Integrated Coastal Zone Management in the Baltic States

State of the Art Report

Background for Coastal Planning and Management in the Baltic Sea Region, as part of the second HELCOM-HABITAT meeting

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Coastal information on these, and other countries, can be found on www.eucc.nl and www.coastalguide.org.

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SUMMARY

The current, individual, national State-of-the-Art reports have been compiled as a result of successive decisions of the HEMCOM Group on Nature Conservation and Coastal Management (HELCOM - Habitat). They contain the latest information about important aspects of ICZM and have been peer reviewed by eight of the nine countries. It is the intention to use the document as a basis to produce a Common Approach for ICZM in the region.

Each country file has been written in a standardised way to enable the information to be compared and contrasted. Each report describes the national coastline and explains the formal definition of the coast and any setback lines policy. This is followed by chapters on coastal management & spatial planning in the coastal zone, and coastal & marine environmental and nature conservation policy. For each of these three chapters, the involved authority, the policy developed and the legislation in use is delineated. Tourism & recreation and coastal defence are discussed within the framework of economic developments, important sectors and trends. At this point, the current state of ICZM is considered in relation to the legal framework and completed, ongoing & related ICZM projects. A short, independent evaluation by the PROCOAST group is then added. Finally, NGOs involved in ICZM are listed as are the reference sources for the compilation of the document.

From these nine reports, it may be concluded that, although no State - as is the case in the rest of Europe - has specific legislation relating to ICZM, existing instruments can be used to accommodate the implementation of ICZM within an individual country's national borders and, therefore, within the Baltic region as a whole. The main challenge for HELCOM will be to take the implementation of these individual ICZM projects in each of the member States to a systematic approach at an international level.

INTRODUCTION

The First Meeting of the Nature Conservation and Coastal Management Group (HELCOM - Habitat), held in Tisvildeleje, Denmark between 22-26 May, 2000, decided to compile and analyse existing information on ICZM in the Baltic Sea region. This was to be done in the context of the need for HELCOM to consider its role in ICZM and to use the data as a basis for discussing the way forward on the issue. The government of Estonia agreed to take the leading role and EUCC - The Coastal Union accepted the invitation to produce a State-of-the-Art Report for the nine riparian states.

A draft document was presented to the second meeting of HELCOM - Habitat for consideration. During this meeting, held in Sigulda, Latvia during 21-25 May, it was further decided that the Contracting Parties should review and revise the report as necessary.

A further draft was prepared following input from six of the member states and presented to the third meeting of HELCOM - Habitat held in Gdynia, January 29-February 1, 2002. Two of the member states which had been unable to review the document wished to have time to do so and all countries were given a further opportunity to review and comment the second draft. It was decided that the document should be completed in time for an ICZM workshop in September in Stockholm. The meeting also decided that the document should be used to develop a 'Common Approach' for the implementation of ICZM in the Baltic Region.

The current document represents the final text after revisions by eight member states. The only country that has been unable to comment upon their report has been Russia.

DENMARK

1. The coastal zone

1.1 Description of the coastal zone

Denmark has a coastline of ca. 7,300 km. The Danish landscapes were mainly shaped by the Würm glaciation which ended ca. 11 000 years ago. Coastlines are therefore generally formed in sandy glacial plains or moraine cliffs. In a few locations bordering on the Baltic Sea tertiary chalk formations protrude the glacial landscape whereby impressive headlands are formed, between which gently curved sandy beaches are found. Only the rocky island of Bornholm in the Baltic Sea is of even older origin. While the course of the coastline is in general determined by the surface forms of the glacial or pre-glacial deposits, the coasts have been, and are, continuously changed by marine erosion and deposition and, in the long term, by changes in sea level. In some places they are bordered by marine foreland, for example, on the Southwest coast of Jutland. Flat shores are the most common types of shore profile in Denmark. Although coastal dunes are very common in Denmark, they cover less than 700 km² or 1.6% of the total land area.

Most of the coastal dunes are found on the West Coast of Jutland where they form a belt up to 10 km wide from Skallingen in the south to Skagen in the north. The North Sea coast of Denmark (The West Coast) is sandy and particularly vulnerable to erosion. Mean erosion rates reach values up to 2 m/year and littoral drift is in the order of 100,000 - 1,000,000 m^3/yr. The Kattegat and Baltic Sea Coast are moderately exposed. Mean erosion rates are 0.3 - 0.5 m/year and the littoral drift is up to 75,000 m^3/yr. Belt and fjord coasts are even less exposed. Mean erosion rates are less than 0.25 m/year, the littoral drift is less than 10,000 m^3/year. One third of the coastline is built up areas or planned for new development and half the coastline is visually affected by development structures.

1.2 Definition of the coastal zone

Denmark has not adopted a formal definition of the coastal zone. In summer cottage areas, the protection zone is set at 100 metres but may be reduced and is increased to 300 metres in rural areas as defined by the Nature Protection Act (1992). There is a coastal planning zone extending 3 km inland from the low water line and defined in The Planning Act. This planning zone should not be interpreted as a no-build or no-development zone but as a zone where development has to be planned carefully in harmony with nature and landscape and where there has to be a functional necessity to locate new constructions. However, within this zone the beaches which extend to where vegetation is continuous are strictly protected and public access to them is ensured and all coastal dunes are also protected. Urban areas are not included in this planning zone, but the Planning Act gives special guidelines for development in urban coastal areas. A commission was set up in 1994 to establish a permanent borderline along all coasts for this strictly nature protected coastal zone and for the coastal dunes. This work is expected to be completed in 2002.

In relation to regional plans this zone can be divided into:

- rural areas (the open undeveloped/untouched coastal zones),
- summer cottage areas,
- urban areas where the 3000 m planning zone does not apply but where the local authorities e.g. the municipality has to take special considerations into account before planning for new construction or urbanization of new rural/nature areas.

It is the responsibility of the counties (regional authorities) to set up regional guidelines for the development in the coastal zone including indication of areas where it is forbidden to build.

