

**STRATEGIC ENVIRONMENTAL ASSESSMENT**

**of**

**SOUTH BALTIC CROSS-BORDER CO-OPERATION  
PROGRAMME**

6 June 2007

## Table of contents

1. Introduction .....	3
2. Procedure and methodology of SEA preparation.....	3
3. Subject of the SEA .....	7
3.1 Main objectives of the Programme .....	7
3.2 Relationship with other relevant plans and programmes .....	13
4. Analysis of the state of the environment.....	16
4.1 The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the Programme .....	16
4.2 The environmental characteristics of areas likely to be significantly affected .....	24
4.3 Existing environmental problems which are relevant to the Programme .....	34
5. The environmental protection objectives, established at international, Community or Member State level, which are relevant to the Programme .....	35
6. The likely significant effects on the environment.....	40
7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the Programme.....	56
7.1 Directions of action .....	56
7.2 An outline of the reasons for selecting the alternatives and a description of how the assessment was undertaken including any difficulties encountered in compiling the required information.....	59
8. A description of the measures envisaged concerning monitoring.....	60
9. SEA summing up .....	63
10. Non-technical Summary.....	66
11. References .....	70

## 1. Introduction

The legal basis for the present strategic environmental assessment of the South Baltic Cross-border Co-operation Programme is derived both from the European directives and from national environmental laws of the individual countries, whose territorial units lie within the Programme Area. It is assumed that the national laws follow the requirements of the European Directive 2001/42/EC (the SEA Directive) "on the assessment of the effects of certain plans and programmes on the environment", therefore the SEA scope and range is consistent with the requirements expressed in the Directive.

European Directive 2001/42/EC (the SEA Directive) "on the assessment of the effects of certain plans and programmes on the environment", adopted on 31 May 2001 by European Parliament and on 5 June 2001 by the Council, requires a formal environmental assessment of certain plans and programmes which are likely to have significant effects on the environment. Authorities which prepare and/or adopt such a plan or programme must prepare a report on its likely significant environmental effects, consult environmental authorities and the public, and take the report and the results of the consultation into account during the preparation process before the plan or programme is adopted. They must also make information available on the plan or programme as adopted and how the environmental assessment was taken into account.

## 2. Procedure and methodology of SEA preparation

The structure of SEA (under the Directive) is based on the following phases:

- "Screening", investigation whether the plan or programme falls under the SEA legislation (in the Polish law prognosis of environmental impact),
- "Scoping", defining the boundaries of investigation, assessment and assumptions required, „Documentation of the state of environment”, including review of significant aspects of the present state of the environment, being at the same time a basis for assessment and referring level for the Programme implementation,
- Defining the foreseen (not marginal) environmental effects; South Baltic Cross-border Co-operation Programme does not determine precisely tasks, which will be supported by the Programme, therefore the assessment is rather formulating directions of changes. It does not define changes quantitatively, which may take place in a specific space. Depending on the scale of potential impact alternative solutions are defined in the SEA or mitigation measures,
- Informing and consulting the public,
- Influencing "Decision taking" based on the assessment and,
- Monitoring of the effects of plans and programmes after their implementation.

The EU directive also includes other impacts besides the environmental, such as material assets and archaeological sites. In most western European states this has been broadened further to include economic and social aspects of sustainability. SEA should ensure that plans and programmes take into consideration the environmental effects they cause.

The purpose of the SEA-Directive is to ensure that environmental consequences of certain plans and programmes are identified and assessed during their preparation and before their adoption. The public and environmental authorities can give their opinion and all results are integrated and taken into account in the course of the planning procedure. After the adoption of the plan or programme the public is informed about the decision and the way in which it was made. In the

case of likely transboundary significant effects the affected Member State and its public are informed and have the possibility to make comments which are also integrated into the national decision making process. SEA is meant to contribute to more transparent planning by involving the public and by integrating environmental considerations. It is also meant to help to achieve the goal of sustainable development.

Strategic environmental assessment procedure is of an interactive character. It constitutes a process, in which the final version of the basic document is created as a result of among others interactive work of two teams:

- Joint Programming Committee working together with the experts on the basic document and
- team of experts on assessment of this document from the view point of environmental and sustainable development criteria.

Such model of work ensured fulfilling methodological (and legal) requirements and achieving the main objective, which is defined for the SEA, including:

- b) identification of significant aspects of the existing environmental state and its potential changes in case of lack of plan or program implementation;
- c) description of the state of environment in areas under potential significant impact;
- d) identification of existing problems concerning environment important from the view-point of plan or program, in particular problems relating to areas of special value for the environment such as these defined according to the Directive 79/409/EEG and 92/43/EEG;
- e) evaluation of the programme in relation to environmental protection objectives, determined at the international, European Community or Member State level, important from the view-point of plan or program, and how these objectives and environmental aspects were regarded during its preparation;
- f) defining potential significant environmental impact, including biodiversity impact on population, human health, fauna, flora, earth surface, water, air, climate change, culture heritage including architectural and archaeological objects, landscape and mutual connections between these factors;
- g) defining measures in order to prevent, reduce and compensate in a possible high extent of significant disadvantageous impact upon environment resulting from plan or program implementation;
- h) description of arguments behind proposed alternative solutions and description how the assessment was made including indication of difficulties (such as lack in technique or know-how) during gathering necessary information;
- i) description of proposed monitoring measures according to art. 10;
- j) non-technical summary of the above information.

The Programme document of March 2007 was a subject of SEA. The main assessment was preceded by the analysis, to what extent the priorities, objectives and actions included in the

Programme will support realization of objectives written in other strategic documents relating to environmental and sustainable development problems.

### **SEA methodology**

It was assumed, that environmental impact would be analysed in two aspects:

- natural resources management and environmental efficiency,
- ecosystem, biodiversity as well as natural and cultural heritage.

As regards first aspect, the impact on natural resources is analysed including not renewable resources and changes of environmental efficiency in relation to the anticipated effects of actions undertaken within the Programme implementation. In case of the second aspect systemic relations are analysed, both of a natural and spatial system and also coincidence of economic, social and environmental phenomena in macro-scale and long-term approach. Making some simplification, in the first case there is an assessment of *how many changes*, and in the second one – *what kind of changes*.

The assessment was performed by using Named Group Technique. The assessing panel was formed by four experts, who:

- have worked out large number of EIA and SEA reports for a wide class of undertakings including large industrial complexes as well as programmes and policies,
- each of them is representing different field starting from ecology, spatial planning, anthropo-pressure factors, sustainable development and SEA methodology,
- are Economic Commission projects evaluators.

The following questions were put:

- Does the action affect environmental resources and/or environmental capacity?
- Does the action affect ecosystem, biodiversity or natural and cultural heritage?

Defining in each case the essence of the individual action described in the basic document of the Programme.

The experts prepared the answer of the following category:

What is the character of the impact – positive or negative,

- What is the impact duration – short- and/or long term,
- What is a spatial scale of the impact – local and/or regional and/or over regional

in the context of direct and indirect effects.

After an iterative rounds and integration of assessment the results were inscribed in a table.

In the next step the following question was answered:

Does a given action need an increased attention during implementation and/or anticipative modification?

After all actions have been assessed the final question was put as follows:

Does a summarized impact of all the actions is environmentally acceptable?

Experts have made analysis in the distinguished aspects with using criteria defining potential importance defined in art. 3 item 5 p. 1 of the Directive:

- probability, duration time, frequency and reversibility of the impact,
- cumulated character of the impact,

- transboundary character of the impact,
- human health or environmental hazard (e.g. in case of accident),
- scale and spatial range of the impact (geographical area and size of population probably exposed),
- value and sensitivity of potentially exposed area, due to:
  - special natural or culture heritage values,
  - exceeded environmental quality standards or admissible levels,
  - intensive use of land,
  - impact on area or landscape with national, European Community or international protection status.

Experts have made analysis in the distinguished aspects taking into account:

- characteristics of plans and programs connected with the assessed program regarding in particular:
  - to what extent specific plan or program defines framework for projects and other activities in the range of conditions of location, type, scale and functioning or by allocation of resources,
  - to what extent plan or program affects other plans and programs in a hierarchy,
  - usability of plan or program for regarding environmental aspects particularly for supporting sustainable development,
  - problems of environment connected with plan or program,
  - usability of plan or program for implementation of European Community legislation concerning environment (e.g. plans and programs connected with waste management or water protection).

All the results are presented in a summary table.

The whole assessment is ended with a summary of strategic environmental assessment.

### 3. Subject of the SEA

The Programme covers the area of 114,63 thous.km<sup>2</sup> and includes regions located in five member states of the European Union in the area of South Baltic.

The South Baltic area determined for the Programme includes the following NUTS III units:

- in Poland: Szczecinski, Koszalinski, Slupski, Gdanski, Gdansk-Gdynia-Sopot subregions and as adjacent (according to the “20% rule”) Elblaski sub-region,
- in Sweden: Kalmar, Blekinge, Skane Counties and as adjacent: Kronoberg County,
- in Germany: sub-regions of Mecklenburg-Vorpommern: Greifswald, Rostock, Stralsund, Wismar, Bad Doberan, Nordvorpommern, Nordwestmecklenburg, Ostvorpommern, Rugen, Uecker-Randow,
- in Denmark: Regional Municipality of Bornholm and as adjacent: Zealand sub-region,
- in Lithuania: Klaipeda County and as adjacent: Taurage and Telsiai Counties.

The overall objective of the Programme is to strengthen the sustainable development of the South Baltic area. It means that in line with the analysis of the present situation, the Programme should concentrate on the assistance in solving common problems requiring common solutions. In particular it should concern promotion of joint efforts to provide favourable conditions for growth and job creation over the national borders and to safeguard good social, cultural and natural environment for the residents, tourists and investors in the South Baltic area.

#### 3.1 Main objectives of the Programme

In the Programme document two priorities were defined:

- **Economic competitiveness**, where the focus is on actions promoting integration of economic and labour markets in the area, transfer of knowledge and know-how between public and private actors and better transport connectivity
- **Attractiveness and common identity**, where the focus is on actions promoting sustainable economic use of natural resources and cultural heritage, with particular attention to tourism, development of renewable energy sources and energy saving, management of environmental threats as well as local initiatives supporting people-to-people contacts.

##### **Priority 1: Economic competitiveness**

**Objective:** To stimulate convergence processes over the national borders towards a coherent economic market in the South Baltic area

Economic competitiveness of the South Baltic area as a whole is determined by several factors inherited from the historical past but also caused by the contemporary globalisation trends. As described in the analysis of the present situation, these factors speak for high disparities in:

- level of economic development between north-western and south-eastern parts of the South Baltic area, as demonstrated by substantial differences in GDP ratios or innovative potential indices of the national economies

- situation on regional and local labour markets within the South Baltic area, as displayed by the character, structure and rates of unemployment
- public support for the knowledge of economy and effectiveness of the research and development systems in the SPA countries, as exemplified with territorial distribution of scientific and technological clusters
- spatial pattern of economic growth processes, with their concentration in large urban centres and their scarcity in rural areas and small urban centres.

Following recommendations of the Lisbon strategy, the South Baltic area Programme can contribute to tackling of these disparities by stimulating convergence processes over the national borders towards a more integrated functional market. Although being restrictive to direct subsidies to private companies, the programme may still support the entrepreneurial development by creating platforms and networks for liaising between intermediary support structures for SMEs, aimed to improve absorption of innovations and increase of competences in the private sector.

The Programme can act towards improvement of effectiveness of the research and development (R&D) system to make it more oriented to the business community and more responding to the public policy needs, as featured in the triple helix concept. The Programme can hence catalyse the dissemination and promotion of best systemic and organisational models, their adjustment to the local and regional conditions (benchmarking according to the *Learning Regions* concept) as well as the integration of the regional knowledge and information markets.

The Programme has its vital role in improvement of co-operation and re-adjustment of the educational systems and curricula in response to the changing requirements of the labour market and its advancing integration in the South Baltic area due to gradual lifting up of legal barriers to labour flows. The common labour market requires joint planning in the field of education and lifelong learning, especially for those, who want to improve their qualifications, bring their skills up to date or retrain for a new line of work. It is thus necessary to improve the co-operation of the labour market institutions and business organisations with the institutions of the educational system to make the latter more compatible with the market demands in the specific fields and better prepared for serving the positive demographic development in the South Baltic area. The Programme can look at the accessibility of educational centres and cater for expansion of the educational infrastructure (wherever it is economically justified) and for new forms of education (e.g. e-learning) in order to facilitate the access to education at each level.

Equally important is co-operation of labour market institutions in order to facilitate mobility of the labour force, and to combat labour market bottlenecks, social exclusion and negative impacts caused by “brain-drain” processes in the South Baltic regions.

In pursue for an integrated economic and labour market in the South Baltic area, the Programme can also investigate on quality of physical connections between its individual regions. Looking from the cross-border perspective the programme can identify missing links and bottlenecks indispensable for creation of a coherent multimodal transport system in the South Baltic area and through the joint actions it can prepare the needed investments.

The geographical specificity of the area demands that special attention be given to maritime and air transport. A good point of departure for further investigations is provided by transport development projects in the South Baltic area co-funded by the Baltic Sea Region Interreg IIIB Neighbourhood Programme, which emphasize the gateway role of this area in serving transport

flows between Western Europe and Far East markets. All initiatives and efforts improving transport accessibility shall be based on environmentally friendly solutions.

Further, the Programme can analyse the supply and demand sides of the transportation services and to provide incentives for improvement of passenger transport services in the South Baltic area.

**Actions** for realisation of the priority can be divided into three groups:

*Sub-priority 1.1: Entrepreneurial development*

- Strengthening of platforms and networks for better liaising between small and medium sized enterprises in the South Baltic area
- Joint initiatives of intermediary support structures for SMEs (development agencies, business foundations, chambers of commerce and industry, chambers of crafts, technological parks, business incubators etc.) aimed to improve absorption of innovations and increase of competences in the private sector
- Enhancement of research networks (universities and R&D institutions) towards their better linkages to enterprises and local and regional governments
- Development of practical solutions increasing application of international research findings in a concrete business environment
- Testing and dissemination of best systemic and organisational models for the triple helix concept

*Sub-priority 1.2: Integration of higher education and labour markets*

- Joint actions of labour market institutions dedicated to an increase of the labour force mobility and to counteract negative processes on the cross-border labour market (e.g. “brain-drain”, youth unemployment, exclusion of gender or age groups etc.)
- Joint actions of labour offices, business organisations and educational institutions for the preparation of practical solutions in the field of education and lifelong learning, adaptable to changing requirements of the labour market and its advancing integration in the South Baltic area
- Development of practical solutions to develop close co-operation to improve accessibility of educational centres and availability of new forms of education (e.g. e-earning, exchange courses for researchers) on the integrating labour market in the South Baltic area
- Provision and testing of training programmes for SMEs in their activities on the cross-border labour market in order to improve their communication and inter-culture skills

*Sub-priority 1.3: Transport accessibility*

- Preparation and implementation of feasibility studies for transport bottlenecks and missing links hindering formation of a coherent multimodal transport system in the South Baltic area, based on a prioritised list of investments of the cross-border relevance
- Joint actions of infrastructure owners, cargo owners and traffic operators dedicated to quality improvement of transport connections and creation of new links
- Provision of practical solutions to increase sustainability and quality of passenger transport services in the South Baltic area.

## **Priority 2: Attractiveness and common identity**

**Objective:** To make use of natural, cultural and social resources for functional integration of the South Baltic regions and for recognition of the whole area in Europe and worldwide

Eminent natural and cultural heritage resources are a serious asset for economic and social integration of the South Baltic regions, a considerable fundament for the competitiveness of the whole area, and not least a clear denominator for its common identity.

In line with the Gothenburg strategy, sustainable development of the South Baltic area requires actions complementary to the growth and jobs measures in order to improve awareness about the natural, social and historical amenities in the programme area. Similarly important area actions aiming at improvement of the intercultural dialogue and hereby at decreasing mental barriers and prejudices as well as efforts to create broader anchoring of the cross-border co-operation with the involvement of the broader public.

