus migrans, Haliaeetus albicilla, Lullula arborea, Anthus campestris.
3.2 Socio-Economic Context

DEMOGRAPHY

Territorially, Lithuanian zone bordering the sea, belongs to the Klaipėda County (NUTS 3 level\textsuperscript{15}). This could also be recognized as terrestrial part of the coastal zone. Administratively, on the municipality level (LAU \textsuperscript{16}) direct sea related municipalities are: Palanga and Klaipėda city, Klaipėda and Šilutė district and Neringa municipalities (Fig. 6). According to the Statistics Department of Lithuania\textsuperscript{17}, there were 366 902 inhabitants in Klaipeda County in 2011.

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\textsuperscript{15} Nomenclature des Unites Territoriales Statistiques (NUTS)
\textsuperscript{16} Local Administrative Units (LAU)
\textsuperscript{17} http://www.stat.gov.lt
3. Planning Context

According to the trend of the last decade it seems that even though coastal population in general has decreased by ~21 000 inhabitants (388 015 inh. in 2000), and it has also significantly decreased in whole country (3 512 074 in year 2000 and 3 244 601 in year 2011), but the tendency clearly indicates that coastal areas are more and more attractive for the people to live and to work (Fig. 7).

Fig. 6. Population density in Klaipėda County

Fig. 7. Proportion (per cent) of coastal zone residents in relation to the total population of Lithuania
PORT ACTIVITY

Klaipėda state seaport is the main transport hub in Lithuania dealing with cargo and passengers flows in the South Eastern Europe. The overall capacity of cargo handling in the port is reaching 45 million tonnes nowadays. The port itself and the enterprises related to its operations provide more than 23,000 workplaces and 4.5% of the Lithuanian GDP. Additionally, due to the port operations and services (directly and indirectly related), approximately 185,000 workplaces are created and this ends up with almost 18% of Lithuania’s total GDP. The depth of the entrance channel is 15 meters, port navigation channel is between 13 and 14.5 meters. Therefore, the port can accept large-tonnage vessels: dry-cargo vessels up to 80,000 DWT, and tankers up to 150,000 DWT.\(^{18}\)

The amount of cargo handling in the port is constantly growing and in 2011 will reach more than 32 million tonnes (Fig.9). The main cargo products are: oil products, fertilizers, ro-ro and containers constituting all together more than 80 presents of cargo.

![Fig. 9. Cargo handling in Klaipėda port (source: Klaipeda state seaport authority).](image)

Passengers flows are also increasing (Fig. 10), even though trend is not that linear as cargo handling as it is more dependent on external factors than port operation itself. Taking into account that more and more tourists come to Klaipėda every year on passenger ferries and cruise ships, port is rapidly developing – building new Passenger and Cargo Terminal, reconstructing the railway and road infrastructure for better access to the Terminal.

![Fig. 10. Cruising intensity in Klaipėda port (source: Klaipeda state seaport authority).](image)

The trends of the port developments are embedded in the strategic documents:

*Long-Term (until 2025) Transport System Development Strategy;*

\[^{18}\] [http://www.portofklaipeda.lt](http://www.portofklaipeda.lt)
3. Planning Context

Ministry of Transport port infrastructure development programme;
Klaipėda State Sea Port development strategy until the year 2010;

Among other targets there are certain developments that have direct impact on the sea use:

- Construction of deepwater Klaipėda Seaport (2009 – 2018);
- Establishment of tourism route Kaliningrad – Klaipėda – Baltic Sea coast (2008 – 2010);
- Modernization of Nida port, construction of ports in Juodkrante, Preila and Pervalka (Curonian spit coast) (2010 – 2020);
- Development of short sea shipping and sea motorways;

Recently, there are two independent EIA studies launched regarding the LNG terminal development in the Lithuania. The terminal would be focusing on 2-3 billion m³/year LNG import to the Klaipėda State Sea Port/Būtingė oil terminal. If developed, LNG terminal will increase the ship traffic by approximately 1 PANAMAX LNG carrier each 3 days and 24 hours unload procedure.

FISHERY

Even though Lithuanian maritime zone is not big, it is one of the most fishy area in the whole Baltic Sea. Especially Lithuanian waters are rich in Baltic herring, sprat, cod, and salmon. Near shore zone is especially important spawning area for most of the commercial fish species as well as for migrating and protected fish species.

The landing of the main fishing species (cod and Baltic herring) stays more or less constant during the last 5 years (Fig. 11) and is dependent on the quotas set for the main commercial fish species. There are about 20 fish species registered in the fact sheets of landings but the main catches remain related to Baltic herring, cod and sprat. The catches of those is regulated by International Baltic Sea Fishery Commission (IBFSC).

![Fig. 11. Annual landings by major group of species in the Klaipeda port](image)

Based on the historical information gathered from the fishing vessels captains, there were special map for fishery purposes developed (Žaromskis et al., 200519) in order to identify the main areas for trawling, fish nets installations and zones dangerous for trawling. According to the information provided in this map we have identified different priority areas for fishing (Fig. 12).

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In the Action plan of Lithuanian fishery sector for 2007-2013 there are two main targets (for 2013) mentioned:

> To reduce the Lithuanian fishery fleet in the open Baltic sea by 15% (GT for 2006 – 5.45 thous.);

> To reduce the Lithuanian fishery fleet in the near shore zone of the Baltic sea by 50% (GT for 2006 – 0.45 thous.).

### 3.3 Spatial planning Documents and Relevant Strategies

#### 3.3.1 National and Regional Documents and Strategies

The planning procedure of the Republic of Lithuania is regulated by the Law of Territory Planning issued in 1995 and post statutory legal acts. According to the Law of Territory Planning, the general plans of whole territory of the Republic of Lithuania, territories of counties, municipalities and their parts are obligatory planning documents in order to ensure the long term sustainable development and reasoned use of area, finances and other resources. The General plan of territory of the Republic of Lithuania was approved by Seimas of the RL in 2002 (No IX-1154).

According to the structure of the territorial planning in RL, several types of planning are being recognized:

**General planning** – complex planning, in which, depending on the territory planning levels and objectives, the spatial concept and territory use/protection principles are identified, strategy for future development is prepared. The general spatial conception for state, regional and municipal territories is arranged for the period of 20 years, whereas the specific solutions for the period of 10 years are being prepared.

**Special planning** – the planning of one or several activities in order to prepare solutions and conditions for the specific land use and management programs

**Detail planning** – planning of the parts of territory of municipalities in order to grant, change or abolish the rights and conditions for territory use and development for certain activities.
3. Planning Context

There are also different levels of territorial planning:

**State level** - planning documents for the Republic of Lithuania to be confirmed by Government and Seimas of the Republic of Lithuania.

**County level** - planning documents to be confirmed by governors of administrative units or state administrative institutions.

**Municipality level** - planning documents to be confirmed by municipalities.

**Personal and legal body level** - planning documents to be confirmed by legal body.

Lithuania has not yet adopted a formal procedure for maritime spatial planning neither for territorial waters nor exclusive economic zone. According to the Lithuanian Law on Land all territorial sea is an exclusive property of a state which cannot be transferred to municipalities and private persons. According to the Law on Environment any economic activities which may have an impact on environment must comply with provisions set out in general and specific plans. Nevertheless, there are no regulations governing the spatial planning in the territorial sea. Only management of marine parts up to 20 m water depth is regulated by the special decision of Government of Republic of Lithuania and those belong to nature protected areas such as Baltic Sea Thalasological Reserve, Seaside Regional Park, Curonian Spit national park and Baltic Sea near shore at Palanga. The responsibility of management of mentioned above maritime zones is dedicated to Ministry of Environment.