At sea, no strict nature protection limits have been set down. Conservation measures can, however, be taken throughout the national fishing zone, which includes the Danish Exclusive Economical Zone (EEZ) and territorial waters, as independent projects or in connection with projects on land. In 1983, the Danish Environmental Protection Agency (EPA) of the Ministry of Environment defined, in a guideline for near-shore marine environmental management aimed at the counties (*Guidance Document on Water Quality Planning, Ministry of Environment, 1983)*, a coastal zone including bays and fjords and other marine waters extending to a depth of 6 m or at least to 1 nm from the shore-line. With respect to marine fisheries, a coastal zone extending 3 nm from the low-water line is defined in the Sea Fisheries Act (*Ministerial order no. 803, 11 November 1998, Ministry of Food, Agriculture and Fisheries*).

1.3 Setback lines policy

In 2001, a permanent beach protection line has been set down in the municipality of Copenhagen and 8 of the 14 Danish counties. The counties and the Ministry of Environment have the authority to give exemptions from some of the restrictions connected to the beach protection line.

Seawards, restrictions have been put on dredging and dumping activities within a coastal zone, including bays and fjords, and other marine waters extending to a depth of 6 m or to, at least, 1 nm from the shore-line. Restrictions have also been put on fishing with trawls and seines inside the 3 nm coastal zone and the use of gill nets is prohibited within 100 m from shore.

2. Coastal Management and Spatial Planning in the Coastal Zone

2.1 Authority

On a national level, the Ministry of Environment is responsible for integrated management and sustainable development in coastal and marine areas, including the EEZ. The Danish EPA, together with the Ministry of Defence, are responsible for protecting the Danish coast against oil and chemical pollution. The Ministry of Environment and the Ministry of Trade and Industry are co-operating to develop a sustainable tourism. In accordance with national legislation, the general public is involved in the planning process and The Danish Society for the Conservation of Nature (an NGO) has a statutory right to complain under the majority of Acts concerning nature and the environment.

The Danish Coastal Authority ("Kystdirektoratet), a technical institution under the Ministry of Transport, was established in 1973. Tasks of the Danish Coastal Authority include:

- monitoring coastline changes
- coastal protection
- storm tides warning
- supervising public bodies and individuals on compliance to coastal defence laws
- advice to the Minister of Transport.

The Danish Coastal Authority co-operates with the Ministry of Environment on several areas and is a member of various commissions; e.g. to assess the payments for damage by storm tides. Another task is to approve regional and private plans for coastal protection works.

On a regional level, the Coast Protection Act (*Act no. 243, 5 April 1994, Ministry of Transport*) empowers the counties (regional authorities) to protect the coastal areas against flooding and erosion. It also provides improved co-ordination of coastal protection and development schemes within a coastal environment perspective. In case the counties lack expertise, they can involve the Danish Coastal Authority at an early stage for assistance in further examination of a project. The integrated process, called coastal erosion management, leads to local plans with a few prerequisites:

- coherence with the planning system
- set back and no build regulations
- the Coast Protection Act 1988.

If appraisal by the Danish Coastal Authority is positive the regional authority may proceed with project preparation. The final regulatory procedures still require permission from the Minister of Transport to establish coastal protection works and other technical changes on beaches and other non vegetated coasts and in a zone within 100m from where coherent vegetation starts. The Analysis and Design Department of the Danish Coastal Authority can also define projects depending on the outcome of the analysis of monitoring data.

The counties are responsible for the setting up of regional guidelines for development in the coastal zone, including indications of in which areas development and construction can take place. They are also responsible for environmental quality to a depth of 6m or at least 1 nm from the shoreline.

2.2 Policy

The main incentive for coastal management policy in Denmark has been the control of coastal erosion, the need for a balanced utilisation of resources in the coastal zone and the wish to enhance the environmental quality of the coastal zone. In addition to this, rights of way, general setback lines, and governmental sovereignty over the sea territory are pillars in Danish coastal policy. During the past four decades the development in the Danish coastal zone has been characterised by a number of rational, technical and economic conditions. The localisation of industries and supply establishments has been necessitated by the need for sea transport or the disposal of waste or cooling water. Also the coast has been the site for land fill or land reclamation, especially along shallow water coasts, by which new cheap land for agricultural and industrial localisation has been created. The increased mobility of the population over the last 50 years has led to a spread of the towns and the holiday areas, especially in the coastal areas.

Coastal zone management in Denmark is mostly being established through gradual harmonisation and co-operation of the administrative and legislative framework, through the physical planning system and through environmental legislation. Coastal zone management objectives are incorporated into the planning system, and regional plans can provide guidelines for the rational use of coastal areas of a region, including planning of recreational activities and facilities. Involving the general public and a variety of NGOs and other organisations in the planning process underlines the integrated approach.

Although integration is generally good, both between sectors and administrative levels, there are still some conflicts of interest and contradictions between legislation, particularly concerning the marine area. There is no legal basis for integrating planning across the intertidal shore – except for specific nature conservation purposes as stated in the §51 in the Nature Protection Act. Management of the marine area is the responsibility of the State and is subject to sectoral legislation.

2.3 Legislation

Since 1874 Denmark has had a Dike Protection Law and a Coast Protection Law, defining the owners' responsibility for the physical coastal activities and their consequences. In 1988 the Danish Parliament passed a new law for Coastal Protection, opening up for improved co-ordination of coastal protection with other coastal activities and for the integration of environmental issues in a Coastal Erosion Management process.

As early as 1917 the Nature Conservation Act formalised the right of public access to all Danish beaches. Considerable effort is devoted to securing general public access from the hinterland to the beaches. This Act prohibits the erection of new buildings or other constructions as well as fencing and placing of camping and similar facilities within the beach protection zone. In summerhouse areas, the protection zone is set at 100 m, but may be reduced. In rural areas it is set at 300 m. Constructions for military purposes and harbours are exempted. Existing farming is also allowed to continue. All natural coastal habitats are protected, including the Wadden Sea and dunes. Restrictions have been put on trawling activities within bays, fjords, and narrow straits and otherwise within 1 nm from shore, and gill net fishing and trolling is prohibited within 100 m from shore. Hunting at sea is prohibited within 100m from summerhouse areas and within 500m from urban areas.