Sustainable use of the natural resources in the South Baltic area calls for a diligent management of the Baltic Sea environment, which faces serious threats related with pollution produced by agriculture and industries in this area as well as by increasing maritime traffic. Vital role of water management for a stable development of the South Baltic area, its status as a common concern issue for the whole Baltic Sea and a willingness as both the local and regional levels in the participating regions to take an active part of the work for better water quality – make this programme instrumental in improving water and waste management schemes.

In relation to the upcoming EU Maritime Policy, the programme can promote preventive and response measures in case of natural and/or environmental disasters on the Baltic Sea, which may affect economic and social stability of the South Baltic regions. These measures will bear a cross-border character and will look at improvement of competence of and co-operation between local and regional authorities in the field of local contingency planning and functional strategies and methods for Integrated Zone Management and Marine Area Spatial Planning.

The programme is an adequate tool for sharing knowledge and developing joint action plans on renewable energy sources and energy saving, which would address the needs of more efficient use of energy and diversification of supply sources. By preparing particular investments in e.g. such fields as bio-energy or wind power energy, the programme may contribute to decreasing of differences in using the renewable energy across the South Baltic area and to enhancing production and exporting capacities of the energy industries in this area.

Relatively unspoilt natural values, picturesque scenic landscape and cultural heritage sites in the South Baltic area provide favourable conditions for the sustainable development. Tourism is already an important segment of the area's economy and may be further enhanced through the programme actions to create international tourism products, which respect natural and cultural protection needs. In effect of envisaged network co-operations, developed strategies and prepared infrastructural investments, the South Baltic area may strengthen its identity as one of the most attractive tourist regions in the EU.

In that respect the programme can also propagate environmental excellence patterns for companies and other organisations, which in light of a growing demand from consumers for products that do less harm to the environment wish to improve their environmental performance. For the EU Eco-Management and Audit Scheme (EMAS) as well as a voluntary

eco-labelling for developed environmentally friendly products are expected to bring long-term benefits for the sustainable development of the South Baltic area.

In pursue for a common identity of the South Baltic area, the programme can also build upon the high intensity of contacts between local communities, with already well developed and fast growing networks and structures. However, it is necessary to orientate these co-operation schemes so that they can contribute to a deeper integration of the South Baltic area. The support will thus focus on increasing the awareness of the economic, social and cultural diversities in order to improve the cross-border identity, the intercultural dialogue and understanding. Drawing on legacy of euro-regional co-operation, the programme will offer ground for developing co-operation networks at the cross-border level reaching out to all South Baltic regions, with broad involvement of local communities, administrative structures, NGOs and media.

**Actions** for realisation of the priority can be divided into three groups:

*Sub-priority 2.1: Management of the Baltic Sea environment*

- Preparation and implementation of small scale pilot projects for modern water and waste management, with particular attention for environmental hot-spots in the coastal areas
- Joint cross-border actions aiming at decreasing the outflows of nutrients from small and diffuse sources, such as farms, farming land, smaller settlements and private households
- Joint cross-border actions to enhance local and regional preparedness and response in case of natural and/or environmental disasters on the Baltic Sea, including cross-border risk management systems and related infrastructure
- Competence building and co-operation between local and regional authorities in the field of local contingency planning
- Development of strategies and methods for Integrated Coastal Zone Management and Marine Area Spatial Planning based on joint cross-border solutions

*Sub-priority 2.2: Energy saving and renewable energy*

- Exchange of knowledge, preparation and implementation of joint action plans on renewable energy sources and energy saving patterns
- Preparation of small scale pilot investments in the field of renewable energy
- Promotion of South Baltic achievements in the field of energy saving and renewable energy on internal and external fora

*Sub-priority 2.3: Sustainable use of natural and cultural heritage for regional development*

- Development of cross-border strategies for preservation and use of natural and cultural heritage sites, areas and landscape for regional development
- Joint creation of sustainable tourism products (e.g. cross-border thematic routes) respecting protection needs for natural and cultural heritage
- Preparation and implementation of small scale pilot investments enhancing tourism infrastructure in South Baltic area (e.g. chains of tourist facilities along the Baltic Sea coast, like small ports or yacht marinas)
- Capacity-building actions and joint campaigns targeting cross-border networks of authorities responsible for management of natural and cultural heritage sites
- Joint actions promoting South Baltic area as a tourist destination

- Exchanging know-how and promotion of Eco-Management and Audit Scheme as well as joint eco-labelling actions for environmentally friendly products
- Development and dissemination of good practice in the field of equal access to the tourist offer in the South Baltic area (including physical access to sites)

*Sub-priority 2.4: Local community initiatives*

- Joint events increasing involvement of local communities and institutions, administrative structures, media and NGOs, with a particular focus on young generation and on rural areas in the South Baltic area
- Conferences, training seminars and study visits for an exchange of good practice within specific fields of interest, e.g. economic planning, employment, social inclusion, youth policies, rural development, environmental protection, natural and cultural heritage etc.
- Establishment and development of durable networks between NGOs within specific fields of interest, e.g. social and health care, culture and cultural heritage, environment and natural heritage, youth, local community development etc.
- Preparation of cross-border cultural and sport events with a multi-annual perspective
- Preparation of pilot and innovative projects focusing on common values, such as good governance, exchange of good practice, promotion of gender equalities etc.
- Joint actions to create sustainable development conditions in rural and small town communities.

### 3.2 Relationship with other relevant plans and programmes

**Table 1 Integration of the South Baltic Cross-border Co-operation Programme with others programs, projects and initiatives**

SBA priority indicative actions	Country region/area	Country region/area	Country region/area	Country region/area	Country region/area
	<b>Poland-</b> Szczeciński, Koszaliński, Słupski, Gdańsk-Gdynia-Sopot and Elbląski sub-region	<b>Germany-</b> sub- regions of Mecklenburg Vorpommern	<b>Lithuania</b> –Klaipeda County and Taurage and Telsian counties	<b>Sweden-</b> Kalmar,Blekinge, Skane Counties and Kronberg County	<b>Denmark-</b> Bornholm and Zealand sub- region
1. <b>Economic competitiveness</b> (documents and initiatives)	1) Strategy Action Plan for Pomerania Voivodeship, 2) Strategy Action Plan for West Pomerania Voivodeship, 3) Strategy Action Plan for Warmińsko-Mazurskie Voivodeship	Nationalen Strategischen Rahmenplan (2007-2013)	The Lithuanian Strategy for the use of EU Structural Assistance for 2007- 2013 1. Productive human resources for the knowledge society, 2. Competitive economy, 3.Life quality and cohesion	National Strategy for Regional Competitiveness, Entrepreneurship and Employment 2007-2013, Regional Development Programme for Skåne”,	Regional Growth Forum of Bornholm; Business Development Strategy (Growth & Jobs Strategy), Bornholm I/S – a Tourism Strategy, Chapter 4 of the Danish Regional Growth Strategy
Entrepreneurial development	PA1.SME’s development and innovations (see 1) P1.Economy-Innovation-Technology (see 2), PA1 Development of economic capacity and competitiveness of enterprises	Development of Innovations and Knowledge Society and economic capacity building of the regions	2.1.to increase business productivity, particularly by creating favourable environment for small- and medium-sized enterprises and innovation; 2.2.to increase the comparative share of high added value business; 2.3.to make the economic infrastructure more effective.	National Strategy for Regional Competitiveness, Entrepreneurship and Employment 2007-2013 The aim of regional development policy is <i>effective, sustainable local labour-market regions which offer high levels of service throughout the country</i>	Increasing the labour force (objective); -Entrepreneurship – improving the efforts, -a well coordinated business promotion and service (priorities)

SBA priority indicative actions	Country region/area	Country region/area	Country region/area	Country region/area	Country region/area
	(see 3)				
Integration of labour market	PA2. Knowledge Society (see 1), P3 Development of IT –Society (see 2) PA7 Knowledge Society infrastructure (see 3) PA3 Social Infrastructure (see 2)	Labour market orientation to new jobs creations	1.1 attract and retain people in the labour market; 1.2. seek for more active lifelong learning; 1.3.develop the labour force of the highest qualification		- Innovation, knowledge sharing and knowledge building (p)
Transport accessibility	P 2. Transport and energy infrastructure (see 2), PA4. Regional System of Transport (see 1), PA5 Regional and local transport infrastructure (see 3)				-Transport accessibility (p)
<b>2. Attractiveness and common identity</b> (documents and initiatives)	1) Strategy Action Plan for Pomerania Voivodeship, 2) Strategy Action Plan for West Pomerania Voivodeship, 3) Strategy Action Plan for Warminsko-Mazurskie	Nationalen Strategische n Rahmenplan (2007-2013)	The Lithuanian Strategy for the use of EU Structural Assistance for 2007- 2013 1.Productive human resources for the knowledge society, 2.Competitive economy, 3.Life quality and	Regional Development Programme for Skåne	Business Development Strategy (Growth & Jobs strategy), Bornholm I/S - a Tourism Strategy, Agenda 21- environmental strategy

SBA priority indicative actions	Country region/area	Country region/area	Country region/area	Country region/area	Country region/area
	Voivodeship		cohesion		
Management of Baltic Sea environment	P4. Environmental protection infrastructure (see 2) PA3. Urban and metropolitan functions (see 1), P7. Development of metropolitan functions (see 2) PA6. Environmental protection (see 3)	Empowerment of the attractiveness of regions through sustainable development	3.3. to seek for a better quality of the environment		The high environmental quality in the water areas must be maintained and improved (Regional Municipality Plan, June 2006-objective).
Energy saving and renewable energy	PA5.Environment and sound environmental energy sector (see 1)				Use of new technology (p)
Sustainable use of natural and cultural heritage for regional development	P6. Culture and revitalization (see 2), P5 – Tourism (see 2) Tourism and cultural heritage (see 1), PA2.Tourism, PA4. Development, Restructuring and revitalization of cities (see 3)				Bornholm in a global perspective (p) The geology, landscape and nature on Bornholm must be preserved and protected, Cultural environments and cultural heritage- (Regional Municipality Plan, June 2006-objective)
Local community initiatives	PA8 Local basic structure (see 1), PA9 Local social structure and initiatives (see 1), PA3. Social infrastructure (see 3)		3.1. to make better use of the local potential 3.2. to provide qualitative and accessible public services		Human resources – education and competence building (p) Rural development (p)

## 4. Analysis of the state of the environment

### 4.1 The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the Programme

Baltic Sea is an intercontinental shelf sea constituting a part of Atlantic Ocean in northern Europe. The sea is connected with the North Sea through Danish Straits: Great Strait, Small Strait, Sund, Kattegat and Skagerrak. Border of the Baltic Sea is determined by a line running from the northern headland of the Jutland Peninsula (Grenen Cape) to Tjörn island (Sweden). Surface area of the sea: 415 thous. km<sup>2</sup>. Volume: 21,7 thous. km<sup>3</sup>. Average depth 56 m, maximum 459 m (Landsort depth).

Many European rivers fall to the Baltic such as: m.in. Newa, Vistula, Kemi, Göta, Niemen, Odra, Lule, Ångerman, Dzwina.

**Table 2 Rivers of the Baltic Sea basin**

River	Basin area [thous. km <sup>2</sup> ]	Avg. discharge [m <sup>3</sup> /s]
Newa	282	2600
Vistula	194	1080
Odra	119	535
Niemen	98,7	616
Dzwina	87,9	678
Narva	53	400
Kemi	51,4	556
Gota	50,2	575
Angerman	31,86	485
Lule	25,24	499
Pregola	15	90
Piana	5,1	
Warnow	3,3	
Parseta	3,1	27
Rega	2,7	
Trave	2,6	
Pasleka	2,3	15
Wieprza	2,1	
Leba	1,8	
Ślupia	1,6	15
Reda	0,5	
Total	1033,4	8171
Baltic	1 721	

The Baltic Sea basin includes area of nine countries located at the sea: Denmark, Estonia, Finland, Lithuania, Latvia, Germany, Poland, Russia and Sweden. Part of the basin is laying also on the territory of Czech Republic, Ukraine and Belarus – thus although these countries do not have access to the sea, they affect the quality of water flowing into the sea. The surface area of the basin covers 17% of the continent area – 1,721 mln km<sup>2</sup> -, and over 80 mln people live in this area and 60 large urban agglomerations are situated along its coast. Therefore a large amount of pollution in form of waste water and by air are discharged into the sea.

## **Environmental pressures, impact and state in the South Baltic Area**

Baltic Sea is characterized by a high environmental impact of human activities. Thus the following environmental issues should be taken into account in the South Baltic area:

- Industrial and transport pressures within urbanized areas,
- Nutrient pollution from agriculture in the coastal zone and regions,
- Direct discharges and discharge of wastewater in coastal zone rivers,
- Priority pollutants, hazardous pollutants (marine operations, ports, industries), chemical weapons disposal,
- Eutrophication (caused by high nitrogen and phosphorous loads),
- Ecosystem changes
- Bathing water quality.

### ***Industry and transport pressures***

The industrialization in the South Baltic area is of relatively low intensity. One of the indicators of the industrialisation within the area are the number of facilities for which the Integrated Pollution Prevention and Control (IPPC) reports are required. Among the IPPC installations<sup>1</sup> the predominant are the poultry and pig farms - around 60 facilities located mostly in German Baltic regions, Lithuania and Denmark. The second important type of facility are waste management installations - around 25 in the South Baltic regions and energy production facilities - around 20.

Other industries are not common environmental factor in the South Baltic area. In the coastal regions there are located metal production and processing companies, mainly in Poland and Lithuania - only 4, chemical industry facilities - around 15, and a few installations of pulp and paper, located mostly in the Swedish coastal regions. There are also a few mineral industry facilities and other types of industries. The industry facilities are usually connected with urbanized areas and main Baltic ports. The South Baltic area has a moderate pattern of urbanization. Only three cities are of 200 000 – 500 000 inhabitants and are located within the Polish part of this area. The dominant urban structure is in form of dispersed settlement. It determines significantly conditions of environmental protection and development needs.

The arable areas and forest land use prevail in the South Baltic regions. In Sweden, forest covers most of the coastal regions. In Denmark and Germany the arable land is the spatial dominant. In Poland and Lithuania, there are mixed structures with forest and arable land.

So far there is low investment pressure on the coastal line which is relatively not built up, except for the port areas and major cities. Apart from the main ports and cities areas the dominant sectors in the South Baltic regions are tourism and agriculture.

Transport development patterns in the South Baltic area are typical for coastal European regions. Four types of transportation exist:

- Maritime transport which is well developed and predicted to grow steadily in the future,
- Air travel which is now growing due to new airport facilities and new air business opportunities (low budget air fares),

---

<sup>1</sup> According to EPER information 23 March 2007

- Road network and road transport is well developed and now stabilised in Germany, Denmark and Sweden and is developing on a high rate in Poland and Lithuania due to undergoing life style changes, business opportunities and development needs,
- Railway transport well developed in the past with a declining observed in the Eastern part, especially in less populated areas.

The transportation system is the cause of local impact on environmental quality especially of air pollution and noise. The present transportation structure in areas covered by the report shows high potential for transport development with various modes available.

### ***Nutrients***

A variety of anthropogenic activities contribute to significant nutrient inputs to the Baltic Sea, through runoff, riverine input or direct discharges. Nutrient inputs from point sources such as industries and municipalities have been recently cut significantly. Approximately 25% of the nitrogen enters as atmospheric deposition on the Baltic Sea and 75% as waterborne inputs. Diffuse pollution is the most important factor. In 2000, 338 000 ton of diffuse nitrogen and 12500 tones of phosphorus were lost to the inland surface waters in the Baltic Proper catchment area. Much of the pollution load is introduced into the Baltic Sea via rivers. The main source of nutrient inputs is agriculture and managed forestry scattered dwellings, storm water overflows of urban areas and atmospheric deposition<sup>2</sup>.

