

Developing a Pilot Maritime Spatial Plan for the Southern Middle Bank

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I. Introduction

1.1. The Pilot Project

The draft pilot maritime spatial plan was prepared as part of a family of different pilots of the BaltSeaPlan project executed by different Baltic Institutions under auspices of VASAB and under leadership of BSH.

The draft pilot maritime spatial plan for the Southern Middle Bank area is generally of strategic nature. It is a tool for balancing the different interests of sea space use. It is a structure plan, because it diagnoses the spatial conditions of development, determines components of the spatial system and their relationships/interactions and indicates their desired “shape”. In principle, the draft pilot maritime spatial plan awards priority for some uses and ensures cohesion of the whole system of proposed solutions. Limitations in sea space usage are introduced only in a few cases, and only with the objective of assuring the above mentioned cohesion.

1.2. Project Objectives

The Middle Bank case has been launched with ambition to examine possibility of cross-border maritime spatial planning (MSP) and to test methodology for planning EEZ in a cross-border setup. This has been the first world-wide attempt to prepare such a cross-border plan for EEZ area of two (Poland and Sweden) neighbouring countries. The other important parameter of the planning process were severe information gaps and low stakeholders interest. The pilot should address also those challenges and accumulated experience on planning under high uncertainty circumstances. The experience gained during the planning process on the listed above issues have been analysed by the planning team and presented as lessons learned in the final part of this report.

1.3. Working Environment

Draft pilot maritime spatial plan was prepared as a pilot initiative due to insufficient legal environment with regard to maritime spatial planning in both countries. Under the law effective in Poland, drawing up spatial plans for maritime areas has been possible since 2003. Responsibility for planning is uniform over all sea areas (i.e. internal sea waters, 12-nm zone and EEZ). Regulations concerning spatial planning of sea areas are contained in Chapter 9 (articles 37a and 37b) of the Act on Maritime Areas of Poland and Maritime Administration of March 21st, 1991. The agency responsible for drawing up the plan is the Director of Maritime Office. The Offices, located in Gdynia, Słupsk and Szczecin make up Poland’s maritime administration reporting to the minister competent for issues of maritime economy (currently the minister of infrastructure). However, the legislation in force does not establish a requirement to plan, and – considering, that the provisions concerning the role of the plans and their practical regulative importance are, in fact, too general. In Sweden, coastal municipalities are responsible for maritime spatial planning in territorial waters; but, in practice, hardly any planning has been done for areas outside coastal waters. So far there have been no planning instruments in place for the EEZ. Thus, a special commission was established to propose how MSP could be organized at national level for territorial waters outside 1 nautical mile off the coast, as well as in the Swedish EEZ, whereas municipalities should maintain responsibility for MSP within 1 nautical mile and to propose a new law. As of mid 2011, a new national agency (the Swedish Agency for Marine and Water Management) is being organised and shall be in charge of maritime spatial planning. Adoption of the new law is expected by the end of 2011. However, this administration did not reach the necessary staff and administrative capacity in the field of MSP till the end of the preparation of the pilot plan, and on the other hand, the Swedish partners engaged in the planning process lost their mandate to prepare such a draft plan. Therefore the draft pilot maritime spatial plan can be only considered as a methodological and intellectual attempt showing some options for joint development of the Southern Middle Bank area. It is hoped that in due time it will constitute a basis for joint preparation of a legally binding plan. Due to described above constraints, the draft pilot maritime spatial plan should be regarded as a draft. It is of non-binding nature; however it will be used by the Maritime Administration in Poland, as best available knowledge, for guiding its management decisions.



II. Planning Organisation and Process

2.1. Organisation

The draft of the pilot maritime spatial plan for the Southern Middle Bank area has been prepared by international team of experts representing the following scientific disciplines: macrosatial planning, information technology (GIS), oceanography, physical/biological ecology and economics.

The planned area is located far from the coast in the middle of the Baltic Proper with very limited number of stakeholders. Due to this location it does not face numerous spatial conflicts that require immediate planning solutions, comparing e.g.: to the areas located close to the shoreline. The draft pilot maritime spatial plan of the Southern Middle Bank area should prevent conflicts rather than mitigate them.

The Southern Middle Bank area is located in the exclusive economic zones of Poland and Sweden. It is shared by two countries enjoying (according to international law) only limited jurisdiction over that area. Therefore in the case of the Middle Bank mainly international law applies. Moreover, due to the transnational character of the area, both Polish and Swedish legislation and interests have to be examined when appropriate (e.g. environmental protection, exploitation of resources etc.). All these have affected the methodology of development of the draft pilot spatial Middle Bank Plan. The draft pilot plan has been prepared jointly by Polish and Swedish experts and the plan pays attention to long term interests and goals not only of Poland and Sweden but also of the Baltic Sea Region as a such.

2.2. Planning Methodology

The planning process followed the methodology introduced in the Handbook on Integrated Maritime Spatial Planning elaborated within the framework of the Plancoast Project (Schultz-Zehden, Gee, Ścibior 2008)¹. It was also deeply rooted in the experience of the Maritime Institute in Gdańsk with regard to maritime spatial planning (Cieślak 2009; Cieślak et al 2009; Szeffler, Furmańczyk 2008; Zaucha 2008; Zaucha 2009; Zaucha 2009a; Zaucha 2010; Zaucha, Ścibior 2009).

As the point of departure, objectives and priorities of the National Spatial Development Concept of Poland were examined. They were translated into maritime conditions and extended by taking into consideration the Swedish approach to spatial planning (an approximation was carried out, using strategic documents and legislation related to terrestrial issues, since Swedish maritime spatial planning legislation was under elaboration that time) as well as international visions and guidelines (EU, VASAB and HELCOM). The following international strategic documents were used: the EU integrated maritime policy, HELCOM Baltic Sea Action Plan and VASAB *Long –Term Perspective for the Territorial Development of the Baltic Sea Region*.

The starting point for drawing up the draft pilot maritime spatial plan was a stock-taking of current and future ways of utilization of the maritime space.

First the team conducted in depth inventory of the planned area. For the picture of the current status, information about the natural environment was of key importance (due to high recognition of environmental issues by the Swedish society). Unfortunately, literature-based data about species diversity was not available, and existing information based on samples was of low resolution. Stakeholders' knowledge have been used intensively during this early planning phase. Sea areas of special value for particular sea uses have been identified, described and mapped thanks to collection and processing of all this information.

As a result of the stock-taking activities the following types of current and future use of sea space covered by the draft pilot maritime spatial plan were identified:

- › shipping – mainly sea routes,
- › nature protection,
- › fishery – areas for well being of juvenile cod,
- › economic activities – erection of structures and artificial islands (mainly wind farms), mariculture and aggregate extraction.
- › linear technical infrastructure networks.

¹ also available at www.plancoast.eu

The further step was to examine plans and intentions concerning future forms of economic utilization of the area. The planning team examined existing strategic documents, both binding national documents and expert studies, including sectoral strategies and policies, mostly concerning energy and transport. Also issued and prepared permits and licenses (both in Sweden and Poland) were studied. During that stage also sectoral strategies and policies, for the most part those concerning energy and transport have been checked. Described in this report stakeholders participation constituted important part of this planning phase.

The last planning phase (monitoring and evaluation system) will be conducted only when the pilot will become a legally binding document. This might happen soon due to progress in legal matters achieved so far in both countries in the field of maritime spatial planning. In such a circumstances also Strategic Impact Assessment (SEA) will be prepared and conducted.

2.3. Stakeholder Involvement

Although not required by Polish law the debate with stakeholders have been considered as a crucial element of the planning process. In Poland almost 100 potential stakeholders have been identified. They were asked to present their interests in the planned area. Written replies came from 29 stakeholders, describing their plans for using the planned area in the future. Two meetings with stakeholders were organised. The first one was attended by 58 persons and focused on explaining the need to prepare such a plan, presenting the main ideas of the draft pilot maritime spatial plan and discussing the results of the written consultations. During the second meeting proposed provisions of the draft pilot maritime spatial plan and remarks sent in advance by stakeholders were discussed. The draft draft pilot maritime spatial plan was published two weeks before the second meeting on the web pages of the Maritime Offices in Gdynia and in Słupsk and of the Maritime Institute. At this stage the attention has been paid to conflict mitigation and conflict resolution. Discussions with the stakeholders have allowed to formulate final provisions of the draft pilot plan.

So far, consultations with Swedish stakeholders were of limited (focused) nature, among others due to lack, at that time, of relevant authorities responsible for MSP in the EEZ in Sweden. Full involvement of Swedish stakeholders is still a pending issue

III. Planning Context

3.1. Environmental Context

The area of the draft pilot maritime spatial plan covers a part of the sea area of the Southern Middle Bank. The surface area is about 1751,5 km² (in acc. with azimuthally equal-surface Lambert projection), and lies at the contact of the Polish and Swedish EEZs (Fig. 1).

The planned sea area is determined by the coordinates of its corners:

A: 55°50'N, 17°00'E; B: 55°50'N, 17°45'E; C: 55°30'N, 17°45'E D: 55°30'N, 17°00'E

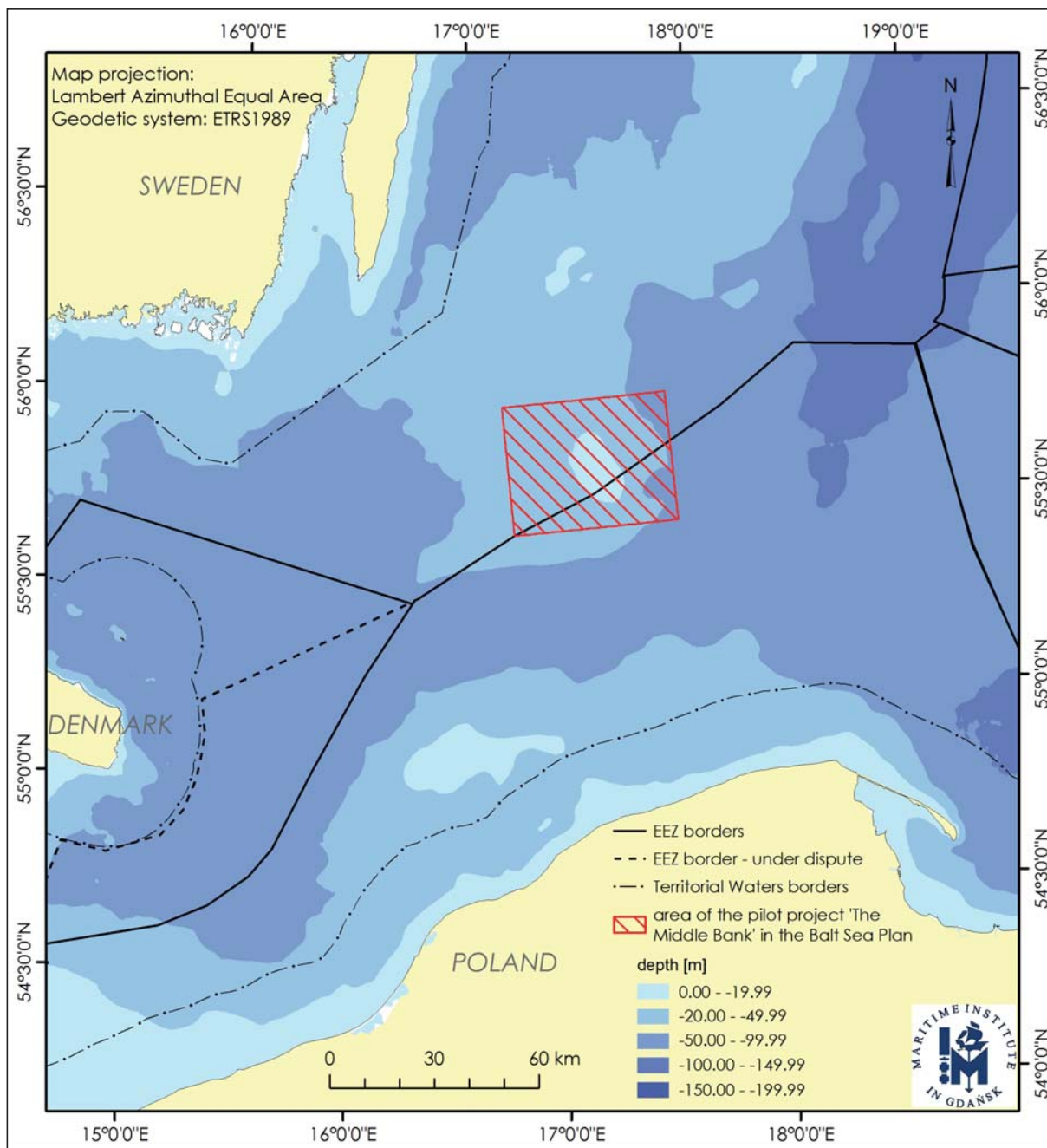


Fig.1.: Southern Middle Bank pilot area

Source: Maritime Institute in Gdańsk.

Middle Bank is the largest shallow area at the Baltic Sea, clearly divided into Northern Middle Bank fully located within Swedish waters and Southern Middle Bank, situated at the Swedish/Polish EEZ border. The Southern part is surrounded by the Bornholm Basin and Eastern Gotland Basins, and the Słupsk Furrow to the south. It is a relatively flat form, a relic of the process of melting of the Scandinavian continental glacier and of the Holocene transgression. It is divided by sea border between Poland and Sweden (28% on the Polish side, 72% on the Swedish side).

Biophysical conditions and biodiversity (maps in the Annex 1).

In comparison with other Polish banks (Słupsk Bank and Odra Bank); it lies relatively deep, with water depths of at least 13–14 m (Fig. 2). Within it, the area limited by the 20 m depth contour covers about 20% of the area of the draft pilot plan. Maximum depth in the area is 60 m in its eastern part (both on the Swedish and Polish side). Over most of the area, the seafloor gently slopes down eastwards. On the east, south-east and south sides of the Bank the slope reaches 0.4° (Fig. 3).

Mean annual water temperature in the nearbottom layer is between 4.5 and 6°C (depending on depth), however, in the shallowest parts, significant seasonal variability between summer and winter has been observed (2°C in winter, 10°C in summer) (Fig. 4).

Mean annual salinity of nearbottom water is 6–7.5 PSU. No special seasonal variability has been observed (Fig. 5).

Multiannual mean wind speed above the Southern Middle Bank, at 100 m altitude, obtained by atmospheric modelling (Fig. 6), ranges from 8.49 m/s to 8.71 m/s. The lowest mean wind speed occurs at the northwest edge of the area, and the highest is at the south-west edge. But even the lowest is quite high in comparison with the average wind speed over the whole Baltic (7.44 m/s). The variability of mean wind speed above the Bank, connected with the shadowing effect of the Scandinavian Peninsula, is small.

The Bank is an area attractive for winter shipping as statistically is rarely covered by ice. Even during the strong winters it is not covered with thick ice, only drifting ice pack from east and north directions (Fig. 7).

The Southern Middle Bank is a typical sand and gravel habitat with probably a rather poor diversification of zoo- and phyto-benthos species. In accordance with the EUNIS classification, two types of bottom habitats: A5.1 Sublittoral coarse sediment and A5.2 Sublittoral sand predominate in the Middle Bank area.

Investigations carried out at the Swedish part of the bank², showed that the most numerous benthos organisms were *Mytilus edulis*, *Cordylophora* sp. (macroinvertebrates) and *Pilayella littoralis*, *Rhodomela confervoides* (brown and red algae). The Polish, rather fragmented data³, showed that the most common species were a polychaete *Pygospio elegans*⁴ and three bivalve species *Macoma balthica*⁵, *Mya arenaria*⁶, and *Cardium (Cerastoderma) glaucum*⁷. The average abundance of benthos organisms per sq. metre of the seafloor has not exceed 400 individuals. No significant correlation between the abundance and depth of sampling has been found. The quantitative data may suggest that the Southern Middle Bank is not important as a feeding area for commercial fish (Zachowicz 2005).

Some 20 typically marine and diadromous fish species occur in the Southern Middle Bank area, which indicates rather low diversity of species. None of important commercial fish spawn in the area, however there are suggestions that the Southern Middle Bank may be a suitable nursery area for cod (Fig. 8). The stock of commercially important species includes cod, herring, sprat, flounder, and salmonids (Zachowicz 2005). The southern part of the Bank is a cod and autumn herring fishing area.

2 Data provided by the Swedish Partner, based on investigations carried out in 2005.

3 Investigations carried out by the National Marine Fisheries Research Institute for the purpose of environmental impact assessment of aggregate extraction at the „Southern Middle Bank” (Zachowicz 2005).

4 *Pygospio elegans* is a polychaete species typical of the shallow sandy bottoms.

5 A mollusc of the Tellinidae family. Length 15-21 mm, width up to 16 mm, thickness ca. 10 mm. Lives relatively close to the coast, which is the reason why its shells are often found on the beach.

6 A mollusc of the Myidae family. One of the largest in the Baltic, reaches 60-80 mm length. Lives in sandy and muddy bays. A cosmopolitan and rather common species.

7 The only Baltic representative of the Cardiidae family. Common in the Baltic Sea. Shells often found on the beaches. Grows to 30 mm length, 25 mm width and 20 mm thickness.

There are no data on marine mammals' occurrence in the draft pilot plan area. According to HELCOM records, one individual was accidentally caught in 2000.⁸

There are no national or international nature protection areas located both in the Polish and the Swedish part of the Southern Middle Bank, however in the Swedish part an Important Bird Area (IBA), covering 29,700 ha, was established in 2000 (BirdLife International 2011). This area fulfils the B1ii criterion (the site is known or thought to hold $\geq 1\%$ of a distinct population of a seabird species). The species of high concentration is *Cephus grille*.

Geology

Below the Quaternary are Silurian and probably Tertiary deposits. There is a morainic upland in the north and north-west of the Polish part of the Southern Middle Bank. It is built mainly of boulder till of the youngest stage of the Vistula glaciations.

Bottom surface sediments in the Southern Middle Bank area (Fig. 9) consist mainly of fine and medium sand, sandy gravel, gravelly sand, various sized and coarse sand.

Deposits at 1 metre below the seafloor are represented mainly by Holocene marine sand and gravel, and also Pleistocene fluvioglacial sand and gravel and boulder till.

3.2. Spatial planning documents and relevant strategies

The choice of policies was done on the basis of the BaltCoast experience with regard to maritime spatial conflict classification. The project showed which policies might have a direct and strong influence on the use of the sea space. However, this initial BaltCoast list was extended by using both EU and VASAB conclusions on the future of maritime spatial planning. As far as Poland is concerned the following policies (strategies and strategic document of equal importance) have been analysed (for Swedish analyses see BaltSeaPlan Report No 7):

- › *National Development Strategy (NDS) 2007–2015* – cross sectoral,
- › *National Reform Programme (NRP) for 2008–2011 to implement the Lisbon Strategy* – cross sectoral,
- › *National Concept of Spatial Development (KPZK)* – cross sectoral,
- › *Development strategies of coastal regions* – cross sectoral,
- › *Innovative Economy Operational Programme 2007–2013* – cross sectoral,
- › *Operational programme Infrastructure and Environment* – cross sectoral,
- › *Strategy and action plan for wetland conservation in Poland for the years 2006–2013 with cost calculation*,
- › *National Ecological Policy 2003–2006*,
- › *National Ecological Policy 2009–2012*,
- › *National strategy for protection and sustainable use of biodiversity including Action Plan 2007–2013*
- › *Strategy of seaport development till 2015*,
- › *National Transport Policy 2006–2025*,
- › *National Strategy of Fisheries Development for 2007–2013 years*,
- › *Operational programme Fish*,
- › *National energy Policy till 2030 (draft)*,
- › *Strategy for development of Polish maritime economy for years 2007–2015” – the interim report from implementation on 2008.*

3.3. Legislation affecting maritime space

National legislation

The draft pilot spatial maritime plan for the Southern Middle Bank area, located in the Polish Exclusive Economical Zone (EEZ), has been developed in accordance with regulations of Article 37a section 1 and 2, and Article 37b section 1 of the Act of March 21st 1991 on the sea areas of Poland and maritime administration (Official Gazette of 2003, no. 153, it.1502 with later amendments), which were introduced on July 11th 2003.

The draft spatial maritime plan takes also into consideration:

- I. the Swedish Environmental Act (1989, partially revised in 2009): covers cross-cutting issues – environmental objectives, national areas of interest for MSP, water quality management, and marine research,
- II. the Swedish National Maritime Policy Bill: *A coherent Swedish Maritime Policy* (2009): brings the concept

⁸ Following www.helcom.fi?GIS/en_GB/propoise/

of an integrated MSP, specifically the need for evaluation and investigation of current planning and responsibility for the territorial waters, the need for legislation for planning in EEZ and a responsible agency to be created for this,

- III. the Swedish Planning and Building Act (1987), reinforced by the Act on Technical Requirements for Construction Works (1994),
- IV. the Swedish Economic Zone Act (1994) and the Fishery Act (1982) as amended by subsequent acts,
- V. the draft Act on amendment of the Swedish Act on spatial planning and management and several other Acts (especially Chapter 3a „Spatial planning of marine areas”),
- VI. determinations of the Polish Draft (of September 20th 2005) Ordinance of the Minister of Infrastructure on the *required scope of spatial development plans of internal sea waters, territorial sea and EEZ*.

The draft pilot maritime spatial plan takes also due consideration of the Polish National Spatial Development Concept (approved in 2011). During the draft pilot maritime spatial plan preparation plans of stakeholders using the area covered by the plan and proposals submitted to the Maritime Office in Gdynia were also considered.

In the area of the draft pilot maritime spatial plan located within the Polish EEZ, regulations of the already mentioned Act of 21 March 1991 (with later amendments) on sea areas of Poland and on maritime administration, and of the Act of 7 July 1994 (with later amendments) Construction Law are in force. In that area are also in force Polish Acts on environment protection, including:

- › Act of 16 April 2001 on nature protection,
- › Act of 27 April 2001 Environment Protection Law,
- › Act of 3 October 2008 on access to information on environment, public participation in environment protection, and on environmental impact assessments.

In the area of the draft pilot maritime spatial plan located within the Swedish EEZ, regulations of the already mentioned Swedish Economic Zone Act (1994) (1992:1140), the Continental Shelf Act (1966:314), the Environmental Act (1989) and the Fishery Act (1982) are in force.

International legislation

The project team analysed an extensive set of international legislation issued by or agreed under auspices of:

- › **UN** and its bodies: The United Nations Convention on the Law of the Sea – UNCLOS, Convention on Biological Diversity – CBD, The Espoo (EIA) Convention, Aarhus Convention, The UNESCO Convention on the Protection of the Underwater Cultural Heritage,
- › **IMO**: Resolution A.720(17) by which the Assembly adopted the Guidelines for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Areas, Resolution A. 672 (16) on Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone, MARPOL Convention, The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter – commonly called the London Convention, International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 – INTERVENTION 1969, The International Regulations for Preventing Collisions at Sea 1972 – COLREGS,
- › **EU**: Bird Directive, Habitat Directive, SEA Directive, EIA Directive, Marine Framework Directive and various regulations mainly referring to fishery,
- › **Council of Europe**: The Convention on the Protection of the Archaeological Heritage of Europe, usually referred to as the Valletta Treaty or Malta Convention,
- › **Helsinki Convention**: in particular its recommendations 15/5, 17/3, 19/1, 19/17, 21/4, 24/10, 25/4, 28E/9,
- › other conventions: The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or the Bonn Convention) including several additional Agreements such as EUROBAT to conserve populations of European bats and ASCOBANS related to small cetaceans of the Baltic, North East Atlantic, Irish and North Seas.

Article 58 of UNCLOS rules that in the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of UNCLOS, the freedoms of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms. Article 60 stipulates that artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation. More detailed information on legal provisions that have been taken into consideration in the process of the draft pilot plan preparation one can find in the Annex 2 of this monography.

IV. Stocktake

One of the key hindrances of the planning process was lack of relevant and reliable information and knowledge. The only easily available and reliable information was on shipping and concession issued. The main sources of data were HELCOM, ICES, BALTIC GIS databases, as well as Maritime Institute, Polish Geological Institute, Swedish Geological Survey, as well as expert reports like North Stream reports, Sea Fishery Institute reports, etc. Information on ichthyofauna has been taken from HELCOM and Sea Fishery Institute data base. However, the area under the draft pilot maritime spatial plan is one of the weakest examined basins of the Southern Baltic as considering the biological and geological data. The Bank lies outside of the HELCOM COMBINE monitoring areas. There has been no sufficient information concerning sea mammals. The literature-based data about species diversity have not been available, and existing information based on samples were of low resolution. Polish and Swedish maps of sediments have differed due to different sampling methods. Due to its isolation by Słupsk Furrow from other shallows of similar geological character it is impossible to transfer/generalise the information (knowledge) on Słupsk Bank habitats over Southern Middle Bank. Therefore some modelling techniques have had to be used with regard to habitat stock-take.

Natural evaluation, carried out based on that data, covered mainly avifauna and habitats, bottom sediments, salinity, intensity of light, phytoplanktonic fauna, as well as macrolites and macrozoobenthos. The problem was that all the findings gathered have not been robust enough to allow accurate assessment of ecological value of the area in question. But the planned area might be regarded (partially) as habitat type 1110 – sandy submerged bank, although from the other hand types of sediments do not speak for rich biological life there.

It has been a pity that stakeholder meetings did not result in furnishing the planning team with new practical ichthyofauna information. The main finding from the HELCOM data base was about the importance of the Southern Middle Bank for juvenile stages of cod – the basic, yet threatened, commercial fish species. However, during the public debate some doubts were raised to what extent these findings can be translated into spatial planning language, since it is extremely difficult to delimitate the exact boundaries of the sea area important for the well-being of cod, since they depend on many variable characteristics including current, hydrological and biocenotic conditions related to the time of day or season of year.