Most relevant legal document affecting the maritime space, in particular - near shore zone (up to 20 m water depth) and Curonian lagoon is the Law on the Coastal Strip. The Law reserves the sea space for nature protection purposes; restricts certain uses at the near shore (hard structures, engineering works related to sea bottom structure disturbance, exploitation of natural resources).

The following strategic documents have been analyzed in order to define the trends and quantitative targets of maritime space development in Lithuania, and the most relevant are (see also BaltSeaPlan Report No 420):

> Lithuanian Long Term Development Strategy (until 2015);
> National Sustainable Development Strategy (until 2020);
> Lithuanian Strategy on the Use of European Union Structural Funds During the Period from 2007 to 2013;
> Biodiversity Protection and Protected Territories Planning and Management Program During the Period from 2007 to 2013;
> The Law of Marine Environment Protection of Republic of Lithuania;
> Strategy for Protection of Baltic Sea Environment (till 2020);
> Long-Term (until 2025) Transport System Development Strategy;
> Strategy of Lithuanian Shipping Sector Development;
> National Strategic Plan of Fishery Sector 2007 – 2013;
> Law of Renewable Energy 2011;
> National Tourism Development Program 2007-2013;
> Lithuanian Coastal Strip Management Program 2008 – 2013;

3.3.2 International Documents and Strategies

The main EU level strategic documents that are fostering the maritime spatial planning process and also influence the legislation and strategic targets of Lithuania are:

3. Planning Context

> EU Integrated Maritime Policy;
> EU Strategy for the Baltic Sea Region and the Action plan;
> HELCOM Baltic Sea Action Plan;
> VASAB Long Term Perspective.

As well as directives and recommendations:

> RECOMMENDATION of the European Parliament and of the Council of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe (2002/413/EC);
> DIRECTIVE 2009/147/EC OF the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds;
> COUNCIL DIRECTIVE 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;
4. Stocktake

Stocktaking was the main activity of the Lithuanian case study. In general it may be divided into five main parts:

- analysis of existing ecological and socio-economic conditions;
- mapping of the currently existing sea uses and regulations/limitations in place;
- mapping of the potential uses;
- identification of existing and potential conflicts (“hot spots”);
- exploratory analysis of stakeholder priorities.

4.1 Overview of Relevant Issues

Currently, we can identify several uses that are recognized and mapped in the official nautical charts and even having certain regulations, those are: navigation, ports and marinas, nature protection, military trainings, dumping and underwater engineering infrastructure (cables and pipelines) (Fig. 13). Those are “old uses” representing the status quo situation and which appeared in the Lithuanian maritime space without integrated planning, but following the sectorial demand instead.

On top of it there are certain areas of specific concern identified and mapped. Those are: indicated locations of ship groundings, fishery areas (trawling, nets and areas dangerous for trawling); sand extraction sites and potentially dangerous areas of former mine fields. Even though not conflicting, but still – some of those areas are of special concern (i.e. wrecks, former mine fields still having the status of “restricted”, fishery areas) and has to be investigated in detail before any activity takes place in those areas; some are reserved for other need (i.e. sand extraction sites); some has “no go” status (i.e. SPM buoy safety zone).

But main potential problems are related to the new uses (such as OWE, oil prospects etc.) and plans to extend the currently existing (such as NATURA 2000, navigation channels, etc.) ones. Without clear regulations and planning process in place the location of the uses and conflict management can become the hard task to do.
4. Stocktake

4.2 Relevant Issues in Detail

NAVIGATION and PORTS

According to the UNCLOS\(^{21}\), each coastal state has the sovereignty to allocate the main navigation corridors, traffic separation schemes and other conditions in order to ensure safety navigation and healthy environment in the territorial waters. Coastal state following the IMO recommendations sets the proper width of the navigation routes and maps those in the official nautical charts.

Navigation routes in the Lithuania waters are defined according to the long term navigation intensity (AIS) records. The 4 nm wide navigation routes have been approved in 2001 by the declaration of the safety of navigation and emergency capacity in the Baltic Sea area (HELCOM Copenhagen declaration, 2001) and officially mapped (Fig. 14). In the official nautical charts there are indicated two planned navigation corridors that might have the influence on the other activities in those zones.

The main definitions concerning the navigation have been set in the new revision of the *Law of safety navigation of Lithuanian Republic* of 2005 (Žin., 2000, Nr. 75-2264, Nr. 85-2583):

*Nautical installations* – are devices ensuring the safety navigation installed on shore or floating in the waterways of general use;

*Waterways of general use* – are water paths suitable for navigation in the territorial waters of Republic of Lithuania and indicated in the nautical charts.

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Fig. 14. Navigation routes, port roadsteads and anchorages (source: Maritime Safety Administration, 2004).

There are two official roadsteads aligned in Lithuanian near shore for ports of Klaipėda and Šventoji. The outer limits or roadsteads and anchorages are set by the special instructions of the Sea ports use.

The activities of the ports and within the port area are regulated by the special directions for use of the ports and appropriate laws:

*Law of State Sea Port of Klaipėda* (1996 May 16, No. I-1340) and


4. Stocktake

**FISHERY**

According to the *Fishery Law of Republic of Lithuania*\(^{22}\) chapter 3, the regulations of the fishery in Lithuania are performed by:

1) Ministry of Agriculture which is responsible for the Lithuanian fishery policy and takes part in the EU policy for the fishery, controls and coordinates the fish stock maintenance at the sea;

2) Ministry of Environment is responsible for the fishery issues in the internal waters, but also forms the policy of fish stock preservation and control, organizes and controls the implementation of this policy; and together with Ministry of Agriculture coordinates and controls the fish stock rehabilitation and coordinates research activities for fish stock monitoring;

Licence for commercial fishing at the Sea is being issued and withdrawn by institution authorized by Ministry of Agriculture. By issuing the licence authorized authority also identifies the sea area where fishing is allowed (Fig. 15). Conditions for the commercial fishing are set according to the instructions developed by the Ministry of Agriculture\(^{23}\). In general there are different regulations for near shore and off shore fishing. Fishing in the near shore is regulated by the order of Minister of Agriculture No 3D-S51\(^{24}\).

![Fig. 15. Fishing zones](image)

**MILITARY and DANGEROUS ZONES**

There are two restricted areas in the Lithuanian near shore zone specially allocated for military purposes (in general identified as shooting regions) - EYD17 Juodkrantė and EYD18 Nida (Fig. 16). Both are straight forward designated by the order of the minister of Ministry of Transport and Communications (order No. 3-353, dated: 16\(^{th}\) of June, 2004).

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\(^{22}\) Lietuvos Respublikos Žuvininkystės Įstatymas,2000 m. birželio 27 d. Nr. VIII-1756, Vilnius

\(^{23}\) Lietuvos Respublikos Žemės Ūkio Ministro įsakymas dėl verslinės žvejybos jūrų vandenynse taisyklių patvirtinimo, 2009 m. vasario 12 d. Nr. 3D-94, Vilnius

\(^{24}\) Lietuvos Respublikos Žemės Ūkio Ministro įsakymas dėl Baltijos jūros priekrantės žvejybos barų ribų nustatymo 2007 m. gruodžio 12 d. Nr. 3D-S51, Vilnius
Big part of the Lithuanian waters is identified as dangerous for any activity (Fig. 16) due to the historical information on minefields existed. In general, areas are open for any marine activity, but require special attention to sea bottom explorations. Areas are continuously being examined by NATO and Lithuania joint exercises in order to re-activate any suspicious objects at the sea bottom.

ENGINEERING INFRASTRUCTURE

There two types of underwater installations identified in the Lithuanian maritime zone – underwater data cables and pipeline for oil import to Būtingė oil terminal (Fig. 17).