In Baltic Proper agriculture is the dominant source of nitrogen diffuse pollution reaching 300 kg N/km<sup>2</sup>, followed by other sources including point sources. Proper area agriculture constituted around 76% of diffuse sources, atmospheric deposition only 4% and 20% other diffuse sources<sup>3</sup>. Phosphorous was around 20 kg P/km<sup>2</sup> from agriculture and 5 kg P/km<sup>2</sup> from other sources including point sources. In Baltic agriculture or managed forestry constituted the largest part of the phosphorus losses from diffuse sources (78%); other diffuse sources comprised 18%, atmospheric deposition on inland surface waters accounted for 2% of these diffuse losses. There are observed positive trends with annual emissions of nitrogen lower in 2004 than in 1995. Baltic Sea environment is exposed to significant impact resulting from discharges of municipal and industrial waste water from the area of the whole basin of the Baltic Sea. The subject area has a relatively small impact in the range of nutrients emission in comparison to the whole basin. Therefore the potential impact of the Programme both positive and negative will not affect significantly the environment.

### ***Direct waste waters discharges***

Wastewater from point sources discharging directly into the Baltic Sea in 2000 was reported at approximately 3600 million m<sup>3</sup>. The actual quantity of wastewater discharged is larger, as information is absent for a small number of big municipalities and industries and for many minor point sources discharging directly into the Baltic Sea. Nearly 70% of the wastewater discharge originated from municipalities and the remaining 30% from industrial plants. 99% of wastewater discharges from municipalities discharging directly into the Baltic sea was treated. Around 95 million m<sup>3</sup> was discharged in 2000 from industrial plants and the Baltic Proper. The highest direct discharges to the sea measured as Biological Oxygen Demand comes from Sweden and Denmark.

---

<sup>2</sup> [http://www.helcom.fi/environment2/ifs/ifs2006/en\\_GB/Nemissions/](http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/Nemissions/)

<sup>3</sup> Helsinki Commission., 2004 The Fourth Baltic Sea Pollution Load Compilation (PLC-4) Baltic Sea Environment Proceedings Mo 93, 2004 Baltic Marine Environment Protection Commission, Erweko Painotucte Oy, Finland

**Table 3 Total Biological Oxygen Demand direct discharges in the Baltic Proper area**

Country	Amount [ton]	MWWTP [%]	Industry [%]	Fish farms [%]
Poland	240	97	3	0
Lithuania	760	100	0	0
Germany	550	100	0	0
Latvia	420	50	50	0
Sweden	49680	9	91	0
Denmark	9100	24	56	21

As a result most of the discharges measured as Biological Oxygen Demand in the Baltic Proper area comes from MWWTP (total 60%), from industry - total 40%. Most of the wastewater discharges were treated in the Municipal Waste Water Treatment Plants (MWWTP). The total direct discharges of nitrogen in the Baltic Proper area was estimated at 7040 ton in 2000 of which 90% was from MWWTP. Phosphorous discharges amounted to 410 ton of which 85% was from MWWTP and 15% from industrial sources. Those amounts are far less than the loads from diffuse sources and those coming down with the river system – around 1% of the total.

**Table 4 Pollution Hot Spots in 2006**

ID	Location	Country	Name of site	Type of Hot Spot	Priority site (0=no,1=yes)
62	Lith. Coast	Lithuania	Mazeikiai	Oil Refinery / Marine Ter	0
60	Nevezis RB	Lithuania	Agriculture / Livestock	Agricultural Runoff Progr	1
95	Vistula RB	Poland	Agriculture / Livestock	Agricultural Runoff Progr	1
112	Oder / Odra	Poland	Agriculture / Livestock	Agricultural Runoff Progr	1
122	Belt Sea	Denmark	Agriculture (8)	Agricultural Runoff Progr	0
124	The Sound	Denmark	Agriculture (8)	Agricultural Runoff Progr	0
125	The Sound	Sweden	Agriculture	Agricultural Runoff Progr	0
132	Bornholm Basin	Sweden	Agriculture	Agricultural Runoff Progr	0
113	Oder / Odra	Poland/Ger	Odra Lagoon mgt	Management Programme	1
66	Lith/Kal Coast	Lith/Russia	Kursiu Lagoon	Management Programme	1
73	Kal/Pol Coast	Russia/Pol	Vistula Lagoon	Management Programme	1
65	Lith. Coast	Lithuania	Palanga	Municipal	0
97.1	Oder / Odra	Poland	Szczecin-Pomorzany WWTP	Municipal & Industrial	1
97.2	Baltic coast	Poland	Szczecin - Zdroje WWTP	Municipal & Industrial	1
98.2	Baltic coast	Poland	Szczecin - Skolwin Mill	Industry (Pulp & Paper)	1

<http://www.helcom.fi/>

Analysis of the impact of sources located in the coastal zone shows a significant impact of medium and large point sources. It is first of all caused by low efficiency of the existing solutions in water protection. The Co-operation Programme does not include infrastructure investments in water and waste water management.

### ***Maritime transport impacts***

According to HELCOM reports the maritime traffic on the Baltic Sea will double by the year 2017. The growth in general cargo and bulk traffic is assumed to triple. For oil transportation, the growth is assumed to be 10%. The average annual growth rate is predicted to be 4.7% for general cargo, container, reefer and RoRo traffic, 2.2% for bulk carrier traffic and 1.4% for oil and gas tankers. The maritime transport is connected with environmental impacts: contaminants emissions, oil and chemicals spillages, fires. One of the

causes of environmental damages are accidents on sea. In 2004 53% of the reported accidents was grounding, collision 23%, pollution and fire 4% each, and machinery damage 6%<sup>4</sup>.

Oil is a major threat to Baltic Sea ecosystems. Oil tankers and other kinds of ships are among the suspected cause of illegal discharges. As of 1999, the number of observed illegal oil discharges has gradually been decreasing every year, but in 2004, still almost 300 illegal spills were detected<sup>5</sup>. The potential risk are the highest in the harbour areas with a variety of ships and potential hazards.

**Table 5 Number of ship calls in the port of Gdynia, Poland**

Vessel type	Number of ship calls
Research vessel	18
Bargess&pontoon	214
Reefer vessel	58
General cargo carrier	1458
Tug	445
Container ship	228
Bulk carrier	141
Naval ship	19
Passenger vessel	258
Ropax vessel	622
Fishing vessel	22
Ro-ro ship	385
Other vessel	34
Car carrier	58
School ship	9
Multipurpose	1
Tanker	623

Any discharge into the Baltic Sea of oil, or diluted mixtures containing oil in any form including crude oil, fuel oil, oil sludge, or refined products, is prohibited<sup>6</sup>. As from 1999 the number of observed illegal oil discharges is gradually decreasing every year (from 488 in 1999 to 224 in 2005).

Another potential problems caused by the passenger transport are wastewater discharges. According to various estimations around 70 to 90 million passengers travel on ferries in the Baltic Sea area in the top 20 harbours.

<sup>4</sup> Maritime Transport in the Baltic Sea, Draft HELCOM Thematic assessment in 2006, HELCOM Stakeholder Conference on the Baltic Sea Action Plan, Helsinki, Finland, 7 March 2006

<sup>5</sup> A decrease in the number of observed illegal oil discharges despite rapidly growing density of shipping, increased frequency of the surveillance flights and improved usage of remote sensing equipment is illustrating the positive results of the complex set of measures known as the Baltic Strategy, implemented by the Contracting Parties to the Helsinki Convention.

<sup>6</sup> The prohibition comes from international designation of the Baltic Sea area as a “special area” under the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). The Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (the 1992 Helsinki Convention) spells out a duty for the States bordering on the Baltic Sea to conduct aerial surveillance for detecting suspected offenders of anti-pollution regulations at sea. Directive 2000/59/EC of 27 November 2000 has also as its aim to reduce the discharges of ship-generated wastes and cargo residues into the sea, especially illegal discharges, by improving the availability and use of port reception facilities. The Directive recognizes and does not contradict with the procedures and mechanisms agreed by the Contracting Parties to the Helsinki Convention.

**Table 6 Estimations of passengers in Baltic sea ports<sup>7</sup>**

Port	Number of passengers
Rostock	1 813 450
Lübeck	1 300 000
Ystad	1 000 000
Szczecin and Świnoujście	807 580
Sassnitz-M	997 230
Copenhagen	4 202 181
Malmö	5 300 000
Stockholm	9 300 000

Despite the rising traffic ship – borne nutrient load is estimated for nitrogen only 65ton/year – around 0,05 % of the total nutrient load to the Baltic Sea and phosphorous 22 ton/year. Most of this load around 90% is discharged from ferries and cruisers.

The present state and prognoses indicate to a low impact of maritime transport on Baltic Sea environment in the level of nutrients. In the future accidents on the sea may be the most important with participation of ships transporting hazardous materials. Activities undertaken so far prove to be effective in minimization of this type of hazards.

This problem is covered by the assessed Programme. Collisions resulting from maritime transport may be caused by increasing traffic in ports connected with tourism development. At the same time this hazard will be minimized by actions proposed in the Programme, which are aiming at increasing safety of maritime transport.

### ***Eutrophication***

Baltic Sea habitats and species are endangered by eutrophication and elevated amounts of hazardous substances as a result of long standing environmental impacts. Eutrophication is the result of excessive nutrient inputs. Baltic Proper area is especially affected by the eutrophication and phytoplankton blooms. The increased average biomass production leads to decreased water clarity, intense algal blooms, more extensive areas of oxygen-depleted sea beds as well as degraded habitats and changes in species abundance and distribution<sup>8</sup>.

Decrease in water clarity has been observed in the all Baltic Sea sub-regions over the last one hundred years. No rising trend is detected in spring blooms from 1992 to 2006.

Incidents of cyanobacteria blooms were recorded in 2002, 2005 and 2006. High levels of dissolved inorganic nutrients in the Baltic Proper area during winter led to intense and widespread cyanobacteria bloom in 2005<sup>9</sup>. Sedimentation of these cyanobacteria, as well as transport by currents, reduced the concentration of dissolved inorganic phosphorus in the central Baltic Proper area. This remaining excess of phosphorus was the cause of widespread cyanobacteria blooms of summer 2006<sup>10</sup>. Filamentous macroalgae has also become more abundant in the last years interfering as the cyanobacteria blooms with recreational use of coastal waters.

<sup>7</sup> Huhta H-K., Rytikomem J., Sassi J. 2007, Estimated nutrient load from waste waters originating from ships in the Baltic Sea region, VTT Technical Research Centre of Finland, JULKAISIJA-UTGIVARE-PUBLISHER

<sup>8</sup> <http://www.helcom.fi/environment2/ifs/ifs2006/secchi/>

<sup>9</sup> Electronic document [http://www.helcom.fi/environment2/ifs/ifs2006/en\\_GB/CyanobacteriaBloom/](http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/CyanobacteriaBloom/), 23.03.2007

<sup>10</sup> Electronic document [http://www.helcom.fi/environment2/ifs/ifs2006/en\\_GB/cyanoblooms/](http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/cyanoblooms/), 23.03.2007

This problem is covered by the assessed Programme due to proposed tourism development and use of energy from renewable sources. At present the scale of this impact is relatively low. May occur in form of local impact.

### ***Hazardous substances***

The inputs of some hazardous substances to the Baltic Sea have been reduced considerably over the past 20 to 30 years. In particular discharges of heavy metals have decreased. The significant proportion of heavy metals enter the Baltic Sea through rivers or as direct discharges: 40% for mercury and 50% for cadmium and lead. The remaining share of inputs is mainly from atmospheric deposition<sup>11</sup>.

Dioxin emissions to the air have decreased significantly for some Baltic coastal states (but increased for others), and a 33% reduction in atmospheric depositions of dioxins has been observed from 1990 to 2004<sup>12</sup>.

Despite the considerable reductions in the inputs of some hazardous substances to the Baltic Sea, the concentrations of heavy metals and organic pollutants in sea water are still several times higher in the Baltic Sea in comparison with waters of the North Atlantic. Concentrations of contaminants in fish vary according to substance, species and location. In general, the concentrations of cadmium, lead and PCBs have decreased. Still the content of dioxins in the fish muscle may exceed the authorized limits set by the European Commission.

In overall the levels of radioactivity in the Baltic Sea water and biota have shown declining trends since the Chernobyl accident in 1986, which caused significant fallout over the area. Radioactivity is now slowly transported from the Baltic Sea to the North Sea via Kattegat. The amount of caesium-137 in Baltic Sea sediments however has remained largely unchanged<sup>13</sup>.

One of the essential problems are stock of ammunition with chemical weapons deposited on the sea bed within South Baltic area including area located east of Bornholm and north of the Gulf of Gdansk. Chemical warfare agents break down at varying rates into less toxic, water-soluble substances. Over the period 2000-2005 about 10 incidents a year were reported where chemical munitions were netted by fishermen. The accidents show that these chemicals are still a risk for the crews of fishing vessels operating in this part of the Baltic Sea<sup>14</sup>.

Analysis of data indicates to decreasing of emission of hazardous substances to the environment. However they are cumulated in the individual components of marine environment. It concerns both substances discharged with waste water, deposited with rain fall and generated from the air. Also deposited stocks of chemical weapons are of high importance. Gradual decrease of secondary impact of such substances should be expected including also reduction of their circulation in marine trophic chains.

The proposed Programme does not include actions, which may cause directly increase of risk of dangerous substances emission to the water. However occurrence of dangerous substances may

---

<sup>11</sup> Electronic document [http://www.helcom.fi/environment2/ifs/ifs2005/en\\_GB/waterborneHMinputs/](http://www.helcom.fi/environment2/ifs/ifs2005/en_GB/waterborneHMinputs/), 23.03.2007

<sup>12</sup> Electronic document [http://www.helcom.fi/environment2/ifs/ifs2006/en\\_GB/pcddfdepositions/](http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/pcddfdepositions/), 23.03.2007

<sup>13</sup> Electronic document <http://www.helcom.fi/environment2/ifs/ifs2006/Cs137fish/>, 23.03.2007

<sup>14</sup> Electronic document [http://www.helcom.fi/environment2/hazsubs/en\\_GB/chemu/](http://www.helcom.fi/environment2/hazsubs/en_GB/chemu/), 27.0.2007

have negative impact or cause hazard for human health as a result of realization of objectives connected with maritime and coastal tourism development.

### ***Ecosystem effects***

The Baltic Sea is a unique and complex sea. It is semi-enclosed and characterized with great variations in salinity along its length which is the cause of high diversity in fish species. It is also prone to accumulation of pollutants due to limited water exchange times. Fluctuations in salinity and accumulations of pollutants have an impact on fish stocks. Many of the commercial stocks in the Baltic Sea exist outside of safe biological limits partly due to over exploitation.

Climate-induced changes in temperature and salinity, fishing pressure, as well as variations in bottom water oxygen conditions (climate and eutrophication induced) have significant impact on the ecosystem structure. For example in 2005, marine phytoplankton species indicating warm water penetrated far into the Baltic Proper and up to the Lithuanian coast in late autumn. The degenerating state of the Baltic Sea affects marine life in many ways. Macrobenthic communities have been severely degraded by increased eutrophication throughout the Baltic Proper and are below the long term averages<sup>15</sup>.

The lack of salt water inflows has diminished the habitat layer for heterotrophic organisms in general and those of marine origin, such as copepods. Although the total number of copepods has not changed dramatically, the ratio between different species has been affected which in turn has had consequences in higher trophic levels. Herring, for instance, has suffered from a decline in its favoured diet and now competes with sprat for other species of copepods.

Analysis of the existing situation indicates gradual improvement of biological conditions in the sea. In this range the impact of the assessed Programme will be relatively low due to the scale of changes connected with nutrients emission to the environment.