In 1994, the Planning Act adopted measures ensuring that special planning and function justifications are required for permitting building projects and the designation of new areas for development in the coastal zone. If such justifications exist, the main rule is to locate behind already existing settlements. The designation of new areas for summerhouses is not allowed. The coastal planning zone does not comprise the urban areas and the planning system does not function beyond the coastline. However, The Planning Act includes regulations for building in coastal urban areas. The main emphasis is placed on a quality-based incorporation of new building in the city, viewed in relation to the surrounding coastal landscape. Through the Danish environmental legislation the open coasts are preserved as an important landscape resource while in the areas where the population is actually living, planning requirements are only imposed when absolutely necessary. Furthermore, the importance of tourism at the national level, vacation centres and hotels with floor space above 50.000m² are subject to mandatory Environmental Impact Assessment (EIA).

According to the Raw Materials Act *(Act no. 569, 30 June 1997, Ministry of Environment and Energy)* extraction of materials (sand, gravel and stones) from the seabed is only permitted in designated areas where permits can be given if the extraction can take place without conflict with essential nature values. In EU-Natura 2000 areas and shallow areas with a water depth less than 6 m, permits cannot be given except in special cases involving certain rare and valuable materials. Besides this, other conservation orders were issued for certain areas.

3. Coastal and Marine Environmental Policy

3.1 Authority

The highest environmental authority is the Ministry of Environment and Energy operating on the basis of legislation concerning environmental and nature protection specifically and involving, *i.a*. legislation on raw materials and hunting.

The environmental protection system has been developed in the last 20 – 30 years, regulating pollution from industry and agriculture by environmental permits and supervision. The regional authorities are responsible for the permits and supervision of large industries while municipal authorities are responsible for smaller companies and large farms. On the marine side of the mean water level, Denmark's first Environmental Protection Act from 1974

imposed the county councils to elaborate and implement water quality plans, based on the concept of "environmental quality objectives". An integrated part of this planning process was – apart from monitoring and assessing the water quality – to survey all the interests bound up with each water area within the jurisdiction of the county council. Based on the results of these surveys, recipient water standards were decided by the county council and as a consequence a set of limit values for all discharges to the water area in question were decided. Following the Environmental Protection Act, all bays and fjords and other coastal areas out to a depth of 6 m or at least within 1 NM from the shore – at least in principle – are to be considered part of the counties regarding environmental protection. In broad terms the county councils bear the responsibility for the quality of (ground water and) surface waters.

3.2 Policy

The aim of the Environmental Protection Act is to prevent and control pollution of air, water, land in order that social development will be on a sustainable basis and in respect for both human living conditions and the conservation of plant and animal life.

The purpose of the Protection of Nature Act is to contribute to safeguarding nature and environment in Denmark thus ensuring sustainable social development in respect of human conditions of life and for the protection of flora and fauna.

The objectives of the act are, in particular:

- to protect nature, with its stocks of wild animals and plants and their habitats, as well as its scenic, historical, natural science and educational values,;
- to improve, restore or create areas of significance for wild animals and plants and for landscape and historical interests,; and
- to provide public access to nature and to improve the opportunities for open-air recreation.

3.3 Legislation

The exploitation of natural resources, the use of the seabed for construction e.g. harbours, wind mill farms, transmission systems for communication and energy, shipping routes for high speed ferries and coastal protection are regulated according to a number of different laws.

The Raw Materials Act in force is from 1997. Exploitation of raw materials from the seabed is not allowed in International Nature Conservation Areas and in areas with a water depth of less than 6 m. Extraction of raw materials always requires a permission based on an environmental impact assessment. Application for a permit to extract larger amounts of raw materials shall be accompanied by an environmental impact assessment (EIA) in accordance with the EU-directive on Environmental Impact Assessments dawn up by the applicant. Landward the county council administers the regulations.

There is an increasing pressure especially in the Inner Danish Waters between nature protection interests and a number of commercial interests e.g. fisheries, raw material extraction, wind mill farms, transmission systems etc. and initiatives are taken to establish spatial management systems for the utilization of the sea. At this moment, four large windmill parks at sea are being planned in Denmark, three of which are in the Baltic marine area.

4. Coastal and Marine Nature Conservation Policy

The Nature Conservation Act of 1917 and now the Nature Protection Act of 1992 formalises the right of public access to all Danish beaches (from the low water line to where land vegetation is continuous. The revision of this act of 1937 restricted building activities on the beach and the adjacent 100 m of the hinterland. In 1994 this limit was provisionally extended to 300 m outside summer house areas, disallowing any changes except for certain activities relating to agriculture, forestry and fisheries within this 100-300 m zone. A commission was then to establish a permanent borderline for this strictly nature protected coastal zone and for the coastal dunes along all coasts. A directive issued by the Minister of Environment in 1978 provided a halt to the outlay of new vacation housing and hotel areas in a 3 km wide coastal zone thus functioning as an important setback line. These coastal planning rules were incorporated into the Planning Act in 1994, restricting planning for new activities within the 3 km wide coastal planning zone.

Through The Coast Protection Act there is a wide integration between the involved authorities and the landowners. The law empowers regional authorities, i.e. the county, to take their own initiatives or to respond to requests brought forward from local citizens or authorities. This ensures that co-ordination with physical planning is established at the appropriate administration level at an early stage of the project. At the same time the local municipalities and landowners are involved.

One group is not involved – the general public. To a certain extent the public is involved through its representatives in the political organs but, except for the landowners benefiting from the project, no citizen is asked during the process. This may seen a little old fashioned compared to e.g. The Nature Protection Act 1994-amendment where all decisions have to be made public or the sectored planning which have pre-proposal periods. Up till now the procedure stated in the Coastal Protection Act secures both public involvement (to a certain extent) and authority involvement in the process of coastal protection (prioritisation and planning) and no immediate need for further integration seems obvious. The problems caused by migrating dunes, which were already serious in the 16th century, and continuing to modern times, led to the adoption of a Dune Preservation Law.