2 data cables, with landing points at Šventoji belong to TeliaSonera company. Those are:

- 218 km long BCS East-West Interlink (in service since 1997, connecting Šventoji in Lithuania and Katthammarsvik in Sweden);
- 97.8 km long BCS East (ready for service since 1995, connecting Šventoji in Lithuania and Liepaja in Latvia).

Four remaining cables crossing the EEZ of Lithuania are mapped in the official nautical charts, but there is no information on their origin and/or functioning.

Pipeline to Būtingė oil terminal is justified by the special regulations of Būtingė oil terminal (by order No. 248 of minister of Ministry of Transport and Communication, 2000-09-18), with clearly identified position of safety zone and restrictions.
4. Stocktake

**Fig. 17.** Underwater cables and pipelines with buffer zones (source: Maritime Safety Administration, 2004).

**DUMPING SITES and MILITARY MUNITION BURIALS**

According to the report of HELCOM working group on special chemical monition burials (1995), the westernmost part of Lithuanian EEZ is identified as risk zone for trawling (Fig. 18) due to the adjacent burial grounds of chemical monition. There are two historical dumping sites, being used for clean sediments dumping at the sea. Dumping of dredged material in territorial and internal waters, according to the *Law of Marine environment protection* (No. VIII-512, 1997-11-13), is allowed only by the special permission of Ministry of Environment.

The deep water dumping is located 11 nm to the SW from Klaipėda Sea port gates (water depth about 43-48 m). Area dedicated for the dredged material dumping is about 4 nm (~13,87km²). There was around 20 Mio m³ dumped there since the beginning (1987) of the usage of this site. Other site which is closer to the port gates was used for the fine material dumping at the depths of 25-30 m. This dumping site was approved by the decree of minister of Ministry of Environment in 1996.
Determined by the Klaipėda State Sea Port area deepening programme until 2015, in order to maintain Klaipėda Sea Port depths, there is a continuous demand of dredging and clean deposits dumping at sea. This was the reason for newly launched project with the strategic target to find new alternative places for environmentally friendly and economically efficient dumping sites selection. Proposed places (Fig. 18) are being investigated by Coastal Research and Planning Institute (EIA procedure has been started).

CULTURAL HERITAGE

According to the register of cultural heritage, there are no officially recognized marine heritage objects in Lithuanian waters. But, never the less, there is information documented by the fishermen and Maritime Safety Administration on wrecks (Fig. 19) and other potentially important maritime heritage assets. Some of those are confirmed, others are not certain, but when planning engineering works at the sea bottom, should be taken into account.
NATURE PROTECTION

Apart of officially recognized NATURA 2000 and areas protected by National law, there are also areas still identified as important for birds (IBA) that were included into the official list (as for 2003) of Birdlife International organization. Those are Marine waters along the continental part of Lithuania - LT001; Marine waters along the Curonian Spit, Lithuania - LT002 (Fig. 20).

There are two main strategic documents that fosters the development (rather extension) of protected areas in Lithuania, those are:

National Sustainable Development Strategy with specific targets affecting the sea use:
  > To develop further the network of protected areas, to increase the area of Lithuanian protected areas to 16-18 % of country area;
  > Selection of new areas important for the biodiversity protection in marine areas of Lithuanian Republic (2009 – 2012).

National Action Plan for Baltic Sea Protection Strategy sets the new (quantitative) target to be achieved:
  > To increase area of protected sea areas (NATURA 2000) from 4.5% (2009) to 9% until 2015.

Following the mentioned strategic aims there were two projects launched with particular focus on establishment new and revision of existing protected areas in Lithuanian sea. Those are:
  > LIFE 05 NAT/LV/000100 (2005-2009) – Marine Protected Areas in the Eastern Baltic Sea (BALTIC MPA’s);

BALTIC MPA’s has already resulted in proposal to Ministry of Environment of establishment of new NATURA 2000 (birds and habitats) protected site in front of Curonian spit and new proposal for the limits of habitat important NATURA 2000 site in the northern part of Lithuanian near shore zone (Fig. 20).
DENOFLIT is pretty much focused on new protection areas establishment in the very offshore of the Lithuanian waters, but the investigations has not been yet finished. But, the plans to investigate certain offshore areas (Fig. 20) have an impact to other activities at the sea already now, e.g. decisions on EIA studies for new offshore wind parks (areas are in certain extent matching) have been postponed until the results from DENOFLIT are presented.

Fig. 20. IBAs and new plans related to the protected areas at sea.

**SAND EXTRACTION**

There are no official targets set for sand extraction at sea, but it is estimated that sand demand for beach nourishment requires around 1 million m$^3$ of sand annually. For that purpose 2 offshore areas of total area of 100 sq. km have been nominated (Fig. 21) as suitable for sand extraction. One of the sites (60 km$^2$ in the southern part) is now being investigated in order to be recognized as protected area. If approved, additional area for sand extraction will be required in the next 3 years.
ENERGY

According to the *National Energy Strategy and implementation plan for the period 2008-2012*:

- The share of renewable energy resources in the national balance of primary energy at least up to 20% by 2025.

Newly approved (June 21, 2010) *National Strategy for renewable energy resources development (for 2010-2020)* has set the new target:


National Strategy does not express specific target regarding marine windparks, i.e. no offshore capabilities have been considered while setting the 500 MW target. Even though offshore areas are not among the mentioned in the Strategy, several EIA studies are being implemented at the moment (Fig. 22) with request to consider WEP of total nominal capacity of ~1850 MW and sea space of ~ 400 sq. km.

National Energy Strategy also foresees the development of the electricity grid of Lithuania with specific target: Sweden – Lithuanian electricity markets connection. So called NOTRDBALT project has already started - EIA study completed. Implementation of the cabling under the water of Baltic Sea in Lithuania and Sweden will definitely be linked with certain safety zones (Fig. 22) and additional restrictions to other sea uses.

Other energy source available but not investigated in details – potential geological structures for oil extraction (Fig. 22). *Strategy on extraction of oil* is the document (approved by the Resolution Nr. 258 of Lithuanian Government in February 2003) setting the targets for new exploitation on land and at the sea; i.e. prognosis of oil deposits on land in the coastal zone - 60 Mio. t. and another 20 Mio. t. off shore.
Fig. 22. Offshore energy potential and on-going projects (source: own elaboration).
5. Conflict Analysis

The conflicts in the Lithuanian marine area are induced not by the competition for the sea space amongst different uses, but rather by uncertainties provoked by unclear prioritization and lack of comprehensive regulations. Never the less, looking at the current situation and taking into account initiatives that are being developed in the marine zone of the Republic of Lithuania (Fig. 23), conflicts may occur.

![Fig. 23. Current and planned sea use.](image)

The map of current and planned activities at the sea (Fig. 23), does not clearly express the conflicts between different users, but rather spatial overlapping. The main spatial conflicts are related to the new activities entering the maritime area of Lithuania. In particular those are relevant for off shore wind energy plans and new protected areas development as well as fishery sector claims.

In order to highlight the most pressing issues in the future MSP, exploratory analysis of sectorial stakeholder priorities in the Lithuanian Sea was conducted (see Annex). Results were derived by completing online survey complemented by interviews with 20 key stakeholders representing state institutions, research and education institutions, business, NGOs and local communities. Survey participants were asked to rank not only their own but other marine sectors as well. Analysis shows that pollution prevention and biodiversity conservation are the most important environmental priorities, LNG terminal construction and wind energy development are ranked the highest in energy sector, construction of small ports and marinas, and modernisation of fishing fleet are most important for the Lithuanian fishing sector, while modernisation of infrastructure is the most important for the port development. Meanwhile deepening of shipping canal of Klaipėda seaport is in competition with deepwater port construction. And finally, recreational infrastructure and construction of marinas for small and recreational boats are the most important priorities for the tourism sector.