### ***Bathing water quality***

Bathing water in the South Baltic regions has generally good quality. Most of the beach and inland waters are accessible for tourism. For those the mandatory values are met. Problems with no compliance of the mandatory values are reported only for selected beach and inland areas in Poland and Sweden regions in 1-10%<sup>16</sup>. There is also a problem with quality of data which is not sufficient to make the assessment – especially in Poland. Further many beaches do not have quality at the level defined by guide values proposed by the European Commission.

The table below shows pollution hot spots due to various types of human activities, situated in the South Baltic Area.

The problem of bathing water quality is closely connected with the Programme because of the proposed development of tourism. Local deterioration of water quality may occur in places where temporary intensification of tourism traffic may take place, especially this of uncontrolled character.

---

<sup>15</sup> Electronic document [http://www.helcom.fi/environment2/ifs/ifs2006/en\\_GB/phyto/](http://www.helcom.fi/environment2/ifs/ifs2006/en_GB/phyto/), 23.003.2007

<sup>16</sup> European Commission, Atlas Bathing water quality, electronic information <http://ec.europa.eu/water/cgi-bin/bw.pl>, 25.03.2007

## **4.2 The environmental characteristics of areas likely to be significantly affected**

The Baltic Sea constitutes a separate Baltic district regarding natural characteristics. Due to a low salinity level it is exclusively poor biologically. For comparison, in the North Sea the biomass amount is five times higher.

From the view-point of the natural values all countries in the area have similar natural conditions except Sweden – situated on Scandinavian peninsula – with different geological grounds.

Main problems connected with protection of natural values of the Baltic Sea are a subject of interest of the HELCOM group <http://www.helcom.fi/> formed as a result of the Helsinki Convention in 1972.

Area of the Programme is situated on the territory of five countries of the European Union: Denmark, Sweden, Germany, Lithuania and Poland. In these countries legal regulations concerning nature protection are different. These regulations define various forms of nature protection. The common form of protection existing in these countries is national park – table 7. In Poland the institution of landscape park is a frequently used form of environmental protection /Table 8/. Most of these areas was incorporated to the Nature 2000 network either as a whole or in a part – table 10 and table 13.

At the same time in the Programme area there are other forms of natural environment protection resulting from the international agreements and conventions such as:

- UNESCO biosphere reserve, determined in the framework of the UNESCO MaB Programme (Man and the Biosphere) Tabela 9.
- Nature 2000 Programme established by the European Union Table 10.
- Second International Baltic Convention from 1974 signed in Helsinki /so-called Helsinki Convention/ amended in 1992 r. Table 11.
- Convention on wetlands of international importance, especially as a habitat of water fowl /so-called Ramsar Convention/ Table 12.

The above conventions introduce frequently specific forms of environment protection but also the other areas belong to them – these established before – either in the framework of national regulations of the individual countries or of other international agreements.

Słowiński National Park can be an example of an area, which belongs to all these forms of protection.. Areas of the Baltic Sea belonging to the Polish part of the Programme area can be another example. They belong both to areas protected in the framework of Helsinki Convention – /table 11 pos. 21-25/ and to Natura 2000 network (Table 10 pos. 9; 48; 72; 74 and 76).

Most of the areas covered by the Programme still belong to one of the above groups - Natura 2000 network. It results from the fact, that this network is of the largest range (both for the number of objects and for surface area /Table 10/. Due to a significant number of areas embraced by this protection form - 2155 – the authors decided not to cite the whole list of all these areas. Only the Polish part of the list of areas located in the Polish part of the Programme area has been presented - table 13.

**Table 7 National parks located in the Programme area**

National parks	Surface area [ha]
Denmark:	
Pilot project -Mřn: Landscape of cliff coast with beech wood and meadows located on coast shallows with migratory birds species.	
Lithuania:	
Kursiu Nerija National Park /Curonian Spit National Park /	26 474
Zemaitija National Park	21 720
Germany	
Jasmund National Park	3 000
Western Pomerania Lagoon Area National Park	80500
Poland:	
Woliński National Park	10 937
Słowiński National Park	21 573
Sweden:	
Stenshuvud. National Park	390
Söderåsen National Park	1 625
Dalby Söderskog National Park	36
Blå Jungfrun National Park	198

**Table 8 Landscape parks situated in the Polish part of the Programme area**

Cedyński Landscape Park	30 800
Iński Landscape Park	17 760
Dolina Dolnej Odry Landscape Park	6 010
Szczeciński Landscape Park "Puszcza Bukowa"	9 095
Kaszubski Landscape Park	33 200
Nadmorski Landscape Park	18 800
Dolina Słupi Landscape Park	37 040
Mierzeja Wiślana Landscape Park	4 410
Trójmiejski Landscape Park	19 930
Wdzydzki Landscape Park	17 832
Zaborski Landscape Park	34 000
Landscape Park of Wysoczyzna Elbląska	13 460
Landscape Park of Iława Lake District	25 045

**Table 9 UNESCO Biosphere Reserves**

name	habitats
Kristianstads Vattenrike	lakes and running water, grazing pasture and hay meadows, forests, coastal ecosystems, marine ecosystems, arable land, built-up areas
Slowinski NP	marine/coastal wetlands, sand dune communities, coastal pine communities, peat bogs
Rügen NP	coastal beech and sand dune communities, salt meadows, salt reed banks, steep coast, natural beaches

<http://www.unesco.org/mab/wnbrs.shtml>

**Table 10. Statistics of Nature 2000 areas situated in the Programme area**

Country	Number of areas	Total surface area [km <sup>2</sup> ]	Maximum surface area of an object [km <sup>2</sup> ]	Minimum surface area of an object [km <sup>2</sup> ]	Area covered by the Programme [km <sup>2</sup> ] /SBA/ <sup>-1</sup>	Percentage of the area protected by Nature 2000 in the whole Programme area <sup>-2</sup>
Denmark	649	405,82	25,32	0,0007440	6455	6,29
Lithuania	58	2193,96	333,20	0,0362670	10020	21,90
Germany	210	3864,16	863,89	0,0000027	10150	38,07
Poland	76	8216,856	863,003	0,0014	47740	17,21
Sweden	1163	1705,58	396,71	0,0000038	33500	5,09
Total	2144	16386,38	863,89	0,0000027	107865	15,19

<sup>-1</sup> – surface area of the land without bays, rivers mouth etc.

<sup>-2</sup> – surface area of protected areas includes area of bays, rivers mouth and maritime areas protected in Nature 2000 network.

Information on protected areas were taken from the EEA base-  
<http://dataservice.eea.europa.eu/dataservice> Until now in the base  
 CDDA\_boundaries\_2006EEA16768I.zip (299.1MB) there is lack of data on protected areas in  
 Poland. Therefore in the report available materials concerning national and landscape parks have  
 been used.

Creation of the updated base of data on protected areas covered by the Programme area is  
 not/was not the purpose of the SEA report. Information on protected areas was given in order to  
 prove, that in this area there is a sufficient network of such areas and there is no need to develop  
 this network.

Data presented in Table 10 were taken from the web <http://www.mos.gov.pl>

**Table 11 Baltic Sea Protected Areas**

Lp	Country	Site ID	Natura2000 site code	Site name	Total area (ha)	Marine area (ha)	Special characteristics	Main threats	Management information	Other important features
1	Denmark	126	DK00VA308	Bornholm: Davids Bank	839	839				
2	Denmark	128	DK005Y229	Smålandsfarvandet: Slælskør Fjord and the sea and coast between Agersø and Glænø	17357	0	Stone reef			Triturus cristatus cristatus
3	Denmark	129	DK002X110	Waters around Saltholm	7218	5414	Harbour seal ( <i>Phoca vitulina</i> ), Grey Seal ( <i>Halichoerus grypus</i> ), important area for waterfowl (breeding and migrating birds), nursery area for flatfish.		Name of management plan: Bekendtgørelse om fredning af vandarealerne omkring Saltholm	Shallow sandy bottoms with Eelgrass meadows ( <i>Zostera marina</i> ).
4	Denmark	131	DK003X202	Waters around Hesselø	4193	4123	Harbour seal ( <i>Phoca vitulina</i> ).		Bekendtgørelse om fredning af dele af soteritoriet samt rev omkring Hesselø, renewal 2009	Rocky to sandy and muddy bottoms with macrophytes, mussel communities, salt meadows, stony beaches, moraine cliffs.
5	Denmark	132	DK00VA250	Store Middelgrund	1594	1594	None noted			Sandy to rocky bottoms and reefs or banks with macrophytes and mussel communities.
6	Denmark	184	DK007X79	Bornholm: Ertholmene	1256	1219	Important spawning area for Baltic Herring ( <i>Clupea harengus</i> ), breeding colonies of Guillemot ( <i>Uria aalge</i> ), Razorbill ( <i>Alca torda</i> ), and Eider ( <i>Somateria mollissima</i> ), type locality for the nominate form of Lesser Black-backed Gull ( <i>Larus fuscus fuscus</i> )		Name of management plan: Bekendtgørelse om fredning af ?gruppen Ertholmene og omliggende s?territorium, renewal 2009.	
7	Denmark	185	DK00VA235	Smålandsfarvandet: Kirkegrund	1753	1753	Reefs			
8	Denmark	186	DK006X234	Smålandsfarvandet: The sea and coast between Karrebæk Fjord and Knudshoved Odde	0	0				1110: Sandbanks which are slightly covered by sea water all the time
9	Denmark	187	DK006X238	Smålandsfarvandet: North of Lolland, Guldborg Sund, Bøtø Nor and Hyllekrog-	77848	0				

Strategic Environmental Assessment of the South Baltic Cross-border Co-operation Programme

Rødsand						
10	Germany	1	Strelasund Sound/Greifswald Lagoon/Isle Greifwalder Oie/Odra Mouth Area	140000	120000	Greenland management program of the Ministry for the Environment Mecklenburg-Vorpommern. Part of the area (Biosphere Reserve South-East Rügen) with a zoning concept and a management plan. Zoning system with natural wilderness core zone.
11	Germany	2	Jasmund National Park	3003	673	A zoning system with a natural wilderness core zone; restoration of salt meadows and the natural water regime in the National Park "Vorpommersche Boddenlandschaft"; greenland management program of the Ministry; monitoring of the sea bird colonies.
12	Germany	3	Vorpommersche Boddenlandschaft National Park (West-Pommeranian Lagoon National Park)	80500	67300	Salt meadow management program of the Ministry for the environment Mecklenburg-Vorpommern.
13	Germany	4	Wismarer Bucht/Salzhauff (Wismar Bight/Salzhauff)	61000	57000	
14	Germany	172 1552-401	Pommersche Bucht (Pommeranian Bay)	200986	200986	
15	Germany	176 1530-491	Östliche Kieler Bucht (Eastern Kiel Bay)	74690	0	
16	Germany	178 1931-301	Ostseeküste am Brodtener Ufer (Baltic Sea Coast at Brodtener Ufer)	2048	0	
17	Lithuania	122 LTKLAB001	Curonian Spit National Park	26394	16670	Vast area of dunes and dunal vegetation. Complex dunal ecosystem, sandy bottoms, more marine habitats along the outer coast, reed stands and more brackish conditions in the lagoon.

Strategic Environmental Assessment of the South Baltic Cross-border Co-operation Programme

18 Lithuania	123	Pajuris Regional Park	5350	2650	High number of threatened plant and animal species occur in the area (e.g. halophytic plants, birds, bats).			Coastal dunes, sandy bottoms interspersed with stony and rocky patches.
19 Lithuania	124 LTSLUB001	Nemunas Delta Regional Park	23950	2100	Transition from limnic over brackish to marine habitats (estuarine).			Large estuarine ecosystem with changing salinity, muddy bottoms, salt marshes, reed stands.
20 Lithuania	125	Palanga	0	0				
21 Poland	83 PLB280010	Vistula Spit Landscape Park	4410	0	Rare and threatened species like River Lamprey ( <i>Lampetra fluviatilis</i> ), Ringed Plover ( <i>Charadrius hiaticula</i> ), Bearded Tit ( <i>Panurus biarmicus</i> ), Little Gull ( <i>Larus minutus</i> ), etc. occur in the area.	Lack of formal protection of marine areas reactivation of lobby (in the last months), connected with Elblag city, for building a canal from Elblag through Vistula Spit directly to Gdansk Bay.	New management plan in preparation due to changes in Polish legislation.	Changing salinity and trophic levels as well as changing substrates from muddy to sandy bottoms with macrophytes.
22 Poland	84 PLB220005	Nadmorski Landscape Park, incl. surrounding water areas	18804	11352	A colony of plovers ( <i>Calidris alpina schinzii</i> ) constitute 10% of the total Baltic population, easternmost occurrence of Harbour porpoise ( <i>Phocena phocena</i> ). - (stated decline in number of <i>C. Alpina schinzi</i> in the last years ).	Formal difficulties with realization of protection on marine areas - lack of competence's cohesion of Governor of Pomorskie province and Marine Department. Storage of ashes and cinders in Rewa - It exists close to the Puck Bay shore.	New management plan in preparation due to changes in Polish legislation	Moraine coast with some active cliffs, sandy spits, salt marshes, beechforest.
23 Poland	85 PLB220003	Slowinsky National Park, incl. surrounding water areas	32744	11171	One of the best preserved stretches of sandy coast in the Baltic with a large migrating dune and different stages of dunal vegetational succession.		Protection plan in preparation due to changes in Polish legislation, existing plan covers terrestrial part only.	Dune, wet dune slacks, coastal fens.

Strategic Environmental Assessment of the South Baltic Cross-border Co-operation Programme

24	Poland	86 PLB 32002	Wolinski National Park, incl. surrounding water areas	10937	4519	High coastal cliffs, no coastal defense measures applied, backing river delta.	*in management of marine areas plans for full implementation exist	Management plan in preparation due to changes in Polish legislation. In new management plan marine part will also be included.	Mostly sandy bottoms, active morainic cliff coast with submerged tree trunks.
25	Poland	170 PLB990003	Pomeranian Bay incl. Odrzana Bank	266629	266629	Very important for Baltic feeding and resting area for birds. The feeding area for more than three species from Annex I of Birds Directive.	The main potential threat to the area is establishment of wind farms. Existing threat are different kinds of fishing nets.	National conservation plan in preparation. It will be a basis for construction of management plan.	
26	Sweden	110	Torhamns Archipelago	10000	9000	Sweden`s southernmost archipelago is one of its most important bird observation sites or migratory species. White Tailed Eagle (Haliaeetus albicilla) and Osprey (Pandion haliaeetus) occur as well as Grey-Lag Goose (Anser anser), Black Guillemot (Cepphus			
27	Sweden	111	Falsterbo Peninsula with Ma*kläppen	17500	14500	Grey seal Halichoerus grypus exists frequently (ca 300) and occasionally Harbour porpoise Phocoena phocoena. Breeding birds includes White Tailed Eagle Haliaeetus albicilla, Turnstone Arenaria interpres, Black Guillemot Cepphus grylle, Razorbill Alca tor			
28	Sweden	112	Kullaberg	1750	292	Lobster (Homarus gammarus) and other purely marine animals occur (salinity of 33 psu at greater depths).			