Major parts of the 384 km of the Jutland West Coast are under the jurisdiction of the Dune Preservation Law. Legislation, therefore, has functioned as an early setback line (see also below) and has prevented undesirable development in this century. Considerable public funds are allocated for the acquisition of areas which can form green wedges through the coastal zones. In the period 1981-1991 large national and international nature conservation areas have been established covering ca.10% of the coastline. Denmark, together with Germany and the Netherlands, is a member of the Trilateral Co-operation on the protection of the Wadden Sea and has designated (in 1982, with further amendments) the whole of its part of the Wadden Sea (Vadehavet) as a nature and wildlife reserve. At the same time the local municipalities, landowners and Danish Coastal Administration (DCA) are involved.

5. Economic developments, important sectors and trends

5.1 Tourism and recreation

The main environmental problems connected with tourism in Denmark are quite small, although problems do exist, namely: large areas are taken for construction and used very extensively but nevertheless demands infrastructure, roads, sewers, power and water supply etc, with a low utilization. Many of the tourist accommodations and attractions are situated so that they can almost only be reached by car. This means that tourism contributes more than the average to the general problems caused by private transportation. The Danish nature and especially the beaches are generally speaking robust and able to absorb the numerous visitors. In some tourist areas however, especially on the North Sea coast, the pressure is so

strong that the limit has already been reached. In some of these areas, further development of tourism will cause damage to the environment.

5.2 Coastal defence

The Coast Protection Act empowers regional authorities to protect against flooding and erosion. In the case that the regional authority does not have enough expertise, the Act makes it possible to involve at an early stage the Danish Coastal Administration (DCA) for assistance in further examination of the project. The DCA also has a management task for the coastal zone. The DCA consists of four major sectors:

- monitoring,
- analysis and design,
- contracting,
- legal and regulatory activities.

6. The Current State of Integrated Coastal Zone Management

6.1 Legal framework

Denmark has not formally adopted a clearly defined and coherent ICZM system but ICZM - principles have been brought into practice through the system of laws and regulations, inter-sectoral co-ordination and planning and the high degree of public participation which has been developed over several years.

6.2 Completed projects

- *Coastlink Storstrøm project*

Storstrøm County is part of the Southern Danish Archipelago. It is a largely rural area with small towns and villages in a countryside of farmland and small forests where tourism, next to fishing and agriculture, is the prime source of income. However, over the last few years employment in the local fishing, agriculture, industry and shipping were seriously declining. Tourism was seen to become the main key to the region's future prosperity. The Coastlink project was set up with two questions in mind: 1) how can tourism be increased in sufficient quantity without the very attractions that make the archipelago unique being adversely affected? 2) How can the demands of tourists be reconciled with the, often different, demands of local residents?

6.3 Ongoing projects

- *Waterfront Urban Development*

Waterfront Urban Development 's objective is to find solutions for downtown and dock areas in ports and small towns situated on the waterways in their hinterlands. Especially in the eastern part of the Baltic Sea Region, the cities have been moved away from the waterfront and a new use for abandoned military sites also has to be found . The project aims to create a network for exchange of experience from the various projects to be launched in the participating cities.

- *BEST project*

This is focused on Sustainable Tourism Development from the seven larger islands' (B7) Bornholm - Denmark, Gotland - Sweden, Hiiumaa - Estonia, Saaremaa - Estonia, Rügen - Germany, Åland - Finland and Öland - Sweden. The approach is clearly cross-sectoral and related to the core of the measure “integrated management of coastal zone and island”. The

B7 islands have been co-operating since 1998 and this project is determined as a key element in their common strategy and the action programme. It is related to the Baltic 21 action programme. The project enhances knowledge and exchange of experiences between the islands, trying to create a common long lasting network for co-operation on sustainable tourism development with links to tourism organisations, NGOs and research institutions.

- *SUSWAT*

The focus of the SUSWAT project is on the water supply in relation to environmental protection and sustainability. It enhances knowledge exchange between the B7 about planning and management of the water supply. The aim is to start up demonstration of new solutions related to management and planning of sustainable water supply. There is a clear linkage to the BEST project. The project is considered as a key element in the B7 common strategy and action programme of the BEST project.

- *ARCHIBAL*

The aim of the project is to develop methods and tools for nature conservation authorities to assess, steer and participate in developing the increasing tourism in Baltic archipelagos. The project calls for more consultative and detailed methods for co-operation between authorities, local society and the tourist business. Indicators for sustainable tourism will be developed.

- *Integrated Coastal Management Project K.E.R.N. Region*

The Technology Region K.E.R.N. a network of the cities Kiel, Eckenförde, Rendsburg and Neumünster is co-operating with the Danish county Fyn in a project that has three parts:

- development cluster/networks
- development concept
- pilot-projects

In co-operation with the chamber of commerce and a number of university and consulting agency experts, the State Regional Planning Authority aims at identifying the possibilities for an integrated development of the coast, incorporating ecological as well as economic requirements.

- *PROCOAST*

The aim of PROCOAST is to bring experts on coastal zone management issues from different regions in the Baltic Sea together in order to exchange experiences on how to incorporate environmental concerns into practical management solutions for the coastal zones in the Baltic Sea region. A handbook, a state of the art report, containing a background for coastal zone planning and management in the Baltic Sea Region, is one of the results of this ‘harmonisation of uses and interests in the coastal zone‘ project. The Schleswig-Holstein State Ministry for the Rural Areas, Regional Planning, Agriculture, and Tourism is the lead partner of PROCOAST. Partners include, *inter alia,* Sweden and Denmark.

6.4 Evaluation

According to PROCOAST 2000 the overall state of the environment of the coast is "good". This, the report states, is due to the fact that many beaches are not in use or only lightly used. However, the old coastal defence legislation hampers new initiatives for further integration of ICZM. Furthermore problems with pollution are reported near harbours and larger cities. Finally there are reported eutrophication problems in the inner seas due especially to intensive agriculture.