Information on sea mammals also was insufficient. As already mentioned only one porpoise bycatch was registered in 2000 in the area. Therefore the planning team has concluded that there is no evidence of mammals using the Southern Middle Bank for procreation, feeding or sheltering in recent years. The problem is however, that if mammals are restored in the Baltic Sea, they might wish to make a more intensive use of this area in the future.

4.1. Overview of relevant issues

Navigation

Across the Central Baltic region run main navigation routes connecting ports outside the Baltic and ports of the Western Baltic with the Finnish, Swedish, Russian, Estonian, Lithuanian, Latvian and Polish ports. These routes are shown in Fig. 10. They are marked by letters for easier description.

Description of navigation routes in the Southern Middle Bank region (see also Fig. 11):

- › **Route A:** main navigation route for international traffic across the Baltic Sea from the Western Baltic (Arkona Basin) to Finland, Sweden, Estonia, Latvia and Russia. With 53 thousand ships annually, it is the most often used route on the Baltic Sea. Mainly these are freight ships (60%), tankers (15%), others (25%).
- › **Route B:** main international deep water navigation route to Gotland, connecting two traffic separation systems in the north (Kopu Peninsula) and south (Bornholm Strait). This route is used mainly by tankers (67%), freight ships (15%), others (18%). Annually 5.1 thousand ships sail along this route.
- › **Route C:** often used route, which passes between the island of Gotland and mainland, and the island of Öland. It leads to Stockholm and then to the Bothnia Bay ports. Annually it is used by 18 thousand ships. It is a branch of route A.
- › **Route K:** often used route from east to west, passing north of Bornholm. It starts from route A and leads to the Lithuanian and Latvian ports. It runs south of the Southern Middle Bank. Annually used by 7 thousand ships, mainly freight ships (40%), tankers (20%) and others.

- › **Route I:** second often used route, passing east to west south of Bornholm, which leads to the Polish and Russian ports of the Southern Baltic. Annually used by 13.5 thousand vessels. Mainly by freight ships (53%), tankers (13%), passenger ships (9%) and others.

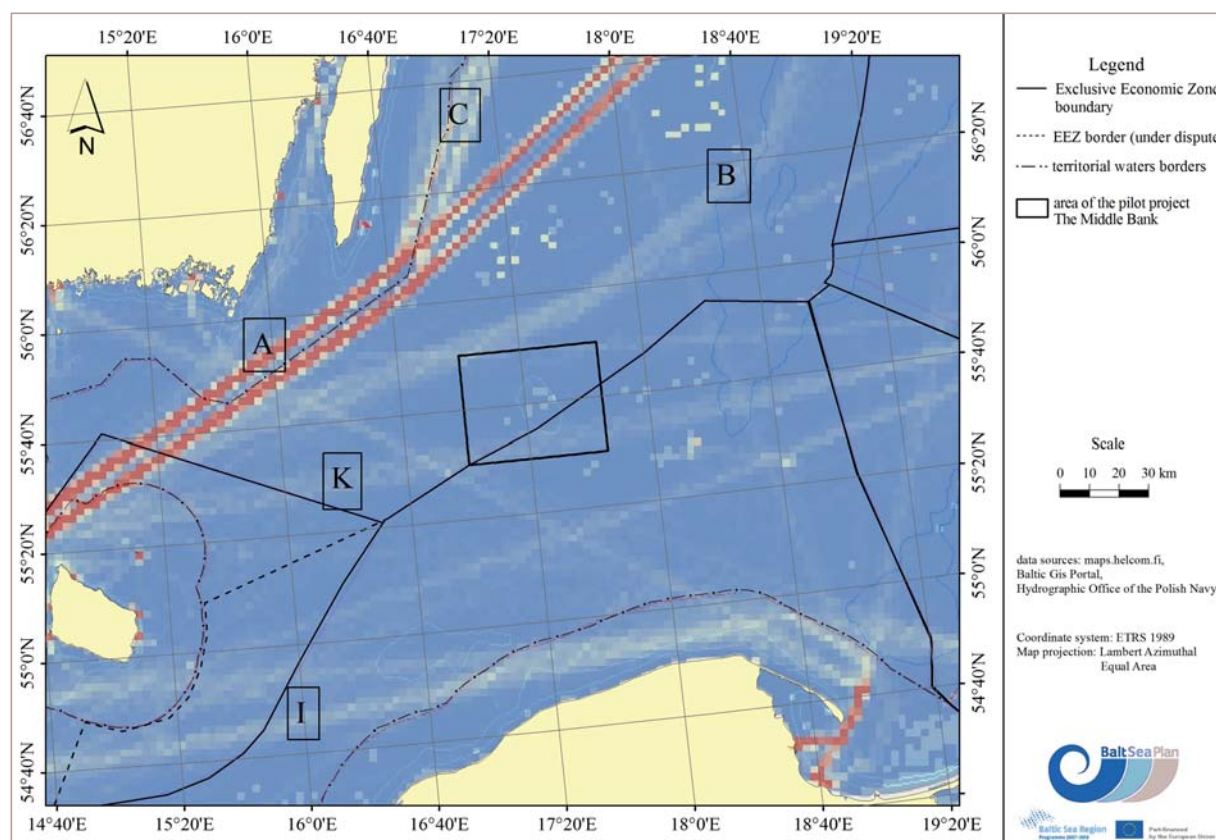


Fig. 10. Main navigation routes in the Southern Middle Bank region

Source: AIS Ship traffic recordings from December 2007, <http://maps.helcom.fi/website/mapservice/index.html> (access 25.01.2011).

Because of the small depths in the Southern Middle Bank area (about 13 m), inadequate for navigation of large vessels directly over the Bank, it is a region with much lower intensity of large freight ships and tankers. In effect their routes are transferred to areas north and south of the Southern Middle Bank.

North of the Southern Middle Bank is a route connecting the Western Baltic with Klaipėda, which is used mainly by big tankers.

South of the Southern Middle Bank is a route which connects Klaipėda with the ports of Southern Baltic – mainly Świnoujście, Sassnitz and Mukram. This route is used mainly by train and cargo ferries (Mukram-Klaipėda) and freight vessels.

On the west, the Bank is passed by the ferry route connecting ports of the Gulf of Gdańsk with Sweden (Karlskrona) and on the east by the Gdańsk – Stockholm route.

None of the above routes has the character of a motorway of the sea. Also no Traffic Separation System (TSS)⁹ or recommended route system has been designated on stretches cutting across the Southern Middle Bank area. There has been no plans to do it in the future as well.

⁹ Traffic Separation Systems (TSS) are established on the Baltic Sea in the Gulf of Finland, at the southern tip of Gotland, in the Gulf of Gdańsk; they direct vessels onto separate parallel routes with one-way traffic on each route.

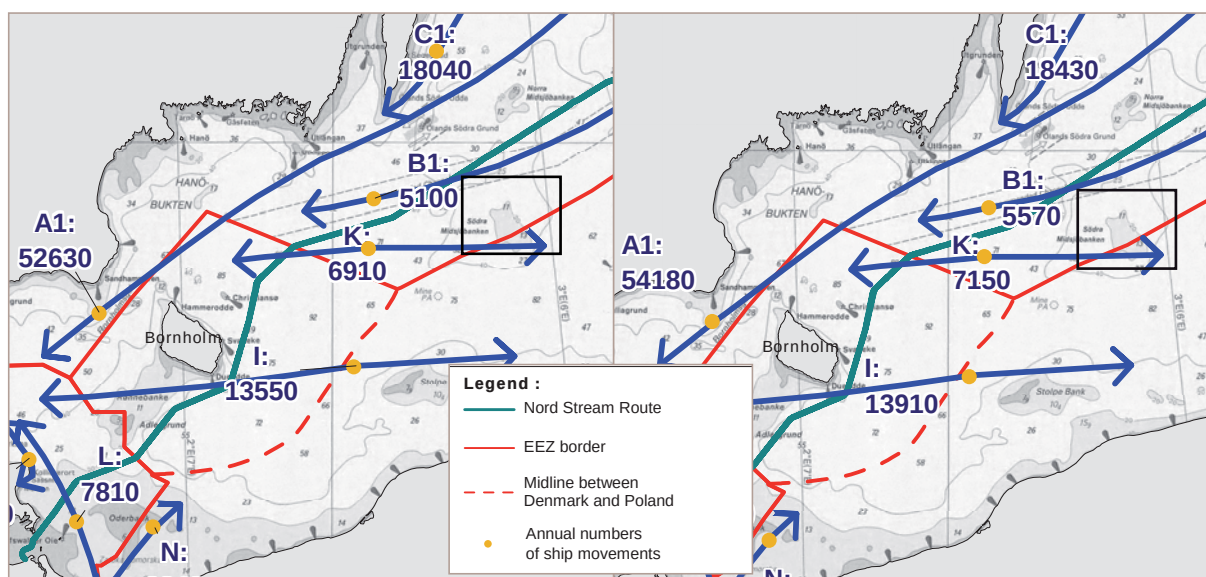


Fig. 11.: Trends in shipping prognosis 2006–2016

Source: Nord Stream AG available at www.nord-stream.com (map SH-2, SH-5).

It is expected that by 2016 vessel traffic will grow on all navigation routes located near the Southern Middle Bank (Fig. 11). In per cent and in absolute numbers this increase will be largest on route B – 9.2% and 470 vessels more in 2016 than in 2006. No significant change in type structure of vessels is expected (compare Fig. 12).

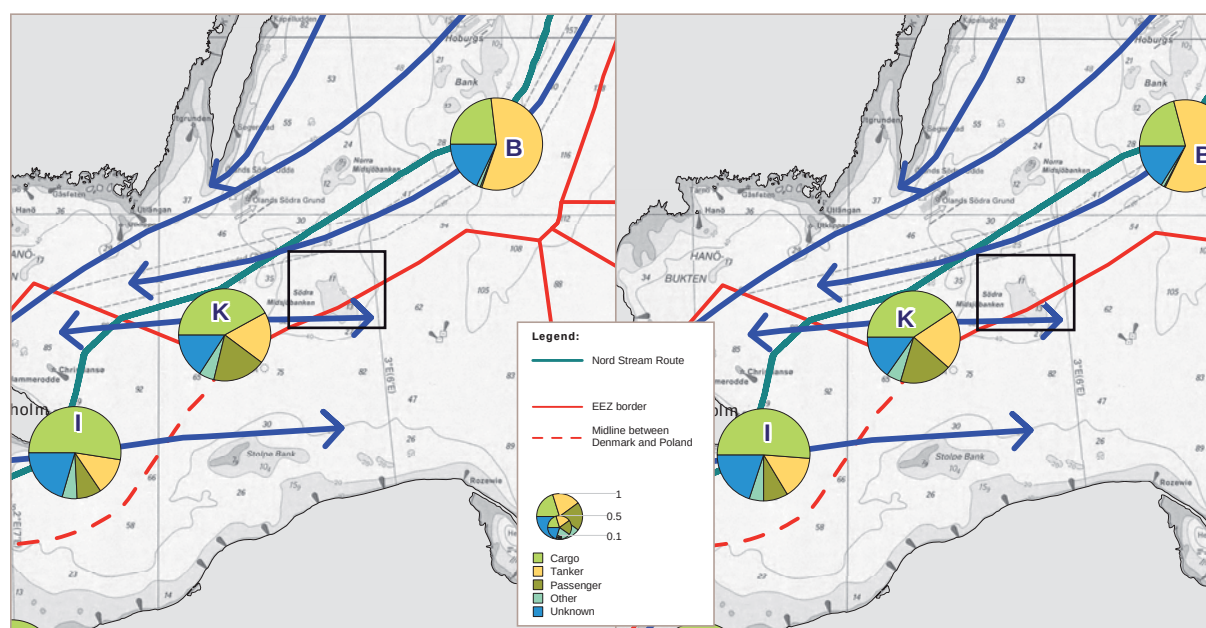


Fig. 12.: Trends in vessels' type structure, 2006–2016

Source: Nord Stream AG available at www.nord-stream.com (map SH-3, SH-6).

Fishery

Fishing activity in the Southern Middle Bank region is rather moderate. The area is included in the ICES 40G7 sector. Fishing intensity is shown in Fig. 13. Information about the number of fishing vessels is indirectly provided by information about the catch volume, and the size of these vessels is defined by the species of caught fishes. Available information indicates that in that area operate Polish, Swedish, Estonian and Danish medium and large trawling cutters, well equipped in navigation aids and radars. They have negligible impact on safety of navigation in this region.

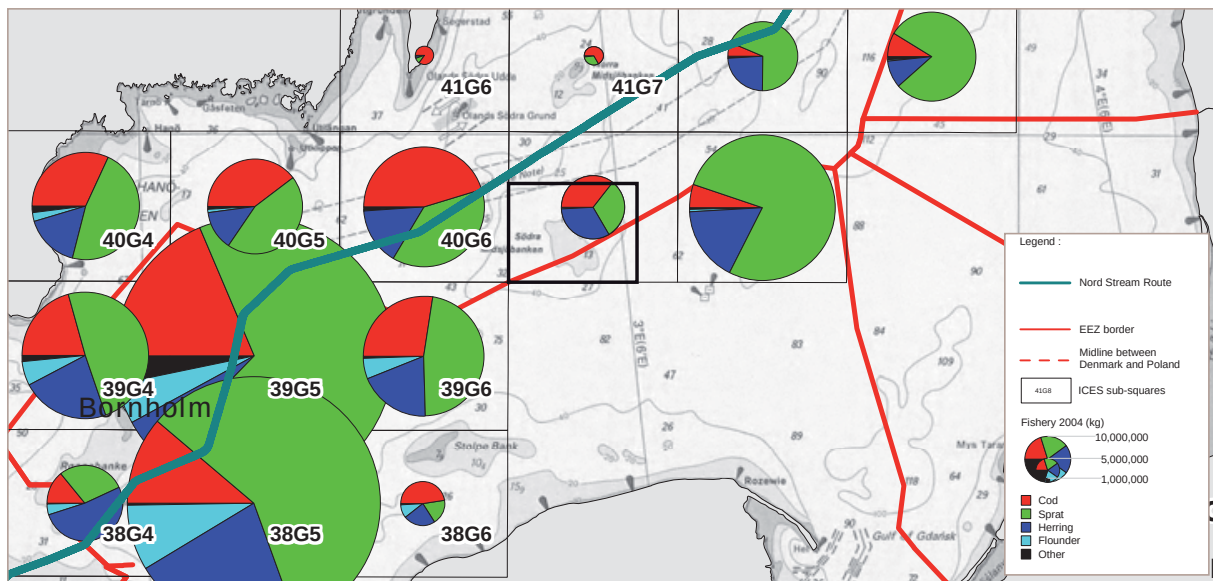


Fig. 13. Total volume of catch in ICES squares in 2004

Source: Nord Stream AG available at www.nord-stream.com (map FC-8).

Military threat

During World War II there was a minefield north of the Southern Middle Bank. Though direct danger from the field was removed after the war, the area is still considered as a mine threat region (Fig. 14).

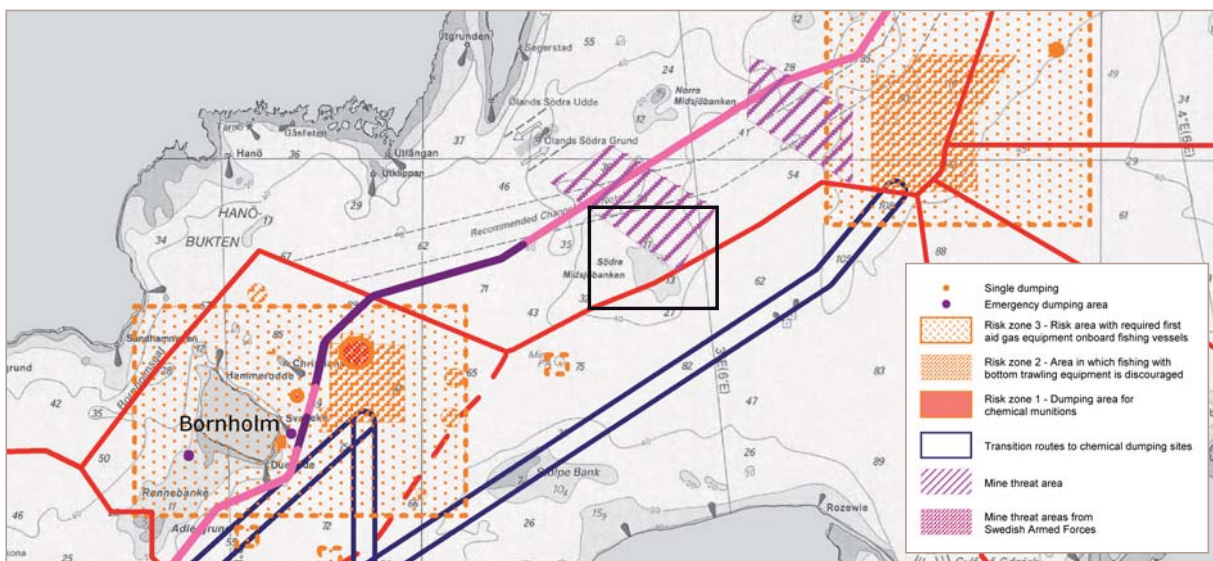


Fig. 14. Areas with occurrence of conventional munition

Source: Nord Stream AG available at www.nord-stream.com (map MU-1).

Aggregate mining

In the Southern Middle Bank area, aggregate is extracted from the „Southern Middle Bank – Southern Baltic” deposit. License No 3/2006 for this activity was issued on 15 November 2006 by the Polish Minister of Environment. The license is valid until 2031.

In accordance with Article 22 of the Polish Act Geological and Mining Law, the license determines: the type and way of carrying out the activity, boundaries of the water basin and of the mining area, validity including the date of starting the activity, general safety and environment protection requirements, aim, scope, type and timetable of geological works, required accuracy of geological investigations. It also defines the maximum and minimum volume of the resource to be extracted.

There are four mining areas within the sea basin (sub-area) covered by license 3/2006, and within them nine resource fields:

- › mining area Southern Middle Bank A – surface area 8 200 000m², includes fields No. I, II, III;
- › mining area Southern Middle Bank B – surface area 33 600 000m², includes fields No. IV, VI, VII;
- › mining area Southern Middle Bank C – surface area 7 020 000m², includes fields No. VIII, IX;
- › mining area Southern Middle Bank. – surface area 81 670 000 m².

The surface area of the natural aggregate deposit “Southern Middle Bank” is 25.64 km². The volume of the deposit is assessed at ca. 56 million tonnes. Predicted period of exploitation is 25 years at permissible annual extraction of 2 million tonnes. Operations shall be carried out in water depths between 18 and 30 m. Fields III and IV are located very close to the boundary of the Polish EEZ. A hopper dredger will be used for extracting the aggregate. This type of vessel allows dredging of aggregate with diameters up to 200 mm in depths of up to 30 m.

The license for mining aggregate determines also conditions within the so called “protective pillar” and in the adjacent 200 m wide zone on the Swedish side. The protective pillar is an area between the deposit and the boundary dividing the Polish and Swedish EEZs, and its width is 170 m and thickness is 0.2 m. The aim of the protective pillar is to protect the bottom against washing out and to facilitate quick recolonization by benthic organisms. In the protective pillar area no mining is allowed.

The aim of exploiting the resource in stages is to prevent significant damage of the feeding grounds of birds wintering in the area of the Southern Middle Bank shallows. The structure of macrofauna communities in the area, their mode of life and biology of invertebrates allow to expect that quick recolonization will take place.

The project will not change the conditions of sedimentation – erosion, transport and accretion of sediments on the Swedish side.

Constructions and artificial islands

At present, there are no artificial islands or structures in the Southern Middle Bank area. Development of wind farms is expected both on the Swedish and Polish side (Fig. 15).

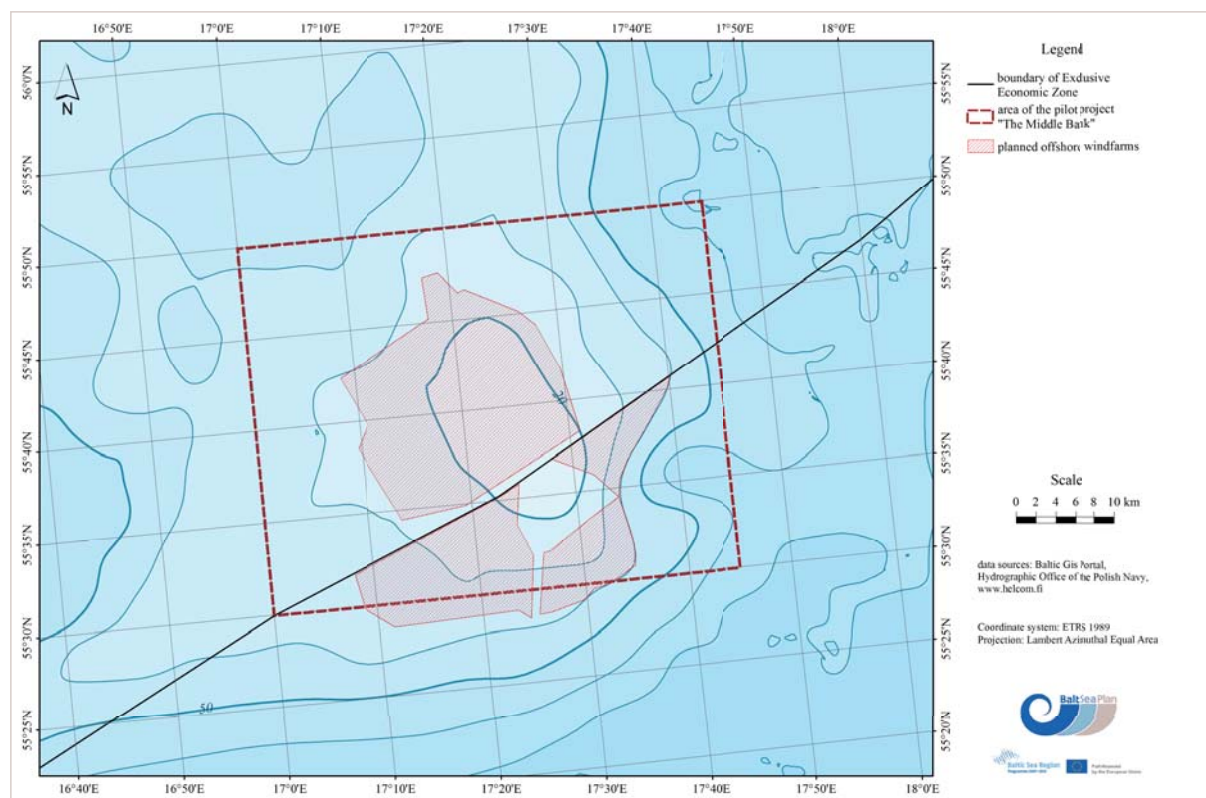


Fig. 15.: Planned offshore wind farms in the Southern Middle Bank area

Source: prepared by Maritime Institute in Gdańsk.

The Swedish investment is currently at the stage of the transboundary Environmental Impact Assessment procedure. Poland was notified about it and confirmed the willingness to participate in the EIA procedure.

Two applications have been submitted to the Polish Minister of Infrastructure for permission to execute a wind-farm's investment task. These applications are currently in the stage of interdepartmental consultation.

Both investments are located in the Polish EEZ in the Southern Middle Bank area, and in the Polish territorial sea, and includes construction, starting operation and exploitation of the following elements:

- › offshore measurement and investigation platform (EEZ),
- › offshore power transmission station (EEZ),
- › offshore wind turbines (EEZ),
- › marine medium voltage power cable (EEZ) within the wind park, and laying on the sea bottom and exploitation (outside the wind farm) of a high voltage power cable (EEZ, territorial sea).

Linear infrastructure

There are no operating cable or pipeline elements of linear infrastructure in the area of the Southern Middle Bank. Only telecommunication cables out of use are located there.

The proposed construction of the “Offshore Wind Farm – Southern Middle Bank, Stage I and II” will require laying of an underwater power cable:

Nature protection

In the planned area there are no protected areas established, neither by national nor international law. On the Swedish side the International Bird Area was established in 2000 (29,700 ha) (Fig. 16). The area fulfils conditions of the B1ii category which means it is an congregation area of European importance which is known or thought to hold $\geq 1\%$ of a distinct population of a seabird species. Here the population considered is the Black Guillemot *Cepphus grille* (data from 1993 – 770 individuals).