It can be argued that conflicts are most likely to occur where this common view towards sectorial development perspective clashes with priorities within the sector.

Further difficulties arise due to the fact that to date no solid agreement exists as to what criteria should be used when deciding between the competing sectors. Economic, environmental, socio-cultural and public interest criteria or combination of the above were mentioned during Lithuanian stakeholder interviews.

However, analysis also shows that there is a lot of potential for stakeholder cooperation. Success in accommodating the multiple competing interests mainly depends whether the planning authority is willing to
take strong, collaboration-based leadership and is prepared to go beyond formal planning procedures when seeking for conflict solution. In general, the conflicts are manageable after detail investigations are made and alternative solutions evaluated. As the management of the identified conflicts is not within the scope of this study, we simply stick to the grouping of the potential conflicts according to their nature and possible impact/influence (see also BaltSeaPlan Report No 025) to the development of other maritime related activities.

Taking into account the character of the conflict, areas identified as conflicting could be divided into:

- Areas of special concern (Fig. 24) – determined by certain risks, existing assets, particular sensitivity, specific environmental conditions, etc. Sea user planning new activity in those areas just needs to consider existing risks, foresee mitigation measures, avoid specific obstacles, etc., but does not need to compete for the sea space;
- Areas already reserved (occupied) by other users with specific regulations and restrictions (Fig. 25). New uses, apart of general concerns mentioned above, have to consider compensation measures, re-planning and negotiation process;
- Priority areas by different means (feasibility studies, national priorities, etc.) proposed or delineated as most suitable for specific uses (Fig. 26). Those are the main discussion object as different uses can apply (be nominated as potentially feasible) for the same sea space;
- No go areas (Fig. 26). Zones that have to be avoided by any of uses because of existing high level priority, danger or strong reservation for future needs.

Fig. 24. Areas of special concern.

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5. Conflict Analysis

Fig. 25. Areas already reserved by other users.

Fig. 26. Priority (in orange) and no go areas (in red).

Stakeholder consultations and discussions during public events organized during project implementation confirmed that main spatial conflicts are related to new activities entering the maritime area of Lithuania. In particular those are relevant for offshore wind energy plans versus new protected areas development competing with existing commercial fishing territories.

Furthermore, consulted stakeholders describe the nature of their cooperation with various state and research institutions, NGO, business and local communities as “rather good”. Results of exploratory analysis also show
that the lowest conflict potential exists with research and education institutions, while the most conflict is expected when dealing with local communities. Therefore it could be argued that this is where more consultation effort might be needed when seeking wider public acceptance in MSP.
6. Methods for dealing with identified conflicts

6. Methods for Dealing with Identified Conflicts

As this report does not deal with particular spatial conflicts, we have classified the identified uses according to the existing limitations, restrictions and potential impact for other uses (Table). The main task of the study is to propose certain methods to be applied when dealing with combination of different types of areas and also assess the potential management problems of those. The level of the potential conflicts is presented using colour scheme, where yellow means low possibility of conflicting; orange points to the manageable conflicts and red supposed to alert the highest level of the conflicts when management will require specific intervention on political and strategic level.

Table. Potential conflict management scheme

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<tr>
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<th>special concern areas</th>
<th>reserved areas</th>
<th>priority areas</th>
<th>no go areas</th>
<th>new sea use</th>
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<td>new sea use</td>
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<tr>
<td>No obvious conflicts; management hints: priority assessment, mitigation measures, avoidance of specific sensitive areas/assets</td>
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<tr>
<td>Conflicts possible, but manageable; hints: compensation measures, feasibility studies including cost efficiency assessment, strong national priority status</td>
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<tr>
<td>High level conflicts, no management possible until restrictions removed due to closure of activity, new high level priority assigned, re-planning (planning) would be needed</td>
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7. Spatial Plan

The Maritime Spatial Plan of Lithuanian Sea itself was not the subject of current elaboration due to the lack of legislative documents and unclear institutional set up in Lithuania. According to the up to date information, Ministry of Environment has prepared the proposals for legal base amendments in order to be suitable for Planning at the sea and has launched the tender for service “To supplement General Plan of Republic of Lithuania by extending it to maritime space” (2011-10-11, protocol No. TBPP-2). The tender was won by consortium led by CORPI. This will allow transferring BaltSeaPlan methodology and visionary aims into the Lithuanian spatial planning procedures. The study will be the first official step towards IMSP in Lithuania.
8. Recommendations and Future Steps to implement MSP

Scope of current study covers only part of the MSP process. The whole process should answer quite a range of questions, which can be divided into technical:

- what are the main criterions of the actual zoning/distinguishing of the sea use areas?
- what investigations and parameters have been used when saying: this area is for this and that purpose?
- what are the restrictions in each of the defined areas (which activities are available and which not)?
- what activities are foreseen in the near future and why?
- what are the suitable places - experience of studies and projects already made?

and operating:

- is there a competent institutional set up in place?
- is there a proper legal basis adopted?
- are the relevant compensation mechanisms available?
- are financial resources available?
- is participatory stakeholder consultation procedure in place?

and others.

Taking into account the experience achieved during the BaltSeaPlan project we could recommend certain methodical and procedural steps to follow in order to facilitate the MSP process in Lithuania:

- decide on area, time frame and scale of the Plan;
- collect all available environmental data in order to analyse ecosystem state;
- identify all current sea space users, their interest, influence, define the national and sectorial priorities;

then it should be easier to implement successive steps of the planning:

- analysis of current situation, map;
- identification of stakeholders, trends and strategies;
- assessment of ecological conditions and conformity with existing and changing situation;
- interest harmonization, stakeholders involvement, consultations;
- draft plan compilation and SEA of proposed solutions;
- Finalization of the Plan, map.

Recommendations regarding implementation possibilities including financing, responsibilities and decision making rights, monitoring programme preparation, legal aspects and assumptions.
9. Lessons Learned

Even though current study does not guide through the all maritime planning steps, but it is obvious that integrated process requires proper set up of experts involved. In our case – Lithuanian team was represented by environmental researchers, planners, EIA and communication experts from two organizations. This is sufficient for the stocktake and stakeholders involvement procedures, but would be rather too ambitious to implement further steps of the planning. On the other hand, project itself was kind of scientific, not operational, fostering the innovative thinking, helping to integrate scientific knowledge and existing regulations into the very complex process.

Apart of properly selected consortium implementing the MSP, it is very important to allocate relevant time and financial resources needed for full scale MSP implementation.

In order to map and analyze existing and potential conflicts specifically marine oriented GIS database complying with EU data standards is a must. And this should be developed and maintained on national level.

Consultations with Lithuanian stakeholders showed that there is lack of easily accessible information on existing marine uses and plans. Stakeholders indicate that wider, open, transparent and timely (early) dissemination of information is seen as the most important factor for successful and socially accepted planning process. A central publicly accessible up-to-date database (e.g. GIS-based) containing existing sea uses, restrictions in place and project plans was suggested a way to ensure that all actors are equally informed about existing interests in the Lithuanian marine space. Availability of quality environmental data would result in fewer legal disputes over environmental impact of planned activities. More time for discussions about proposed developments on shore and off shore with wide stakeholder and public involvement including science and media is also seen as a very important factor. In the view of stakeholders, this would help encourage participatory decision-making, appease social tensions, reduce possibility of conflicts and bad press coverage after the decision has been made.