7. NGOs and other private stakeholders

Some of the most important NGOs in the field of the spatial planning, as well as the protection of certain areas for natural and cultural purposes are:

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *The Biologists Association (Biologforbundet*)

A national association for teachers, biologists and others interested in biology, it has campaigns for more teaching on ecological and environmental issues in Danish schools.

- *The Danish Forestry Society (Dansk Skovforening)*

Aims at the conservation of the natural resources of Danish forests.

- *The Danish Society for the Conservation of Nature (Danmarks Naturfredningsforening)*

Concerned with the protection of wild flora and fauna, resource protection, protection of endangered animal and plant species, conservation of freshwater environments, forests, terrestrial environments and protected areas.

- *WWF Denmark*

Active in the field of nature conservation, it is one of the initiators of the WWF Baltic Sea Project, a co-operation between the Helsinki Commission and most of the local WWF branches in the Baltic Sea region that aims for the protection of five large coastal areas and wetlands.

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www.spatial.baltic.net for a description of all Baltic Sea Interreg projects.

ESTONIA

1. The coastal zone

1.1 Description of the coastal zone

The length of the Estonian coastline is 3,794 km of which 1,242 km are on the mainland and 2,552 km is divided among the islands. The country is bounded to the north by the Gulf of Finland, to the west by the Baltic proper and to the south-west by the Gulf of Riga. The area Väinameri between the islands of the West Estonian Archipelago forms an area of numerous narrow and shallow straights and bays. All four of these major Baltic Sea areas have characteristic physical, chemical and biological features. This varied coastline is mainly covered by stones, boulders, gravels and silts. Sandy beaches are more rare and disperse.

1.2 Definition of the coastal zone

The protected coastal strip is generally between 100 m or 200 m and building in this zone is forbidden. The width of this protected coastal strip can be modified by the local authorities with the consent of the Ministry of the Environment and some shore-bound activities can be allowed.

1.3 Setback lines policy

In Estonian law there is no definitive setback line policy.

2. Spatial planning in the Coastal Zone

2.1 Authority

On the national level, the Ministry of the Environment (Strategy and Planning Department) is responsible for overall regulation, coordination and supervision of planning as well as for the preparation of national planning guidelines. National planning covers the whole territory of the state and usually affects areas such as transport, energy, tourism policies and the location of nature protection areas. The national plan provides a binding basis for county planning. The county government is responsible for the preparation of county plans, the supervision of the planning activities of local governments and should participate in the preparation of national planning guidelines. County planning affects similar issues as national planning within the territory of the given county or a part of it and must be approved by the county government. A county plan may also be prepared for several counties or parts thereof and is the binding basis for comprehensive planning.

The municipalities prepare comprehensive and detailed plans, secure their implementation and participate in county plan production. A comprehensive plan is prepared for the territory of a rural municipality or a town. Comprehensive planning establishes more specific land use requirements and obligations and defines the primary purpose of certain areas within a local community, town, or particular property. It also determines parts of rural areas where detailed planning is mandatory.

2.2 Legislation

Spatial planning in Estonia is regulated by the Planning and Building Act (1995). A new Planning Act was prepared in 2001 and will be approved by the Parliament in 2002. This Act regards zoning and land-use planning as the most important tools for the implementation of environmental protection policy on the principle of sustainable development. The Planning Act establishes a planning system on four levels: national planning, county planning, local comprehensive planning and detailed planning.

3. Coastal and Marine Environmental Policy

3.1 Authority

At a national level, the Ministry of Environment is responsible for environmental and nature protection policy. Several departments deal with marine coastal zones. The Strategy and Planning Department is responsible for the coordination and the elaboration of environmental policy and sustainable development principles. The Nature Protection Department is responsible for elaboration and implementation of Estonia's nature protection policy and co-ordinates state nature-protection programmes. The Fisheries Department is responsible for fishing policy and activities, Environmental Impact Assessment falls under the Environmental Management and Technology Department. The Waste Department deals with waste protection management and the Water Department is responsible for water protection in investments affecting coastal zone water quality in related sectors. Responsible for enforcement are the Environmental Inspectorate for land-based problems and the Marine Inspectorate for marine problems. Since the beginning of the year 2000, the County Governments' Environmental Departments has been re-organized and now the County Environmental Departments are part of the Ministry of the Environment.

3.2 Policy

In 1997, the Estonian National Environmental Strategy (NES) was adopted. The NES determines priority goals for environmental policy and identifies short, medium and long-term objectives to be achieved by the years 2005 and 2010. One of the key targets of the Estonian Environmental Strategy is to protect surface water bodies and coastal seas. The country aims to bring main municipal and industrial waste water treatment indicators (BOD, phosphorous etc.) in line with the recommendations of HELCOM: nitrogen compounds will be removed from the waste water of over 5,000 inhabitants by the year 2010. A new detailed National Environmental Action Plan (NEAP) was approved in 2001. One of the main goals is the protection of surface water bodies and the coastal sea. In addition, the National Estonian Marine Oil Spill Contingency Plan for Combating Oil Spills from the Sea addresses issues of marine environmental protection.

3.3 Legislation

- Act on Sustainable Development (1995); this Act establishes the principles of the national strategy on sustainable development and is based on the principles established in the decisions of the United Nations Conference on Environment and Development (Rio de Janeiro, 1992).
- Water Act (1994); the Water Act regulates the use and the protection of water and relations between landowners and water users.
- Pollution Charge Act (1999); this Act provides the rates of the charge to be paid upon the release of pollutants or waste into the environment and the procedure for the calculation and payment of the charge.
- Nature Protection Act (1990); this Act sets up general objectives and principles of nature protection and the use of natural resources. It provides a basis for the elaboration of more detailed Acts and administrative regulations on nature protection.
- Act on Protected Natural Objects (1994); this Act establishes the procedure for taking natural objects (protected areas, natural monuments, protected species) into protection, determines the rules of that protection, the rights and obligations of land-owners, land users and others.
- Act on the Protection of Marine and Freshwater Coasts, Shores and Banks, which regulates the extent of coast, shore and bank areas and protection and management of their ecosystems.
- Act on Environmental Impact Assessment (2000). This act establishes the procedures for Environmental Impact Assessment

4. Coastal and Marine Nature Conservation Policy

4.1 Authority

The responsibility for management of nature protection lies with the Ministry of the Environment. Its nature conservation division deals with management of protection and inventory of protected natural objects, as well as supervision of the implementation of relevant international conventions. The zoning of a protected area into special parts, and the extent of restrictions and obligations imposed upon these parts, is to be drawn up by the government in Protection Rules.