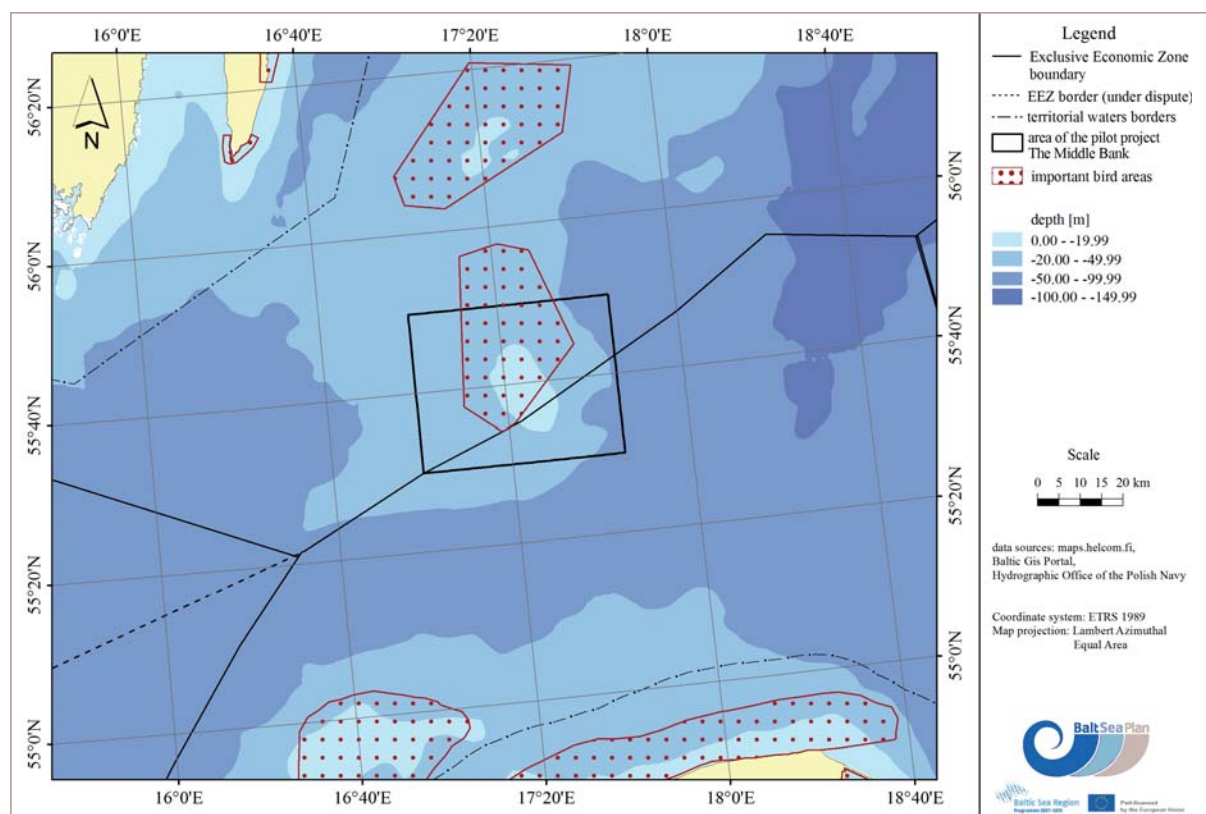


Fig. 16.: International Bird Area in the Southern Middle Bank region

Source: prepared by Maritime Institute in Gdańsk.

When planning such a small area it is important to see it in a larger ecological context with connections to other neighbouring areas via ecological corridors – the Blue Corridors Concept.

Some species migrate over long distances, meaning that their habitat is either not in a fixed location or is only fixed during a certain part of their life cycle. Many species are also dependent on several different habitat types during their life. In any area there will also be a turnover of species. Some species will from time to time go locally extinct, either because of predictable long-term processes or because of random events. After a species has disappeared from an area, it may recolonise the area again after some time, by dispersal from another area. Thus, in order to ensure the long-term survival of a species, the connectivity of habitats may be as important as the quality and quantity of the individual habitat.

The existing Baltic studies showed the variability and importance of passive transport pathways of pelagic life stages of marine species and confirmed that dispersal in fact can be a limiting factor concerning both the maintenance of populations at one given location and the exchange of individuals between locations. Furthermore, they also showed that the relative role of a certain area as a source of *e.g.* pelagic larvae does indeed vary and that the concept of ranking areas in “downstream” and “upstream” locations is possible and make sense.

Currently the knowledge of actual connectivity patterns and the importance of Blue Corridors in the Baltic Sea are still limited and have to be improved. To be able to efficiently consider connectivity also in the planning and management of the Baltic Sea more data, ecological knowledge and information are needed.

Similar problem is with spatial requirement of the food-web. Deterioration of habitats for a single chain of the web might result in jeopardising of the existence of many species and diminishing of biodiversity of the sea.

Other uses

There have been no indications about location in the Southern Middle Bank area of any objects of underwater cultural heritage. Also no special areas for scientific research have been established there. Neither maritime tourism, nor dumping and defence have been found among Southern Middle Bank users.

4.2. Additional issues

The impact of different policies on spatial development of the Southern Middle Bank was analysed (see chapter 3.2).

The outcome is presented in Table 1.

Analyses related to comprehensive characteristics of the planned area (see part II) allowed to detect the main driving forces related to the public policies which will shape the development of the Southern Middle Bank area. They are the following:

- › EU 2020,
- › Environment policy,
- › Spatial policies,
- › Fishery,
- › Energy policy,
- › Mining and extracting of minerals.

Table 1. List of most important policies affecting development of the Southern Middle Bank¹⁰

Policy	Strong impact		Consequences for MSP
	Direct	Indirect	
Lisbon policy (EU2020)		x	› Development of highly innovative sea-related branches.
Cohesion policy (Structural Funds)	x	x	› Reserve space for enhanced maritime transport and pipelines. › Consider growing demand for renewable energy production at sea. › Expect management plans for Natura 2000 areas (additional limitations for sea space use). › Reserve space for different users (in long term).

¹⁰ Refers only to Polish documents, for Swedish analyses see BaltSeaPlan Report No 7

Policy	Strong impact		Consequences for MSP
	Direct	Indirect	
Spatial policy	x		› Emerging proper legal framework and increased number of maritime spatial plans. › Observe freedoms granted in UNCLOS (freedom of navigation, locating cables). › Mitigate spatial conflicts.
Environmental policy	x	x	› Prepare for Baltic Sea Protected Areas (BSPA) planning on the sea. › Mitigate spatial conflicts related to BSPA. › Plan for preservation of important habitats, not only those protected by law but also those which are important for survival of Baltic species. › Expect management plans for Natura 2000 areas (additional limitations for sea space use). › Expect methodological changes in MSP concerning SEA procedures, measurement of the carrying capacity, co-operation with terrestrial planning, etc. › Pay more attention to the future extraction of minerals. › Pay attention to the accessibility of the natural storages for oil and gas from the sea. › Reserve space for different users (in long term).
Port development	x		› Reserve sea space for enhanced maritime transport and for port areas.
Fishery	x		› Reserve sea space for enhanced fishery activities (with modernised fleet and new techniques new areas could be fished?). › Ensure proper spatial cohesion of sea areas important for the life cycles of fish. › Reserve space for development of mariculture. › Strengthen the importance of coastal fishery.
Energy	x		› Reserve sea space for energy production. › Mitigate spatial conflicts related to this issue.
Mining and extraction of minerals	x		› Obtain proper information on location of mineral resources (basic information for the planning process). › Obtain information on deposits in need of mandatory protection, e.g. against built-up (additional spatial limitations).

Source: own elaboration.

For the development of the Southern Middle Bank it means paying special attention to avoid fragmentation of habitats, reserving most suitable places for renewable energy production, paying attention to the interests of fishery, respecting growing needs of maritime transport and paying attention to safety of navigation, and reserving space for unknown, potentially innovative uses.

4.3. Identified stakeholders

According to existing law, public participation in the preparation of maritime spatial plans should occur at the stage of the SEA.

Drafts of new Polish law: amendment of the Act on spatial planning and management and Ordinance of the Minister of Infrastructure on the required scope of maritime spatial plans of internal sea waters, territorial sea, adjacent zone and EEZ in their textual and graphic parts assume active public participation from the very beginning of preparation of maritime spatial plans.

Being directed by:

- › the need of testing the above mentioned new draft law,
- › the desire to produce a “publicly most acceptable” plan,
- › agreed within the BaltSeaPlan project diagram defining the steps leading to the development of a maritime spatial plan (including meetings with stakeholders),

steps were taken to develop the spatial plan for the Southern Part of the Middle Bank in a way allowing possibly fullest consideration of comments and proposals submitted by stakeholders.

Two meetings with stakeholders have been organised on Polish side during the plan preparation, on 17 February 2010 at an early stage of works, and on 17 May 2011 when the draft plan was presented. Also Swedish stakeholders have been approached widely.

The special questionnaire was distributed, asking the stakeholders to comment on potential conflicts resulting from the way this sea area may be developed, to indicate stakeholders which have not been included in the mailing list, and to declare whether they want to receive further information about the project. It was sent to almost 200 stakeholders identified on Polish and Swedish side.

The stakeholders identified and involved in the pilot MSP process consist of following levels:

- › national, regional and local authorities (including ministries, maritime administration, regional administration like Marshalls' offices and voivodship offices, county administration, municipalities),
- › representatives of the sea use sectors (including wind power associations, ports and shipping companies, fishermen associations, mining companies, tourism sector, etc.),
- › research institutions (including research institutions, universities, museums, etc),
- › NGOs and public.



V. Conflict Analysis

The stocktaking and identification of future demand of stakeholders for the utilization of maritime space allowed to outline basic spatial conflicts.

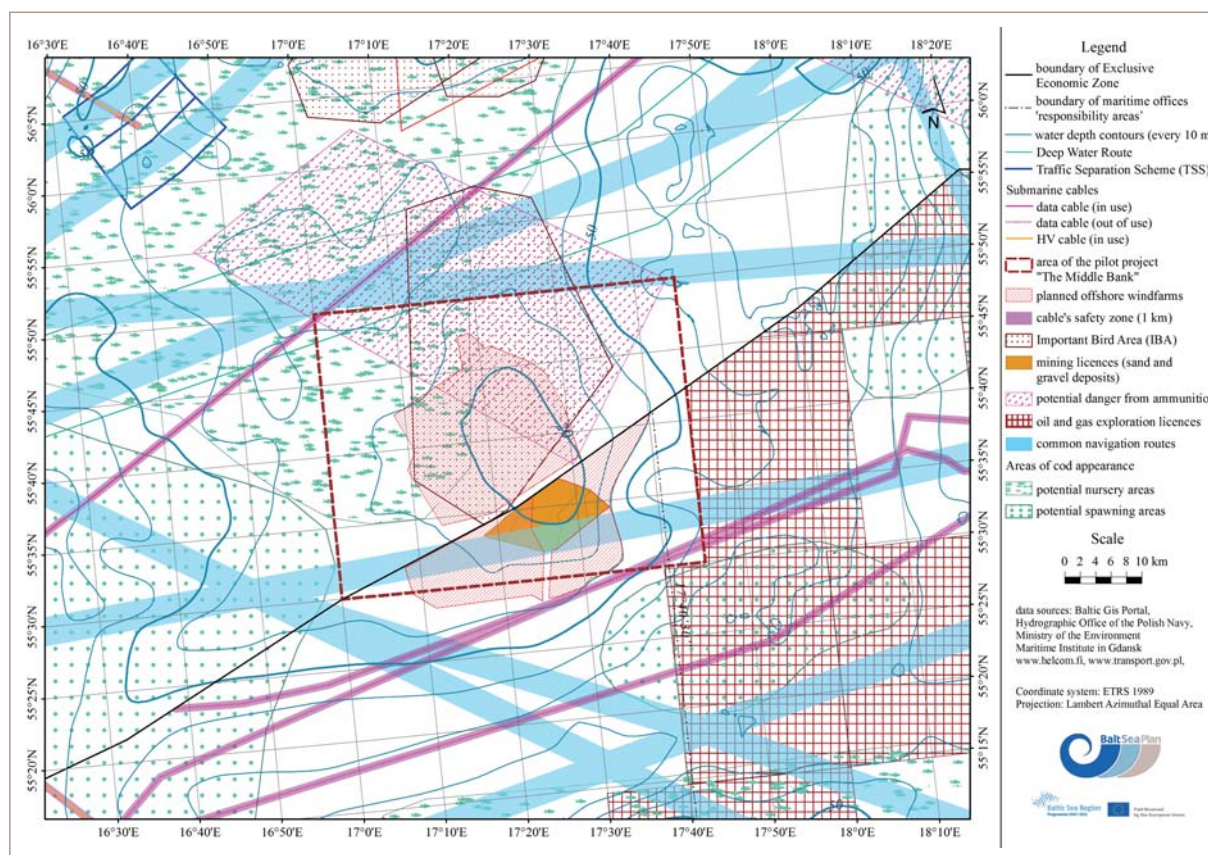


Fig. 17.: Map of overlapping uses in the Southern Middle Bank area

Source: prepared by Maritime Institute in Gdańsk.

The Fig. 17 indicates some overlapping uses and goals (e.g. shipping and wind mills, shipping and aggregate extraction, cod nursery areas and potential wind mill parks, extraction of aggregates and intention of wind mill parks establishment or between wind mills and birds). Not always existence of multiple uses must lead to conflict situations. It seems that wind mills are not in conflict with the cod well-being. And sometimes in contrary the conflict might emerge even without evident current overlap (new farms will require transmission cables and those cables can be potentially in conflict with shipping, fishing and aggregate extraction). Therefore for conflict analysis examination of the existing overlaps is not sufficient and the knowledge on future (planned uses) is of equal importance.



VI. Methods for dealing with identified conflicts

Conflicts solving

The stock-taking and identification of future demand of stakeholders for the use of the sea space allowed outlining basic spatial conflicts. Because of the importance of natural conditions, firstly the valuation of specific types of business activities against their impact on nature and environment of the area covered by the draft pilot maritime spatial plan was carried out. Similar analyses concerned conflicts between various types of business activity. In the analyses morphodynamic processes were also taken into account. The results of the valuation are presented in table 2.

Table. 2. Spatial conflicts valuation

	Habitats	Fish	Birds	Gravel	Energy	Shipping	Cables
Habitats							
Fish							
Birds							
Gravel	●	●					
Energy	●		●	●			
Shipping				●	●		
Cables	●	●		●		●	

● Additional knowledge

● We have managed

● Controversial solution

● Policy needed

Source: own elaboration.

Tourism was excluded *a priori* due to the location of the planned area and lack of cultural heritage. Therefore no conflicts with the tourism sector are shown in Table 2. However, the draft pilot maritime spatial plan envisages some provisions for conflict solving if cultural heritage is discovered. The conflicts have been divided into the following categories:

- › those solved by the planning provisions (e.g. by separation of different uses) – green colour in table,
- › those solved by the planning provisions although in a way that might be not entirely in line with international law (restricting some freedoms of the sea in order to make room for other sea users in situation of scarce spatial resources) – red colour in table,
- › temporarily solved by the planning provisions due to lack of sufficient knowledge (usually the precautionary principle has been applied in such circumstances) – blue colour in table,
- › not solved by the planning provisions due to lack of policies prioritising among the various uses (usually in such cases some management options were proposed for granting building or exploitation permits) – black colour in table.

In conflict solving no single use received a privileged position despite international law granting some extraordinary rights (freedom of the seas) to some uses. However, due attention was paid to Baltic wide long term processes, in particular supporting and regulating ecosystem services. While prioritizing provisioning services the aforementioned national and international documents were used. However, it was difficult to assess on their basis whether e.g., shipping should make room for wind energy or vice versa. The planning team finally decided to give higher priority to the multiple users (e.g. wind energy combined with mariculture for environment protection) over single type of users. Because large wind farms are proposed in the south and north parts of the Bank (within the area limited by the 40 m depth contour), and the Bank is among the most suitable Baltic areas for that purpose, shifting of navigation routes may be expected – route K to the south, and the route connecting Klaipeda with route A to the north of the Southern Middle Bank (see Fig 10).

In case of a high level of uncertainty, the precautionary principle was applied. As already pointed out, because of the possible, but still not documented habitat values, a sea basin (sub-area) limited by the 20 m depth contour has been established as a potential priority sea basin (sub-area) for environmental protection, in which other forms of use are excluded if they interfere with the habitat protection function. Certain recommendations have also been introduced in sea basins (sub-areas) recommended for mining and power production activities to cope with danger from post-war mines (which danger was very difficult to assess). Despite lack of information on cultural underwater heritage in the area of the plan, tentative provisions for its protection were introduced. Construction of underwater and above-water structures, artificial islands, other structures including laying of cables, pipelines – so called linear infrastructure, and structures for needs of research, also mining activities should be preceded by inventories covering among others underwater cultural heritage, dumped munition, etc. On requirement of the maritime administration, routes of linear infrastructure, location of mining, research or production activities may be changed in order to protect objects of cultural heritage against damage caused by installation, construction or mining works, or during monitoring, repairs and dismantling of structures and installations in the future.

There have been two main tools used for conflict solving:

- › delimitating specific sea subareas for expressing preferences for some uses (giving preferences to some users over the others),
- › general recommendations and requirements for orderly use of the sea space.

Delimitation of sea basins (sea sub-areas)

Due to the nature of the draft pilot maritime spatial plan for the Southern Middle Bank area (its strategic character), the process of delimitation of the sea sub-areas was quite different than in the comprehensive plans (such as the plan for the Gdańsk Bay – cf. Zaucha 2010). Delimitation of the sea sub-areas have been used not in order to maintain the functionalities of the planned area, but rather to secure space of particular importance for top sea users. Therefore three types of sub-areas have been established:

- › **priority sub-areas** – in such a zone one type of use receives top priority over all other types of uses,
- › **recommended sub-areas** – in such a zone some types of uses are welcome and encouraged (some functions are considered as very important),
- › other areas i.e. so called **general sub-area** – with no priority for any users.

On top of that, because the planned area lies directly by the border between Polish and Swedish EEZs, for management purposes an additional zone was established: a so called transborder sea basin (sub-area) (of 15 km width on both sides of the EEZs' border). In this zone cross-border consultation shall be carried out on the basis of environmental impact assessment documentation (in accordance with the requirements of the Espoo Convention) for building structures, artificial islands, laying of installations and mining activities, with the exception of mining and transferring liquid hydrocarbons, in case of which transborder consultation is required in the whole area of the Plan.

Applying this methodology and information from the stock-taking phase, and making use of the precautionary principle, the following types of sub-areas were established:

- › priority (potentially) sea basins (sub-areas) for maintaining fishery (for cod well-being),
- › recommended sea basins (sub-areas) for mineral and raw material extraction from below the seafloor, so-called areas of mining activity,
- › recommended sea basins (sub-areas) for economical/industrial activities other than mining,
- › priority (potentially) sea basins (sub-areas) for nature protection,
- › recommended sea basins (sub-areas) for scientific research,
- › recommended sea basins (sub-areas) for mariculture,
- › transborder sea basin (sub-area),
- › remaining sea basins (sub-areas) in the sea area – general zone.

It was assumed that two or more priority and/or recommended functions might coexist in the same space. When two recommended functions compete, then the competent organ of maritime administration should check the demand for sea space of each (require the stakeholders to present their preferences) and should minimise the conflict by selecting a fitting time sequence or through a tender procedure.

Requirements and recommendations

For each sea basin (sub-area), requirements and recommendations on the use of the basins (sub-areas) were formulated. Examination of international law was of particular importance at this stage due to the limited jurisdiction of coastal states over their EEZ.

The draft pilot maritime spatial plan has only four types of prohibitions and requirements specific for different types of sub-areas:

1. The first is excluding in the priority sub-areas these functions which collide with the priority functions. For instance, activities conflicting with the nature protection function are not allowed in the priority (potentially) sub-areas for nature protection. The same applies to activities conflicting with the function of maintaining juvenile stages of cod in the priority (potentially) sub-areas for maintaining fishery.
2. The second prohibition concerns linear infrastructure. Linear infrastructure should be placed exclusively in infrastructure corridors crossing priority and recommended sub-areas of the plan.
3. The third requirement is on cross-border consultation on the basis of EIA documentations in the transborder zone (sub-area).
4. Fourthly, for the general sub-area (of unknown future use) it is required to carry out a territorial impact assessment (TIA) preceding mining activities, construction of artificial islands and structures or laying linear infrastructure.

The TIA should include the following aspects:

- › safety of navigation,
- › safe realisation of sea fishing,
- › safe air navigation,
- › underwater archaeological heritage,
- › safety connected with investigation, prospecting and exploitation of mineral resources of the sea bed and subsoil below.



VII. Draft pilot Maritime Spatial Plan

7.1. Main aims

The draft pilot maritime spatial plan of the Southern Middle Bank area is of a strategic character. The key issue consists in defining the problems and developing solutions, accepted by all stakeholders, which ensure both nature and environment protection and conditions for more effective economical utilisation of the planned sea area.

The draft pilot plan for the Southern Middle Bank is developed taking into account the following objectives, resulting from national (Poland and Sweden) and international (VASAB, HELCOM and Integrated Maritime Policy of the EU) strategic documents:

- › ensuring safe sustainable use of the sea,
- › ensuring good state of marine ecosystems and preservation and protection of historical heritage,
- › ensuring cohesion of spatial development between the Polish and Swedish parts of the Southern Middle Bank area,
- › enabling Poland and Sweden to fulfil their international obligations resulting from ratified international agreements and from international law (including EU law),
- › ensuring economic use of sea space, leaving possibly large areas for future, also yet unknown, ways of using the sea.

The draft pilot maritime spatial plan of the Southern Middle Bank does not have the character of local law.

The draft pilot plan has a graphic and a textual part. The textual part contains determinations concerning the principles of development and use of sea space by the users, and indicates priorities for some parts of the space, as well as limitations and admissions within the distinguished in the draft pilot maritime spatial plan sea basins (sub-areas). The graphic part is done in scale 1:200 000, in azimuthally equal-surface Lambert projection (ETRS 1989 LAEA), with possibility of easy transformation to projections required for sea maps.

7.2. Determinations concerning particular users

NAVIGATION

Though some traditional navigation routes cross the area covered by the plan, **no priority sea basins (sub-areas) for navigation have been established**, in which other forms of use would be excluded if they are in conflict with the navigation function. It is recommended to allocate the traditional navigation routes in such a way that they lead by the shortest route to the designated elsewhere traffic separation systems. This also results from a need to reserve the area for potential, future activities in offshore energy development.

In order to ensure safety of navigation, the following is required in the whole area:

- › Designation, by competent public authorities i.e. maritime administration in Poland and Swedish Maritime Administration, of safety zones around artificial islands, structures, installations and areas of mining activity reaching no further than 500 m from each point of their outer boundary, unless other width of the safety zone is allowed or recommended by commonly adopted regulations of international law or recommended by an appropriate international organization (Article 60 of UNCLOS, Article 24 of the Act on sea areas of Poland and maritime administration and Article 7 of the Swedish Economic Zone Act and Swedish Maritime Administration).
- › Proper marking of artificial islands, structures and installations by light or other signals warning vessels about the danger of collision (Article 60 of UNCLOS, Article 23, item 3 p.4 of the Act on sea areas of Poland and maritime administration and – Article 5 of the Swedish Economic Zone Act and Swedish Maritime Administration).
- › Making publicly known through publishing in official publications of appropriate hydrographic services (Hydrographic Office of the Navy in Poland and by Swedish Maritime Administration) information about constructing of artificial islands, placing of structures and/or installations, establishment of safety zones around them, placing of navigation aids, and also about the dismantling and removal of the islands, structures, installations, navigation aids, safety zones (Article 60 of UNCLOS, Article 25 of the Act on sea areas of Poland and maritime administration, Article 5 of the Swedish Economic Zone Act and Swedish Maritime Administration).

- › Dismounting and removing by the owner of artificial islands, structures and installations, including linear infrastructure, which are abandoned, used up or the use of which has ended, and leaving them on site did not obtain agreement of competent organ of maritime administration (Article 60 of UNCLOS, Article 8a of the Swedish Economic Zone Act and Swedish Maritime Administration).
- › Monitoring of the state of existing installations.

UNDERWATER CULTURAL HERITAGE

Due to the lack of documented information about the presence of underwater cultural heritage in the area of the plan, no priority sea basins (sub-areas) are established for cultural heritage protection. However, in case of investments (construction of installations, exploitation of natural resources, construction of artificial islands, underwater and above-water structures), underwater cultural heritage must be protected (Article 23, item 3 p. 7 of the Act on sea areas of Poland and maritime administration and – Article 1 of the Swedish Cultural Monuments Act (1988:950)). Investments must be preceded by an inventory of underwater cultural heritage in the area for which a mining license or permission for constructing and use of artificial islands, structures or installations is issued. If such objects are found during construction, installation, monitoring, maintenance or repair works, appropriate organs of maritime administration shall be informed, and location of the investment shall be changed to protect the cultural heritage against damage during construction works and also during monitoring, repairs or future dismounting of linear installations. Starting work on the investment requires that an environmental impact assessment is carried out which takes into consideration the cultural heritage as an immanent component of the marine environment.

PROTECTION OF ENVIRONMENT AND NATURE

Because of the possible, but still not documented habitat values (habitat type 1110 – sandy submerged bank), a sea basin (sub-area) limited by the 20 m depth contour is established as **a potential priority basin (sub-area) for environmental protection**, in which other forms of use are excluded if they interfere with the protective function.

The hitherto issued licenses for aggregate mining in these basins (sub-areas) remain valid. It is recommended that the extension of the licenses should be possible only after carrying out detailed investigations and assessment of ecological values of the whole basin, including assessment of changes in integrity of habitats in effect of mining or investment activities.

It is required that linear infrastructure shall be placed exclusively in designated infrastructural corridors.

FISHING AND MARICULTURE

In the light of available information, a part of the area of the draft pilot maritime spatial plan may be important for the development of cod fry, due to the favourable hydrodynamic conditions and potential availability of food. This assumption requires however further investigation and verification. In order to ensure proper protection of cod resources, and especially in order to maintain or restore cod population **priority basins (sub-areas) for maintenance of fishery** are designated (Article 61 UNCLOS, see also COM(2008)187). These areas may facilitate the development of the juvenile cod populations.

It is recommended that detailed investigations should be carried out in order to determine the importance of this basin (sub-area) for the maintenance of the good state of cod, especially of its juvenile stages.

Uses conflicting with the function of protecting the juvenile cod population are not allowed. Especially, it is forbidden to carry out mining activities in periods of potential feeding of fry. This issue requires further investigation.

According to available information, there is no high intensity fishing in the area of the plan. **Therefore no areas recommended for fishing are introduced.**

It is recommended not to use dragged fishing gear in infrastructural corridors, whenever they are designated, in areas given to mariculture and in the environment protection priority area (depth not exceeding 20 m). These recommendations require further verification basing on the suggested investigations.