Stakeholder analysis also shows that there is a lot of potential for stakeholder cooperation. However, success in accommodating the multiple competing interests mainly depends whether the planning authority is willing to take strong, collaboration-based leadership and is prepared to go beyond formal planning procedures when seeking for conflict solutions.

Project experience also showed that standard stakeholder involvement techniques tend to provoke competing interests and do not encourage collaboration. Informal consultation methods such as Café Scientifique tested during project implementation proved to be effective in promoting constructive dialogue among interested stakeholders. Democratic atmosphere helped minimise tensions between the conflicting sides, while presence of general public helped to keep the discussion on the ground by ridding it form professional jargon and at the same time opening up opportunities for more diverse voices. Moreover, Café Scientifique proved to be an effective way to simultaneously educate the public, highlight existing conflicts and promote citizen participation through expression of different views on MSP-related issues.

Furthermore, it can be concluded that objective mapping of such high number of interests competing a small space like Lithuanian Sea requires more objective multi-criteria based approach of interests weighing.

www.baltseaplan.eu 39
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Directives and Recommendations


Web Sources

www.britishcouncil.org/science-cafesci.htm
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Stakeholder priorities in the Lithuanian Sea
Exploratory analysis

Author: Vaida Pilibaitytė, Baltic Environmental Forum Lithuania

Vilnius – November, 2011
Executive Summary

This report summarizes results of exploratory stakeholder analysis conducted as part of international project BaltSeaPlan. The aim of this study was to highlight the most likely to emerge conflicts while planning the spatial allocation of different maritime uses, such as natural and cultural heritage conservation, natural resources (energy, fisheries and aquaculture), transport, port development, tourism and recreation. The study involved an online questionnaire combined with telephone and/or individual interviews with a selected number of key stakeholders representing main marine sectors in Lithuania. Analysis concludes that conflict potential is rather high across sectors especially in relation to environmental priorities and lack of information on planning procedures. However, analysis also shows that there is a lot of potential for stakeholder cooperation. Success in accommodating the multiple competing interests mainly depends whether the planning authority is willing to take strong, collaboration-based leadership and is prepared to go beyond formal planning procedures when seeking for conflict solutions.

I. Introduction

This exploratory stakeholder analysis was conducted as part of activities of international project BaltSeaPlan led by Baltic Environmental Forum Lithuania (BEF Lithuania) and Coastal Research and Planning Institute of Klaipėda University in 2009-2012. Along with stakeholder awareness raising activities, the project also focused on compilation of current sea uses. This was done in order to identify potential conflicts and synergies between different sea users. Complementary assessment of the national legal framework and identification of marine spatial planning (MSP) related strategic targets was made in order to set the scene for the upcoming formal MSP activities in Lithuania.

To date, Lithuanian stakeholder groups affected by or having interest in Lithuanian marine space have not been studied systematically. The need for comprehensive analysis of stakeholder priorities in the Lithuanian Sea is linked to the national context of MSP. The formal planning procedures are scheduled to begin in 2012. The process will start against the backdrop of increasing competition among existing and new sea uses such as development of off-shore wind, new electricity transmission lines, construction of liquid natural gas (LNG) terminal, expanding of port infrastructure and plans to establish new marine protected areas. It is widely recognized that stakeholder involvement is necessary in order to accommodate multiple interests competing in the small maritime space.

This work aims to analyze the key stakeholder priorities in the context of allocation of maritime space. It was not intended to provide a representative sociological survey, but rather to highlight the most likely conflicts of interest requiring increased stakeholder involvement effort during the future planning activities. The report outlines the method used to analyze stakeholder priorities, summarizes the results and ends with conclusions and recommendations for the planners.

II. Role of Stakeholder Involvement in MSP

MSP is participatory process and stakeholder involvement is essential throughout it. Participative planning means that stakeholders should have a role in every step of the process from drafting the plan to implementation. Thus stakeholder involvement differs from consultation and information that are passive, one-way processes providing little opportunity to influence decision-making. However quality MSP process relies on informed stakeholders. Versatile mechanisms for information exchange and debate exist and should be used for that purpose (see also BaltSeaPlan Report No 07).

In Lithuania stakeholder consultation is a binding procedure regulated by the Law on Territorial Planning (12 December 1995, No. I-1120) and the Environmental Impact Assessment Law (15 August 1996, No. I-1495). Stakeholders, including non-governmental organizations are defined as members of society who are or may be affected by the planned activities or have interest in their implementation. Our experience shows that rather formal, one-way consultation processes are prevalent in Lithuania and more inclusive, participatory stakeholder involvement does not take place. As detailed in sections below, stakeholders indicate this issue as one of the main reasons for conflict occurrence in planning.

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During the implementation of the BalSeaPlan project stakeholder involvement was modelled outside of the official MSP process which at the time was not taking place in Lithuania. Process focused on stakeholder analysis, public awareness raising, education and consultations aimed at creating preconditions for consolidating national MSP actors (see also BalSeaPlan Report No 24\textsuperscript{28}). Rather extensive list of stakeholders was developed for this purpose. The list includes various institutions and organizations involved in current and planned marine activities: national and local government institutions, parliamentary groups, industry representatives and associations such as fisheries, energy, tourism, academic institutions, consultancies and nature conservation groups. However, by the definition, Lithuanian society at large also falls under the category of involved stakeholders as the developments at the Baltic Sea affects nearly each citizen in one way or another.

III. Methodology

Stakeholder priorities were analysed using the methodology inspired by values-oriented decision making approach described in the literature as multi-criteria decision analysis (MCDA)\textsuperscript{29,30}. However, here MCDA is considered more as an approach to looking at a complex problem rather than an elaborate technique allowing ranking and choosing between a set of existing options, characterized by both monetary and non-monetary criteria.

The goal of this exploratory analysis exercise was to bring together stakeholders’ judgments on important and/or conflicting priorities across sectors in the Lithuanian Sea and to present a more or less coherent picture to the decision makers. The study carried out in November 2011 involved an online questionnaire combined with telephone or in-person interviews with a selected number of key stakeholders representing marine sectors in Lithuania. The sections below describe the methodology and stages of conducted analysis in more detail.

3.1 Sectors and Stakeholder Groups

For the purpose of this exploratory analysis a list representing key marine sectors on-shore and off-shore was compiled. It includes national government institutions, major business associations, research institutions, non-governmental organizations and local communities. These were grouped based on key marine uses such as nature conservation, energy, resource extraction (fisheries), transport and ports, tourism. Local government authorities, parliamentary groups, state military and stakeholders of neighbouring countries remained outside of the scope of this analysis. A total of 20 stakeholders were interviewed representing 17 institutions and organizations that agreed to participate in the survey:

1. Ministry of Environment of the Republic of Lithuania (Protected Areas and Landscape Dept., Pollution Prevention Dept., Territorial Planning, Urban Development and Architecture Dept.)
2. Ministry of Energy of Republic of Lithuania (Division of the Strategic Planning and Coordination of European Union Affairs)
3. Ministry of Transport of the Republic of Lithuania (Water and Railway Transport Dept.)
4. Ministry of Interior of the Republic of Lithuania (Regional Development Dept., Klaipėda County Subdivision)
5. Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania
6. State Tourism Department under Ministry of Economy
7. Klaipėda State Seaport Authority
8. Lithuanian Stevedoring Companies’ Association
9. Curonian Spit National Park
10. Ecological club “Žvejone”
11. Lithuanian Fund for Nature
12. Ecological Institute, Nature Research Centre
13. Klaipėda University (Coastal Research and Planning Institute, Marine Seascape Research Institute)
15. Confederation of Fishermen and Fish Processors of West Lithuania
16. Lithuanian Renewable Resources Energy Association
17. Local Community of the Coastal Regional Park

A list of interviewees was compiled representing the widest possible range of existing or potential interests in the context of Lithuanian sea use. Each sector was to be represented by at least two different types of interest groups (Table 1).