4.2 Policy

About 20 % of the Estonian coastline is protected to a different degree: national park, nature protection area, protected landscape (nature park) and programme area. Most of the small islands have some protective designation. Changes are being made in the delineation and distinction of the nature conservation areas in Estonia. New areas are taken under protection and new regulations are being worked out for the former protected areas according to the Act on Protected Natural Objects. The policy on the maintenance of landscapes and biodiversity aimed to improve the protection of landscapes and the existing network of nature reserves in accordance with EU recommendations. Estonia will also establish a network of protected forests to ensure preservation of all natural and semi-natural forest types and associated communities. By year 2010, a network of nature reserves will be established, corresponding to EU recommendations, which will have strict zones of protection covering up to 5% of the country's area.

In March 1989, the West Estonian Archipelago Biosphere Reserve was formed under the Man and the Biosphere (MAB) programme. The tasks of the reserve include participation in regional planning and nature protection programmes. Ultimately, orientation of local people towards a self-supported, culturally and environmentally sustainable development unit is to be achieved. The Management Plan for Matsalu Wetland includes making grazing or mowing contracts with the farmers and paying compensations according to these, monitoring, research, enforcement of the environmental law and raising public awareness of wetland values. Since 2001, the state has supported farmers all over Estonia to support the management of valuable semi-natural grasslands e.g. the total area of supported management activities (grazing, mowing, restoring of semi-natural grasslands) was more 16 000 ha in 2001.

5. Economic developments, important sectors and trends

5.1 Recreation and tourism

Tourism is a very important sector for the Estonian economy. Tourism and recreation are rapidly expanding activities on the coast. Changes in landscape structure of Estonian coastal areas will mostly be connected with the balance achieved between recreational use and nature conservation. The existing legal and illegal huts and summer houses as well as yacht tourism pose an important threat.

The Ministry of Economy and the Estonian Tourist Board are responsible for decision-making for (sustainable) tourism, which is one of the main principles of the National Tourism Master Plan for 1995 - 2000. Preference should be given to small-scale and "green" tourism. At the moment, several strategic plans covering sustainable tourism development are being developed such as the National Tourism Development Plan to the year 2010. In 1996, the Estonian Ecotourism Association was established to promote ecotourism development in Estonia, activities include organising of workshops and seminars at a local level, organising annual conferences on ecotourism and promotion of ecotourism through media.

5.2 Coastal defence

Estonia has fairly strict control of forestry in the coastal zone for landscape protection and in order to fight erosion. The Forest Department of the Ministry of Environment is responsible for the development and implementation of national forest policy and counting of the forest resources.

6. The Current State of Integrated Coastal Zone Management

6.1 Completed projects

- *Tallinn Waste Water Treatment Plant*

One of the achievements of the Baltic environmental co-operation has been the Tallinn Waste Water Treatment Plant. The Finnish-Estonian renovation and extension project at the Tallinn waste water treatment plant was completed in 1998. This was an important advance in environmental protection. Waste water from Tallinn was reaching the Baltic Sea in a largely untreated condition ten years ago. The waters of the city's seaboard were fouled and unfit for bathing and its littoral algae were in poor condition. Renovation of the waste water treatment plant and partial construction of its biological unit began in 1992 as a Finnish- Estonian joint project. This project also involved major renovation work on the sewerage and pumping stations. The bathing beaches of Tallinn have no longer been off limits to swimmers in recent years. Finnish-Estonian joint research has shown that there has been a clear recovery in the flora of the littoral algae zone. Growth of bladder wrack, an indicator of a healthy marine environment, has improved. Furthermore, there has been an increase in biodiversity even in the most polluted areas of the Gulf of Tallinn.

- *Estonian grassland inventory*

25% of Estonia's semi-natural grasslands have vanished during the last 20 years mainly due to abandonment. Most of the surviving grasslands are not being managed at the moment and will also disappear in the future if nothing is done. Therefore, efforts have been made by several organisations to restore and manage coastal and floodplain grasslands. They have already prepared several protection regulations for semi-natural grassland conservation areas in Estonia, mowed and restored floodplain grasslands and completed an inventory of the semi-natural grasslands.

- *Haapsalu & Matsalu Bays Environment Project*

This project was implemented over four years as an environmental management project for the coastal area of western Estonia. It consisted of an Environmental Management Component (EMC) and a Water and Wastewater Improvement Component (WWIC).
The EMC consisted of:

- Technical and financial support through the Ministry of Environment for the implementation of selected elements of the Management Plan for Matsalu State Nature Reserve by co-ordinating and providing funding for identified investments such as access roads, observation towers, and information boards,
- Design and implementation of a programme of cost-effective activities to reduce point and non-point source pollution of Matsalu Bay from small settlements and agriculture,
- Support for planning and management of eco-tourism.

The WWIC consisted of:

- Rehabilitation and expansion of the Haapsalu water and wastewater system, including equipment and works along with engineering services, Institutional strengthening and training to assist in establishing an autonomous and financially independent water and wastewater utility in Haapsalu,

- Assistance for tariff restructuring & planning and financial operations.