In order to ensure the development of mariculture, **basins (sub-areas) recommended for mariculture of industrial character and for mariculture serving purposes of environmental protection** are designated. It is recommended that development in these basins (sub-areas) should not be a hindrance to the development of mariculture.

In order to protect them against accidental damage by other sea users, sea areas with mariculture shall be marked on navigation maps.

Protection of environment against disruption and damage generated by mariculture is ensured by national law, which implements EU legislation.

LINEAR INFRASTRUCTURE AND TECHNICAL INFRASTRUCTURE CORRIDORS

According to available information, existing cables in the area of the draft pilot maritime spatial plan are not in use and should be dismantled and removed. For this reason **sea basins (sub-areas) recommended for linear infrastructure, the so-called infrastructural corridors are not designated.**

Because of the designation of sea areas for power production, with the development of power installations in these areas it will become necessary to designate infrastructural corridors in order to facilitate implementation of international law (Article 7911 UNCLOS) and to reduce the number of collisions with bunches of technical infrastructure. Laying of linear infrastructure in specially designated corridors is also dictated by the requirement for economical management of sea space. Therefore it shall be an overriding principle, organising this type of uses, so far as it remains in agreement with the regulations of UNCLOS.

Laying of cables and pipelines in areas recommended for exploitation of natural resources shall be possible only in designated infrastructural corridors.

Laying of pipelines in potential priority areas for environment protection shall be possible only in designated infrastructural corridors.

Laying of cables or pipelines, which enter the land territory or territorial sea of Poland or Sweden, and of cables and pipelines built or used in connection with the investigation or exploitation of resources or exploitation of artificial islands, installations or structures located in the land territory, territorial sea or EEZ of Poland and Sweden shall be allowed only in designated infrastructural corridors (UNCLOS, Article 79).

New cables or pipelines, also in infrastructural corridors, shall be laid while maintaining safe distances from existing objects of linear infrastructure and from other structures in order to ensure proper conditions for their monitoring, servicing and repair (UNCLOS, Article 79).

If cables or pipelines are laid outside the infrastructural corridors, it is recommended that they are placed, to the extent possible, parallel to the existing linear infrastructure.

It is recommended that collision with existing linear infrastructure bunches, also these which are not in use, should be minimised.

Underwater cables and pipelines may cross existing linear installations only when it is unavoidable while respecting the requirements (a) of minimising danger to navigation, environment and fishing, and (b) of access to existing infrastructure for needs of repair, maintenance, monitoring or dismantling (UNCLOS 79).

Locations with especially high risk of collision shall be marked on navigation maps.

Competent organs of public administration shall establish safety zones along the cables and pipelines. The width of the safety zones shall not exceed 500 metres to each side, counting from each outer point of the cable or pipeline, unless a different width of the safety zone is allowed by commonly adopted international regulations or recommended by appropriate international organization (Article 60 UNCLOS, Article 24 of Act on sea areas of Poland and maritime administration, the Swedish Economic Zone Act, the Swedish Government/Swedish Maritime Administration). The safety zone constitutes a part of the infrastructural corridor, if such a corridor is designated in the plan.

¹¹ When laying undersea cables or pipelines, States shall take into proper consideration the already existing cables or pipelines. Especially the conditions for repair of existing cables or pipelines should not be prejudiced (UNCLOS, Article. 79)

Worn out and abandoned installations, or the use of which has ended and which do not have a permission of competent organ of maritime administration to be left on site, shall be dismantled and removed. The removal shall be carried out observing all international standards established by appropriate international organizations. Removal is not required if advantages of such action are smaller than the risk to natural environment, with the exception of the situation when such installation constitutes a significant risk to navigation. Removal is always necessary when the installation(s) causes danger to human life or health, or if their non-removal infringes on important public interest, which cannot be otherwise achieved (Article 60 & art. 79 p. 4 UNCLOS, IMO Resolution A. 672 [16]).

Monitoring of the state of linear infrastructure shall be carried out systematically. Existing installations require monitoring in order to decrease risk to environment, navigation and fishing.

Underwater cultural heritage shall be protected from damage by linear infrastructure (Article 23, item 3 p.7 of Act on sea areas of Poland and maritime administration, Article 1 of the Swedish Cultural Monuments Act (1988:950) if such objects are found during installation, monitoring, maintenance or repairs, proper public authorities should be informed, and if the authority(ies) requires, the route of the linear infrastructure shall be changed to protect the object of underwater heritage against damage during installation works or during monitoring, repairs and dismantling in the future.

It is also recommended that, in accordance with available knowledge and results of investigations, linear infrastructure and its development should not increase defragmentation of the marine ecosystem and marine biotope.

MINING ACTIVITIES – USE OF NATURAL RESOURCES

In order to facilitate execution of the rights to exploit and protect natural resources, **sea basins (sub-areas) recommended for this type of activity, so-called areas of mining activity** are established in the area of the plan. It is recommended that uses and development in these basins (sub-areas) should not conflict with mining activities.

Mining in infrastructural corridors is not allowed if it conflicts with priority functions in such sea basins (sub-areas), with the exclusion of already issued licences until their termination.

Because areas of mining activity, of renewable power production and for mariculture overlap, it is recommended that, when issuing licences, proper time sequences or procedures ensuring fair competition of users for space should be ensured.

No commercial exploitation of live sedentary organisms is expected in the draft pilot maritime spatial plan area.

In order to improve safety of navigation and of fishing activities, mining locations shall be marked by light signals or other visual and sound signals, and shall be marked in navigation maps (Article 60 UNCLOS, Article 17 item 3 Act on sea areas of Poland and maritime administration, the Swedish Economic Zone and Swedish Maritime Administration).

Competent organs of public administration shall establish safety zones around the mining activity areas. The width of the safety zones shall not exceed 500 metres from each point of the outer border of such area, unless a different width of the safety zone is allowed by commonly adopted international regulations or recommended by appropriate international organization (Article 60 UNCLOS, Article 24 of Act on sea areas of Poland and maritime administration, the Swedish Economic Zone and Swedish Maritime Administration). The safety zone is not a part of the area of mining activity.

Installations and equipment, the use of which has ended and which did not obtain agreement of appropriate organs of maritime administration for leaving them on site, shall be dismantled and removed taking into account all international standards established for such situations by appropriate international organizations (Article 60 UNCLOS, IMO Resolution A. 672 (16), Article 17 item 3 of Act on sea areas of Poland and maritime administration, the Swedish Economic Zone and Swedish Maritime Administration).

Removal of mineral resources from the bottom surface shall be limited to such a layer, that reconstruction of initial habitats is possible after the mining operation is finished.

POWER PRODUCTION

In order to facilitate the execution of the right to produce power from water, and wind energy, in the area of the draft pilot maritime spatial plan **sea basins (sub-areas) recommended for such activities, the so-called power production areas** are established. It is recommended that development in and use of, these areas should not conflict with possibilities of power production. However, when recommended functions overlap, it is possible to realise the development and economical use of the area in appropriately selected stages, e.g. aggregate extraction preceding power production.

Space for structures, artificial islands and installations, especially for installations for power production, shall be used in an economic way while ensuring easy access to them for needs of monitoring, repair and dismantling.

Power production from wind is not allowed in priority sea basins (sub-areas) for environment protection and in infrastructural corridors after their establishment (Article 23 item 3 p.7 of the Act on sea areas of Poland and maritime administration).

In order to improve safety of navigation and of fishing activities, power production sites shall be marked by light signals and/or other visual and sound signals (Article 60 UNCLOS, Article 17 item.3 Act on sea areas of Poland and maritime administration, the Swedish Economic Zone and Swedish Maritime Administration).

Competent organs of public administration shall establish safety zones around the power production areas. The width of the safety zones shall not exceed 500 metres from each point of the outer border of such area, unless a different width of the safety zone is allowed by commonly adopted international regulations or recommended by appropriate international organization (Article 60 UNCLOS, Article 25 of Act on sea areas of Poland and maritime administration, Article 5 of the Swedish Economic Zone and Swedish Maritime Administration). The safety zone is not a part of the power production area.

Installations and equipment for power production, the use of which has ended and which did not obtain agreement of appropriate organs of maritime administration for leaving them on site, shall be dismantled and removed taking into account all international standards established for such situations by appropriate international organizations. Removal is not required if achieved by the dismantling gains are smaller than resulting danger to the natural environment, with the exception of the situation when the installations and equipment constitute a significant danger to navigation. Removal shall be carried out always when presence of the installations results in danger to human life or health or when their non-removal is against important public interest, which cannot be otherwise guaranteed (Article 60 & 79 p. 4 UNCLOS, IMO Resolution A. 672 (16)).

SCIENTIFIC INVESTIGATIONS

In the area of the draft pilot maritime spatial plan **a sea basin (sub-area), limited by the 20 m depth contour, is established as a basin (sub-area) recommended for further scientific investigation of the value of habitats and occurrence of migrating birds. Also a sea basin (sub-area) recommended for further investigation of development of juvenile stages of cod** is established.

It is recommended that scientific investigations in the priority areas should in principle concern the priority and/or recommended functions in such sea basins (sub-areas).

OTHER FORMS OF USE

No priority or recommended areas are introduced for the remaining forms of use because they do not result in significant conflict or because of lack of necessary information. This concerns sea tourism, munition dumping sites, army training sites.

Due to danger from post-war mines, certain recommendations are introduced in sea basins (sub-areas) recommended for mining and power production activities.

7.3. Special determinations concerning transborder procedures and validity of sectoral legal regulations

Prospecting for, investigation and mining of mineral resources is regulated by national Polish and Swedish law, i.e. regulations of the Geological and Mining Law and regulations concerning protection of the marine environment safety of navigation and life at sea.

A transborder sea basin (sub-area) of 15 km width on both sides of the EEZs' border is established.

In the transborder basin (sub-area), transborder consultation shall be carried out on the basis of environmental impact assessment documentation (in accordance with the requirements of the *Convention on environmental impact assessment in transborder context*, done in Espoo on 25 February 1991) for building structures, artificial islands, laying of installations and mining activities, with the exception of mining and transferring liquid hydrocarbons, in case of which transborder consultation shall be carried out in the whole area of the Plan.

If mining activities, construction of artificial islands and structures or laying linear infrastructure is planned outside the distinguished sea basins (sub-areas) recommended for such operations, then a territorial impact assessment (TIA) of the investment should be carried out. The TIA should include the following aspects (Article 23 of the Act on sea areas of Poland and maritime administration):

- › safety of navigation,
- › safe realisation of sea fishing,
- › safe air navigation,
- › underwater archeological heritage,
- › safety connected with investigation, prospecting and exploitation of mineral resources of the sea bottom and subsoil below.

7.4. Division into sea basins (sub-areas) and detailed determinations

PRINCIPLES OF THE DIVISION

The area covered by the draft pilot maritime spatial plan is divided into sea basins (sub-areas), which are marked with alpha-numerical symbols in accordance with the following classification (Fig. 18):

- › F – priority (potentially) sea basins (sub-areas) for maintaining fishery,
- › G – recommended sea basins (sub-areas) for mineral and raw material extraction from seafloor and soil below, so-called areas of mining activity,
- › B – recommended sea basins (sub-areas) for economical/industrial activities other than mining,
- › L – recommended sea basins (sub-areas) for linear infrastructure, so-called infrastructural corridors,
- › O – priority (potentially) sea basins (sub-areas) for nature protection,
- › U – recommended sea basins (sub-areas) for scientific research,
- › M – recommended sea basins (sub-areas) for mariculture,
- › C – transborder sea basin (sub-area),
- › A – remaining sea basins (sub-areas) in the sea area.

When two or more priority and/or recommended functions coexist in the same space, symbols of the sea basins (sub-areas) contain two or more letters. When two recommended functions compete, then the competent organ of maritime administration should check the demand for sea space of each (require the stakeholders to present their preferences) and should minimise the conflict by selecting a fitting time sequence or through a tender procedure.

Borders of the sea basins (sub-areas) are determined by the coordinates of their corners.

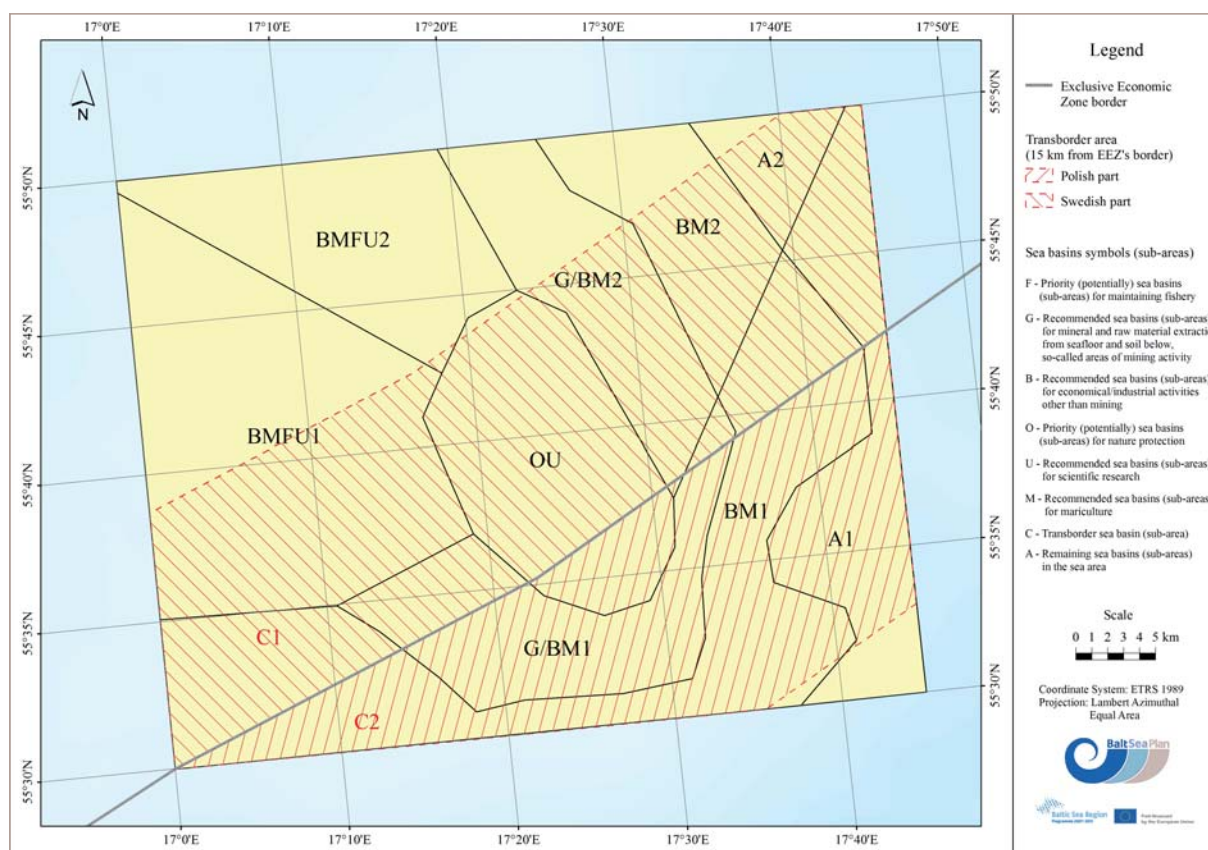


Fig. 18.: The Southern Middle Bank area's division into sea basins (sub-areas)

Source: Maritime Institute in Gdańsk

DETERMINATION OF THE DIVISION

The following number of each type of sea basin (sub-area) has been distinguished: OU-1, BMFU-2, G/BM-2, C-2, A-2. The sea basins (sub-areas) and lead functions in them are listed in the table below.

Type of sea basin (sub-area)	Number of distinguished sea basins (sub-areas)	Total area (km ²)
Sea Basin (sub-area) OU Potentially priority for nature protection and recommended for scientific research	1	204.93
Sea Basin (sub-area) BMFU Recommended for economical/industrial activities other than mining, recommended for mariculture, potentially priority for maintenance of fishery, recommended for scientific research	2	553.40
Sea Basin (sub-area) BM Recommended for economical/industrial activities other than mining, recommended for mariculture	2	473.57
Sea Basin (sub-area) G/BM Recommended for mineral and raw material mining, so-called area of mining activity or for economical/industrial activities other than mining (power production/mariculture)	2	308.87
Sea Basin (sub-area) C Transborder area	2	
Sea Basin (sub-area) A Other areas	2	209.81

Requirements concerning use

For each sea basin (sub-area), requirements and recommendations on the use of the basins (sub-areas) are formulated.

FOR ALL SEA BASINS (SUB-AREAS)

PROHIBITIONS AND REQUIREMENTS in force in the whole area of the plan	RECOMMENDATIONS in force in the whole area of the plan
Underwater cultural heritage shall be protected against damage from linear infrastructure and mining fisheries and production activities. Proper organs of public administration must be informed if objects of cultural heritage are found. On requirement of the maritime administration, routes of linear infrastructure, location of mining, research or production activities may be changed in order to protect objects of cultural heritage against damage caused by installation, construction or mining works, or during monitoring, repairs and dismounting in the future. New cables and pipelines (also those to be laid in infrastructural corridors) shall keep safe distances from existing objects of linear infrastructure and other structures, among others in order to enable monitoring, servicing and repairs. Places with especially high risk of collision shall be marked in navigation charts. Linear installations shall be systematically monitored. Competent organs of public administration shall establish safety zones around cables, pipelines and areas of power production reaching up to 500 m from each point of their outer perimeter, unless a different width of the safety zone is allowed by commonly adopted standards established by international law or recommended by appropriate international organizations. Worn out or abandoned installations, structures and equipment or if their service has ended and their leaving on site did not obtain agreement of appropriate organ of maritime administration, shall be dismantled and removed. Sites of mining activities and power production shall be marked using light signals or other visual and sound signals and marked in navigation charts in order to improve safety of navigation and safety of fishing activities. Areas of mariculture shall be marked in navigation charts in order to protect them against accidental damage by other users of the sea. Competent organs of public administration shall establish safety zones around areas of mining activity, reaching up to 500 m from each point of their outer perimeter, unless a different width of the safety zone is allowed by commonly adopted standards established by international law or recommended by appropriate international organizations. Extraction of minerals shall be limited to such a layer that after its removal reconstruction of initial habitats is still possible. Space for structures, artificial islands and other installations, especially for power production installations, shall be used in an economic way, while maintaining the principle of easy access to allow monitoring, repairs and dismounting.	It is recommended to carry out detailed investigations in order to assess the ecological value of this area and its use for wintering of birds. Fishing with dragged fishing gear is not recommended if it may destroy habitats. It is recommended to allocate the traditional navigation routes in such a way that they lead by the shortest route to the designated elsewhere traffic separation systems.

FOR EACH SEA BASIN (SUB-AREA)**› Sea basin (sub-area) OU**

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Potential priority area for nature protection, › recommended for scientific investigation	167.48 km ²	Activities conflicting with the nature protection function are not allowed. Linear infrastructure shall be placed exclusively in infrastructure corridors crossing these basins (sub-areas).	Detailed investigations and assessment of ecological value of the basin (sub-area) and its use for bird wintering is recommended. Fishing with dragged gear is not recommended.

› Sea basin (sub-area) BMFU 1

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Recommended for economical/industrial activity other than mining, › recommended for mariculture, › potential priority area for maintaining fishery, › recommended for scientific investigation power production.	374.31 km ²	Activities conflicting with the function of maintaining juvenile stages of cod are not allowed.	Development not conflicting with possibilities of power production and mariculture. Fishing with dragged gear not recommended if it may cause damage of objects of mariculture. Recommended detailed investigations of the importance of this sea basin (sub-area) for maintaining good state of cod, especially its juvenile stages.

› Sea basin (sub-area) BMFU2

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Recommended for economical/industrial activity other than mining, › recommended for mariculture, › potential priority area for maintenance of fishery, › recommended for scientific research on power production.	179.09 km ²	Activities conflicting with the function of maintaining juvenile stages of cod are not allowed.	Since this basin (sub-area) is described as an area of danger from sea mines, before starting investments appropriate comprehensive investigations are recommended. Development and uses should not conflict with possibilities of development of power production and mariculture. Recommended detailed investigations of the importance of this sea basin (sub-area) for maintaining good state of cod, especially its juvenile stages. Fishing with dragged gear not recommended if it may cause damage of objects of mariculture.

› Sea Basin (sub-area) BM1

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Recommended for economical/industrial activity other than mining, › recommended for mariculture.	361.54 km ²		Development and uses should not conflict with possibilities of development of power production and mariculture. Fishing with dragged gear not recommended if it may cause damage of objects of mariculture.

› Sea basin (sub-area) BM2

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Recommended for economical/industrial activity other than mining, › recommended for mariculture.	112.03 km ²		Since this basin (sub-area) is described as an area of danger from sea mines, before starting investments appropriate comprehensive investigations are recommended. Development and uses should not conflict with possibilities of development of power production and mariculture. Fishing with dragged gear not recommended if it may cause damage of objects of mariculture.

› Sea basin (sub-area) G/BM 1

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Recommended for extraction of minerals and raw materials from seafloor and subsoil, so-called area of mining activity, or › recommended for economical/industrial activity other than mining, (power production, mariculture).	165.26 km ²	Linear infrastructure shall be located exclusively in infrastructural corridors crossing the basin(s) (sub-areas).	Spatial development and use should not conflict with possibilities of realising mining activities. Development and uses should not conflict with possibilities of development of power production and mariculture. Fishing with dragged gear not recommended if it may cause damage of objects of mariculture.

› Sea basin (sub-area) G/BM 2

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Recommended for extraction of minerals and raw materials from seafloor and subsoil, so-called area of mining activity, or › recommended for economical/industrial activity other than mining, (power production, mariculture).	143.61 km ²	Linear infrastructure shall be located exclusively in infrastructural corridors crossing the basin(s) (sub-areas).	Since this basin (sub-area) is described as an area of danger from sea mines, before starting investments appropriate comprehensive investigations are recommended. Spatial development and use should not conflict with possibilities of realising mining activities. Development and uses should not conflict with possibilities of development of power production and mariculture. Fishing with dragged gear not recommended if it may cause damage of objects of mariculture.

› Sea basin (sub-area) A 1

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Remaining	167.48 km ²	Parallel with EIAs, TIAs of investments located in these basins (sub-areas) shall be worked out.	Cables and pipelines should be laid parallel to existing linear infrastructure and/or parallel to priority sea basins (sub-areas) for navigation, at least at a distance of 1 nm from the nearest boundary of such basins (sub-areas). Basing on available knowledge and results of carried out investigations, linear infrastructure and its development should not cause an increase of defragmentation of the marine ecosystem and marine biotope.

› Sea basin (sub-area) A2

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Remaining	42.33 km ²	Parallel with EIAs, TIAs of investments located in these basins (sub-areas) shall be worked out.	Since this basin (sub-area) is described as an area of danger from sea mines, before starting investments appropriate comprehensive investigations are recommended. Cables and pipelines should be laid parallel to existing linear infrastructure and/or parallel to priority sea basins (sub-areas) for navigation, at least at a distance of 1nm from the nearest boundary of such basins (sub-areas). Basing on available knowledge and results of carried out investigations, linear infrastructure and its development should not cause an increase of defragmentation of the marine ecosystem and marine biotope.

› Sea basin (sub-area) C 1

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Transborder area on Swedish side	782.6 km ²	Requirement of trans-border consultation on the basis of EIA documentations.	

› Sea basin (sub-area) C2

Lead function	Surface area	Prohibitions and requirements	Recommendations
› Transborder area on Polish side	469.15 km ²	Requirement of trans-border consultation on the basis of EIA documentations.	



VIII. Recommendations and future steps to implement MSP

The draft pilot maritime spatial plan is not ready yet. The main hindrance during the preparation of the cross-border draft pilot maritime spatial plan was the lack of planning authorities responsible for maritime spatial planning in one of the countries. In the case of the Southern Middle Bank the problem was that establishment of an authority responsible for MSP in Sweden took place only in the final phase of the draft pilot plan preparation. Therefore the plan could not be discussed with Swedish authorities responsible for maritime spatial planning in the Swedish EEZ and discussion with Swedish stakeholders did not reach the sufficient breath. All this will become possible only after the BaltSeaPlan project closure. The risk is that the planned area will be developed in the meantime regardless of the developed planning provisions. Facilitation of genuine cross-border MSP would require further international efforts. Establishment of responsible authorities in each country and adoption of relevant national legislation is a first step only to this end. Equally important is existence of pan-Baltic vision on future use of the sea space and development of maritime economy exploiting sea and its resources. For instance there is a need to reach a Baltic-wide agreement not only on protection of certain species and conservation of certain type of habitats but also on development and transmission of renewable energy off-shore or on protection of maritime landscapes. The same concerns navigation which requires cross-border co-ordination of shipping routes (at least for certain type of ships or cargo) and traffic separation schemes.

Of equal importance is development of cross-border planning procedures and relevant legal base. More detailed procedures of cross-border stakeholder involvement should be agreed as well. The area of cross-border influence should be specified and agreed for different type of sea uses. Involvement of cross-border partners in monitoring and evaluation of plans should be ensured. There is a need of common Baltic denominator in preparation of maritime spatial plans of cross-border impact and the SEA reports. Here the VASAB-HELCOM principles on the broad-scale maritime spatial planning can play a prominent role. But this would require joint institutional arrangements supported by all Baltic Sea Region countries (Tab. 3). Detailed description to what extend the draft pilot spatial plan fulfils the VASAB-HELCOM principles is presented in the Annex 4.

Table 3. The most important measures, considered necessary to smoothen the preparation of cross-border maritime plans in line with the VASAB-HELCOM principles.