<http://www.helcom.fi/>

**Table 12 Ramsar Convention sites**

Name of the site	Country	Region	Area [ha]	Latitude (decimal degrees)	Longitude (decimal degrees)
Ertholmene	Denmark	Bornholm	1,250	55,317	15,183
Karrebaek, Dybs° & Avn° Fjords	Denmark	Storstr°m	18,860	55,167	11,750
PrŠst° Fjord, Jungshoved Nor, Ulvshale & Nyord	Denmark	Storstr°m	24,640	55,083	12,250
Sejr° Bugt, Neksel° Bugt & SaltbŠk Vig	Denmark	VestsjŠlland	43,877	55,783	11,300
Adjacent wetlands	Denmark	Vestsjaelland	18,492	55,167	11,500
Galenbecker See	Germany	Mecklenburg-Vorpommern	1,015	53,633	13,733
Hiddensee-Zingst	Germany	Mecklenburg-Vorpommern	25,800	54,500	12,750
Unteres Odertal, Schwedt	Germany	Brandenburg	5,400	53,067	14,317
Nemunas Delta	Litva	Silute	23,950	55,300	21,333
ViesvilŪ	Litva	Taurage, Jurbarkas	3,216	55,150	22,450
Druzno Lake Nature Reserve	Poland	Warminsko-Mazurskie	3,068	54,083	19,433
Jezioro Karas	Poland	Warminsko-Mazurskie	815,000	53,550	19,483
Jezioro Swidwie	Poland	Zachodnio-Pomorskie	891,000	53,567	14,367
Slowinski National Park	Poland	Pomorskie	18,247	54,667	17,167
Åsnen	Sweden	Kronoberg	16,800	56,617	14,717
Blekinge archipelago	Sweden	Blekinge	12,500	56,117	15,350
Emņn	Sweden	Kalmar	1,580	57,150	16,367
Falsterbo-Foteviken	Sweden	Skņne	7,530	55,417	12,917
Helgeņn	Sweden	Skņne	8,050	56,000	14,217
Klingavålsån-Krankesjön	Sweden	Skņne	3,970	55,617	13,633
Lundņkra Bay	Sweden	Skņne	1,980	55,817	12,917
Mörrumsån-Pukavik Bay	Sweden	Blekinge	2,740	56,150	14,750
Āland, eastern coastal areas	Sweden	Kalmar	8,460	56,450	16,600
Ottenby	Sweden	Kalmar	1,610	56,200	16,400
Skņlderviken	Sweden	Skņne	1,350	56,233	12,717
Tönnersjöheden-Årshultsmyren	Sweden	Halland, Kronoberg	12,300	56,767	13,317

[http://www.ramsar.org/index\\_list.htm](http://www.ramsar.org/index_list.htm)

**Table 13 Natura 2000 areas in the Polish part of the Programme area**

Rec	Natura2000 site code	Site name	Total area (ha)
1	PLH220001	Bagna Izbickie	807
2	PLB320001	Bagna Rozwarowskie	4211,2
3	PLH220002	Białe Błoto	10,5
4	PLH220003	Białogóra	1019,6
5	PLH320001	Bobolickie jeziora lobeliowe	4424
6	PLH220004	Bór Chrobotkowy	41,5
7	PLH320002	Brzeźnicka Węgorza	433,6
8	PLH220005	Bytowskie jeziora lobeliowe	2625,4
9	PLB320002	Delta Świny	9171,3
10	PLB320003	Dolina Dolnej Odry	54447,9
11	PLB040003	Dolina Dolnej Wisły	34909,2
12	PLH280001	Dolina Drwęcy	2369,6
13	PLH220006	Dolina Górnej Łeby	2465,9
14	PLH320003	Dolina Grabowej	8030,1
15	PLH320004	Dolina Iny koło Recza	4503,2
16	PLH220007	Dolina Kłodawy	10,4

Rec	Natura2000 site code	Site name	Total area (ha)
17	PLH320005	Dolina Krapieli	229,1
18	PLB280002	Dolina Pasłęki	19405,9
19	PLH320006	Dolina Płoni i Jezioro Miedwie	21253,9
20	PLH220008	Dolina Reknicy	66,1
21	PLB220002	Dolina Słupi	37033,2
22	PLH220009	Dolina Środkowej Wietcisy	362,8
23	PLH320007	Dorzecze Parsęty	28010,8
24	PLH220010	Hopowo	3,4
25	PLH320008	Janiewickie Bagno	162
26	PLH220011	Jar Rzeki Raduni	84,2
27	PLH320009	Jeziora Szczecineckie	6391,7
28	PLB320004	Jeziora Wełtyńskie	1306,2
29	PLH220012	Jezioro Chośnickie	213,5
30	PLC280001	Jezioro Drużno	3175,9
31	PLH280003	Jezioro Karaś	815,5
32	PLH320010	Jezioro Kozie	184,3
33	PLB320005	Jezioro Miedwie i okolice	15782
34	PLH220013	Jezioro Piasek	63,1
35	PLB320006	Jezioro Świdwie	6157,1
36	PLH320011	Jezioro Wielki Bytyń	1826,6
37	PLH320012	Kemy Rymańskie	2624
38	PLH220014	Kurze Grzędy	1478,5
39	PLB280005	Lasy Iławskie	24604,2
40	PLH220015	Lubnia	0,1
41	PLB320007	Łąki Skoszewskie	9593,9
42	PLH220016	Mawra-Bagno Biała	300,4
43	PLH220017	Mechowiska Sulęczyńskie	64,6
44	PLH220018	Mierzeja Sarbska	1086,6
45	PLH220019	Orle	257,1
46	PLH320013	Ostoja Goleniowska	8453,6
47	PLB320008	Ostoja Ińska	86300,3
48	PLB220003	Ostoja Słowińska	19326,7
49	PLH220020	Pełcznica	271,8
50	PLH220021	Piaśnickie Łąki	79,3
51	PLH220022	Pływające wyspy pod Rekowem	81,1
52	PLH220023	Pobrzeże Słowińskie	18618
53	PLH320014	Pojezierze Myśliborskie	4262,8
54	PLH320015	Police - kanały	0
55	PLH220024	Przymorskie Błota	1590,9
56	PLH220025	Przywidz	5,7
57	PLH280006	Rzeka Pasłęka	6233,4
58	PLH220026	Sandr Brdy	6837,6
59	PLH320016	Słowińskie Błoto	228,1
60	PLH220027	Staniszewskie Błoto	853,6
61	PLH220028	Studzienickie Torfowiska	190,2
62	PLH320017	Trzebiatowsko-Kołobrzski Pas Nadmorski	18017,7
63	PLH220029	Trzy Młyny	774

Rec	Natura2000 site code	Site name	Total area (ha)
64	PLH220030	Twierdza Wisłoujście	16
65	PLH320018	Ujście Odry i Zalew Szczeciński	44743,7
66	PLB220004	Ujście Wisły	1014,7
67	PLH220031	Waćmierz	23,4
68	PLB280009	Warmińskie Bociany	107937,8
69	PLB220001	Wielki Sandr Brdy	37058,7
70	PLH320019	Wolin i Uznam	35132,9
71	PLH320020	Wzgórza Bukowe	11651,1
72	PLB320009	Zalew Szczeciński	44928,5
73	PLB280010	Zalew Wiślany	33665,8
74	PLH280007	Zalew Wiślany i Mierzeja Wiślana	40729,6
75	PLB220005	Zatoka Pucka	62045,5
76	PLH220032	Zatoka Pucka i Półwysep Helski	26484,8

/ <http://www.mos.gov.pl>

**Table 14 BSPA areas located in the Polish part of the Programme area**

Rec	Site ID	Natura2000 site code	Site name	Total area (ha)	Marine area (ha)
1	84	PLB220005	Nadmorski Landscape Park incl.surrounding water areas	18804	11352
2	85	PLB220003	Slowinsky National Park incl.surrounding water areas	32744	11171
4	170	PLB990003	Pomeranian Bay incl. Odrzana Bank	266628,6	266628,6
6	86	PLB32002	Wolinski National Park incl.surrounding water areas	10937	4519
7	83	PLB280010	Vistula Spit Landscape Park	4410	0

/ <http://www.helcom.fi/gis/>

As it results from comparison of the area under the Programme - 108 000 km<sup>2</sup> – with the area of the Baltic Sea basin - 1 700 000 km<sup>2</sup> – the Programme area constitutes a little above 6% of the area of the whole Baltic Sea basin. Taking into account that the Programme does not include Newa river – the river with the largest basin area and carrying the largest amount of pollution, it can be assumed, that in the aspect of sea pollution, the impact of the Programme implementation on the Baltic Sea will not be significant.

**Table 15 Main rivers of the Baltic Sea basin**

River	Basin area [thous. km <sup>2</sup> ]	Avg. discharge [m <sup>3</sup> /s]
Newa	282	2600
Wisła	194	1080
Odra	119	535
Niemen	98,7	616
Dzwina	87,9	678
Narva	53	400
Kemi	51,4	556
Gota	50,2	575
Angerman	31,86	485
Lule	25,24	499
Pregola	15	90
Piana	5,1	

Warnow	3,3	
Parseta	3,1	27
Rega	2,7	
Trave	2,6	
Pasleka	2,3	15
Wieprza	2,1	
Leba	1,8	
Slupia	1,6	15
Reda	0,5	
Total	1033,4	8171
Baltic	1 721	

/rivers with the mouth situated in the Programme area have been distinguished/

Sensitive elements of the environment occurring in the area of the Programme

To the most sensitive ecosystems in the Programme area the following belong:

- habitats connected with the coast – such as dunes, quicksands / protected in the area of Slowinski National Park/.
- peatbogs and marshy areas / most of the objects are protected in the framework of Ramsar Convention /
- coastal lakes – in the southern part of the area;
- cliff coast /protected in Rugia and Wolin National Parks/
- lakes situated in Pomeranian lakes district / protected in landscape parks and Natura 2000 areas/.

### Identification of areas potentially exposed

Regarding the Programme character it is not possible to determine areas which would be directly exposed as a result of the Programme implementation. It is possible instead indication of the specific types of receptors, which may be exposed to the impact. First of all the following areas belong to them:

- areas of a high natural value, especially these, which are situated in a neighbourhood of areas used for tourist purposes,
- areas of surface and underground water protection exposed to the impact resulting from intensification of agriculture production,
- areas of intensive development of transport infrastructure, in which local intensification of transport may take place.

### 4.3 Existing environmental problems which are relevant to the Programme

From the analysis of environmental state of the southern Baltic Sea it results, that the following environmental problems are the most significant in the context of the Programme implementation:

- impact of the industry and transport in selected urban areas,
- pollution caused by discharging of nutrients into the water in coastal zones and by direct discharges to the sea and to littoral rivers,
- pollution of water environment by priority substances defined in the framework of the European water policy, by hazardous substances (resulting from activities in the sea, ports and industry), by removal of chemical agents from post-military sites (including also chemical weapons deposited in the sea),
- quality of water for recreation bathing

These problems occur mainly in the areas of Poland and Lithuania.

The remaining problems such as eutrophication, changes of the Baltic sea ecosystems and pressure on areas of high natural value result either from the impact generated outside of the Southern Baltic Region or are of occasional character.

## 5. The environmental protection objectives, established at international, Community or Member State level, which are relevant to the Programme

The SEA is analysing coherence of the Programme with other strategic documents on international, national and regional level and the way those objectives and any environmental considerations have been taken into account during its preparation.

First of all the basic principles were taken into account defined in the **Agenda 21 for Baltic Sea – „Baltic 21”**<sup>17</sup>. The main result of the “Baltic 21” is Program of Actions including 30 various actions contributing to sustainable development in Baltic Sea Region (RMB). This Program is based on selected proposed actions from seven sectors, on which “Baltic 21” and “Visions and Strategies on Baltic Sea 2010” (VASAB 2010) concentrate. Sectoral actions in the context of coherence with the assessed programme are presented in the Table below.

**Table 16 Actions defined in the Agenda 21 for Baltic Sea Region**

Actions – Agenda Baltic 21	Coherence with the Programme
Common actions:	
Increased production and use of bioenergy and other renewable energy sources.	High
Regional networks dealing with sustainable development.	Potential
Creation of exemplary areas and pilot projects for presenting of sustainable development practice.	Potentially significant
Co-operation of towns and sustainable development problems in towns and communities.	Potentially significant
Public procurement in relation to technology for sustainable development.	
Information for sustainable development.	Potentially significant
Increased consumers' awareness of sustainable development problems.	Potentially significant
Sectoral actions:	
Sector of agriculture	
Education and training	
Development of „Virtual Research Institute” for sustainable agriculture based on existing NOVABOVA in Baltic Sea Region	
Formulation and implementation of agro-environmental law and policy	

<sup>17</sup> Agenda 21 dla regionu Morza Bałtyckiego – “Bałtyk 21” Seria Bałtyk 21 Nr 1/98: Przyjęta na 7. Sesji Ministerialnej Rady Państw Morza Bałtyckiego w Nyborgu, 22-23 czerwca 1998 roku

Actions – Agenda Baltic 21	Coherence with the Programme
Sector of energy	
Strengthening of co-operation between management organs	High
Increase of renewable energy sources and promotion of increased energy efficiency and saving.	High
Co-operation in research and development.	High
Sector of fishing	
Formulation of long-term strategies for main fish resources: cod, salmon, herring, sprat.	Lack
Renewal of habitats for fish and fishing in inland waters.	Lack
Achieving sustainable aqua-culture.	Lack
Sector of forestry	
Promotion of sustainable forest management and efficiency in private forests management in Baltic Sea Region through: existing organization structures or networks of forests owners; exchange of information between organizations and administration organs, on advice services who work for owners and forests management.	Lack
Analysis of gaps in protected forest areas.	Lack
Promotion of use of timber and wooden products as natural resource and environmentally friendly material and change of consumption models into more sustainable ones.	Lack
Sector of industry	
Improving conditions for business by development of economic incentives improving environmental management in the industry; harmonization of regulations relating to industry concerning state support in competitiveness, trade and ecological policy (including working environment and work safety) without changing existing international ecological standards; implementation of international conventions and agreements connected with sustainable development in Baltic Sea Region.	High
Implementation of eco-efficiency in industry; working out of eco-efficiency tools for various industrial sectors; implementation of Environmental Management System (EMS) with regarding special conditions for small and medium enterprises; including ecological factors in all activities and reporting, especially encouraging for voluntary initiatives in financial reporting of the enterprises; promotion of pilot projects aiming at sustainable development.	Potentially significant
Enlarged and improved co-operation in the area of research and development, transfer of know-how and technology in Baltic Sea Region.	High
Sector of tourism	
Implementation of regulations concerning sustainable development and tourism, for example codes of coast and HELCOM recommendations, spatial planning and use of land.	Potentially significant
Environmental Management System should be further presented to the tourism industry and monitoring methods should be worked out.	Needs strengthening
Sector of transport	
Realisation of project in the framework of formulation of guidelines, criteria and recommendations for infrastructure investments connected with sustainable tourism system.	Needs strengthening

Actions – Agenda Baltic 21	Coherence with the Programme
Creation and intensification of co-operation between governments in relation to undertakings aiming at development of more efficient transport of goods especially improvement of railway and water transport connections.	High
Formulation of regional strategies supporting sustainable maritime transport.	High
Land use planning activities	
Implementation of Stockholm Declaration on sustainable spatial development policy.	Needs strengthening
Further development of Integrated Management of Coastal Zones.	Needs strengthening
Introducing „Baltic 21” into European documents on spatial planning.	Lack

Importance of assessment criteria was defined basing on the identified objectives of sustainable development and environmental protection in countries located in South Baltic area and in the international documents. Besides it was assessed to what degree the Programme is affecting realization of sustainable development priorities defined in the individual countries. In the analysis of objectives the following documents were used:

- National Environmental Policy for Years 2007-2010 with regarding Prospect to 2011-2014 Warsaw, December 2006 Ministry of Environment
- Government of the Republic of Lithuania, Resolution No1160 on the Approval and Implementation of the National Strategy for Sustainable Development September 11, 2003, Vilnus.
- Government Communication 2001/02:172 Sweden’s National Strategy for Sustainable Development 2002, Ministry of the Environment, Stockholm, Sweden A shared future - balanced development Denmark's national strategy for sustainable development 2001<sup>18</sup> German Council for Sustainable development, 2002 Perspectives for Germany Our Strategy for Sustainable Development<sup>19</sup>.

Results of the analysis are presented in table below.

The analysis did not show any significant discrepancies between the Programme and strategic documents. In the case of some environmental aspects the Programme is supporting realization of objectives defined in these documents. It concerns especially renewable energy and environmental safety.