Table 1 Sectors and interest groups represented in the survey

<table>
<thead>
<tr>
<th>Sectors and interest groups</th>
<th>Natural &amp; cultural heritage conservation</th>
<th>Energy</th>
<th>Fishing &amp; aquaculture</th>
<th>Transport &amp; port development</th>
<th>Territorial planning &amp; regional dev.</th>
<th>Tourism &amp; recreation</th>
<th>No. of interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>State institutions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>10</td>
</tr>
<tr>
<td>Business</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Research/education institutions</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>NGOs</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Local communities</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>20</td>
</tr>
</tbody>
</table>

Notably, in several cases an interest group could relate to more than one sector: this is particularly characteristic to local communities, research institutions and NGOs. It has to be taken into account that state institutions dominate the group surveyed (50% of respondents) due to high number of authorities involved in management of marine space. Furthermore, several individuals were surveyed from the Ministry of Environment as it is the authority also dealing with MSP issues. Involvement of business in this survey is rather low due to limited availability of respondents who agreed to be interviewed.

3.2 Data Collection and Analysis

The analysis was conducted in three stages: 1) Compilation of questionnaires based on analysis of national and regional strategies, 2) Stakeholder interviews, 3) Quantitative and qualitative data analysis. The list of national strategic objectives was compiled based on the analysis of national and regional strategies relevant to Lithuanian maritime space (see BaltSeaPlan Report No 4) taking into account other important existing and planned sea uses. Key objectives were selected and grouped by the following sectors: natural and cultural heritage conservation, natural resources (energy), natural resources (fisheries and aquaculture), transport, port development, tourism and recreation. The questionnaire consisted of two parts including questions about cooperation with other interest groups and assessment of different marine sector objectives, 10 questions in total.

In the first part, interviewees were asked to evaluate the nature of their organisation’s cooperation with other interest groups choosing between options “Good”, “Rather good”, “Rather in conflict”, “In conflict” or “No cooperation”. The level of “conflict” is measured according to the ability to reach agreement on diverging interests. The aim of this question was to point at possible cooperation tensions that might require additional attention from decision-makers. In the second part, sectoral priorities were evaluated by choosing between options “Very important”, “Important”, “Rather important”, “Rather not important”, “Not important”. The level of importance was assessed either with respect to direct responsibilities assigned to their institution (e.g. ministry), national context or taking into account the sensitivity of the issue in relation to represented organisation’s priorities.

Data on stakeholder priorities was collected using online questionnaire supplemented with telephone or in-person interviews and analyzed both quantitatively and qualitatively. When completing the survey, interviewees had a chance to clarify the questions, comment and add options to the list provided. At the end of each interview they were asked to name the most important prerequisites for a conflict-free MSP process in Lithuania.

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32 http://www.surveymonkey.com/s/LW3QZSL (in Lithuanian)
IV. Results

This section presents summarized results of the survey by describing the perceived nature of cooperation among different stakeholder groups, cross-sectoral ranking of national priorities derived from the online questionnaire and accompanying interviews as well as recommendations for MSP process improvement.

4.1 Nature of Stakeholder Cooperation

Most stakeholder groups – state institutions, local government, business associations and non-governmental organisations describe cooperation with each other as “rather good”. Research and education institutions stand out by the majority considering it being “good” (80% of the surveyed) or “rather good” (15%) in the evaluation of the cooperation with other stakeholder groups. In most cases this is probably pre-determined by the fact that state institutions (who are dominating the sample) are bound to cooperate, whereas research institutions are primary supplier of necessary data and studies through applied research contracts, hence and important partner for many. Meanwhile local communities stand out as those with whom cooperation is most complicated: 31,6% described it as “rather in conflict” and 5,3% as “in conflict”. This was the case when talking about port development, wind energy and other issues related to territorial planning and nature conservation. Another possible cooperation “hot-spot” are state institutions with which 25% of the respondents are “rather in conflict” when describing their cooperation. Majority of stakeholders identify oil sector as the one they have no cooperation whatsoever (55%).

When commenting on cooperation in general, stakeholders also point at other reasons making conflict resolution difficult. One of them is competing national and local interests in the coastal zone and lack of horizontal integration between institutions in relation to marine issues. Municipalities are described as in a constant “fight among each other”, while local communities are often hostile due to lack of awareness about economic benefits of the proposed developments. Some stakeholders even refer to Lithuania as a “protest society” with poor skills of well-argued participation in the decision-making. Nature conservation groups are often described as very conservative, “protecting nature from people at all cost” or even titled as “green terrorists”. Some note absence of cooperation with research institutions. Moreover, others see the importance to point at differences in between commercial fishing sector which is said to be “unwilling to listen” and recreational fishing sector which is considered to be more agreeable. And finally, business is referred to as “indifferent” in some instances and not providing sufficient information about their activities.

4.2 Top Priorities by Sectors

As mentioned above, stakeholders were asked to assess the level of importance of different national marine interests with respect to the sector they represent, but also other sectors, either taking into account national context or sensitivity of the issue from their institution’s perspective.

Notably, in many cases there were several priorities (objectives) that were considered of similarly high importance. However, based on the collected responses from stakeholders across all sectors, the following two were ranked the highest in each of them (Table 2):

Table 2 Top ranked priorities by sector

<table>
<thead>
<tr>
<th>Marine sector</th>
<th>Top ranked objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural &amp; cultural heritage conservation</td>
<td>Pollution prevention, Biodiversity conservation</td>
</tr>
<tr>
<td>Energy</td>
<td>Construction of LNG terminal, Wind energy generation</td>
</tr>
<tr>
<td>Fishing &amp; aquaculture</td>
<td>Construction of ports and marinas, Modernization of fishing fleet</td>
</tr>
<tr>
<td>Transport &amp; ports</td>
<td>Modernization of port infrastructure/ technologies, Deepening of shipping canal of Klaipeda seaport/ Deepwater seaport</td>
</tr>
<tr>
<td>Tourism &amp; recreation</td>
<td>Development of recreational infrastructure in Klaipeda region, Construction of marinas for small and recreational boats</td>
</tr>
</tbody>
</table>

33 Detailed questionnaire results are available upon request
Annex

In sections below is the summary of the survey results and accompanying interviews explaining the reasoning behind these rankings in more detail.

4.2.1 Natural and Cultural Heritage Conservation

During the survey stakeholders were assessing the importance of the following priorities in this sector: pollution prevention in the Baltic, biodiversity protection, cultural heritage protection (on land and off-shore), protection of natural landscape and coastal formation, and renewable energy use which appears in this sector as one of natural resource conservation objectives.

This sector was the only one where none of the respondents indicated any of these options as “not important” and only 5 considered some options as “rather not important”. A vast majority of respondents ranked environmental priorities very high. Among all answers, pollution prevention stands out with most considering it “very important” (75%) or “important”, while biodiversity conservation comes second with 50% of those surveyed considering it “very important” and 45% – “important”. Some see these objectives as closely linked not only with sustainable use of marine resources, but also with economic consequences such as impact on the fishing sector. Potential conflicts with energy sector mentioned include pollution from oil and gas pipelines. Both conservation of cultural heritage and protection of natural landscape share similar importance with most stakeholders indicating it as “important” (60% and 45% respectively) priorities. However, the reasoning behind their choices varies. While local communities are concerned about preserving the landscape, tourism sector sees it as hindering development of infrastructure. Nature conservation experts mention possible clash between sand mining for beach nourishment and extension of dumping sites which is a potential threat for protection of birds Renewable energy use which came slightly lower than the previous two, most considering between options either “very important” (35%) or “important” (30%). Concerns mentioned vary between some suggesting placing wind turbines further offshore to preserve landscape, while others are convinced it should not be priority in the sea in order to protect birds. Fishermen are ranking this high in relation to their fear of lost areas for fishing.