Principles	Cross border requirements
Sustainable management	Existence of a BSR strategy coordinating (harmonizing) policies of cross-border impact and relevance such as EU Strategy for the BSR. Baltic wide coordination of sea area relevant sectoral policies e.g. on transport, energy production, etc.
Ecosystem approach	Existence of BSR strategy for protection and conservation of marine environment such as BSAP of HELCOM. Application of the relevant EU Directives and their translation into the spatial planning language, e.g. MSFD.
Long term perspective and objectives	Existence of a long term Baltic vision (including a road map) on development of the maritime sea space and use of maritime resources.
Precautionary Principle	Enforcement of the provisions of the EU directives on internationalization of the SEA procedures, including the ratification of the SEA Protocol to the Espoo Convention. SEA for all maritime strategic plans should be subject to cross-border consultations.
Participation and Transparency	Existence of legal procedures and relevant know-how on cross-border participation and stakeholder involvement. Joint elaboration of user-friendly multilingual visualization tools for MSP. Need for common Baltic denominator of MSP planning in the EEZ, i.e. bringing together the structure and outline of such plans, reports, etc. to facilitate cross-border consultation of plans and reports.
High quality data and information basis	Baltic-wide basic monitoring ensuring resolution sufficient for at least strategic spatial planning. Coordination of the MSP relevant research efforts among the BSR countries, keeping information produced with support of public money on public domain, joint development of modelling techniques. Standardization of maritime data and ensuring their cross-border compatibility.

Principles	Cross border requirements
Transnational coordination and consultation	Existence of authorities responsible for MSP in all BSR countries. Legal requirement of coordination of maritime plans specifying e.g. areas of impact of different sea uses, procedures for consulting and informing cross-border stakeholders, etc.
Coherent terrestrial and maritime spatial planning	Exchange of relevant experience at least within sea basins ¹² . Joint action of all BSR countries on necessary amendments of UNCLOS to equalize terrestrial and maritime space planning and management (to avoid unnecessary structures and installations in the sea which are there because of the UNCLOS freedoms and which could be easily accommodated on land).
Planning adapted to characteristics and special conditions in different areas	Accumulation of know-how and experience on the preparation of joint cross-border strategic plans for sea basins coherent in terms of space and ecosystem. Stimulation of relevant pilot undertakings with external money under e.g. Cohesion Policy.
Continuous planning	Existence of legal procedures for involvement of cross-border stakeholders in consecutive evaluation stages after plan adoption.

Source: own elaboration.

As far as the need for a common Baltic denominator of MSP planning in the EEZ is concerned, the Southern Middle Bank draft pilot maritime spatial plan presents a proposal of a template/methodological minimum for maritime spatial planning of strategic nature. It would be advisable if this template could be discussed and modified by all BSR countries in order to reach a common minimum denominator for planning in particular EEZs of the BSR countries.

Cross-border maritime spatial planning would also require pan-Baltic agreements on key goals and targets related to coherent use of the marine resources as well as adjustment and co-ordination of national policies both sectorial and horizontal. So far serious attempts one can see in coordination of mainly environmental and fishery policies.

The Baltic wide coordination of sea area relevant sectoral policies, should cover and address the following areas and issues:

- › co-operation in the development of a transnational energy transmission infrastructure to connect wind farms of different countries with each other, allowing trading surpluses and deficits, including construction of a Baltic super grid,
- › reaching agreement on pan-Baltic targets on maximum areas taken by wind farms and other artificial structures,
- › reaching agreement on pan-Baltic targets on habitat and maritime landscapes protection including a cohesive system of protected area location,
- › co-operation on sea ranching covering not only fish breeding but also keeping rivers accessible for fish going to spawning areas and maintenance of international blue corridors,
- › co-operation on establishment of intelligent transport corridors, including traffic separation zones, in areas of most intensive navigation for some type of vessels,
- › co-operation on establishment of international corridors for technical infrastructure.

Also legislative base for MSP in EEZ needs improvement. This will be discussed in the next chapter on lessons learned. One of the most important issues is provision of legal bases for protection of underwater cultural heritage offshore. Current provisions are insufficient as described in the next section. The possible solution is ratification of the UNESCO convention by all BSR countries.

¹² Here in this table by the sea basin we mean the entire Baltic Sea.

IX. Lessons Learnt

9.1. Information gaps

For the draft pilot maritime spatial plan for the Southern Middle Bank area the main barrier has been the high degree of uncertainty about the present state of the sea space and its dynamism.

The most important lesson learnt was on complexity of preparation of cross-border maritime spatial plans. First of all this requires much more time for collecting necessary information, translating it from national languages into English and debating the observations and findings by the planning team. Even functioning of the planning team as a such requires much more efforts related to day to day communication. But the key factor for success is existence of bodies (authorities) having legal competences in MSP and acting in line with national law in both countries. Otherwise the whole planning exercise would remain as an intellectual training only.

IMPORTANT INFORMATION GAPS

An important by-product of the stocktaking stage was inventory and classification of information gaps inversely affecting maritime spatial planning. The following gaps have been detected (for details see Zaucha 2012):

- A. **Lack of information** – this issue has not been analysed sufficiently (lack of knowledge);
- B. **Lack of spatial attribution of information** – this issue has been analysed but the spatial framework has been omitted (spatially irrelevant knowledge);
- C. **Disclosure gap** – the issue has been analysed sufficiently, but there is no incentive for sharing accurate information more broadly (hidden knowledge);
- D. **Temporal gap** – the issue exists and can be analysed in the present time-frame but its future development remains unclear (static knowledge);
- E. **Communication deficiency gap** – the existing cognitive artefacts/modalities (e.g., language) and information channels are unable to diffuse and communicate precisely produced and processed information and/or knowledge (e.g., due to its complexity);
- F. **Institutional gap** – lack of proper information within regulatory frameworks resulting from institutional deficiencies.

Generally, the first four gaps refer to the state of knowledge (existence of data and evidence), whereas the fifth and sixth are linked mainly to regulatory spheres. The ultimate result of the institutional gap is the lack of the necessary policies, regulations, and policy integration.

A. Lack of information

Information regarding sea traffic, location of protected areas, wind potential, water temperature, sea depth and slope, salinity, sea bed types (in general), mining areas, existing structures and linear infrastructure (to some extent) was readily available. In Poland, the main problem was the lack of information regarding underwater heritage, sea mammals, some fish species and biological data regarding macrophytes, macrozoobenthos, and avifauna. Geological information was of insufficient resolution.

B. Lack of spatial attribution of information

There was no spatial information on marine species characterised by considerable mobility including ichthiofauna and sea mammals, nor was there any data regarding their susceptibility to any changes in even one segment of the space they require over annual cycles or throughout life cycles. Spatial preconditions for the food-web in terms of habitats connectivity have not been studied at all. The same concerns the carrying capacity of sea basin (sub-area) with regard to human activities. In result, it was impossible to define marine ecological, or blue, corridors.

C. Disclosure gap

Some stakeholders exaggerate the intensity of conflict on purpose or monopolize information and reveal only that part of it which is necessary to force spatial planners in the directions desired by stakeholders. This has been noted with regard to environmental protection, fisheries, and national defence. For instance, fishermen denied revealing their fishing grounds treating that information as business confidential information and they spoke only about the negative consequences for fishery of building offshore wind farms.

D. Temporal gap

During the plan preparation it became apparent that many important stakeholders have no clear ideas about the future use of sea space; this was noted especially with regard to coastal communities and their lack of thinking about the EEZ.

E. Communication deficiency gap

Apart of language problems, the main barrier for cross-border discussion of the plan was in the difference of the planning procedures and planning culture. For example, the draft pilot maritime spatial plan for Southern Middle Bank was prepared in line with Polish planning culture, and in effect the outcome is less user-friendly in Sweden. In addition to that, in order to stimulate cross-border debate, the plan should be furnished with concrete and tangible estimates of the planning results in terms of measurable estimates of long-term costs and benefits. Difficulties with aggregating complex information lowered the quality of public debate, since, inter alia, they often in result in a subjective feeling of the stakeholders that implementation of the plan will have a negative effect on their activities and quality of life.

F. Institutional gap

Many institutional deficiencies were noted during the preparation of the maritime plan. The first was the lack of agreement on the comprehensive objectives or visions, targets, and goals regarding the use of marine space at national and international levels. Moreover, some of the goals agreed at EU level were insufficiently operationalized at national and Baltic levels, specifically the EU Marine Directive targets, which also hampered MSP. Secondly, the majority of sectoral policies affecting sea space use were of limited informational value for MSP. In fact, many of them did not consider marine space as part of national territory or interest. Thirdly, proper information tools for supporting decision making processes were lacking. The main deficiencies were noted in the monitoring and assessment tools which should have been used for tasks such as sample site selection, choice and focus of compliance analysis, etc. Consequently, the draft pilot plan lacks appropriate monitoring and evaluation systems. Solutions used by the planning team to overcome these gaps and long term suggestions for the future (for structural changes) are presented in the table 4.

Table 4. Overcoming information gaps

Gap	Short term solutions	Long term solutions
A. Lack of information	Modelling the marine environment (e.g. habitats), Precautionary measures – provisions in the plan spelling out the need for further research, Request to prepare detailed plans before large scale investments, TIA (or TIA like) procedures for other investments.	Shaping EMODNET in line with the MSP needs as the joint action of the Baltic Sea Region (BSR) countries, Joint BSR research agenda for MSP, BSR agreement on the minimum scope of inventories done in relation to localisation of large scale investments.
B. Lack of spatial attribution of information	Extracting expert knowledge via stakeholder participation process.	Promotion of interdisciplinary research, concerted BSR research – e.g. BONUS
C. Disclosure gap	Awareness raising among stakeholders.	Awareness raising on benefits of maritime spatial planning.
D. Temporal gap	Reserving some space for unknown future development.	Introducing multiannual maritime programming as a basic principle, Regular exchange of know-how and experience on maritime spatial plans of other countries, Joint BSR vision on the use of the marine space.

Gap	Short term solutions	Long term solutions
E. Communication deficiency gap	Interdisciplinary and transnational planning teams.	Minimum common denominator on MSP methodology in the BSR, Joint SEA template for the BSR, Regular exchange of know-how and experience on maritime spatial plans of other countries, Joint BSR vision on the use of the marine space, Joint BSR work on methodology of valorisation of marine space.
F. Institutional gap	Examination of background reports relevant for MSP and draft legislation proposals (and their justifications).	Agreement on the comprehensive visions, targets, and goals regarding the use of marine space at national and international levels, Operationalization of the agreed targets in line with the MSP specificity, Development of supporting tools for decision making in MSP (as proposed under BONUS).

Source: own elaboration.

9.2. Freedoms

The main problem while analyzing the records of international laws was related to: so called freedoms (mainly freedom of navigation, but also freedom of laying cables and pipelines) and insufficient protection of cultural heritage. The least problematic was nature protection since Poland and Sweden have in the area of the Plan, i.e. in their EEZs, jurisdiction in matters of maintenance and protection of marine environment (according to Article 56 UNCLOS, Articles 17 and 19 of the Act on sea areas of Poland and maritime administration, Article 2, 3 and 4 in the Swedish Economic Zone Act and the Environmental Act).

In line with the Article 58 of UNCLOS in the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms. Article 60 stipulates that artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation.

Those provisions of UNCLOS prioritize some users over the others. This might have concrete economic repercussions. According to the MSPP CONSORTIUM (2006), a total of 74.8 km of live cable routes has been located in the eastern English Channel, which corresponds to £336 million of sterilized assets. This indicates the importance of properly planning similar projects. The Southern Middle Bank area belongs to the best areas for wind farms on the Baltic Sea. Though some traditional navigation routes cross the area covered by the plan, the planning team has decided not to establish priority sea basins for navigation, in which other forms of use would be excluded if they are in conflict with the navigation function. Navigation has not been restricted in order not to violate UNCLOS but it has been recommended to allocate the traditional navigation routes so that they lead by the shortest route to the designated elsewhere traffic separation systems.

In accordance with international law (Articles 149 and 303 of UNCLOS) objects of archeological or historic character, present in the area of the plan, shall be protected in order to preserve and use them for the good of humanity but those provisions are overridden by the Law of Salvage and law of Finds. It means that jurisdiction of the coastal states over their EEZ assets do not necessarily affect the ownership of underwater cultural heritage. Therefore those who find ancient shipwrecks and property (outside national jurisdiction zone) are entitled to penetrate them and come into their disposal. The planning team could not change this situation, however it has proposed the aforementioned precautionary provisions in the fields being under jurisdiction of the coastal states i.e. preparation of investments, issuing mining concessions, laying cables etc. However it seems that in a long run adoption of the UNESCO Convention on the Protection of the Underwater Cultural Heritage is the must (for details see Annex 3).

Some other freedoms have been addressed in form of recommendations on the use of a given sea basin. They consider mainly a need to conduct more in depth scientific investigation and avoid fishing techniques detrimental for sea bottom.

9.3. Public participation

The main lesson learned was about the complexity and importance of proper public participation processes in the cross-border context. The draft pilot maritime spatial plan of the Southern Middle Bank was consulted mainly with stakeholders in Poland, while consultation with the Swedish stakeholders appeared more difficult and still remains a pending issue. Public participation in cross-border context requires a different approach and capacity than in case of national plans. The main hindrances are following: language barrier, different planning cultures, different administrative responsibilities and different organization of interests and stakeholders. Moreover one should remember that public participation in spatial planning, in particular in Poland, in many cases is of a narrow (passive) character. It is frequently limited (in many cases in line with legal requirements) to consultation of the plans prepared in advance by the experts or professional planning teams. Stakeholders are rarely involved at the early planning stage. However numerous examples show that plans gain in quality by early involvement of stakeholders. Stakeholders bring in important knowledge and information, and are instrumental in genuine consensus seeking, which is the essence of the spatial planning process. This speaks for moving planning process from the solely expert based towards the stakeholder driven. However such an approach requires additional resources and skills in terms of moderation, facilitation and encouragement of stakeholders to reveal their true preferences and knowledge of the planned area. With such an approach, preparation of the plan takes more time but the implementation process gains in efficiency.

The BaltSeaPlan project established a Stakeholder Participation Work Group with representatives from Lithuania, Latvia, Germany, Estonia, Sweden and Poland. The Group identified and characterised the stakeholders and interests in each country, exchanged experience of each country in the organization of stakeholder meetings, defined the conflicts and synergies between the diverse uses of sea space, discussed the issue of contacting the stakeholders, in particular the fishermen society. Discussion showed that all countries have similar conflicts and problems with contacting stakeholders. The following was concluded:

- a. The key prerequisite is transparency and openness of the process as such;
- b. Effective communication with society is the basis for a good maritime spatial plan;
- c. Leading of the spatial plan drafting procedure by national authorities results in higher involvement of stakeholders in the process;
- d. The stakeholders are more mobilised when an official plan is prepared than in the case of a pilot plan;
- e. Questionnaires are a relatively effective way of communicating, but on the other hand the chance for obtaining a "creative response" is rather limited;
- f. It is worthwhile to phone and talk with stakeholders;
- g. Stakeholder meetings are very important, but it is quite difficult to obtain specific information. It is therefore recommended to have general stakeholder meetings at the beginning and end of the plan drafting procedure, and in the meantime to organise meetings on specific topics/issues of the plan;
- h. During the meetings, participants should be informed why maritime spatial plans are needed, what are the connections between land and sea based activities, what are the social and economic benefits of a plan, etc.;
- i. Leading of the meetings by a moderator is suggested;
- j. It is important that all information is shared with stakeholders, that the planning team is open to all stakeholders and treats their interests equally;
- k. To achieve consensus, the negotiations of the spatial division should be conducted with active involvement of all stakeholders;
- l. To avoid failures in identification of all relevant stakeholders, it is important to make press releases before the stakeholder events and to ask other participants to disseminate the information further on;
- m. Participation in different events with presentations related to marine issues also increases the transparency of the process and might result in involvement of some new stakeholders (awareness rising).

In addition to that the experience with preparation of the draft pilot maritime spatial plan for the Southern Middle Bank points towards following conclusions:

- a. Extensive (not only effective) communication with the public is the basis of a good spatial plan;
- b. Contact with potential stakeholders should be sought in every possible way (letters, talks, meetings in diverse groups) and information on procedures of maritime spatial planning should be always provided/given;
- c. In comparison with the developed in 2006 draft pilot spatial plan for the Western Part of the Gulf of Gdańsk,

public interest in the draft pilot maritime spatial plan for the Southern Middle Bank was rather low. This may be attributed to the different locations of the two planned areas, therefore MSP in EEZ requires additional efforts in terms of attracting stakeholders;

- d. A lack of understanding of the need for, and the procedures of, maritime spatial planning has been observed, therefore improving awareness is a key prerequisite for improvement of the stakeholder participation;
- e. In order to achieve fuller engagement of the public in the MSP drafting processes, regulations providing the legal basis for producing official plans are necessary.

9.4. Policies

The draft pilot maritime spatial plan for the Southern Middle Bank revealed important deficits with regard to the support which MSP should receive from sectoral and horizontal policies in Poland.

Poland lacks a proper cultural heritage policy for its sea areas (especially the EEZ) and transparent maritime defence policy (use of maritime space for defence purposes). In effect these sectors are managed in a rather random and/or non-integrated way. Mining is not sufficiently covered with regard to its maritime specificity. This might create some problems for its development in the future. The same is true for climate change policy.

In a number of aspects, especially in relation to the EEZ, maritime research is insufficiently covered by national policies. This might lower synergies between policies affecting actual sea use, and may negatively affect the information basis and human capacity of maritime national policy including maritime spatial planning.

Some national policies consider the sea insufficiently or even not at all, e.g. tourism or the policy for transmission infrastructure development (as part of the energy policy).

Policies produced and/or realised at different levels of public administration are not properly correlated with regard to maritime issues e.g. energy policy with spatial plans at regional and local level, fishery policy with regional development policies (to compensate the shrinking economical base of fishery). This is detrimental to the proper use of sea space.

Some policies lack co-ordination between themselves e.g. aquaculture policy with the energy policy or aquaculture with the environment protection policy, or fishery with spatial terrestrial policies, or research policy with cluster formation policies etc. Such synergies would improve the efficiency of the use of sea space in Poland.

Land-sea integration is weak in many fields e.g. in energy policy, tourism policy and even in the environment conservation policy. For EEZ the key issue is coordination in the field of power transmission infrastructure.

All these mean that some coordinated actions to increase support for MSP from sectoral and horizontal policies are necessary in Poland. Such support should consider the following:

- A. Issues requiring some type of public intervention but not having proper policy coverage in Poland (e.g. protection of cultural heritage in EEZ) should be brought by MSP to the level of relevant decision makers.
- B. The same is true for policies that are insufficiently sea oriented or they are run on a strictly sectoral basis. Among them one should list first of all development of power transmission infrastructure and maritime mining. Therefore these policies should be given particular attention in the national maritime policy. In fact the national maritime policy should initiate their reformulation or extension, so that they address properly maritime questions and specifics.
- C. A similar case is with the development of sea tourism. The maritime policy should encourage harmonization of national tourism policy and local and regional development programmes, especially regarding proper development of infrastructure for tourism. The key challenge is to take off pressure from land, encourage tourists to use sea space and calculate the relationship between coastal development and sea space necessary to serve this process.
- D. Also the climate change policy should give more attention to sea issues. Some findings do exist, but are sometimes contradictory. For MSP it is important to have a better insight into changes of environment (e.g. water temperature, salinity, water level) and nature (species, biodiversity) due to the climate change.
- E. Little attention is also paid by different policies to important maritime questions such as fostering research, education and cluster development. Therefore all these questions should find a proper place in the maritime policy which should initiate national cross-sectoral debate on them.
- F. The maritime policy should pay attention to the issue of proper multi layer and cross-sectoral governance.

If the policies run at different levels of public administration and by different agencies create a mix that adversely affects use of the sea space, the maritime policy should endeavour to reformulate them.

- G. The maritime policy should explore the synergy between different policies. For instance, mariculture in Polish circumstances is rather not profitable, but it can pay off if combined with environment protection. Such synergies would improve the efficiency of the use of the sea space in Poland.
- H. The maritime policy should pay attention to land-sea integration. Key issues are related to ensuring proper connection of mining areas and areas of renewable energy production with relevant land facilities by technical infrastructure and development of appropriate supporting land based facilities.

Annex 1: Maps on biophysical data

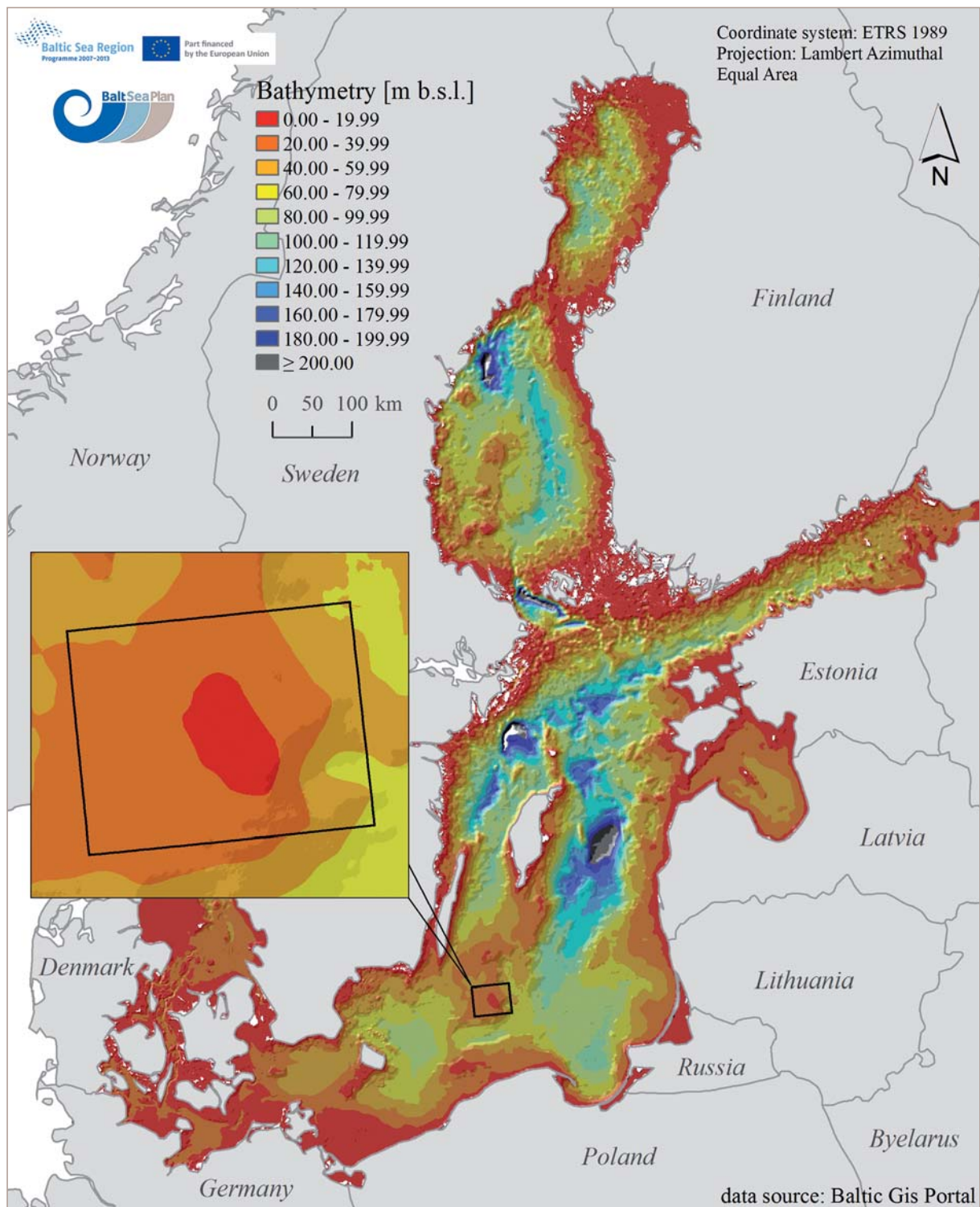


Fig. 2.: Bathymetry of the Southern Middle Bank area

Source: prepared by Maritime Institute in Gdańsk.