<sup>18</sup> [http://glwww.mst.dk/udgiv/publications/2002/87-7972-279-2/html/helepubl\\_eng.htm](http://glwww.mst.dk/udgiv/publications/2002/87-7972-279-2/html/helepubl_eng.htm)

<sup>19</sup> [http://www.nachhaltigkeitsrat.de/n\\_strategy/strategy\\_2002/index.html](http://www.nachhaltigkeitsrat.de/n_strategy/strategy_2002/index.html)

**Table 77 Priority objectives of sustainable development and environmental protection in countries South Baltic area**

Priorities	Poland	Lithuania	Germany	Sweden	Denmark	Priority in Programme assessment
Protection of nature and landscape	X	X	X	X especially in Baltic Sea area	X	Assessment criteria
Forest protection and sustainable development	X	X	X	X	X	Assessment criteria
Sustainable agriculture			X	X		Assessment criteria
Protection of earth surface	X	X		X		Assessment criteria
Protection of mineral resources and underground water	X					Assessment criteria
Safety of biotechnology and genetically modified organisms	X					Assessment criteria
Limitation of material- water-, energy consumption and waste generation in production and consumption processes	X	X	X	X	X	Assessment criteria
Use of energy from renewable sources	X	X	X	X	X	Programme supports realization of objectives
Management of water resources and protection against flood and effects of dryness	X	X		X Protection of ecosystems		Assessment criteria
Health safety of the environment	X	X	X	X	X	Assessment criteria
Ensuring appropriate water quality	X	X		X eutrophication	X	Assessment criteria
Reduction of air pollution	X	X		X	X	Assessment criteria
Effective and safe wastes management	X	X				Assessment criteria
Reduction of chemical substances in the environment	X			X environment free from chemical substances		Assessment criteria
Protection against serious industrial accidents	X			X		Programme supports realization of

<b>Priorities</b>	<b>Poland</b>	<b>Lithuania</b>	<b>Germany</b>	<b>Sweden</b>	<b>Denmark</b>	<b>Priority in Programme assessment</b>
						<b>objectives</b>
<b>Reduction of noise impact</b>	<b>X</b>	<b>X</b>			<b>X</b>	<b>Assessment criteria</b>
<b>Protection against climate changes</b>	<b>X</b>	<b>X</b>				<b>Assessment criteria</b>
<b>Protection of ozone layer</b>				<b>X</b>	<b>X</b>	<b>Assessment criteria</b>
<b>Reduction of emission of greenhouse gases</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Assessment criteria</b>
<b>Reduction of radiation impact</b>	<b>X</b>			<b>X</b>		<b>Assessment criteria</b>

## 6. The likely significant effects on the environment

Strategic environmental assessment of indicative actions of the South Baltic Cross-Border Co-operation Programme is presented in the table below. It relates to the programme version after including all changes defined during the interactive process of creating basic document.

**Table 88 Environmental impact assessment of indicative actions in the South Baltic Cross-Border Co-operation Programme**

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
<b>Priority 1: Economic competitiveness</b>											
<b>Sub priority 1.1: Entrepreneurial development</b>											
1.1.1. Strengthening of platforms and networks for better liaising between small and medium sized enterprises in the South Baltic area	No, activities connected with objective realisation are of „soft” character not investment one	0	0	0	0	0	0	0	0	0	0
1.1.2. Joint initiatives of intermediary support structures for SMEs (development agencies, business foundations, chambers of commerce and industry, chambers of crafts, technological parks, business incubators etc.) aimed to improve absorption of innovations	Yes. In case of technological parks and business incubators the environmental impact may occur in a local scale	!?	!?	!?	0	0	!?	!?	!?	0	0

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
and increase of competences in the private sector											
1.1.3. Enhancement of research networks (universities and R&D institutions) towards their better linkages to enterprises and local and regional governments	Objective realisation may have positive indirect impact on the environment by strengthening connections between research and scientific sector and subjects which implement pro-ecological solutions	0	?	?	?	0	0	?	?	?	0
1.1.4. Development of practical solutions increasing application of international research findings in a concrete business environment	Yes. Implementation of some solutions (e.g. introducing GMO into agricultural production) needs public consultation procedure	0	!?	!?	!?	!?	0	!?	!?	!?	!?
1.1.5. Testing and dissemination of best systemic and organisational models for the triple helix concept	Introduction of these solutions will improve the quality of environmental management, therefore will affect positively its state	+	+	+	+	+	+	+	+	+	+

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
<b>Sub-priority 1.2: Integration of higher education and labour markets</b>											
1.2.1. Joint actions of labour market institutions dedicated to an increase of the labour force mobility and to counteract negative processes on the cross-border labour market (e.g. “brain-drain”, youth unemployment, exclusion of gender or age groups etc.)	Yes. This action should be coherent with sustainable solutions in communication	0	!?	0	!?	!?	0	!?	!?	0	0
1.2.2. Joint actions of labour offices, business organisations and educational institutions for the preparation of practical solutions in the field of education and lifelong learning, adaptable to changing requirements of the labour market and its advancing integration in the South Baltic area	No, actions connected with objective realization are of „soft” character, not investment one, they are first of all aiming at improving social situation	0	0	0	0	0	0	0	0	0	0
1.2.3. Development of practical solutions to	Actions connected with objective realization are	0	?	0	?	?	0	?	0	?	?

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
develop close co-operation to improve accessibility of educational centres and availability of new forms of education (e.g. e-learning, exchange courses of researchers) on the integrating labour market in the South Baltic area	of „soft” character and in long-term regional and over-regional perspective may contribute to increase of ecological awareness										
1.2.4. Provision and testing of training programmes for SMEs in their activities on the cross-border labour market in order to improve their communication and inter-culture skills	In long-term regional and over-regional perspective objective realization may have positive effects – common responsibility for environmental values	0	?	0	?	?	0	?	0	?	?
<b>Sub-priority 1.3: Transport accessibility</b>											
1.3.1. Preparation and implementation of feasibility studies for transport bottlenecks and missing links hindering formation of a coherent	Yes. SEA is necessary for strategy of transport development in South Baltic area, as well as public consultation at an early stage	0	!?	0	!?	!?	0	!?	0	!?	!?

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
multimodal transport system in the South Baltic area, based on a prioritised list of investments of the cross-border relevance											
1.3.2. Joint actions of infrastructure owners, cargo owners and traffic operators dedicated to quality improvement of transport connections and creation of new links	Yes. Intensification of traffic may occur in some places (e.g. multimodal centres)	0	!?	!?	?	?	0	!?	!?	?	?
1.3.3. Provision of practical solutions to increase sustainability and quality of passenger transport services in the South Baltic area	Coherence with sustainable development principles at realization of this objective shows probability of positive environmental effects (coherence and co-ordination of actions)	?	?	?	?	?	?	?	?	?	?
<b>Priority 2: Attractiveness and common identity</b>											
<b>Sub-priority 2.1: Management of the Baltic Sea environment</b>											
2.1.1. Preparation and implementation of small scale pilot projects for modern water and waste	Yes. Pilot projects should be designed with a complex and systemic approach (e.g. sewage	!?	?	!?	?	?	!?	?	!?	?	?

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
management, with particular attention for environmental hot-spots in the coastal areas	sludge disposal methods should be sustainable)										
2.1.2. Joint cross-border actions aiming at decreasing the outflows of nutrients from small and diffuse sources, such as farms, farming land, smaller settlements and private households	Continuation of actions and co-operation of various subjects will contribute to reduction of environmental risks and improvement of environmental state in all time horizons and spatial dimensions	+	+	+	+	+	+	+	+	+	+
2.1.3. Joint cross-border actions to enhance local and regional preparedness and response in case of natural and/or environmental disasters on the Baltic Sea, including cross-border risk management systems and related infrastructure	Coordination of actions and co-operation of various subjects will contribute to reduction of environmental risks and environmental protection in the Programme area both in short and long-term period	+	+	+	+	+	+	+	+	+	+
2.1.4. Competence building and co-operation between local and regional	Spatial coherence and integration of activities connected with planning	+	+	+	+	+	+	+	+	+	+

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
authorities in the field of local contingency planning	will bring positive results in each of examined aspects										
2.1.5. Development of strategies and methods for Integrated Coastal Zone Management and Marine Area Spatial Planning based on joint cross-border solutions	Working out of common strategies and methods will contribute to improvement of planning and management of Coastal Zones and Marine Area, which in consequence will bring positive environmental effects	+	+	+	+	+	+	+	+	+	+
<b>Sub-priority 2.2: Energy saving and renewable energy</b>											
2.2.1. Exchange of knowledge, preparation and implementation of joint action plans on renewable energy sources and energy saving patterns	Yes. Joint action plans should have SEA and public consultation	0	!?	!?	!?	!?	0	!?	!?	!?	!?
2.2.2. Preparation of small scale pilot investments in the field of renewable energy	Depending on investment character positive or negative effects may occur, mainly in local scale and of short-term character	!?	0	!?	0	0	!?	0	!?	0	0

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
2.2.3. Promotion of South Baltic achievements in the field of energy saving and renewable energy on internal and external fora	Actions connected with objective realization are of „soft” character, not investment one	0	0	0	0	0	0	0	0	0	0
<b>Sub-priority 2.3: Sustainable use of natural and cultural heritage for regional development</b>											
2.3.1. Development of cross-border strategies for preservation and sustainable use of natural and cultural heritage sites, areas and landscape for regional development	Yes. SEA must be made from sustainability view point (e.g. required for mass events in over regional scale)	!?	!?	!?	0	0	!?	!?	!?	0	0
2.3.2. Joint creation of sustainable tourism products (e.g. cross-border thematic routes) respecting protection needs for natural and cultural heritage	Yes. Promotion is recommended of good practice of organization of mass events in a sustainable way	0	0	0	0	0	0	0	0	0	0
2.3.3. Preparation and implementation of small scale pilot investments enhancing tourism infrastructure in the South Baltic area (e.g. chains of tourist facilities along the	Yes. Short term effects may occur during construction; long term during operation phase	!?	!?	!?	0	0	!?	!?	!?	0	0

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
Baltic Sea coast, like small ports or yacht marinas)											
2.3.4. Capacity-building actions and joint campaigns targeting cross-border networks of authorities responsible for management of natural and cultural heritage sites	Expected probability of occurrence of positive environmental effects resulting from increasing of social awareness and co-responsibility for the environment.	?	?	?	?	?	?	?	?	?	?
2.3.5. Joint actions promoting the South Baltic area as a tourist destination	Non-investment actions, coherence with sustainable development principles	0	0	0	0	0	0	0	0	0	0
2.3.6. Exchanging know-how and promotion of Eco-Management and Audit Scheme as well as joint eco-labelling actions for environmentally friendly products	Proposed actions are of evident pro-ecological character, positive environmental effects are expected	+	+	+	+	+	+	+	+	+	+
2.3.7. Development and dissemination of good practice in the field of 2.3.8. equal access to the tourist offer in the South	Realization of the objective by using good practice examples evidences coherence with sustainable	0	0	0	0	0	0	0	0	0	0

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
Baltic area (including physical access to sites)	development principles										
<b>Sub-priority 2.4: Local community initiatives</b>											
2.4.1. Joint events increasing involvement of local communities and institutions, administrative structures, media and NGOs, with a particular focus on young generation and on rural areas in the South Baltic area	Non-investment actions, final effects positive for the environment connected with increasing social awareness and co-responsibility	?	?	?	?	?	?	?	?	?	?
2.4.2. Conferences, training seminars and study visits for an exchange of good practice within specific fields of interest, e.g. economic planning, employment, social inclusion, youth policies, rural development, environmental protection, natural and cultural heritage etc.	Non-investment actions, expected effects are positive in long-term horizon and in all spatial scales	0	+	+	+	+	0	+	+	+	+
2.4.3. Establishment and development of durable	Strengthening of co-operation and	+	+	+	+	+	+	+	+	+	+

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
networks between NGOs within specific fields of interest, e.g. social and health care, culture and cultural heritage, environment and natural heritage, youth, local community development etc.	development of non-governmental organizations sector evidences possibility of occurrence of positive environmental effects.										
2.4.4. Preparation of cross-border cultural and sport events with a multi-annual perspective	Yes. In case of mass events introducing good practice experience is recommended	!?	0	!?	0	0	!?	0	!?	0	0
2.4.5. Preparation of pilot and innovative projects focusing on common values, such as good governance, exchange of good practice, promotion of gender equalities etc.	Non-investment action, aiming at improvement and innovation in the area of organization and common goods	?	?	?	?	?	?	?	?	?	?
2.4.6. Joint actions to create sustainable development conditions in rural and small town communities.	The action aiming at implementation of sustainable development principles, expected positive effects in each spatial scale and time	+	+	+	+	+	+	+	+	+	+

- certainty of occurrence of negative environmental effects - barrier or change of action !- high probability of occurrence of negative environmental effects !? probability of occurrence of negative or positive environmental effects depending on conditions and circumstances ? probability of occurrence of positive environmental effects + certainty of occurrence of positive environmental effects – supporting of action regarding environmental effects 0 insignificant environmental effects											
Indicative action of the Programme Subject of SEA	Does the action need special attention during implementation and/or anticipative modification	Does a given action affect environmental resources and/or environmental capacity					Does a given action affect ecosystem, biodiversity and natural and cultural heritage				
		Effect duration		Spatial scale			Effect duration		Spatial scale		
		Short-term	Long-term	Local	Regional	Over-regional	Short-term	Long-term	Local	Regional	Over-regional
	horizons										

## Identification of areas of significant potential impact

Character of objectives and actions of the Programme show relatively low potential impact on environmental components. At the same time no actions were proposed referring to strictly defined space (location). Significant impact may take place only in case of cumulated realization of projects in the areas of high natural value. This risk can be eliminated in the framework of administration procedures requiring appropriate acceptance decisions.

Potential environmental impact resulting from implementation of South Baltic Cross-border Co-operation Programme will be slight in the context of the present state of the environment of the subject area. It results mainly from the character of the Programme, which embracing areas belonging to various territorial units of five member states – Denmark, Germany, Sweden, Poland and Lithuania – in mainly aiming at realization of „soft” activities of non-investment character. It is expected that all projects within the Programme will contribute to sustainable development of the whole Programme area, in particular in its economic and social aspect and they will be of over-border character and impact.