- *Väinameri, a coastal plan for Estonia*

In co-operation with WWF-Sweden, Arhipelaag started the project “Väinameri, a coastal plan for Estonia” in 1998. The project had three main objectives:

- to implement the integrated coastal zone plan (ICZM) developed by HELCOM’s working group on the management of marine lagoons and wetlands for the Matsalu and Käina Bay and to apply the results to the broader coastal areas,
- to find new sustainable (environmental, economic and social) methods to manage traditional coastal resources so the valuable semi-natural areas can be maintained in the long-term,
- to initiate similar work on the island of Vormsi by starting the elaboration of ICZM.

The major aim of the project has been the creation of various networks of actors in the Väinameri area, and facilitation of the education and training in nature management. The biggest practical achievements have been the import of highland cattle to Matsalu and Hiiumaa, a successful training course for farmers and establishment of a new NGO called “Keepers of Väinameri coasts”, mainly cattle-breeding farmers.

- *Estonian Pilot Project: the island of Hiiumaa*

The task of the Pilot Project involved testing the function of the ICZM model at county and municipal planning. The establishment of the ICZM Information Centre in Kärdla town on Hiiumaa constituted a significant and important institutional achievement of the pilot project. The distance work with electronic communication (Hiiumaa being an island without a road connection with mainland Estonia) combined with the proximity to the pilot area proved to be highly efficient. Moreover, new jobs were created on Hiiumaa.

- *Water Constructed Infiltration Wetland System for Treating Municipal Wastewater in Häädemeeste*

A demonstration treatment wetland system was created for the Häädemeeste village (app. 1000 inhabitants), locating directly at the Baltic Sea (West-Estonia, Pärnu County). The pilot wetland system created treats the secondary effluent from the village. The system demonstrates a sustainable way of reducing nutrients and pathogen load to the Baltic Sea. The beach near the community has a high recreational and tourist importance and the facility that has been created will help to improve the local seawater quality and sustain the region’s attractiveness.

- *ICZM Programme for the Baltic States and Poland*

This satellite-image and GIS (Geographic Information System) based project was executed from December 1997 to the middle of 2000. The aim of this project was to give Estonia, Latvia, Lithuania and Poland the opportunity to better manage their coastal resources in an environmental and sustainable way.

6.2 Ongoing projects

- *BEST project*

This is focused on Sustainable Tourism Development from the seven larger islands' (B7) Bornholm - Denmark, Gotland - Sweden, Hiiumaa - Estonia, Saaremaa - Estonia, Rügen - Germany, Åland - Finland and Öland - Sweden. The approach is clearly cross-sectoral and related to the core of the measure “integrated management of coastal zone and island”. The B7 islands have been co-operating since 1998 and this project is determined as a key element in their common strategy and the action programme. It is related to the Baltic 21 action programme. The project enhances knowledge and exchange of experiences between the islands, trying to create a common long lasting network for co-operation on sustainable tourism development with links to tourism organisations, NGOs and research institutions.

- *SUSWAT*

The focus of the SUSWAT project is on the water supply in relation to environmental protection and sustainability. It enhances knowledge exchange between the B7 about planning and

management of the water supply. The aim is to start up demonstration of new solutions related to management and planning of sustainable water supply. There is a clear linkage to the BEST project. The project is considered as a key element in the B7 common strategy and action programme of the BEST project.

- *3+3 Local Agenda*

This project is part of a wider co-operation between three regions in Finland and three regions in Estonia. The participating Finnish counties are Itä-Uusimaa, Kymenlaakso and Päijät-Häme. The 3+3 Local Agenda project supports regional development in the Eastern Gulf of Finland and maintenance and protection of environment according to the principles of sustainable development. It provides tools for developing the local and regional level cooperation, extension of knowledge and know-how, and exchange of information and experiences between the partner regions. The aim of the project is to initiate a long-lasting practical level co-operation, to create a network that would be viable and self-sustainable after conclusion of the project. The project creates possibilities for exchanging experiences and know-how in land use planning and management, and for adjusting the regional plans into a larger geographical context. Common themes are also to be found in developing the archipelago and coastal areas.

- *The Narva Watershed Research Programme (NWRP)*

This is a network of researchers and participants in Sweden, Norway, Estonia and Russia. The NWRP is aimed at the development of a research component of the Narva River Watershed Management Plan. Lake Peipsi has a very high nutrient status and eutrophication is a potential environmental threat. The programme originated in the summer of 1998. The initiative came from a group of Estonian and Russian environmental experts involved in the Swedish-Estonian-Russian environmental monitoring project supported by the Swedish Environmental Protection Agency and Swedish experts from the Swedish Water Management Research Programme (VASTRA). VASTRA presents a network of environmental scientists in Sweden who work together to plan develop catchment-based strategies for sustainable resource use. The programme is being developed through a collective learning process which aims at introducing an integrative perspective and systems approach. VASTRA views catchment from three partly overlapping resource perspectives. The first one takes a multiple recipient perspective on nutrient fluxes from land, via freshwater systems, to the coast. The second takes a multiple use perspective on surface water resources. The third takes a multiple impact perspective on groundwater resources. An efficiently functioning network of experts from Estonia, Russia and Sweden was created.

- *Boreal Baltic Coastal Meadow preservation in Estonia*

The aim of the project is to preserve coastal meadows in four Estonian coastal counties (16 sites with a total area of 1572 ha). This will be achieved through provision of compensation to the farmers for mowing and grazing; procurement and giving/renting to local farmers suitable cattle and machinery. Another aim of the project is to rescue the remaining population of *Bufo calamita* and establish reserve populations in additional suitable habitats.

- *Restoration and management of Häädemeeste wetland complex*

The aim of this project is to restore the coastal wetland complex (e.g. coastal meadow and bog water regime etc) and to manage remaining meadows by using local farmers.