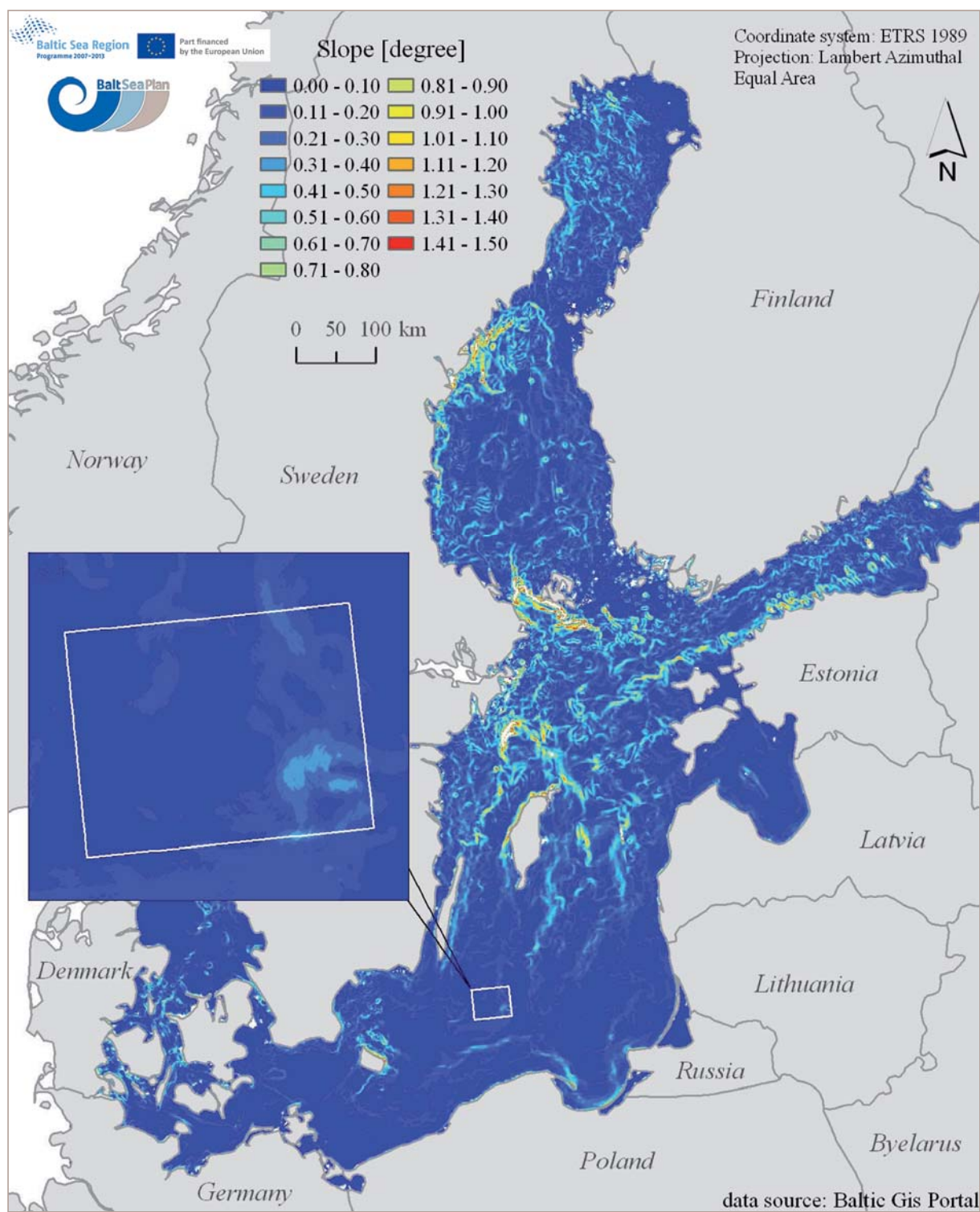


Fig. 3.: Bottom slope in the Southern Middle Bank area

Source: prepared by Maritime Institute in Gdańsk.

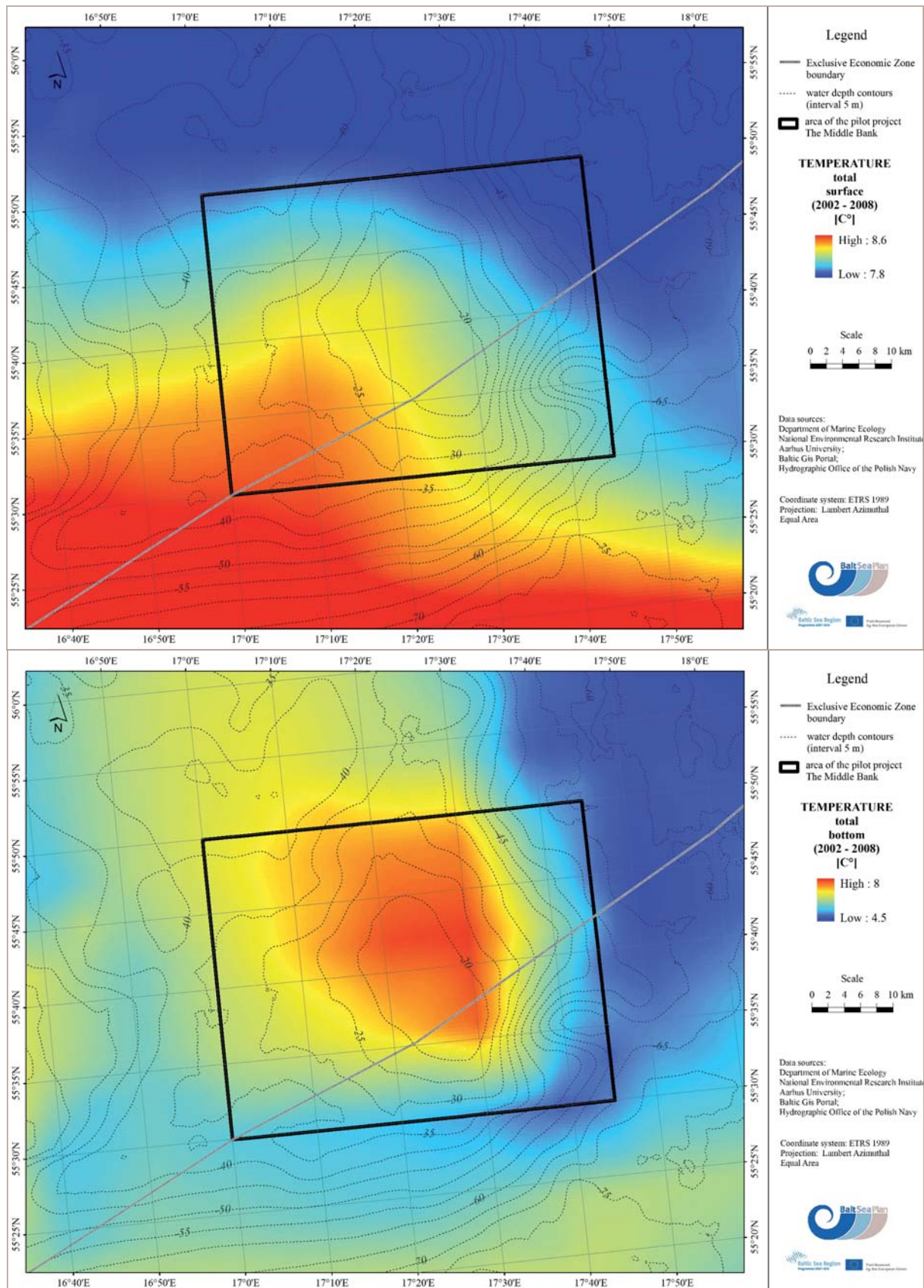


Fig. 4.: Bottom and surface temperatures in the Middle Bank area (2002–2008)

Source: National Environmental Research Institute of Aarhus University.

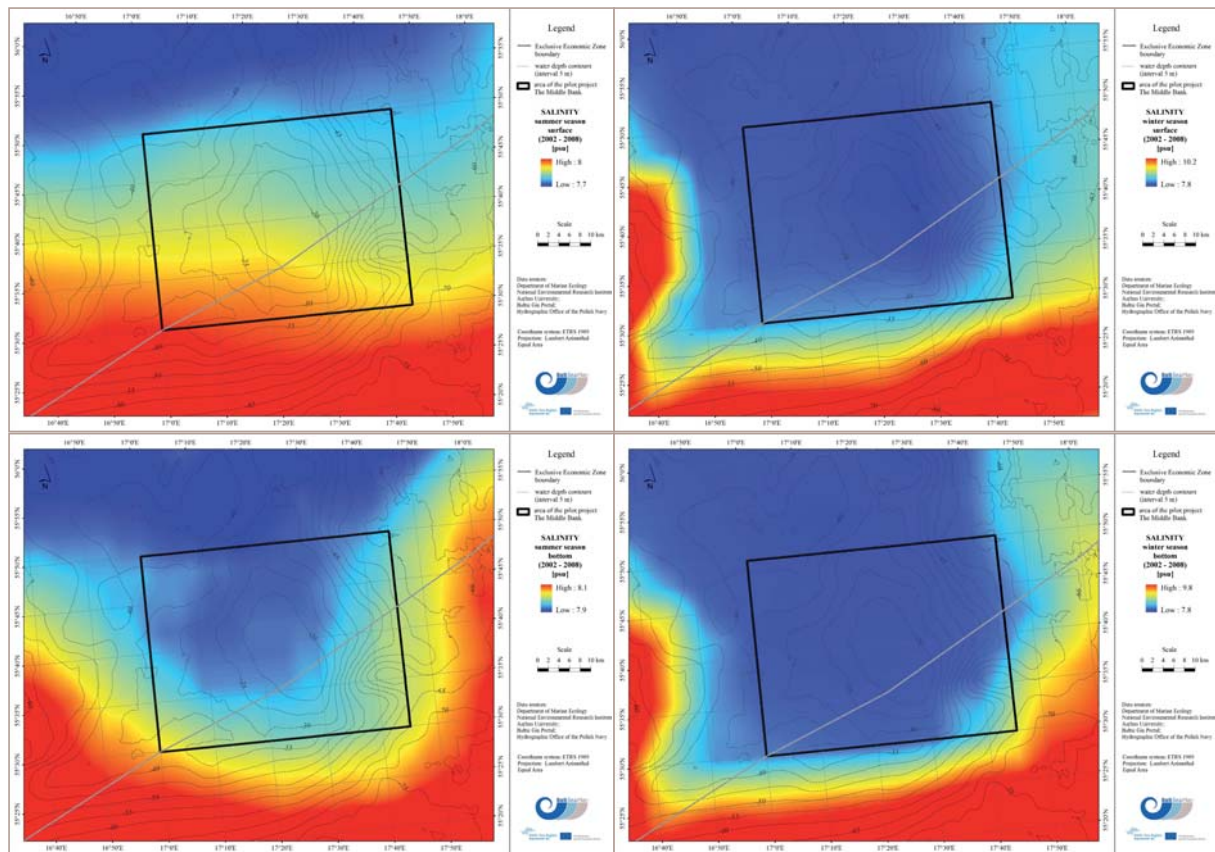


Fig. 5.: Seasonal differences in bottom and surface salinity in the Middle Bank area (2002–2008)

Source: National Environmental Research Institute of Aarhus University.

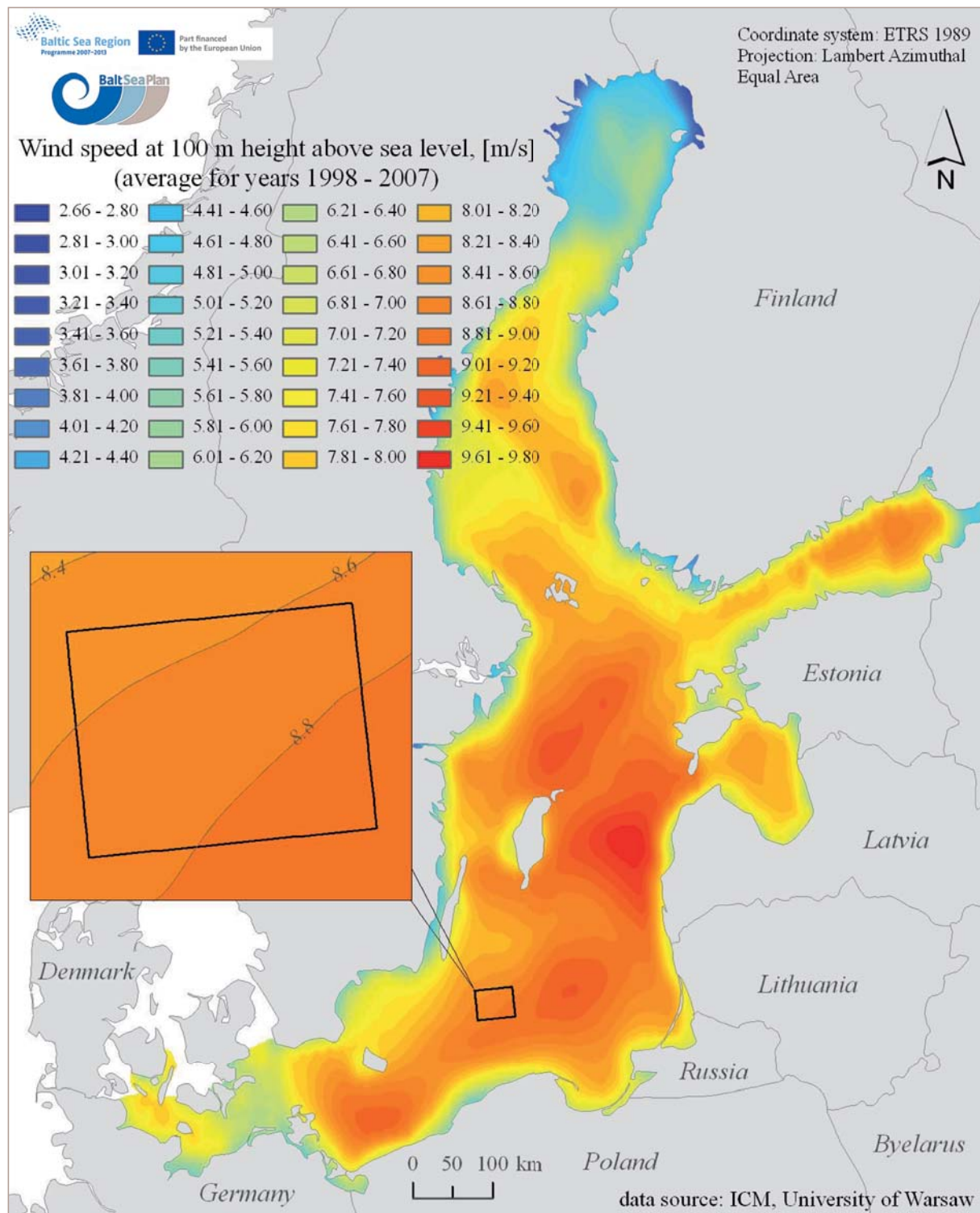


Fig. 6.: Average wind speed at the 100 m
Source: prepared by Maritime Institute in Gdańsk.

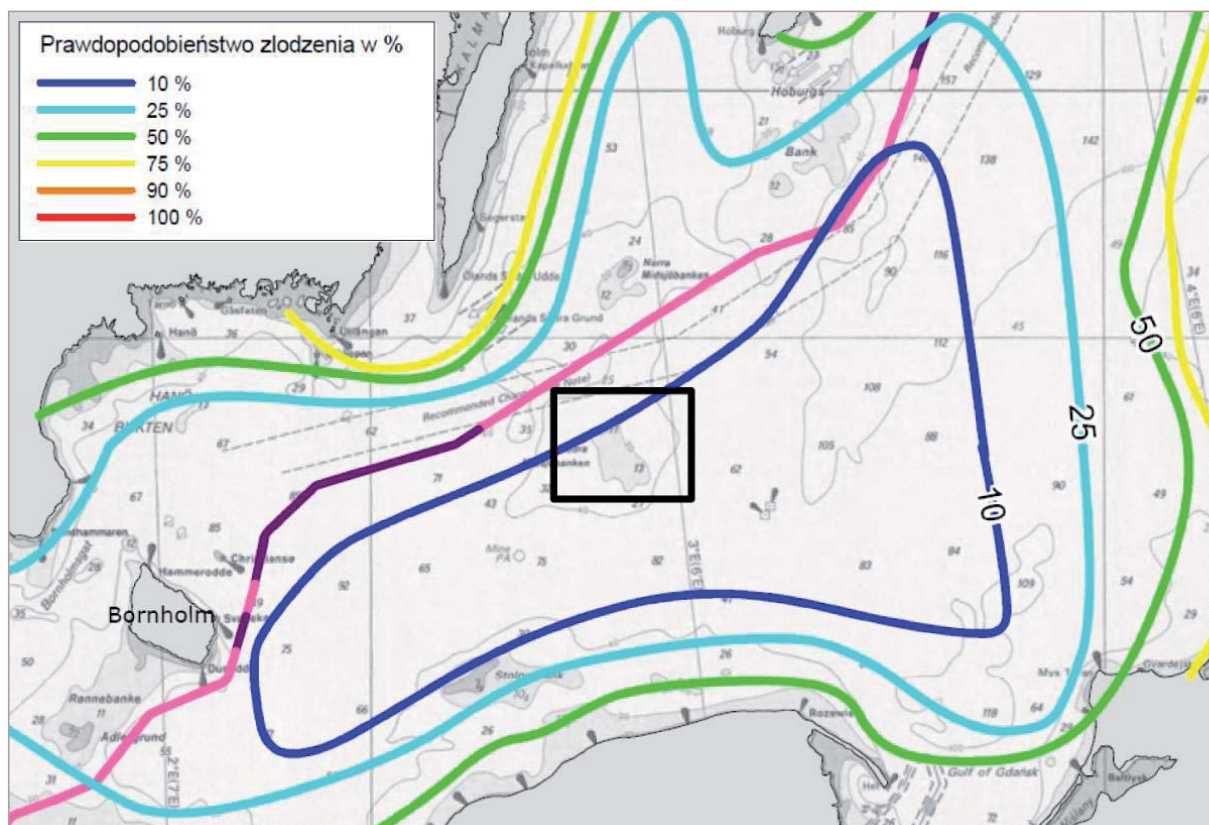


Fig. 7: Ice cover in the Southern Middle Bank area

Source: www.nord-stream.com.

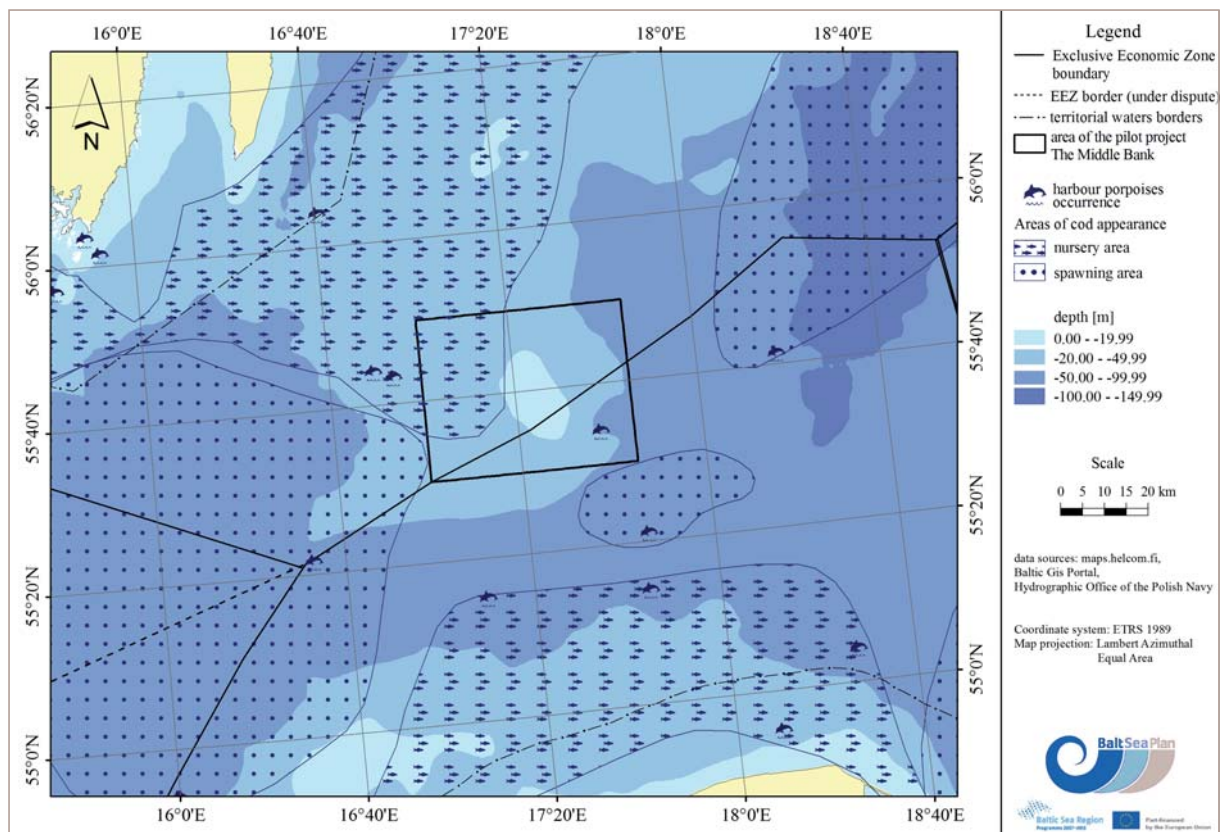


Fig. 8.: Areas of cod appearance and harbour porpoises occurrence

Source: prepared by Maritime Institute in Gdańsk.

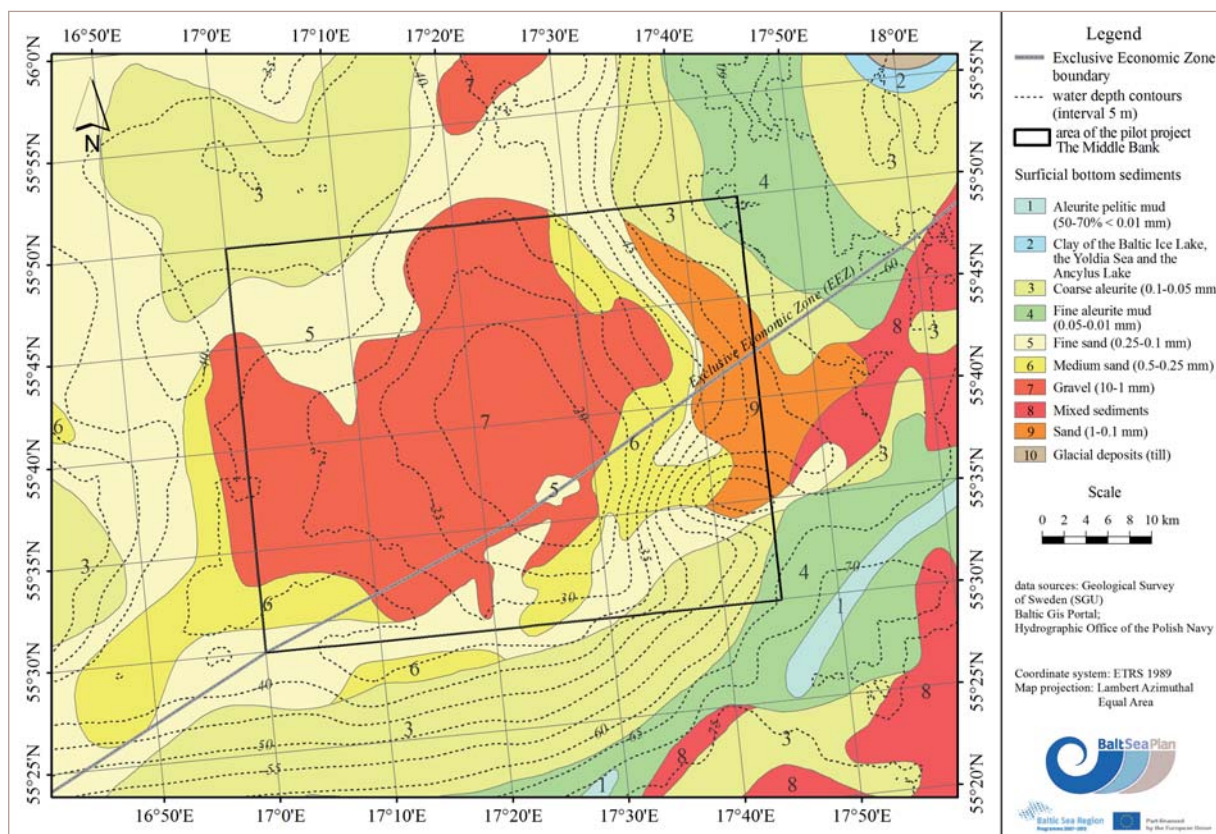


Fig. 9.: Geology of the Southern Middle Bank area

Source: prepared by Maritime Institute in Gdańsk.

Annex 2: Legislation related to specific uses

NAVIGATION

In accordance with international (Article 58 of UNCLOS), Polish (Article 18 of the Act on sea areas of Poland and maritime administration) and Swedish (the Swedish Economic Zone Act and Swedish Maritime Administration) law, navigation is allowed in the whole area of the plan. In 2005, IMO Marine Environment Protection Committee (MEPC) by the Resolution of its General Assembly dated back to 1991 [A 720(17)], updated in 2005 [A982(24)], granted the Baltic Sea – as one of ten areas in the world – the status of a Particularly Sensitive Sea Area (PSSA). With respect to sea space management this requires that safe deep sea navigation routes and coastal sea traffic zones must be established on the Baltic in order to ensure maximum safety of ships (and therefore prevent pollution of environment due to collision or breakdown) and simultaneously to protect nature and environment. In the area of this plan no deepwater navigation routes or traffic separation systems have been established.

UNDERWATER CULTURAL HERITAGE

In accordance with international law (Articles 149 and 303 of UNCLOS) objects of archeological or historic character, present in the area of the plan, shall be protected in order to preserve and use them for the good of humanity. Protection should be ensured also by Polish and Swedish legal acts (Article 35a of the Act on sea areas of Poland and maritime administration and Article 1 of the Swedish Cultural Monuments Act (1988:950), and in Poland a special role in this respect is given to spatial plans (Article 37a of the Act on sea areas of Poland and maritime administration).

All remnants, objects and any trace of humanity from the past:

- › the preservation and analysis of which will help to trace the history of humanity and its relationship with the natural environment,
- › for which excavations and uncovering, and other methods of investigating the history of humanity and its environment are the basic source of information

are considered to be objects of archeological heritage.

Archeological heritage includes systems, structures, sets of buildings, exploited sites, objects, relics of other type, and also their neighbourhood located on earth or under water.

Underwater cultural heritage is (will be) protected in the whole area of the plan by strength of separate regulations, i.e.:

- › European Convention on the protection of archaeological heritage, La Valetta, 16 January 1992,
- › Convention on protection of underwater cultural heritage UNESCO of 2 November 2001 after its ratification by Poland and Sweden.