4.2.2 Energy

Stakeholders had a choice among four national priorities in this sector: electricity grid network connections, construction of liquid natural gas (LNG) terminal, exploitation of national oil resources and offshore wind farms. Among the respondents LNG terminal stands out slightly with 50% answers marked as “very important”, while slightly less (45%) gave this ranking to the electricity grid connections, followed by wind energy development (35%) and oil exploitation (20%). However, in overall ranking wind energy comes above electricity grid. During the interviews LNG terminal and grid connections were indicated as having lower (mostly local) environmental impact and/or the most significant priority nationally. In some instances LNG terminal was indicated as landscape disruption. Those who ranked wind energy lower quoted negative impact for fishing sector, technical difficulties of connecting to the grid and lack of information about positive economic contribution. Meanwhile, oil exploitation was the only one in this sector which had respondents considering it “not important” (15%) mostly noting environmental concerns.

4.2.3 Fishing and aquaculture

Development of competitive fishing sector, recreational fishing, fishing fleet modernisation, installation of marinas and aquaculture were the priorities to be ranked in this sector. Similarly like in transport and port development, there is no single priority that is standing out significantly. Nonetheless, most respondents consider installation of marinas, fleet modernisation and development of recreational fishing “very important” (52.6%, 42.1% and 30% respectively).

Interviewed stakeholders emphasized that fishing fleet modernisation is important first and foremost in relation to pollution prevention and provided that priority is given to recreational fishing. Half of the respondents rank aquaculture as “important” in the future, some emphasize that closed-cycle installations should be considered in order to reduce impact on the environment. Nearly half of the respondents consider development of competitive fishing sector “important”, though sustainability is mentioned as a necessary precondition for this.
4.2.4 Transport and Port Development

Although the questionnaire had two separate sets of questions for transport and ports, during the interviews they appeared to overlap significantly, therefore the top ranking priorities will be summarized together in this section. The list of national objectives included construction of deepwater seaport, deepening of shipping canal of Klaipėda seaport, introduction of modern technologies, passenger and cargo terminals expansion of ship fleet, reconstruction of Šventoji state seaport, development of existing small ports, short sea shipping routes and connecting sea and inland waterways with other European ports, etc.

Analyzing port development priorities, it is rather difficult task to identify top priorities statistically, as most objectives are identified as equally “very important” or “important”. However, modernisation of port infrastructure, deepening of shipping canal of Klaipėda port and reconstruction of Šventoji state seaport stand out slightly as issues of higher importance and/or concern during stakeholder interviews. Several interviewees have environmental concerns linked to new deepwater port with reference to negative impact on fisheries. Deepening of shipping canal both raises environmental concerns, but also is seen as a way to exploit existing port capacities, increase shipping efficiency through use of bigger ships and avoid construction of the new port. Similar arguments support modernisation of existing port infrastructure (e.g. reduced pollution).

Ranked slightly lower, but without any expressed concerns during interviews, “very important” or “important” priorities are installation of passenger and cargo terminal and infrastructure for small and recreational boats in Klaipėda. This is considered necessary for encouraging recreational fishing and tourism — around 60% of respondents ranked them choosing between the two top options. Meanwhile, as regards sea transport sector development, similar priorities emerge with most significance attributed to adjusting Klaipėda seaport for larger ships (45% say “very important” and 35% – “important”) and introduction of modern technologies at the state seaport (30% say “very important” and 55% – “important”). Construction of deepwater port and marinas were ranked as third highest among this sector’s priorities.

4.2.5 Tourism and Recreation

The part dedicated to tourism and recreation covered priorities such as development of tourism infrastructure, upgrading of beaches according to “Blue flag” requirements, connecting port of Klaipėda with major European ports, developing tourism route from Kaliningrad and construction of marinas for small boats. Tourism infrastructure development priority was ranked as “important” by majority (60%) of respondents along with construction marinas for small and recreational boats (60%). Too stringent environmental requirements hindering tourism infrastructure on the coast are highlighted by the tourism sector. Meanwhile fishing sector considers recreation as disturbance for near shore fishing. In general, disagreement exists among stakeholders on whether or not marine tourism should be singled out as such and whether it is prospective. Nonetheless, there seems to be a consensus that this area lacks attention and clear strategic approach in Lithuania.

4.3 Key Prerequisites for Conflict Management in MSP

The questionnaire was complemented with the request to name the most important prerequisites for identified conflict management in Lithuania. The answers were considered both as additional hints for interpreting their responses and inputs for decision-making.

Interviewees mentioned necessity of wider information and communication throughout the process, need for more political will and institutional coordination and cooperation, necessity to have relevant legal basis. Among other suggestions were clarification of priorities and financial compensations (e.g. for fishermen), less stringent environmental standards and diplomatic efforts and learning from international best practice examples. Some of the recommendation are elaborated below.

Stakeholder interviews indicate that wider, open, transparent and timely (early) dissemination of information is seen as the most important factor for successful and socially accepted planning process. A central publicly accessible up-to-date database (e.g. GIS-based) containing existing sea uses, restrictions in place and project plans was suggested a way to ensure that all actors are equally informed about existing interests in the Lithuanian marine space. Availability of quality environmental data would result in fewer legal disputes over environmental impact of planned activities. More time for discussions about proposed developments on shore
Annex

and off-shore with wide stakeholder and public involvement including science and media is also seen as a very important factor. In the view of stakeholders, this would help encourage participatory decision-making, appease social tensions, reduce possibility of conflicts and bad press coverage after the decision has been made.

Other stakeholders believe in the importance of using economic criteria in MSP – ranking sectoral priorities by contributions to the national economy and offering compensations to those whose interests come second. There are also stakeholders who believe that environment and/or public interest, or urgency of the solution to the issue in question should be taken into account when planning marine space. Moreover, it was suggested that multiple criteria instead of a single one should be used.

A number of stakeholders emphasize the role of decision-makers in moving the process forward – both ensuring institutional cooperation and putting the necessary legislation (including elaborated environmental impact assessment regulation for marine space) in place.

IV. Conclusions and Recommendations

This exploratory analysis of stakeholder priorities in the Lithuanian Sea was conducted in order to highlight the most pressing issues while planning the spatial allocation of different maritime uses. Results were derived by completing online survey complemented by interviews with 20 key stakeholders. Analysis shows that pollution prevention and biodiversity conservation are the most important environmental priorities. In the energy sector LNG terminal and off-shore wind energy developments are ranked the highest in energy sector. Construction of small ports and marinas, and modernisation of fishing fleet are most important for the Lithuanian fishing sector, while modernisation of infrastructure is the most important for the port development. And finally, recreational infrastructure and construction of marinas for small and recreational boats are the most important priorities for the tourism sector.

It can be concluded that conflict potential among the above-mentioned areas is rather high due to high or very high importance attributed by the majority of stakeholders. In several instances the ranking was also the result of high perceived sensitivity of the issue, especially in environmental sector. And finally, stakeholders are feeling a high level of uncertainty with regard to forthcoming MSP process, as no solid agreement exists as to what criteria should be used when deciding between the competing sectors. Economic, environmental, socio-cultural and public interest criteria or combination of the above were mentioned during interviews.

However, analysis also shows that there is a lot of potential for stakeholder cooperation. Research and education institutions are indicated as the most collaborative, while the local communities are described as the single most conflicting stakeholder group. Therefore this is where more effort should be directed when seeking wider public acceptance in MSP and in order to bridge the gap among state institutions and local communities.