**Table 19 Strategic environmental assessment in a synthetic form**

Assessment criteria	Assessment /Comment
Is diagnosis of state, SWOT analysis of the Programme prepared in the context of sustainable development principles?	Yes. The SWOT analysis was made in relation to two aspects: accessibility, competitiveness and innovativeness and tourism and natural environment. Analysis was made with regarding sustainable development principles
Have environmental objectives been proposed?	Yes. The main objective of the Programme is aiming at sustainable development of South Baltic area and was divided into two priorities including actions connected with protection of natural and cultural resources, saving energy and development of its renewable sources as well as environmental management
Are the proposed priorities integrated with „Sustainable development strategy of the EU”, „VI Environmental Action Plan of the UE”, „Environmental protection strategy for 2007-2013 with perspective to 2020 – synthesis”, „State environmental policy”?	Yes. The proposed priorities are consistent and integrated with other strategic documents, both in the context of European Union and strategic documents at the level of the individual countries embraced by the Programme
Has (if yes, to what extent) the negative impact of the proposed undertakings quantified ?	No. In the context of Espoo convention.
Do the priorities planned in the individual sectors support each other in the aspect of sustainable development?	The priorities are mutually correlated. Realization of actions resulting from priorities is assuming effect of synergy – (strengthening of the area attractiveness supports activities aiming at rising its economic competitiveness, transfer of know-how and co-operation of public and

Assessment criteria	Assessment /Comment
	private sector creates climate potentially advantageous for increasing area attractiveness).
Is there contingency between diagnosis, objectives, priorities and proposed undertakings and monitoring indices in the context of sustainable development?	There is a consistency between SWOT analysis and priorities of the Programme.
Is the role of environmental protection institutions identified and regarded?	Yes in the context of the participants of individual actions planned in the Programme.
Will the proposed priorities contribute to effective use of natural resources, including changes of production and consumption patterns and to management of demand for these resources?	The proposed priorities include the necessity of increase of innovative solutions thus contributing to sustainable management of natural resources.
Will the proposed priorities contribute to replacing use of non-renewable resources with the use of renewable ones?	The proposed priorities include directly actions consisting in replacing use of non-renewable sources with the use of renewable ones (e.g. renewable sources of energy) by preparation of qualified projects and investment actions
Will the proposed priorities contribute to implementation of eco-innovative solutions (development of eco-innovation)?	Yes. Priority 2 of the Programme – Attractiveness and common identity - is assuming preparation of innovative investment activities connected with new environmental friendly technologies.
Will the planned priorities contribute to sustainable development by using mitigation measures characteristic for the individual sectors together with monitoring of their implementation?	Only in a limited extent due to non-investment character of the Programme and differences resulting from engaging partners from five EU countries
Will the planned priorities contribute to improvement of the state of:	Indirectly – due to non-investment character of the Programme
a. air quality,	Yes. Indirectly, by actions aiming at improving transport access through coordination of activities, better quality of infrastructure and building coherent multi-modal transport system regarding sustainable development principles
b. surface and underground water quality,	Yes. Indirectly, through actions connected with preparation and implementation of pilot projects in the field of modern water and waste water management and common actions aiming at reduction of discharge of nutrients from small dispersed sources situated in the Programme area.
c. earth surface?	In a limited extent. Indirectly through activities aiming at implementation of small pilot investments strengthening tourist infrastructure, therefore counteracting against chaotic tourism development and higher consumption of land connected with it.
Do the proposed priorities regard the need for	Yes, also in relation to areas of

Assessment criteria	Assessment /Comment
protection of nature and landscape and whether they will support creation and appropriate functioning of protected areas within the system of NATURE 2000?	NATURA 2000.
Will proposed priorities decrease health hazards resulting from environmental state?	To some extent. The proposed actions will support activities towards raising safety by enhancing local and regional preparedness and response in case of natural and environmental disasters on the Baltic Sea
Will proposed priorities contribute to maintaining cultural values?	Yes, by activities aiming at development of over-border strategies of protection of natural resources, landscape and culture heritage connected with the individual regions, through strengthening of knowledge and potential, organization of common cross-border campaigns, creating networks of co-operation of authorities responsible for development of natural and cultural heritage
Will the proposed priorities contribute to increase of environmental awareness?	Yes, activities increasing participation of local communities and institutions, administrative structures, media and non-governmental organizations and common actions in the field of eco-labelling of environmentally friendly products, promotion of EMAS
Will the proposed priorities contribute to improvement of spatial order?	Yes, through development of strategies and methods of Integrated Management of Coastal Zones and Spatial Planning of Marine Area basing on common cross-border solutions.

Additional questions:

Each time while defining the essence of each objective in the Programme the following questions were put:

1. Do the specific objectives affect natural resources and environmental effectiveness in the South Baltic area? If yes, is it occurring equally or there are distinct differences?
2. Do the specific objectives affect ecosystem, biodiversity and natural and cultural heritage of this region?
3. Will the proposed actions affect social behaviour and strengthening of social dimension of transboundary co-operation?
4. Will the Programme contribute to the increase of activities of permanent character supporting sustainable development of the South Baltic area?

Implementation of activities resulting from realization of the Programme may in some cases cause negative environmental impact. The highest probability of occurrence of such disadvantageous impacts is for short-term and local impacts – both in the aspect of impact on environmental resources and/or environmental capacity and in the aspect of the impact on ecosystem, biodiversity and natural and cultural heritage. However much more significant is

occurrence of positive effects of long-term and regional character. This advantageous impact is connected both with environmental resources and/or environmental capacity and with the impact on ecosystem, biodiversity and natural and cultural heritage.

Strengthening and stimulation of development towards innovation, use of knowledge and development of information society will indirectly affect positively the environment to a considerable extent. Thus in the light of environmental criteria these actions are particularly important and should be treated as priorities in the Programme.

## **7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the Programme**

### **7.1 Directions of action**

The final aim of the Programme should be tendency towards sustainable and coherent development of the Programme area, directed towards protection of unique natural and cultural values, which decide on its development potential. It concerns the following development areas covered by the Programme:

- sustainable development of tourism sector,
- ecologically efficient integration of transport and increase of transport safety,
- integration of planning strategies,
- development of knowledge, rising environmental quality of economic subjects and transfer of eco-innovation.

Indication of measures which would serve for reduction of possible environmental negative impact upon environment resulting from the Programme implementation is one of the most important objectives of the impact assessment. In the case of strategic environmental assessment for a document of strategic character some rules should be defined in relation to the individual types of these actions. The high level of generalization in formulation of actions and objectives does not allow to define precisely the mitigation measures for reduction of possible negative environmental impacts.

But on the other side strategic environmental assessment, performed at an early stage of programming, enables indication of impacts, which should be eliminated or these which can be reduced at this early stage, before the decision is taken concerning concrete location of an activity or concrete technological solution is chosen.

In the case of South Baltic Cross-border Co-operation Programme it was assumed, that mitigation measures serving for reduction or compensation of possible negative environmental effects would be indicated after assessment of each group of actions formulated in the framework of priorities and sub-priorities.

As a result of impact analysis and assessment of the Programme implementation the following activities aiming at mitigation of potential impact are proposed:

- comprehensive and system approach to the environmental impact assessment – in case of pilot projects (e.g. methods of sludge removal in waste water management solutions should be of sustainable character)
- public consultation – in case of implementation of some solutions (e.g. introducing GMO to agriculture production) as well as public consultation at an early stage of preparation of development strategy documents,
- strategic environmental assessment from sustainable development view-point and inter-sectoral analysis of impact for strategic documents referring to the Programme scope (including transport development in the area of South Baltic, mass events of over-regional scale etc.),
- promotion of good practice examples of organization of mass events with following rules of sustainable development.

It should be stressed, that the indicated measures were defined in the form of additional rules apart from all other standards and legal requirements. These rules should be first of all applied in the framework of the environmental impact assessment procedures for undertakings which will be applying for support in the Programme implementation stage, when the project selection will take place.

At the programming and project selection stage the project evaluation criteria should follow sustainable development principles laid down in the Göteborg Strategy. It means that projects supported by the Programme funds will have to demonstrate institutional, financial but also *environmental* sustainability after the support ends.

This requirement is consistent with the priorities laid in the EU Sustainable Development Strategy set up in the Communication from the Commission on the review of the Sustainable Development Strategy COM(2005) 658. Thus, the activities under the Programme focus among other on climate change and clean energy, social exclusion, demographic and migration, management of natural resources, sustainable transport.

The Programme will comply with the Community policies and regulations on environment protection and improvements in the natural environment. This relates primarily to the fulfilment of the obligations set up in the Habitats Directive 92/43/EC, the Birds Directive 79/409/EC and directives concerning the European network of protected areas NATURA 2000.

According to these policies and regulations the project evaluation criteria should take into account the areas identified for the Programme as specially sensitive and valuable. It means that analysis of the potential impact of any project will have to identify and assess the pressure upon these areas regarding their sensitivity due to natural values of habitats and of scenic areas or due to occurrence of birds nesting places and migration routes. It relates also to “non-investment” undertakings, especially to these, which are connected with mass tourist concentration.

Analysis of the materials shows, that the Programme can play an important role in filling the gap in the protection system of the Baltic Sea basin. When the environment of the sea itself and its coast is relatively well examined and protected, then there is no any coherent system of protection of the coast zone reaching deeper into the land in about 100 km. In the framework of the Programme the integration will be possible of activities connected with environment protection between countries participating in the Programme. It will be important particularly in frontier zones – such as Polish-German border zone.

It should be stressed, that in the Programme area the objects most valuable from environmental protection view-point, are already protected by various legal forms of protection. Now the most important is to create such forms of nature protection, which would ensure maintaining of natural and cultural heritage but on the other side would not confine development of local communities. In other words, the problem consists in completing the existing protected areas with areas of such forms of protection, which would be coherent with sustainable development idea.

Such approach should support solving problems which are very common at the point of junction between nature protection and local communities. On the one side in traditional protective activities there is a tendency to limit anthropo-pressure upon protected objects, on

the other the local community endeavours after gaining most benefits from having such type of objects.

In the countries participating in the Programme there are already such activities undertaken. Creation of areas incorporated in the Natura 2000 network is one of the possible ways for realisation of such an approach.

Kristianstads Vattenrike biosphere reserve created in 2005 is one of good examples of realisation of sustainable development principles in practice. The biosphere reserve includes the drainage basin of the River Helge å in the Municipality of Kristianstad and the coastal waters of Hanöbukten Bay. A number of theme areas with high natural values have been identified within the proposed biosphere reserve.

At the same time there is great potential for promoting sustainable development through, for example, the extensive environmental work undertaken by the Municipality of Kristianstad as well as through projects in agriculture and forestry.

The great biological values present on seasonally inundated grasslands are the result of human management of these meadows for grazing and haymaking over the course of many centuries. The proposed biosphere reserve offers excellent conditions for developing ecotourism in nature-related and culture-related contexts. Examples of potential activities include fishing, guided nature tours, guided cultural tours and boat hire.

The Municipality of Kristianstad has a track record of success with regard to environmental work and sustainable development. On 9 June 1998 the Municipal Council approved the adoption of three fundamental principles and a 12-point plan for sustainable development to be applied throughout all of the municipality's operations. The 12 points were based on the goals laid down by the Rio Conference and are an important statement of the municipality's intent to create "a region in ecological balance". The municipality is now involved in the work of formulating local environmental objectives based on Sweden's 15 national environmental quality objectives. These local objectives will define what is needed to be achieved within the next generation to create a good environment in Kristianstad.

These two approaches (the focus on food production and the role of agriculture in helping to preserve the region's biological values) are conflated in the various projects that can be undertaken within the proposed biosphere reserve to promote development at the same time as biodiversity is conserved.

<http://www.vattenriket.kristianstad.se/>

Realisation of Kristianstads Vattenrike biosphere reserve shows the new way of solving environmental protection tasks. At the same time due to unique character of it includes almost all types of habitats occurring in the Programme starting from the coast with dunes, through lakes until forests. Realization of this reserve is evidencing how it is possible to implement sustainable development principles.

## **7.2 An outline of the reasons for selecting the alternatives and a description of how the assessment was undertaken including any difficulties encountered in compiling the required information**

Non-investment character of the Programme and its aims towards “soft” actions – building networks, innovation, exchange of experience, creation of common strategies, methodology is finally leading to activities preparing pilot projects, including small investment projects in the field of innovation in water and waste water management, alternative renewable energy sources or tourism infrastructure. Regarding the above, the necessity was stressed in the SEA of working out EIA for both the transport development strategy in the area of South Baltic – (together with public consultation at an early stage of strategy formulation) and for individual pilot projects resulting from actions connected with two priorities of the Programme. The planned soft projects concerning organization innovations, exchange of experience, transfer of know-how, common actions, activities and promotion campaigns will contribute to environmental aspects of South Baltic area development.

### **Environmental impact in case of the lack of the Programme**

Regarding the Programme character the lack of the Programme can constitute its alternative (“zero” alternative). In such case dispersion of activities will occur in areas which would be covered by the Programme, therefore realization of local strategies and actions will take place, which may cause potential conflicts (mainly in the field of transport solutions and water/waste water infrastructure).

Additionally lack of the Programme will make co-ordination more difficult and will limit possibilities of exchange of experience (of public administration, research and scientific sector and NGOs) and therefore it will break development of innovation also in environmental field – solutions improving quality of environmental protection and management.

## **8. A description of the measures envisaged concerning monitoring**

System of monitoring environmental effects of the Programme implementation should be an element of the monitoring system of the Programme as a whole. According to the programme document the Monitoring and Steering Committee (MSC) will be set up within three from the date of the notification to the Member State of the Commission decision approving the operational programme.

The MSC will draw up its rules of procedure within the institutional, legal and financial framework of the Member States concerned, which shall be adopted in agreement with the managing authority.

The Monitoring and Steering Committee shall satisfy itself as to the effectiveness and quality of the implementation of the operational programme, in accordance with the following provisions:

- it shall consider and approve the criteria for selecting the operations financed within six months of the approval of the operational programme and approve any revision of those criteria in accordance with programming needs;
- it shall periodically review progress made towards achieving the specific targets of the operational programme on the basis of documents submitted by the managing authority;
- it shall examine the results of implementation, particularly the achievement of the targets set for each priority axis and the evaluations;
- it shall consider and approve the annual and final reports on implementation;
- it shall be informed on the annual control report and of any relevant comments the Commission may make after examining that report;
- it may propose to the managing authority any revision or examination of the operational programme likely to make possible the attainment of the Fund's objectives referred to in Article 3 or to improve its management, including its financial management;
- it shall consider and approve any proposal to amend the content of the Commission decision on the contribution from the Funds.

System of general monitoring of the Programme will be described in details in the Programme Manual. The system is composed of output and result indicators.

Output indicators measure the number of various project deliverables, size of audience at various project events (especially those open for public) or specific spectrum of participants (e.g. politicians, private sector representatives etc.). The programme will recommend some very common output indicators to the projects but it will be up to the projects to choose the most appropriate ones for their specific co-operation topic and to quantify them (set the targets). The table below presents quantification of indicators for both universal and priority specific results.

In the table below three rows have been distinguished as these which concern also environmental effects.

**Table 20 Result indicators for monitoring Programme implementation**

		Results	Result indicators	Baseline 2007	Programme targets 2013
<b>PRIORITY 1: Economic Competitiveness</b>	<b>UNIVERSAL RESULTS</b>	Higher political appreciation of the cross-border co-operation	Number of projects with politically welcomed and promoted results	0	At least 15 (40%)
		Increased stability of cross-border networks	Number of projects creating cross-border networks based on formal agreements	0	At least 7 (20%)
		Unlocked public and private investments	Number of projects unlocking public and private investments	0	At least 7 (20%)
	<b>SPECIFIC RESULTS</b>	Intensified cross-border relations between small and medium size enterprises in the South Baltic area	Number of projects contributing to intensified cross-border relations between small and medium size enterprises in the South Baltic area	0	At least 7 (50%)
		Strengthened liaisons between higher education and labour market institutions of the South Baltic regions	Number of projects strengthening liaisons between higher education and labour market institutions of the South Baltic regions	0	At least 10 (75%)
		Improved quality and interoperability of transport connections and services in the South Baltic area	Number of projects contributing to improved quality and interoperability of transport connections and services in the South Baltic area	0	At least 5 (60%)
<b>PRIORITY 2: Attractiveness and Common Identity</b>	<b>UNIVERSAL RESULTS</b>	Higher political appreciation of the cross-border co-operation	Number of projects with politically welcomed and promoted results	0	At least 30 (40%)
		Increased stability of cross-border networks	Number of projects creating cross-border networks based on formal agreements	0	At least 15 (20%)
		Unlocked public and private investments	Number of projects unlocking public and private investments	0	At least 7 (10%)
	<b>SPECIFIC RESULTS</b>	Improved institutional capacity in the management of the Baltic Sea environment	Number of projects improving institutional capacity in the management of the Baltic Sea environment	0	At least 10 (65%)
		Increased commitment to renewable energy sources and energy saving patterns	Number of projects increasing commitment to renewable energy sources and energy saving patterns	0	At least 4 (60%)
		More efficient use of natural and cultural heritage of the South Baltic area for regional development	Number of projects demonstrating more efficient use of natural and cultural heritage of the South Baltic area for regional development	0	At least 10 (65%)
		Intensified intercultural dialogue and better involvement of broader public in cross-border activities	Number of projects intensifying intercultural dialogue and better involving broader public in cross-border activities	0	At least 20 (50%)

The proposed additional range of monitoring concerning the environmental requirements are connected directly with types of actions specified in the assessment table. In particular monitoring will have to answer whether the measures recommended in the SEA were undertaken, in case of actions which are likely to cause environmental effects.