PROTECTION OF ENVIRONMENT AND NATURE

Poland and Sweden are granted in the area of the Plan, i.e. in their EEZs, the exclusive jurisdiction in matters of maintenance and protection of marine environment (Article 56 UNCLOS, Articles 17 and 19 of the Act on sea areas of Poland and maritime administration, Article 2, 3 and 4 in the Swedish Economic Zone Act and the Environmental Act). They are obliged to ensure effective protection of the marine environment against negative impacts of human activities, including drilling, dredging, waste dumping, building and servicing or maintenance of installations, pipelines and other devices connected with such activities (Article 145 UNCLOS implemented on the strength of Article 58 item 3 UNCLOS). Nature conservation is ensured by national law of Poland and Sweden corresponding to EU legislation, especially:

- › Directive 92/43 EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
- › Directive 85/337 EEC amended by Directive 96/61/EC on EIAs,
- › Directive 2001/42/EC of the European Parliament and Council of 27 June 2001 on SEAs.
- › Directive 79/409 EEC of 2 April 1979 on protection of wild birds.

Protection of environment against pollution by navigation is ensured by separate legislation, especially by the ratified by Poland and Sweden:

- › International Convention on prevention of pollution of the seas by ships of 1973, changed by the Protocol of 1978 (MARPOL),

- › Convention on the protection of the marine environment of the Baltic Sea, done in Helsinki on 9 April 1992, which provides for the use of Best Available Technology and Best Ecological Practice, which are defined in Recommendations 13/6 and 12/3 to that convention,
- › Convention on environmental impact assessment in transborder context, Espoo 25 February 1991,
- › the Swedish Ballast Water Act (2009:1165),
- › the Swedish Prevention of Pollution from Ships Act (1989:424).

Protection of environment from pollution by shipping is also facilitated by ensuring that in the planned area, in accordance with recommendations resulting from the IMO Resolution, establishing the Baltic Sea as a PSSA, priority areas for navigation do not overlap with priority areas for environmental protection.

FISHING AND MARICULTURE

In their EEZs, and therefore in the area of the Plan, Poland and Sweden have the sovereign right (Articles 56 and 61 UNCLOS, Article 17 item 1 of the Act on sea areas of Poland and maritime administration and the Swedish Fishery Act) to exploit and protect living resources of the sea, which is limited only by the principles of the EU Common Fishery Policy.

Protection of environment against disruption and damage generated by mariculture is ensured by national law, which implements, among others:

- › EU legislation, especially:
 - Directive 92/43 EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora,
 - Council Regulation (EC) No. 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No. 2092/91,
 - Council Regulation (EC) No. 708/2007 of 11 June 2007 concerning use of alien and locally absent species in aquaculture,
 - Commission Regulation (EC) No. 506/2008 of 6 June 2008 amending Annex IV to Council Regulation (EC) No. 708/2007 concerning use of alien and locally absent species in aquaculture,
- › the ratified by Poland and Sweden Convention on protection of the marine environment of the Baltic Sea area done in Helsinki on 9 April 1992, which provides for supporting the use of Best Available Technology and Best Ecological Practice and the Recommendations 25/4, 13/6, 12/3 to this Convention.

LINEAR INFRASTRUCTURE AND TECHNICAL INFRASTRUCTURE CORRIDORS

In accordance with international and national law (Articles 58 and 79 UNCLOS, Article 18 of Act on sea areas of Poland and maritime administration, the Swedish Economic Zone Act, the Swedish Planning and Building Act, reinforced by the Act on Technical Requirements for Construction Work), laying of underwater cables and pipelines is allowed in the whole area of the plan with the exception of areas where they could be a hindrance to navigation, exploitation and investigation of natural resources of the EEZ by Poland and Sweden, and where it could be a danger to the natural environment, cultural heritage or be a hindrance to fishing activities (Article 60 item 7 UNCLOS, Article 23 item 3 p.1,4,5,7,8 of the Act on sea areas of Poland and maritime administration, the Swedish Economic Zone Act, the Swedish Planning and Building Act, reinforced by the Act on Technical Requirements for Construction Work).

Protection of underwater cultural heritage against damage by linear infrastructure is ensured by separate legal regulations, implementing especially:

- › the European Convention on protection of archeological heritage,
- › EU Directives, especially
- › Directive 85/337 EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment amended by Directive 96/61/EC,
- › Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of certain plans and programmes on the environment.

Protection of environment against disruption or damage by linear infrastructure is subject to separate national regulations implementing:

- › EU directives, especially:
 - Directive 85/337 EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment amended by Directive 96/61/EC,

- Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of certain plans and programmes on the environment,
- Directive 92/43 EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora,
- › the ratified by Poland and Sweden Convention on the protection of the marine environment of the Baltic Sea area, done in Helsinki on 9 April 1992 (Helsinki Convention), providing for support of the Best Available Technology and Best Ecological Practice and its Recommendations 15/5, 17/3, 19/17, 13/6, 12/3.

MINING ACTIVITIES – USE OF NATURAL RESOURCES

In the area of the draft pilot maritime spatial Plan and in their EEZs Poland and Sweden have the sovereign right (Article 56 of UNCLOS, Article 17 of the Act on sea areas of Poland and maritime administration, the Article 5 of Swedish Economic Zone Act) to exploit, protect and manage living and non-living natural resources of the sea water above the bottom, the seafloor and soil below the sea bottom.

Protection of underwater cultural heritage is ensured by separate regulations already listed in the section on linear and technical infrastructure.

Protection of natural environment against disruption and damage by mining activities, as well as against increased fragmentation of the marine ecosystem, in that habitats, is ensured by separate national legislation implementing Helsinki Convention (Recommendations 19/1, 19/17, 13/6, 12/3) and EU Directives already listed in the section on linear and technical infrastructure.

POWER PRODUCTION

In the area of the Draft pilot maritime spatial plan and in their EEZs Poland and Sweden have the sovereign right (Article 56 of UNCLOS, Article 17 of the Act on sea areas of Poland and maritime administration, the Swedish Economic Zone Act (1994) and by Swedish Government (Ministry of Enterprise, Energy and Communication) to produce power by the use of water, currents and wind.

Protection of underwater cultural heritage against damage by power production is ensured by separate regulations, already listed in the section on linear and technical infrastructure.

Protection of natural environment against disruption and damage by power production and against increased fragmentation of the marine ecosystem, including its habitats, is ensured by separate national regulations, implementing Helsinki Convention (Recommendations 19/1, 19/17, 13/6, 12/3.) and EU Directives already listed in the section on linear and technical infrastructure which especially are in accordance with:

SCIENTIFIC INVESTIGATIONS

In accordance with international law (Article 238 UNCLOS), all States may carry out scientific investigations in the whole area of the plan, providing that they do not constitute a danger to other users (Article 240 UNCLOS). This freedom does not extend to investigation, exploitation and protection of living and non-living natural resources, sea waters covering the seafloor, the sea bottom and its subsoil which are covered by the sovereign rights of Poland and Sweden in their EEZs (Article 56 UNCLOS, Article 17 of Act on sea areas of Poland and maritime administration, Article 9 of Swedish Economical Zone Act (1994).



Annex 3: Underwater cultural heritage

“Underwater cultural heritage” means all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years with the exception of pipelines and cables and of still used installations”¹. The underwater cultural heritage in EEZ is not effectively protected and this is one of the important challenges for wise planning of sea space use in the EEZ in line with the spirit of spatial planning i.e. paying attention to cultural and natural values that are of non-renewable character.

“UNCLOS is primarily concerned with trade, fishing rights, commercial exploitation of natural resources in the seabed, and environmental protection. In fact, questions related to the protection of underwater cultural heritage only entered the negotiations at a late stage. As a result, only two articles of UNCLOS refer directly to underwater cultural heritage” (Sokal 2005).

Article 303 of UNCLOS provides that “States have the duty to protect objects of an archaeological and historical nature found at sea and shall co-operate for this purpose”, but gives no details. This article also gives coastal states limited rights to protect cultural heritage within the contiguous zone. But it opens room for bilateral and multilateral agreements on conservation of underwater cultural heritage by stating that such protection should be done without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature’.

Article 149 of UNCLOS is also very general and vague. It says that “all objects of an archaeological and historical nature found in the Area (that is, on the seabed underneath the high seas) shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin”.

The problem is that nothing in these articles affects the so called UNCLOS freedoms i.e. the law of salvage² and other rules of admiralty. Also the freedom of fishing might be detrimental for the protection of underwater cultural heritage. In fact such heritage, if found in the EEZ, becomes the property of those who have brought them onto the surface – in line with the relevant legislation (usually the flag State legislation). Such an “owner” is entitled to sell the objects found by herself/himself on the private market. The coastal states have no legal instruments to prevent that. The underwater cultural heritage has not been put under their jurisdiction similarly to the natural resources of the EEZ. Article 77 § 1 of UNCLOS does not cover underwater cultural heritage since it regulates exploitation of relevant natural resources of the EEZ, and cultural heritage is rather man-made.

These gaps are filled by the **Convention on the Protection of Underwater Cultural Heritage**, signed under auspice of UNESCO, on 2nd November 2001. The Convention bases on UNCLOS Article 303 allowing multilateral agreements. In the Baltic Sea Region, until now, it has been ratified only by Lithuania (in 2006).

It is stated in the preamble of the Convention that underwater cultural heritage is an integral part of the cultural heritage of humanity, and therefore its protection and conservation is the duty of all countries. The Convention:

- A. Requires that underwater cultural heritage shall be protected also in the EEZ (Article 9).
- B. Requires that the signatories cooperate in order to protect the heritage, that it cannot be commercially exploited and gives priority to the conservation of underwater cultural heritage *in situ* (Article 2).
- C. Partly limits regulations of Article 303 p. 3 of UNCLOS with respect to underwater cultural heritage by stating that the right of salvage and the right to a „finders reward” shall not be applied to underwater cultural heritage, except when it is allowed by competent authorities, conforms with the Convention and ensures protection of the heritage. This means that regulations of the International Convention on Salvage are not applicable to underwater cultural heritage.
- D. In relation to Articles 149 and 303 of UNCLOS, provides the signatory states with the right to prohibit or authorize activities directed at underwater cultural heritage located in their EEZ (or continental shelf).

1 Convention on the Protection of Underwater Cultural Heritage, signed under auspice of UNESCO, on 2nd November 2001

2 “A pure or merit salvage award will seldom exceed 50 percent of the value of the property salvaged. The exception to that rule is in the case of treasure salvage. Because sunken treasure has generally been lost for hundreds of years, while the original owner (or insurer, if the vessel was insured) continues to have an interest in it, the salvor or finder will generally get the majority of the value of the property. While sunken ships from the Spanish Main (such as Nuestra Señora de Atocha in the Florida Keys) are the most commonly thought of type of treasure salvage, other types of ships including German submarines from World War II which can hold valuable historical artifacts, American Civil War ships (the USS Maple Leaf in the St. Johns River, and the USS Monitor in Chesapeake Bay), and sunken merchant ships (the SS Central America off Cape Hatteras) have all been the subject of treasure salvage awards.” retrieved from www.langarshipping.com/legal.html on 20.09.2011

The Convention provides a mechanism for protecting underwater cultural heritage while not compromising the UNCLOS spirit. The Convention stipulates that:

- › nationals of a signatory or captains of ships flying the flag of the signatory must report to competent authorities about underwater cultural heritage discovered in the EEZ or continental shelf of the given State or in the zone of another signatory, and about intentions of taking action with respect to such heritage (Article 9).
- › the signatories shall inform each other about such discoveries and actions (Article 9).
- › any signatory State may declare to the State Party in whose exclusive economic zone or on whose continental shelf the underwater cultural heritage is located its interest in being consulted on how to ensure the effective protection of that underwater cultural heritage, basing on a verifiable link, especially a cultural, historical or archaeological, to the underwater cultural heritage concerned (Article 9).
- › when a state makes such decisions, it shall consult with these signatory States which made an appropriate request in agreement with procedures given in Article 9, and that that state shall take on the role of the „Coordinating State” with respect to protective actions and possible initial scientific investigations (Article 10).
- › the signatories which declared their interest in the underwater heritage have the right to select another State to act as the Coordinating State when the state in whose zone the heritage is located does not wish to act as the Coordinator (Article 10).
- › the Coordinating State has the right to take all necessary action to protect underwater heritage in the EEZ, after due consultation with other interested signatory States, unless situation requires immediate action because of direct danger to the heritage, e.g. because of risk of devastation (Article 10).
- › that the Coordinating States shall act not only in its own interest but also in the interest of all interested signatory States (Article 10).

An integral part of the Convention is the **Annex** which contains detailed rules concerning activities directed at underwater cultural heritage. The Annex is based on the Charter for the Protection and Management of Underwater Cultural Heritage developed by ICOMOS.

The most important rules of the Annex include³:

- › that protection of underwater cultural heritage by maintaining it *in situ* is a priority,
- › that in principle commercial exploitation is contrary to proper management of underwater cultural heritage,
- › that actions directed at underwater cultural heritage must use non-destructive techniques and methods of investigation in preference to lifting the objects from the sea bottom,
- › that public access to *in situ* underwater cultural heritage should be supported except in cases when such access is contrary to the requirements of its protection and management,
- › that a detailed plan of action must be developed before any action directed at underwater cultural heritage is taken; such a plan must be submitted to competent authorities for review and authorisation. The plan must contain an assessment of previous actions, definition of objectives of the project, indication of methods and techniques to be used, description of financing, timetable, list of the team realising the project, plan of post-excavation analyses and other actions, program of artefact and site maintenance, description of site management and protection, description of documentation, description of measures to ensure safety of personnel and other persons, methods of environment protection, the method and timetable of preparation of the final report, indication of the place where archives and excavated objects will be kept, and finally a program of publication of the results,
- › that all action directed at underwater cultural heritage shall be carried out exclusively under leadership and control and with constant presence of a qualified scientifically competent underwater archaeologist.

The obvious suggestion would be that all BSR coastal States should become signatories of the convention, thereby ensuring protection of underwater cultural heritage in the Baltic EEZs. It seems that an awareness raising process among key decision makers should be started. This could be an ideal task for pan-Baltic organizations such as VASAB and HELCOM. But such a process will probably require time and patience. In the meantime, the Southern Middle Bank draft pilot maritime spatial plan came up with concrete provisions for protecting underwater cultural heritage (described in part IV) when erecting artificial islands and other structures, extracting minerals or when laying submarine cables and pipelines. The problem is that the coastal states have only limited tools to enforce these provisions and that the provisions do not protect underwater cultural heritage against treasure hunters and underwater tourists.

3 Retrieved from http://portal.unesco.org/en/ev.php-URL_ID=13520&URL_DO=DO_TOPIC&URL_SECTION=201.html on 20 April 2011.

Annex 4: Observation of the VASAB-HELCOM principles by the Southern Middle Bank plan

Sustainable management

Sustainable management is made operational within the Principles by: achieving balance between economic, environmental, social and other interests in spatial allocations, coherent integration of sectoral planning, by application of the ecosystem approach and by paying attention to the long term perspective. Since the long term perspective and the ecosystem approach are covered by separate principles, only the remaining aspects of sustainable management are analysed below.

BALANCE BETWEEN ECONOMIC, ENVIRONMENTAL, SOCIAL AND OTHER INTERESTS

The draft for the Southern Middle Bank has been developed taking into account the following objectives, resulting from national (Poland and Sweden) and international (VASAB, HELCOM and Integrated Maritime Policy of the EU) strategic documents:

- › ensuring safe sustainable use of the sea,
- › ensuring good state of marine ecosystems and preservation and protection of historical heritage,
- › ensuring cohesion of spatial development between the Polish and Swedish parts of the Southern Middle Bank area,
- › enabling Poland and Sweden to fulfil their international obligations resulting from ratified international agreements and from international law (including EU law),
- › ensuring economic use of sea space, leaving possibly large areas for future, also yet unknown, ways of using the sea.

These goals cover economic and ecological aspects in addition to some legal considerations specific for management of the EEZ. Social aspects are covered only indirectly due to the fact that the planned area is located far away from human settlements and its impact on development of coastal municipalities is limited. During the planning process the conflicts have been identified (see Table 4).

In conflict solving no single use received a privileged position despite international law granting some extraordinary rights (freedom of the sea) to some uses. Due attention was paid to Baltic-wide long term processes, in particular processes supporting and regulating ecosystem services.

STRATEGIES AND STRATEGIC DOCUMENTS

Integration of sectoral planning can be judged on the basis of strategies and strategic documents of sectoral and cross-sectoral nature taken into consideration in the maritime planning process.

The draft pilot maritime spatial plan for the Southern Middle Bank was developed within the BaltSeaPlan project. Its separate part was devoted to analysing existing and possible future impacts of different policies on maritime spatial development. The choice of policies was done on the basis of the BaltCoast classification of maritime spatial conflicts. BaltCoast showed which policies may have a direct and strong influence on the use of sea space. This initial BaltCoast list was extended by using both EU and VASAB conclusions about the future of maritime spatial planning. With regard to Poland, the following policies (strategies and important strategic documents) were analysed:

- › general overarching policies e.g. *national strategies, national reform programme etc.*,
- › sectoral and horizontal national policies: e.g. *spatial policy, environment protection policy, transport policy, energy policy etc.*,
- › policies related to guiding the use of Structural Funds e.g. *innovation policy, human capital development policy etc.*,
- › regional policies (*spatial and economic ones*).

For each policy its impact on MSP was analysed and the consequences for MSP were formulated.

Ecosystem approach

The focus of the ecosystem approach principle is on: good status of the Baltic Sea ecosystem¹, (including impact of human activities) related to the concept of ecosystem services and seen as a contribution to the achievement of the goals of the *EU Marine Strategy Framework Directive (MSFD)* and *HELCOM Baltic Sea Action Plan*, as well as on protection and enhancement of marine environment via MSP.

GOOD STATUS OF THE BALTIC SEA ECOSYSTEM AND EU MARINE STRATEGY FRAMEWORK DIRECTIVE AND HELCOM BALTIC SEA ACTION PLAN

The EU Member States in the BSR have not established yet a set of environmental targets and associated indicators for their marine waters to guide progress towards achieving good environmental status in the marine environment. Therefore the most feasible way of assessing to what extent a given plan takes into consideration the necessity to ensure good status of the Baltic Sea ecosystem is to examine the way the qualitative descriptors for determining good environmental status listed in the *EU Marine Strategy Framework Directive* are used. One should check whether these descriptors have been used in a systematic way for analysing the planned area, and to what extent provisions of the plan have been formulated in relation to the findings from the analytical phase. However, only some descriptors are sensitive to MSP instruments and measures (see Table 6). Therefore only those relevant should be subject to further examination. It should be kept in mind that, by definition and scope, Maritime Spatial Planning can deal only with sea-related and spatially relevant issues on a plan level. The distinction from the project/licence level should be always clear. Generally, MSP serves integrated, sustainable development, but it can contribute towards the goal of a good environmental status.

Table 6. MSP and qualitative descriptors for determining good environmental status

Qualitative descriptors for determining good environmental status	To what extent can be influenced by MSP
1. Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.	MSP should ensure connectivity and coherence of habitats.
2. Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.	Limited influence of MSP.
3. Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.	MSP can safeguard places for fish well-being (e.g. spawning and nursery grounds) and facilitate connectivity.
4. All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.	MSP can safeguard habitats necessary for maintenance of food web and facilitate connectivity between habitats.
5. Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.	MSP can formulate recommendations toward land-based activities, but in the strict sense MSP has no influence on land-based sources of eutrophication such as agriculture.
6. Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.	MSP can safeguard sea-floor integrity.
7. Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.	MSP can control alteration of hydrographical conditions resulting from different types of structures.

¹ According to the *Marine Strategy Framework Directive* 'environmental status' means the overall state of the environment in marine waters, taking into account the structure, function and processes of the constituent marine ecosystems together with natural physiographic, geographic, biological, geological and climatic factors, as well as physical, acoustic and chemical conditions, including those resulting from human activities inside or outside the area concerned.

Qualitative descriptors for determining good environmental status	To what extent can be influenced by MSP
8. Concentrations of contaminants are at levels not giving rise to pollution effects.	MSP can formulate recommendations toward land-based activities (location of contingency facilities and services, limitations on sea traffic – types and intensity?).
9. Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.	Limited influence of MSP.
10. Properties and quantities of marine litter do not cause harm to the coastal and marine environment.	Limited influence of MSP (except dumping).
11. Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.	MSP can be used for noise control if necessary, however this should be controlled primarily by construction permits.

Source: own elaboration.

HELCOM Baltic Sea Action Plan specifies four goals, associated with them ecological objectives and detailed targets for each objective. It is pointed out in the preamble of the BSAP that the targets, which are associated with the objectives, define the good environmental/ecological status of the Baltic Sea. The targets are described in depth in a separate document entitled: *Indicators and targets for monitoring and evaluation of implementation of the Baltic Sea Action Plan*. However, most of these targets are very specific and environmentally oriented. Therefore they can hardly be enhanced directly by MSP or implemented directly through MSP provisions. This concerns e.g. targets for summertime water transparency related to eutrophication, targets for maximum allowable concentrations of hazardous and radioactive substances, targets on safe maritime traffic, efficient emergency and response capability as well as targets on pollution and introductions of alien species from ships. MSP relevant targets concern only one goal of BSAP i.e. *Environment conservation and biodiversity*. They are related mainly to habitats, their connectivity, coherence and protection. The MSP relevant targets of BSAP are listed in Table 7.

Table 7. BSAP targets which can be directly implemented by maritime spatial planning provisions

Objective	Targets	Deadline for achieving targets
Natural marine and coastal landscapes	To have an ecologically coherent and well-managed network of Baltic Sea Protected Areas (BSPAs), Natura 2000 areas and Emerald sites in the Baltic Sea.	By 2010
	To have common broad-scale spatial planning principles for protecting the marine environment and reconciling various interests concerning sustainable use of coastal and offshore areas, including the Coastal Strip as defined in HELCOM Rec. 15/1.	By 2012
	To ensure that “natural” and near-natural marine landscapes are adequately protected and the degraded areas will be restored.	By 2021
Thriving and balanced communities of plants and animals ²	To ensure that the spatial distribution, abundance and quality of the characteristic habitat-forming species, specific for each Baltic Sea sub-region, extends close to its natural range.	By 2021
	To halt the degradation of threatened and/or declining marine biotopes/habitats in the Baltic Sea, and by 2021 to ensure that threatened and/or declining marine biotopes/habitats in the Baltic Sea have largely recovered.	By 2010

Source: own elaboration based on BSAP of HELCOM.

² The third target related to *prevention of adverse alterations of the ecosystem by minimising, to the extent possible, new introductions of non-indigenous species* also has very little connection with MSP.

The targets under the third objective of this goal i.e. related to *viable populations of species*, similarly to the targets of the other three goals, can be influenced by MSP only indirectly via a robust network of different habitats (for sheltering, spawning etc. for different types of species and ensuring proper functioning of the food web).

However, this frequently mentioned indirect influence of MSP on HELCOM targets is also worth consideration. For example, MSP can reduce eutrophication by securing space for specific types of mariculture, can concentrate shipping in intelligent (i.e. monitored) corridors to reduce the number of accidents, or can formulate recommendations towards land-based activities. This indirect impact is presented, at the level of BSAP goals and objectives, in Table 8.

Table 8. How the BSAP goals and objectives can be supported by MSP in order to achieve good environmental/ecological status of the Baltic Sea

BSAP goals and objectives	How the goals and objectives can be supported by MSP
1. Baltic Sea unaffected by eutrophication, characterised by: › Concentrations of nutrients close to natural levels, › Clear water, › Natural level of algal blooms, › Natural distribution and occurrence of plants and animals, › Natural oxygen levels, Clear water was chosen as the primary ecological objective with water transparency as the indicator.	MSP can formulate recommendations toward land-based activities and shipping. MSP can allocate sea space for reducing the amount of nutrients (e.g. mariculture for combating eutrophication).
2. Baltic Sea with life undisturbed by hazardous substances, characterised by: › Concentrations of hazardous substances close to natural levels, › All fish safe to eat, › Healthy wildlife, › Radioactivity at pre-Chernobyl level.	MSP can formulate recommendations toward land-based activities and shipping.
3. A favourable conservation status of Baltic Sea biodiversity, characterised by: › natural marine and coastal landscapes, › thriving and balanced communities of plants and animals, › viable populations of species.	MSP should ensure connectivity of habitats and ecological coherence of protected areas. MSP can safeguard habitats necessary for maintenance of the food web. MSP should be based on Ecosystem Approach. MSP should be based on sound environmental information and knowledge.
4. Maritime activities in the Baltic Sea carried out in an environmentally friendly way, characterised by: › Enforcement of international regulations – no illegal discharges, › Safe maritime traffic without accidental pollution, › Efficient emergency and response capability, › Minimum sewage pollution from ships, › No introduction of alien species from ships, › Minimum air pollution from ships, › Zero discharges from offshore platforms, › Minimum threats from offshore installations.	MSP can formulate recommendations toward shipping. MSP can allocate priority areas and recommended areas for human activities. MSP can formulate principles for managing human activities and conflicts.

Source: own elaboration.

By merging provisions of BSAP and the *EU Marine Strategy Framework Directive* one can come up with following MSP-sensitive qualitative descriptors for determining good environmental status of the Baltic Sea.

1. Biological diversity.
2. Protection of valuable habitats and coastal landscapes.
3. Populations of commercially exploited fish and shellfish.
4. Elements of the marine food webs.
5. Human-induced eutrophication.

6. Sea-floor integrity.
7. Permanent alteration of hydrographical conditions.
8. Concentrations of hazardous substances.
9. Safe shipping and incident prevention.
10. Properties and quantities of marine litter.
11. Introduction of energy, including underwater noise

The following of the listed above qualitative descriptors for determining good environmental status were considered by the Southern Middle Bank draft pilot maritime spatial plan (see Table 9).