Considering the above, it can be argued that main condition for accommodating the competing interests is a strong leadership of the planning authority. This institution should be determined to seek for stakeholder collaboration based solutions and be prepared to go beyond formal planning procedures implemented by the contractor. This is a potential challenge in Lithuania where MSP will be led by the Ministry of Environment which is often described as conservative in comparison to other stakeholder groups. Therefore successful conflict resolution will most likely depend on political will and/or strong personal commitment.

This exploratory study also shows that in-depth analysis of stakeholder priorities proves to be useful for highlighting the most pressing conflicts of interest. Moreover, individual interviews are useful for understanding the complexities behind potential solutions and building trust among parties. Nonetheless although time consuming, group discussions might be helpful in order to facilitate dialogue and promote stakeholder collaboration in MSP. Furthermore, a comprehensive stakeholder analysis should include a more extensive list of sectors and stakeholders such as local government, members of the parliament and probably go beyond national boarders to address transnational issues. Ranking of priorities should be conducted in two rounds, including further cross-sectoral ranking of top priorities leading towards a common agreement. And finally, a multi-criteria based approach including weighing of different planning alternatives is necessary.
The BaltSeaPlan project in general

Activities

BaltSeaPlan activities were designed to support all major aspects of maritime spatial planning within the Baltic Sea region:

> Improving the joint information base / stocktaking for maritime spatial planning:

A forum for dialogue bringing together spatial planners and scientists and identify sources of data / information. Compiling current uses, conflicts and natural values of the Baltic Sea. Filling data gaps, exchange of data, improve integration of ecological and socio-economic data sets, identify relevant modelling methods, clarify MSP data needs.

> Including Spatial Planning in National Maritime Strategies

Assessment of national frameworks, methodologies and sectoral strategies that influence the use of sea space (e.g. energy, fishery, transport, tourism, as well as nature conservation)

Developing recommendations on spatial issues within National Maritime Strategies.

Exploiting the visions to foster a national cross-sectoral debate, discussing goals & targets for dealing with space and filling gaps in national sectoral policies & strategies

> Develop a Vision for Maritime Spatial Planning in the Baltic Sea 2030

taking into account transnational interdependencies and cumulative impacts

initiate a Baltic Sea region wide campaign as to discuss the BaltSeaPlan Vision 2030

> Demonstrate MSP in 8 pilot areas

• Danish Straights / T-Route (DK)
• Pomeranian Bight (DE/DK/SE/PL)
• Western Gulf of Gdansk (PL)
• Middle Bank (SE/PL)
• Lithuanian Sea (LT)
• Latvian Sea (LV)
• Pärnu Bay (EE)
• Hiiumaa and Saaremaa Islands (EE)

> Lobbying and capacity building for MSP

• stakeholder involvement & participative planning methods
• BaltSeaPlan series of guidelines & policy recommendations
• workshops & conferences for decision-makers

Partners

Germany

• Federal Maritime and Hydrographic Agency (BSH), Lead Partner
• Ministry of Energy, Infrastructure and Regional Development of Mecklenburg-Vorpommern
• WWF Germany, Baltic Sea Unit

Poland

• Maritime Office in Szczecin
• Maritime Office in Gdynia
• Maritime Institute in Gdańsk

Denmark

• Department of Bioscience, Aarhus University (formerly National Environmental Research Institute – NERI)

Sweden

• Royal Institute of Technology (KTH)
• Swedish Environmental Protection Agency

Estonia

• Estonian Marine Institute of University of Tartu
• Baltic Environmental Forum Estonia

Lithuania

• Klaipėda University Coastal Research and Planning Institute (CORPI)
• Baltic Environmental Forum Lithuania

Latvia

• Baltic Environmental Forum Latvia
BaltSeaPlan Publications

BaltSeaPlan Reports

- BaltSeaPlan Findings
- BaltSeaPlan Vision 2030 – Towards the sustainable planning of Baltic Sea space
- Become a Maritime Spatialist within 10 Minutes (EN, DE, LV, LT, PL, EE)
- BaltSeaPlan Bulletin #1
- BaltSeaPlan Bulletin #2
- BaltSeaPlan Project Flyer (EN, DE, LV, LT, EE, SE)

Impact Assessments

1 - Strategies with relevance for Estonian maritime space
2 - Strategies with relevance for German maritime space
3 - Strategies with relevance for Latvian maritime space
4 - Strategies with relevance for Lithuanian maritime space
5 - Strategies with relevance for Polish maritime space
6 - Strategies with relevance for Russian maritime space
7 - Strategies with relevance for Swedish maritime space
8 - Implications of the international and national policy context for Baltic Sea space and MSP

Pilot MSP reports

9 - Developing a Pilot MSP for the Pomeranian Bight and Arkona Basin
10 - Developing a Pilot MSP for the Middle Bank
11 - Developing a Pilot SEA for the Western Gulf of Gdansk
12 - Preparing for a MSP at the Danish Straits
13 - Towards a Pilot MSP for the Pärnu Bay
14 - Towards a Pilot MSP for the Saaremaa and Hiiumaa Islands
15 - Towards a Pilot MSP for the Lithuanian Sea
16 - Developing a Pilot MSP for the Western Coast of Latvia

MSPs and SEA

17 - Pilot MSP for the Western Coast of Latvia (LV)
18 - SEA for the Western Gulf of Gdansk (PL)

Technical reports

19 - Modelling for MSP – Tools, concepts, applications
20 - Data exchange structure for MSP
21 - Effects of underwater noise on harbour porpoises around major shipping lanes
22 - Remote sensing methods for detecting small fishing vessels and fishing gear
23 - Legal and planning options for integrating fisheries into Maritime Spatial Planning
24 - Stakeholder Involvement in MSP
25 - SEA in MSP: Recommendations from the German and Polish experience
26 - Fisheries in the MSP context
27 - Seabed and habitat mapping in the Hatter Barn area
28 - BaltSeaPlan Web-advanced tool in support of MSP
29 - Case Study: Systematic site selection for offshore windpower with Marxan in the pilot area Pomeranian Bight
30 - Case Study: Site selection of fisheries areas for MSP
31 - Recommendations for legislative action regarding the MSP in Europe
Maritime Spatial Planning (MSP) has become a widely acknowledged and necessary tool for co-ordinating spatial use and balancing of interests in the sea. In view of expanding activities such as offshore wind energy parks and growing shipping traffic and at the same time increasing needs to protect the marine environment a systematic, integrative and forward-looking planning is required in order to safeguard the sustainable development of the seas. Currently, however, this tool is far from being established practice.

The 3.7 million € INTERREG IVB project "BaltSeaPlan" (2009–2012) has been the largest project in recent years dealing with maritime spatial planning throughout the Baltic Sea Region. Under the lead of the German Federal Maritime and Hydrographic Agency (BSH) and covering partners from all Baltic Sea countries (except Finland) the project has not only developed pilots in 8 demonstration areas, but also advanced methods, instruments & tools as well as data exchange necessary for an effective maritime spatial planning.

The results of BaltSeaPlan are published in a series of reports all available for free download under www.baltseaplan.eu.

The demand for maritime space has increased substantially in Lithuania during the past several years – be it plans for offshore wind parks, port developments, underwater electricity cables or expansion of Natura 2000 sites. At the same time MSP is not yet formally introduced in Lithuania. The BaltSeaPlan Report № 15 “Towards a Pilot MSP for the Lithuanian Sea” shows the compilation of current sea uses, identifies potential conflicts & synergies as well as MSP related strategic targets and describes the efforts undertaken towards raising the general public awareness – all activities meant to smoothen the upcoming planning procedures expected to start by 2012.