Also in the context of monitoring environmental effects of the Programme implementation the verification and checking of the EIA reports is necessary in cases of projects, for which such reports are required.

The proposed monitoring indices of environmental risk/effects of the Programme implementation have been listed in the table below.

**Table 21 Monitoring indices for environmental risk/effects of the Programme implementation**

Problem	Index
Safety	Number of ships collisions
Water quality	Number of bathing places at sea and in inland water meeting quality requirements
Water quality	Number of controlled bathing places
	Length of water courses in division into water quality classes
Climate changes	Renewable energy in energetic balance of the region
Protection of biodiversity	Changes of the surface area of protected natural areas according to the type
	Number of tourists versus the surface area of protected areas

## 9. SEA summing up

The potential environmental impact of the proposed South Baltic Cross-border Co-operation Programme is relatively low in the context of the current environmental situation in the South Baltic Sea area. For example development of passenger sea transport for tourism or transportation purposes will not have an essential impact on the sea environment. Particularly if one of the purposes of actions is to increase sustainability or creation of multimodal transport services which is ex definition a pro-ecological solution.

The proposed Programme is generally aiming at solving the environmental issues including curbing the wastewater discharges and strengthening the safety of the maritime transport. Furthermore it aims at using the existing natural resources in sustainable manner. Two functions of the South Baltic are strengthened in the Programme for which this area is naturally inclined: tourism and renewable energy. Tourism coupled with renewable energy will favour in the future existing spatial structure, with agriculture and forest as the spatial dominants. But these activities should be oriented towards less intensive processes with lower impact on the Baltic inland and sea environment. Potential projects and solutions should be carefully planned as not to lead to conflict situations (wind mills – landscape values, birds migration). Tourism can be easily controlled in the scope of basic environmental impacts including direct discharges to the sea.

Other activities aiming at improving the organization of some sectors like for instance transport should be viewed also as those of potentially positive impact.

Most of the potential negative impacts can occur in local scale through insufficient planning process or lack of mitigating measures. One of the most imminent potential impacts is the potential to worsen the bathing water quality. Thus, for some of the priorities cautionary principles should be applied, strengthening the further steps of the planning process in the areas of concern.

There should be underlined the role of local communities in preparation of the programs and plans. Strengthening the understanding of the Baltic Sea environment among business and administration would also secure that most the priorities defined in the co-operation program will be fulfilled in a sustainable manner.

A number of actions in the programme are aiming at increasing level of knowledge concerning realisation of sustainable development requirements. It is particularly essential in areas where many cases can be found of junction between areas and objects of most valuable natural and scenic features and at the same time local communities which base their future on tourism, which means use of this beneficial location for economic purposes. There are already examples of solving this potential conflict and the Programme can serve for building more of such good examples. This type of actions of the Programme should also be considered as these with positive environmental potential impact.

There are two detailed comments addressed to the basic document of the Programme:

1. As far as the programming and project selection stage is concerned it is important to introduce: “The supported projects will have to demonstrate institutional, financial and *environmental* sustainability after the support ends.
2. All interventions are expected to contribute to the sustainable economic and social development of the Programme area and have a clear cross-border dimension and

impact. It should be added, that the interventions will also contribute to sustainable environmental development of the Programme area. It should be stressed that realization of the Programme in the South Baltic area, where existing of unique natural values evidences how sensitive this area is, sustainability criteria should always be meant as including environmental apart from social and financial ones.

## **Recommendations resulting from the SEA**

Basing on the strategic environmental assessment it is proposed to extract in the framework of the priorities the planned actions of “soft” character and small investment projects. In each case the necessity of environmental impact assessment will result from the project scale, its character and potential, over-local impact.

### **Priority 1: Economic competitiveness**

#### Entrepreneurial development

- All the actions connected with creation of networks and co-operation and exchange platforms between SME sector and research and scientific institutions and non-governmental organizations will be actions of soft character.
- Special attention should be paid to actions connected with testing and implementation of international research achievements in business circles – it concerns some solutions (e.g. introduction of GMO into agriculture production) – this kind of actions will need special public consultation.
- Technological parks and entrepreneurial incubators will constitute actions of small investments character, in this case local environmental impact may take place.

#### Integration of higher education and labour markets

- Actions connected with the objective realization are of „soft” character – these are actions in the field of education and long-term training, creation of co-operation between institutions aiming at first of all social dimension, in long-term, regional and over-regional perspective they may contribute to increasing social ecological awareness.
- Special attention should be paid to actions connected with increase of labour force mobility and to counteract negative processes on the cross-border labour market – it will need coherence with sustainable solutions in the field of communication.

#### Transport accessibility

- Over-local actions connected with strategic planning will require strategic environmental assessment (e.g. for feasibility study of the transport development strategy in the South Baltic area) as well as public consultation will be required at an early stage of the strategy preparation.
- Special attention should be paid to common actions of infrastructure and cargo owners and transport operators connected with improvement and building of new transport connections. Investment projects can be the result of these actions and traffic intensification connected with them in some places (e.g. in multi-modal transport centres).

## **Priority 2: Attractiveness and common identity**

### Management of the Baltic Sea environment

- Formulation of common strategies and methods belongs to soft actions, it will contribute to improvement of planning and management of Coastal Zones and Marine Area, which in consequence will bring positive environmental effects. Actions of planning character will ensure spatial coherence and bring positive effects in each of examined dimensions.
- Coordination of actions in the field of environmental risk reduction and preparation and implementation of small pilot projects will require separate EIAs in local scale.

### Energy saving and renewable energy

- Actions connected with promotion of achievements of the South Baltic areas in the field of energy saving and renewable energy are of soft character.
- Preparation and implementation of common plans of actions in the field of renewable energy sources and energy saving and preparation of small pilot investments in the field of renewable energy will need to have environmental impact assessment and to undergo public consultation.

### Sustainable use of natural and cultural heritage for regional development

- Actions aiming at strengthening of knowledge and potential and organization of common campaigns for building cross-border networks of co-operation of authorities responsible for protection and development of natural and cultural heritage are of soft character and they will contribute to strengthening of social awareness and co-responsibility for the environment.
- Actions connected with building over-local strategies aiming at tourism development based on culture and natural resources heritage and at creation of sustainable tourism products will require strategic environmental assessment from the view-point of sustainable development (e.g. in case of mass events in over-regional scale).
- Investment projects will be connected with actions aiming at preparation and implementation of small pilot investments strengthening tourism infrastructure; short-term environmental effects may occur during realization of these projects at the construction stage; long-term ones during operation phase.

### Local community initiatives

- Common actions increasing participation of local communities and institutions, administrative structures, media and NGOs in the area development process will be of soft character. As well as conferences, training seminars and study visits aiming at exchange of good practice experience and small pilot projects of social character. The expected environmental effects of these actions are positive in further time horizon and in all spatial scales.
- Special attention should be paid to cross-border festivals and sport events, which will be organized in multi-year perspective, because of environmental reasons. They will require special mitigation measures provided by local authorities and organizers.

## 10. Non-technical Summary

### Introduction

The legal requirements for preparation of the strategic environmental assessment of the South Baltic Cross-border Co-operation Programme are derived both from the European directives and from national environmental laws of the individual countries, whose territorial units lie within the Programme Area.

European Directive 2001/42/EC (the SEA Directive) "on the assessment of the effects of certain plans and programmes on the environment", adopted on 31 May 2001 by European Parliament and on 5 June 2001 by the Council, requires a formal environmental assessment of certain plans and programmes which are likely to have significant effects on the environment. Authorities which prepare and/or adopt such a plan or programme must prepare a report on its likely significant environmental effects, consult environmental authorities and the public, and take the report and the results of the consultation into account during the preparation process before the plan or programme is adopted. They must also make information available on the plan or programme as adopted and how the environmental assessment was taken into account.

The Programme document of March 2007 was a subject of SEA. The main assessment was preceded by the analysis, to what extent the priorities, objectives and actions included in the Programme will support realization of objectives written in other strategic documents relating to environmental and sustainable development problems.

### Programme objectives and priorities

The South Baltic Cross-border Co-operation Programme is aiming at strengthening the sustainable development of the South Baltic area. It means that the Programme in particular will concentrate on promotion of joint efforts to provide favourable conditions for growth and job creation over the national borders and to safeguard good social, cultural and natural environment for the residents, tourists and investors in the South Baltic area.

To achieve these objectives the Programme set two priorities:

- 1. Economic competitiveness**, where the focus is on actions promoting integration of economic and labour markets in the area, transfer of knowledge and know-how between public and private actors and better transport connectivity  
Sub-priorities: Entrepreneurial development, Integration of higher education and labour markets, Transport accessibility.
- 2. Attractiveness and common identity**, where the focus is on actions promoting sustainable economic use of natural resources and cultural heritage, with particular attention to tourism, development of renewable energy sources and energy saving, management of environmental threats as well as local initiatives supporting people-to-people contacts.  
Sub-priorities: Management of the Baltic Sea environment, Energy saving and renewable energy, Sustainable use of natural and cultural heritage for regional development, Local community initiatives.

Sub-priorities have been developed into groups of indicative actions which indicate the scope of the Programme.

### **Procedure and method of assessment**

Strategic environmental assessment is usually dealing with documents containing information of qualitative character. The assessment may relate to the level of objectives, priorities or actions. The lower level, the more detailed analysis and assessment can be. In case of the South Baltic Programme the SEA was considering groups of indicated actions. The general question was: if and to what extent implementation of the programme will cause negative impact on:

- natural resources management and environmental efficiency,
- ecosystem, biodiversity as well as natural and cultural heritage.

Also sustainable development criteria have been taken into account in the assessment especially from the view-point of sustainable use of natural resources.

The assessment is also relating to the other documents to check the consistency of the Programme with other programmes and their objectives. In particular the question was to what extent environmental objectives written in other strategic documents will be supported or threatened by implementation of the Programme.

Strategic environmental assessment procedure was of an interactive character. It constituted a process, in which the final version of the basic document is created as a result of among others interactive work of two teams:

- Joint Programming Committee working together with the experts on the basic document and
- team of experts on assessment of this document from the view point of environmental and sustainable development criteria.

### **Coherence of the Programme with other documents**

Analysis was made of the coherence of the Programme with strategic documents at the international level – Baltic 21 Agenda, at the national level – sustainable development strategies and environmental policies of countries covered by the Programme and at the regional level – strategies and documents connected with the development of the individual regions. No discrepancies nor conflicts were identified at the level of objectives and priorities. On the contrary, the coherence was found of the Programme objectives with these documents in the field of renewable energy development and improvement of environmental safety. Besides analysis of these documents allowed to determine the importance of the individual assessment criteria.

### **State of the environment**

Baltic Sea is characterized with significant changes of the state of the environment caused by the pressure of human activities. In the analysis of the South Baltic Sea the following problems were taken into consideration which are potentially connected with implementation of the assessed Programme:

- Industry and transport pressure in urban areas,
- Pollution caused by fertilizing in coastal zones,

- Direct discharge of waste water in coastal zones,
- Priority pollution, dangerous substances (generated during marine transport, in ports and by the industry), removal of chemical substances from post-military areas,
- Eutrophication (caused by high loads of nitrogen and phosphorus),
- Change of ecosystems,
- Bathing water quality.

It has been found that the state of the environment in the Programme area is in most cases satisfactory due to advantageous changes taking place in the environment, resulting from actions undertaken in the framework of realization of ecological policy. However important problems are still connected with eutrophication and with growing transport activities.

### **Results of the SEA**

The analysis has shown, that implementation of activities resulting from realization of the Programme may in some cases cause negative environmental impact. Such disadvantageous impacts may occur in short-term and local scale – both in the aspect of impact on environmental resources and/or environmental capacity and in the aspect of impact on ecosystem, biodiversity and natural and cultural heritage. However much more significant is occurrence of positive effects of long-term and regional character. This advantageous impact is connected both with environmental resources and/or environmental capacity and with the impact on ecosystem, biodiversity and natural and cultural heritage.

Since the negative effects may occur, the appropriate system of qualification of projects within the Programme should be implemented in order to minimize these effects to a lowest possible degree.

### **Monitoring**

The proposed range of monitoring concerning the environmental requirements is directly connected with types of actions specified in the assessment table. In particular monitoring will have to answer whether the measures recommended in the SEA for individual actions were undertaken, in case of these which are likely to cause environmental effects.

### **Conclusions and recommendations**

The southern part of the Baltic Sea with the coastal regions of countries surrounding the sea is presenting a unique picturesque and valuable from nature view-point area. According to the primary objective of strengthening the sustainable development of the South Baltic area the Programme may offer solutions which would give a possibility to create such forms of nature protection, which would ensure maintaining of natural and cultural heritage but on the other side would not confine development of local communities. In other words, the problem consists in completing the existing protected areas with areas of such forms of protection, which would be coherent with sustainable development idea. In the countries participating in the Programme there are already such activities undertaken. Creation of areas incorporated in the Nature 2000 network is one of the possible ways for realisation of such an approach.

It should support solving problems which are very common at the point of junction between nature protection and local communities development tendencies. On the one side the traditional protective activities aim at limitation of anthropo-pressure upon protected objects,

on the other the local community endeavours after gaining most benefits from having such type of objects.

It should be stressed, that strengthening and stimulation of development towards innovation, use of knowledge and development of information society in the framework of the Programme implementation will indirectly affect positively the environment to a considerable extent. Thus, in the light of environmental criteria, these types of actions are particularly important and should be treated as priorities in the Programme.

## 11. References

- Agenda 21 dla regionu Morza Bałtyckiego – “Bałtyk 21” Seria Bałtyk 21 Nr 1/98: Przyjęta na 7. Sesji Ministerialnej Rady Państw Morza Bałtyckiego w Nyborgu, 22-23 czerwca 1998 roku
- Danish Government, 2001, A shared future - balanced development Denmark's national strategy for sustainable development 2001
- European Environment Agency, Directorate-General Joint Research Center, 2006, Urban Sprawl in Europe - The ignore challenge, EEA report, No 10/2006
- European Commission, 2007 Atlas Bathing water quality, electronic information <http://ec.europa.eu/water/cgi-bin/bw.pl>, 25.03.2007
- German Council for Sustainable development, 2002 Perspectives for Germany Our Strategy for Sustainable Development,
- Government Communication 2001/02:172 Sweden's National Strategy for Sustainable Development 2002, Ministry of the Environment, Stockholm, Sweden
- Government of the Republic of Lithuania, Resolution No1160 on the Approval and Implementation of the National Strategy for Sustainable Development September 11, 2003, Vilnius.
- HELCOM, 2006, Maritime Transport in the Baltic Sea, Draft HELCOM Thematic assessment in 2006, HELCOM Stakeholder Conference on the Baltic Sea Action Plan, Helsinki, Finland, 7 March 2006
- Helsinki Commission,. 2004 The Fourth Baltic Sea Pollution Load Compilation (PLC-4) Baltic Sea Environment Proceedings Mo 93, 2004 Baltic Marine Environment Protection Commission, Erweko Painotucte Oy, Finland
- Huhta H-K., Rytikomem J., Sassi J., 2007, Estimated nutrient load from waste waters originating from ships in the Baltic Sea region, VTT Technical Research Centre of Finland, JULKAISIJA-UTGIVARE-PUBLISHER
- Polityka Ekologiczna Państwa Na Lata 2007-2010 Z Uwzględnieniem Perspektywy Na Lata 2011-2014 Warszawa, grudzień 2006 Ministerstwo Środowiska
- Sieć na rzecz Ekologizacji Programów Rozwoju Regionalnego 2006 Podręcznik do Strategicznych Ocen Oddziaływania na Środowisko *dla polityki spójności na lata 2007-2013*, Ministerstwo Środowiska, (tłum)
- The Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (the 1992 Helsinki Convention)