Table 9. Qualitative descriptors for determining good environmental status in the draft pilot maritime spatial plan for the Southern Middle Bank

Qualitative descriptors for determining good environmental status	Examination of the current situation	Planning provisions
1. Biological diversity.	All protected species (mammals, ichthyofauna, avifauna, macrophytes, macrozoobentos) have been analysed however only in brief due to lack of data.	Protection of valuable habitats and their spatial integrity has been ensured.
2. Protection of valuable habitats and coastal landscapes.	All ecologically valuable habitats were analysed.	Special provisions were introduced to protect ecologically valuable habitats.
3. Populations of commercially exploited fish and shellfish.	Commercial species have been analysed.	Important nursery grounds for cod have been safeguarded.
4. Elements of the marine food webs.	Marine food webs were not analysed due to lack of data and adequate spatial methodology.	No provisions in the plan.
5. Human-induced eutrophication.	Human-induced eutrophication was not analysed due to the location of planning area far from the coast.	Areas for mariculture for combating eutrophication have been secured in the plan.
6. Sea-floor integrity.	Sea floor has been analysed.	Provisions have been elaborated to minimise use of sea floor by human activities.
7. Permanent alteration of hydrographical conditions.	Hydrographical conditions have been checked.	No special provisions have been elaborated due to low risk of alteration of hydrographical conditions by human activities.
8. Concentrations of hazardous substances.	Concentration of contaminants was not analysed due to lack of spatially relevant data.	No provisions in the draft pilot maritime spatial plan due to the location of planning area far from the coast.
9. Safe shipping and incident prevention.	Shipping and different location of wind farms were analysed. Attention was paid to the risk of collision with ships and the on-shore impact of such collisions.	Special provisions were introduced to the draft pilot maritime spatial plan to move shipping to the shipping corridors and to diminish risk of collision with windfarms.
10. Properties and quantities of marine litter.	Marine litter was not analysed, except recalling provisions of international agreements in this field.	Dumping areas have not been established.
11. Introduction of energy, including underwater noise.	Noise pollution was not analysed due to low risk of such pollution and lack of necessary data (on impact of noise on the marine ecosystem).	No special provisions have been elaborated.

Source: own elaboration.

PROTECTION OF THE MARINE ENVIRONMENT

Attention given in the Southern Middle Bank draft pilot maritime spatial plan to marine environment protection can be assessed only indirectly by analysing the methodology of the plan, the planning process, and the planning objectives. In particular, it can be checked whether any ecologically and biologically important areas within the planned area have been identified and how conflicts between human activities and biologically important areas have been handled.

Ensuring good state of marine ecosystems was recognized as one of the most important priorities of the plan. Specific ways of preventing environmental conflicts were proposed in the draft pilot maritime spatial plan. In particular, the draft pilot maritime spatial plan establishes obligatory guidance for public administration and obligatory rules of sea space use of general character, i.e. limitations and admissions of the ways in which sea space may be used, concerning among others conditions of environment and cultural heritage protection in the area. These conditions concern e.g. safety of navigation (safety zones around artificial islands, proper marking of artificial islands, obligation of dismounting and removing unused artificial objects, etc.), ways of constructing artificial islands or laying technical infrastructure (requirements of: detailed inventories, EIA, use of Best Available Technology and Best Ecological Practice) and some others.

Because of the possible, but still not documented habitat values (habitat type 1110 – sandy submerged bank), a sea basin limited by the 20 m depth contour was established as a potential priority water basin for environmental protection, in which other forms of use are excluded if they interfere with the protective function. Also basins recommended for mariculture serving purposes of environmental protection have been designated.

During the public hearings no proposal was submitted to extend the area designated primarily for protection of marine environment. Environmental organizations were satisfied with the proposed provisions.

Long term perspective and objectives

The principle of long term perspective stresses the need of such a perspective in relation to goals and effects. The plan should be based on a long term vision of comprehensive nature. This principle also protects plan provisions against being spoiled by short term benefits. To assess the compliance of plans with this principle, the existence of an underlying comprehensive vision for maritime space development, vertical and horizontal coordination of the plan with other policies, planning horizon and existence of alternative scenarios of the future use of the planned area as well as the attention given to long term phenomena such as climate change or technological progress should be examined. Since the coordination of the plan with other policies has been partially covered under the first principle here only the planning horizon, existence of underlying visions/strategies and addressing long-term phenomena such as climate change, technology change is checked.

LONG TERM VISION AND OTHER LONG TERM STRATEGIES

The draft pilot maritime spatial plan for the Southern Middle Bank refers to the Polish *National Spatial Development Concept* which guides spatial development of the whole country. Members of the planning team participated directly in the process of development of the Concept, and this provided for synergy between both processes. The Concept should safeguard practical coordination between MSP and other national policies in Poland.

On the Swedish side such a comprehensive vision document does not exist due to the different than Polish system of management of territorial development. However, for draft pilot maritime spatial plan preparation the Swedish National Maritime Policy Bill: *A coherent Swedish Maritime Policy* (2009) was used as guidance. The bill brings in the concept of an integrated MSP. It was a pity that the new Swedish structures responsible for MSP were still not in place during the draft pilot maritime spatial plan preparation. However, even the current Swedish law (regulating sea uses) ensures proper coordination of sea activities (sea uses) between different policies.

In addition to that the draft pilot maritime spatial plan was based on the VASAB *Long –Term Perspective for the Territorial Development of the Baltic Sea Region*, also the VASAB Principles on MSP were used as a starting point for preparation of the plan. In the course of draft pilot maritime spatial plan preparation the vision documents of HELCOM (Baltic Sea Action Plan) and EU (EU Strategy for the BSR) were analysed but their impact on the draft pilot maritime spatial plan itself seems moderate.

PLANNING HORIZON AND FORWARD LOOKING APPROACH

The Southern Middle Bank draft pilot maritime spatial plan has no specified planning horizon. However, it seems to prioritise long term over short term benefits (e.g. environmental protection over mining) and has adequate provisions anticipating change of technologies (e.g. establishment of intelligent transport corridors, emergence of floating wind parks etc.). Numerous planning provisions are of genuinely long term character, e.g. the requirement to remove structures after termination of their use, provisions related to the need of research or provisions dealing with green mariculture for sea purification. No alternative scenarios for the sea space development have been prepared.

Precautionary Principle

This implies planning has an obligation to anticipate potential adverse effects to the environment before they occur, taking into account Article 3 of the Helsinki Convention, and should take all precautionary measures so that an activity will not result in significant harm. A similar, but distinct, forward looking perspective should be applied with respect to the economic and social dimension. To assess compliance of plans with this principle one should ask for: existence of SEA, as well as identification of adverse effects to the natural environment, culture, society and economy and relevant precautionary measures addressing these effects.

SEA

The Southern Middle Bank draft pilot maritime spatial plan is in preparatory phase. SEA has not been conducted yet. In line with the Polish and Swedish law it will be required while preparing a legally binding plan.

PRECAUTIONARY MEASURES

The Southern Middle Bank draft pilot maritime spatial plan has not specified in a systematic way possible adverse effects to the natural environment, culture, society and economy. However, these effects can be found indirectly by examining the precautionary provisions of the plan. As pointed out under point 2.2.A, because of the possible, but still not documented habitat values a sea basin limited by the 20 m depth contour has been established as a potential priority sea basin for environmental protection, in which other forms of use are excluded if they interfere with the protective function. Certain recommendations have also been introduced in sea basins recommended for mining and power production activities to cope with danger from mining, which, by the way, has been very difficult to assess. Despite the lack of information on cultural underwater heritage in the planned area, provisions for its protection have been introduced. Construction of underwater and above-water structures, artificial islands, other structures including laying of cables, pipelines – so called linear infrastructure and structures for needs of research, also mining activities should be preceded by inventories covering, among others, underwater cultural heritage, dumped munition etc. On requirement of the maritime administration, routes of linear infrastructure, location of mining, research or production activities may be changed in order to protect objects of cultural heritage against damage caused by installation, construction or mining works, or during monitoring, repairs and dismounting in the future.

For mitigating adverse effects of human activities in the “general zone” the requirement of a territorial impact assessment (TIA) has been introduced.

Participation and Transparency

The principle stresses the need for participation of all relevant authorities and stakeholders as well as general public in maritime spatial planning initiatives at the earliest possible stage. To allow that, the planning processes should be open and transparent and in accordance with international legislation. To assess compliance with this principle one should examine what stakeholders have been involved, how they have been involved and at what stage of the planning process.

Although not required by Polish law, all relevant stakeholders from Poland have been invited for discussing the draft pilot Middle Bank plan. Over 100 potential stakeholders have been identified in Poland. They were asked to present their interests related to the planned area. Replies came from 29 stakeholders which described their plans for using the planned area in the future. Two meetings were organised with stakeholders. The first one was attended by 58 persons and focused on discussing: the results of the written consultations, main ideas of the plan and necessity of preparation of such a plan. The second meeting focused on discussing the proposed provisions

of the draft pilot maritime spatial plan and answering the remarks sent in advance by stakeholders. The draft pilot maritime spatial plan was made public in the Internet two weeks before the second meeting. Consultations with Swedish stakeholders were of limited (focused) nature so far, among others due to lack at that time of relevant authorities responsible for MSP in Sweden (they have been formed only recently). Full involvement of Swedish stakeholders is still a pending issue.

High quality data and information basis

The principle points out that Maritime Spatial Planning should be based on best available and up to date comprehensive information of high quality which, to the largest extent possible, should be shared by all. Presented quantified information should cover both historical baselines, present status as well as future projections of both environmental aspects and human activities. To assess whether a given plan meets those requirements one should check the scope, quality, reliability of collected data, methods of data analysis and processing (use of “decision support tools”) and existence of information gaps and data constraints.

For the Middle Bank draft pilot maritime spatial plan the quality of data and information was a severe problem, as already described. The best studied sea area of Poland is the belt of coastal waters. The deep-water zone is known worse, since research requires use of specialised ships and gear, which greatly increases the cost of data acquisition. The only easily available information for the EEZ concerned: ship traffic (thanks to AIS – Automatic Identification System), mining and other licences, wind and wind potential, depth and slope of the sea bed, water salinity and water temperature as well as location of protected areas, dumping sites, and to some extent also linear infrastructure. Even geological data provided by the Polish and Swedish side differed due to different resolution of carried out surveys. Data concerning habitats, ichthyofauna, avifauna are scarce and rather unreliable. There are no data on underwater cultural heritage. The most useful data sources were the Nord Stream reports and the HELCOM database (however some problems with spatial resolution of data can be noticed also there). Stakeholder meetings failed to deliver additional information, perhaps due to their formal character. The project team was aware of low data accuracy, therefore the precautionary principle was used for drafting the draft pilot maritime spatial plan provisions. Expert evaluation of data accuracy also was applied. Missing data were substituted with modelling techniques. Models were also used for assessing the environmental risks stemming from the allowed by the draft pilot maritime spatial plan sea uses.

Transnational coordination and consultation

The principle reminds about the need to coordinate maritime spatial plans between the Baltic Sea states, and to take into consideration international legislation and the Baltic Sea Region perspective, while developing such plans. To assess compliance of plans with this principle one should examine whether the plan has been consulted with the immediate sea neighbours (national and regional level) and pan-Baltic organizations, how cross-boundary effects on neighbouring marine areas have been assessed, and to what extent international legislation and Baltic Sea Region perspective has been taken into consideration.

INTERNATIONAL LEGISLATION

Since compliance with pan-Baltic visions has been assessed, here reference to international legislation should be only checked.

The project team preparing the Middle Bank draft pilot maritime spatial plan analysed an extensive set of international conventions and other pieces of legislation, as described in the section dealing with methodology. The text of the draft pilot maritime spatial plan itself (planning provisions) contains numerous references to that legislation.

CROSS-BORDER COORDINATION

The Middle Bank draft pilot maritime spatial plan was developed in close co-operation with Swedish experts representing both science (KTH) and the Swedish environmental administration. This ensured the necessary level of cross-border integration during the stock-taking phase. However, a more intensive cross-border debate on the planning provisions is still pending. It will become possible when the new Swedish authority responsible for MSP starts to be fully operative. The draft pilot maritime spatial plan is available in Polish and English in the Internet. This should facilitate cross-border dialogue. From the methodological point of view, the draft pilot maritime spatial plan duly takes into account its cross-border character. For instance, a special sea areas called “Transborder Areas” extending

fifteen nautical miles to each side of the Polish-Swedish border were designated by the plan. Any human activity in the Transborder Areas must pass transborder consultation on the basis of EIA documentation.

Coherent terrestrial and maritime spatial planning

The principle reminds about the need to coordinate maritime and terrestrial spatial plans and strategies. Since coordination with national plans, strategies and policies has been discussed here focus will be limited to coordination with local and regional terrestrial spatial plans and strategies. To examine the compliance of a given plan with this principle one should ask what terrestrial plans and strategies have been analysed while preparing the maritime spatial plan and how they influenced provisions of the maritime spatial plan and vice versa.

The Middle Bank area is located in the EEZs far away from the coast. The area between the planned area and the coast has not been planned yet. This is one of the main reasons why infrastructure corridors could not be decided within the Middle Bank draft pilot maritime spatial plan and their location has been left open. Other forms of coordination with terrestrial spatial plans and strategies have not been seen as necessary.

Planning adapted to characteristics and special conditions of different areas

The principle calls for the acknowledgement of the characteristics and special conditions of the different sub-basins within maritime spatial plans. It applies mainly to large strategic plans covering vast sea spaces but can also be used in plans for smaller areas. To examine the compliance of a given plan with this principle one should ask whether different sea basins have been identified in the plan and what methodology has been used for delimitation of the sea basins.

The Middle Bank draft pilot maritime spatial plan is of strategic character. Its aims mainly at assigning sea space to the most important (strategic) users in relation to characteristics of the space. Therefore, at the inventory stage, the different characteristics of the planned area were examined in depth to find the most suitable sea basins for different users in line with the national and international “vision” documents. The following issues were examined: biology, ichthyology, hydrobiology, geomorphology, thermo-hydrodynamics, hydrochemistry, meteorology, lithology, hydrography, hydrooptics. Also existing and planned human activities have been screened. Findings of these investigations were presented in a document accompanying the draft pilot maritime spatial plan entitled “Determinants of the Middle Bank maritime spatial plan”. In result of these investigations priority sea basins for environment protection and for maintenance of fishery (fish well being), and also recommended sea basins for research, mariculture, extraction of minerals and raw materials from seafloor and subsoil, and for power production were identified. The rest of the area of the draft pilot maritime spatial plan remained as a general zone.

Continuous planning

The principle reminds that planning is a continuous process which should adapt to changing conditions and new knowledge. Therefore monitoring and evaluation should form an immanent part of the planning process. Public participation is essential for their success. To examine the compliance of a given plan with this principle one should ask whether legal responsibility for preparing MSP is clearly assigned, what are the legal provisions for monitoring and assessment of the results of the plan including methodology, indicators (targets), and what is the role of stakeholders (also international ones) in this process.

RIGHT TO PLAN (OWNERSHIP OF THE PLANNING PROCESS)

Legal responsibility to plan is important for avoiding a situation of ad hoc plans prepared on demand of sectoral interests or societal groups. Without “ownership” of the planning process it is practically impossible to ensure continued planning, in which new plans draw on the lessons of their predecessors.

In the name of the State, Polish sea areas are managed by the Minister responsible for matters of maritime economy (at present it is the Minister of Infrastructure) and by his regional administration, i.e. the Directors of Maritime Offices. Responsibility for planning is uniform over all sea areas (i.e. internal sea waters, 12-nm zone and EEZ). Regulations concerning spatial planning of sea areas are contained in Chapter 9 (articles 37a and 37b) of the Act on Maritime Areas of Poland and Maritime Administration of March 21st 1991. They have been added to the Act in 2003 and slightly amended in 2005.

The existing legal regulations, however, need improvement. They do not define satisfactorily the role and legal nature of the maritime spatial plans, do not define sufficiently the procedures of working out these plans, including public participation, launching complaints against them, and monitoring, evaluating and amending them. They

are also insufficiently clear about the position of maritime spatial plans in the system of hierarchy of development policies/programmes/plans in force in Poland. The necessary related ordinance on technical aspects of maritime spatial plan preparation and documenting of the planning process is still under preparation. An amendment of this law, filling up the legal gaps, is expected soon.

In Sweden a specific law on maritime spatial planning has been recently elaborated. The new Marine Spatial Planning Act is under consultations and is expected to enter in force in 2012.

MONITORING AND EVALUATION

Though the pilot Southern Middle Bank draft pilot maritime spatial plan contains a number of recommendations concerning necessary investigations in the area, there are no specific provisions for the monitoring, evaluation and amendment of the draft pilot maritime spatial plan itself. Apart of lack of pertinent legal solutions, one of the reasons is that discussion on these important topics remains still insufficient and inconclusive.

Summing up – One can conclude that the draft pilot maritime spatial plan for the Southern Middle Bank area respects most of the HELCOM/VASAB principles except the principle concerning monitoring and evaluation. It fulfils only partly the principles:

- › on precautionary measures due to lack of SEA,
- › on stakeholder participation because participatory planning techniques were not used (e.g. consensus seeking or joint drafting) and because of unsatisfactory participation of Swedish stakeholders,
- › on high quality of data due to insufficient data availability and only limited information input during the stakeholder process.

In detail it may be concluded that:

1. The draft pilot maritime spatial plan for the Southern Middle Bank area conforms to the sustainable management principle as far as integration of cross-sectoral policies and goals and conflict management is concerned. Comparing with other plans, the draft pilot maritime spatial plan did not put sufficient emphasis on social aspects but such approach can be justified in EEZ plans.
2. The draft pilot maritime spatial plan for the Southern Middle Bank area takes into consideration the need to protect marine environment and to ensure good environmental status of the planned area in accordance with the *EU Marine Strategy Framework Directive* and *HELCOM Baltic Sea Action Plan*. The draft pilot maritime spatial plan takes into account the characteristics and location of the planned area. Therefore it conforms to the second HELCOM/VASAB principle.
3. The draft pilot maritime spatial plan for the Southern Middle Bank area conforms to the principle on long term perspective and objectives. The draft pilot maritime spatial plan makes use of available vision documents at national and supranational (Baltic) level. Mechanisms for policy coordination exist in Poland and Sweden. It also seems to be a forward looking type of plan, though an explicit long term planning horizon is not specified. Therefore this aspect of the draft pilot maritime spatial plan would require strengthening when preparing a final legally binding plan.
4. Although the draft pilot maritime spatial plan for the Southern Middle Bank area has not yet been subjected to the SEA procedure, it contains important precautionary measures for protecting the marine environment. Therefore it pays attention to the precautionary approach in line with the fourth principle. Full alignment will be reached after the SEA preparation.
5. The draft pilot maritime spatial plan for the Southern Middle Bank area was prepared with active participation of stakeholders. However their participation was of rather traditional nature, limited to consultations. No advanced participatory techniques, e.g. of consensus seeking or joint drafting, were applied. Therefore it complies only partially with the fifth principle.
6. The draft pilot maritime spatial plan for the Southern Middle Bank area was prepared with the use of best available knowledge. However, information gaps adversely affected the quality of the draft pilot maritime spatial plan and the planning process. Therefore it complies only partially with the sixth principle.
7. The draft pilot maritime spatial plan for the Southern Middle Bank area was prepared in accordance with the spirit of the seventh principle on transnational coordination and consultation. It takes thoroughly into con-

sideration international legislation. Its cross-border nature is reflected by the special provisions of the plan. However, cross-border participation of stakeholders requires further efforts.

8. The principle of coherent terrestrial and maritime spatial planning is of limited importance for draft pilot maritime spatial plan for the Southern Middle Bank area due to location of the planned area far from the coast.
9. The draft pilot maritime spatial plan for the Southern Middle Bank area takes into consideration the characteristics and special conditions of the different sub-basins. Therefore it conforms to the ninth HELCOM/VASAB principle.
10. Compliance with the tenth principle on continuous planning is limited. Though responsibility for preparation of the draft pilot maritime spatial plan for the Southern Middle Bank area has its statutory basis in Polish law, legal provisions fail to establish exact legal status of such plans. Swedish law concerning MSP is prepared but not yet adopted. In addition to that monitoring and evaluation provisions are missing.



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Executive Summary

The draft pilot maritime spatial plan was prepared as part of a family of pilot plans within the framework of the BaltSeaPlan project. This has been among the first world-wide attempts to prepare cross-border spatial plans for exclusive economic zones (EEZ) of neighbouring countries. The Southern Middle Bank area is located in the EEZ of Poland and Sweden. It is shared by two countries. The area has been hardly researched with regard to biodiversity, geomorphology, habitats etc. Therefore the main aim of the planning process has been to test methodology for planning EEZ in a cross-border setup and to accumulate experience on planning under high uncertainty circumstances.

The planning process followed the methodology introduced in the Handbook on Integrated Maritime Spatial Planning elaborated within the framework of the Plancoast Project (Schultz-Zehden, Gee, Ścibior 2008). It was also deeply rooted in the experience of the Maritime Institute in Gdańsk with regard to maritime spatial planning (Cieślak 2009; Cieślak et al 2009; Szeffler, Furmańczyk 2008; Zaucha 2008; Zaucha 2009; Zaucha 2009a; Zaucha 2010; Zaucha, Ścibior 2009). The draft of the pilot maritime spatial plan for the Southern Middle Bank area has been prepared by international team of experts and concerted with the stakeholders.

The draft pilot maritime spatial plan awards priority for the most important uses and ensures cohesion of the whole system of proposed solutions. The area covered by the draft pilot maritime spatial plan is divided into 11 sub-areas. Delimitation of the sea sub-areas have been used not in order to maintain the functionalities of the planned area, but rather to secure space of particular importance for top sea users. Therefore three types of sub-areas have been established: (i) priority sub-areas – in such a zone one type of use receives top priority over all other types of uses, (ii) recommended sub-areas – in such a zone some types of uses are welcome and encouraged (some functions are considered as very important), (iii) other areas i.e. so called general sub-area – with no priority for any users. For first two types of subareas, lead function, prohibitions, requirements and recommendations on the use of the given sub-areas have been formulated. For general sub-area it is required to carry out a territorial impact assessment (TIA) preceding mining activities, construction of artificial islands and structures or laying linear infrastructure. For the whole planned area the general set of prohibitions (limitations in sea space usage), requirements and recommendations have been also formulated in order to ensure cohesion of the whole system of proposed solutions.

Finally the recommendations on further enhancement of maritime spatial planning in EEZ area in a cross-border set up have been formulated and some observations (lessons learned) on main challenges related to such type of planning have been presented. Those challenges are related to limitations created by international law (so called freedoms), coping with information gaps, enhancement of public participation in cross-border maritime spatial planning process, and harmonizing policies that affect use of sea areas.

The Middle Bank draft maritime spatial plan is the third in row out of draft maritime spatial plans covering Polish sea waters prepared till 2011. The first Polish maritime spatial plan – the Pilot Draft Plan for the West Part of the Gulf of Gdańsk was elaborated in 2008 in the PlanCoast framework by the staff of the Maritime Institute in Gdańsk. In 2009 the Institute published the first comprehensive analysis in Polish on maritime spatial planning (Zaucha 2009a) covering also the case of the Gulf of Gdańsk. The summary of the book was translated into English and published in 2010 (Zaucha 2010). The book described the situation with regard to maritime spatial planning in Poland up to 2008. The publication is available from the Institute website www.im.gda.pl.

In 2011 the SEA report was prepared for the Pilot Draft Plan for the West Part of the Gulf of Gdańsk by the staff of the Maritime Institute in Gdańsk as a part of the BaltSeaPlan pilot studies. The document in Polish is available from the Institute website www.im.gda.pl. Its English summary has been published among the BaltSeaPlan reports. Also in 2011 the cross-border draft maritime spatial plan covering Pomerania Bight has been elaborated by transnational team of Polish, German, Danish and Swedish planners. The information about this plan is available as the BaltSeaPlan case study report (the list of all reports published by the BaltSeaPlan can be found at the back side of the cover page of this book).

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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 draft national visions for dealing with the Baltic Sea space recommendations on spatial issues with- in 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 based on the national visions, taking into account trans-national 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 Gdańsk (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 Transport, Building 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

- National Environmental Research Institute (NERI) of Aarhus University

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 Reports

BaltSeaPlan Reports

- 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 PilotMSP 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 – GIS Map service for MSP
- 29 – Case Study: Systematic site selection for offshore windpower with Marxan in the pilot area Pomerania Bight
- 30 – Case Study: Site selection of fisheries areas for MSP

BaltSeaPlan Publications

- BaltSeaPlan Vision 2030 (EN, LV, EE)
- Become a Maritime Spatialist within 10 min (EN, DE, LV, LT, PL, EE)
- BaltSeaPlan Bulletin 1
- BaltSeaPlan Bulletin 2
- BaltSeaPlan Project Flyer (EN, DE, LV, LT, PL, EE, SE)

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 increasing needs to protect the marine environment and at the same time expanding activities such as offshore wind energy parks and growing shipping traffic a systematic, integrative and forward-looking planning is required in order to safeguard the sustainable development of the oceans. Currently, however, this tool is far from being established practice.

The 3.7 million € INTERREG IVB project “**BaltSeaPlan**” (2009–2012) has been 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 from website www.baltseaplan.eu.

The Middle Bank is the largest shallow water area at the Baltic Sea. It is situated far from the coast at the Swedish / Polish EEZ border and has therefore only a very limited number of active stakeholders. [The BaltSeaPlan Report N° 10 “Developing a Pilot Maritime Spatial Plan for the Middle Bank”](#) demonstrates, how a MSP can be prepared for such an area, where there are – in comparison to coastal zones – only a very few active stakeholders and much less information available, while at the same time dealing with two different countries. Being more of strategic nature, with the purpose of preventing possible future conflicts rather than mitigating current ones – the resulting MSP looks quite different from former samples and might potentially lay the basis for similar type of MSPs in other offshore areas.