6.3 Initiatives related to ICZM

- *Baltic Floating University Expedition*

The 1997 Baltic Floating University (BFU) expedition with the sailing catamaran *Orients* to the West-Estonian Archipelago Biosphere Reserve was a direct follow-up to the 1996 expedition to Hiiumaa. Both expeditions were the result of close co-operation with the Hiiumaa Biosphere Reserve Centre (HBRC). The aim of these expeditions was to explore ICZM issues in an established (non-industrial) biosphere area. These studies yielded valuable information and data that can be considered in any future decision-making process as to a possible offshore extension

of the land-based Man and the Biosphere reserve. In the future, the investigations of disposed chemical weapons in the Baltic Sea are to be fulfilled. Hydrological, hydro-chemical, hydro-biological and geo-ecological samples from the dumping areas will be collected and the submerged ships filmed from underwater.

- *Kaina Bay*

The project in the Kaina Bay area was an ICZM plan, supported by HELCOM. In 1994, it was agreed that this Bay should be included among the Task Areas within the overall framework of the Gulf of Riga Task Area. The major objective was to contribute to an ecologically sustainable development in the coastal areas of the Baltic Sea region. The implementation of the management plan was ongoing until 1998. The water level regulation system of the bay has been completed and in co-operation with local farmers coastal grasslands are now being maintained.

- *Joint Comprehensive Environmental Action Programme for the Baltic Sea (JCP)*

The JCP was adopted in 1992 to constitute a 'Strategic Action Plan' for the Baltic Sea region. It provides an environmental management framework for long-term restoration of the ecological balance of the Baltic Sea ecosystem through a series of preventive and curative actions to be undertaken in a phased manner in the region. The five recipient countries, Estonia, Latvia, Lithuania, Poland and the Russian Federation opted for Global Environment Facility (GEF) assistance within this framework through the United Nations Development Programme and the World Bank. Updated and strengthened in 1998, the JCP Framework has formed a fruitful basis for further regional projects.

6.4 Evaluation

According to the results of the workshop discussions of PROCOAST, in Estonia there is a need for a responsible ministry/ authority or a legal framework for ICZM. The participants of the workshop said that in principle the environmental state is rather good. The urbanisation of the coast and the pressure by tourism is low and no coastal defence is needed. The participants thought that the authorities pay little attention to the coastal zone because the coasts are relatively undisturbed. However, the eutrophication of the coastal sea is getting increasing public attention. It is now necessary to optimise the integration of environmental concerns into practical management solutions.

7. NGOs and other private stakeholders

- *Arhipelaag*

A non-governmental, non-profit organisation which was established on the island of Hiiumaa (Estonia) in late 1997. A task for Arhipelaag is research and implementation of results in favour of sustainable development.

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- . *Estonian Fund for Nature* (ELF)

One of the strongest environmental NGOs in Estonia. Their main goal is to maintain biodiversity in Estonia in close cooperation with different stakeholders through different nature conservation projects (e.g. raising public awareness). It was established in 1991.

- *Estonian Green Movement*

Campaigns on environmental issues.

- *Estonian Semi-natural Community Conservation Association* (ESCCA)

An Estonian non-profit, non-governmental organisation founded in March 1997. The aim of ESCCA is to preserve Estonian semi-natural grasslands such as wooded meadows, alvars,

coastal and floodplain meadows from extinction. Members of ESCCA are mostly scientists working with the semi-natural grasslands, students and farmers. To achieve their goal they have carried out different actions of restoration, management and study of semi-natural grasslands.

- The *Estonian Society for Nature Conservation*

Established in 1966 and has 21,000 members. Its tasks are education and landscape management. It also aims at protecting biodiversity, wildlife and nature.

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FINLAND

1. The coastal zone

1.1 Description of the coastal zone

The coast of Finland is bounded by the northern gulfs of the Baltic Sea: the Gulf of Finland and the Gulf of Bothnia in north-south direction. The total length of the Finnish coast is 46,062 km which includes all islands and archipelagos. The Finnish shore areas have considerable value and the coast differs significantly from other coasts of the Baltic Sea e.g. the Gulf of Finland contains an archipelago comprised of thousands of islands and small, rocky islets. The principal archipelagos are the Åland Islands and the archipelago of Turku and are unique within the Baltic. Finland's shores also show substantial geological variation and are rich in biological diversity and productivity.

Rocky shores make up almost 42% of the total. The islands of the outer archipelago of the Gulf of Finland and south western Finland have almost entirely rocky shores while farther to the north rocky shores occur only sporadically. Till shores are as extensive as rocky shores and are mostly found on the coast of the Gulf of Bothnia. The largest continuous area of till shore is at the archipelago of the Quark. Gravel and sand shores occur on the southern and south western coasts. Silt, clay and marsh shores, which account for more than 10% of all shores on the Finnish coast, are most typical of the inner parts of the coastal zone. About one third of the shore zone has been developed.

1.2 Definition of the coastal zone

Finland has no formal national definition of the coastal zone. The width of the coastal zone is determined case by case, usually at municipality level. According to the guidelines of the Ministry of the Environment, it should be in general around 100 m landward from the mean water line but the width can vary between 50 and 200 m.

1.3 Setback lines policy

There is no definitive setback line policy in Finnish law. Guidelines issued by the Ministry of Environment stipulate that development should be controlled by a planning requirement on a 100 m strip along the coastline, which can be increased to 200 m. The local Master Plan determines how near to the shore development can take place. This can include building closer than 100m to the sea.

2. Coastal Management

2.1 Authority

In Finland, there is no single authority for coastal zone management and planning. The Ministry of Environment is responsible for national environmental policy and issues related to marine environment protection in general. The Finnish Maritime Administration, which belongs to the administration of the Ministry of Transport and Communications, is the responsible body for matters related to shipping and the Finnish Environment Institute is responsible for combating oil and chemical spills. Furthermore, the Ministry of Agriculture and Forestry is responsible for all water resources. The Advisory Board undertakes co-ordination for the Marine Environment which works in connection with the Ministry of the Environment to find common understanding in marine environment matters. Planning control

is decentralised and in most cases undertaken at municipality level following the tradition of local autonomy. There are approximately 100 coastal municipalities.

2.2 Policy

The Ministry of the Environment prepares non-binding national strategies such as the Finland 2017 Vision of the Spatial Structure, the Land Use and the National Environment Policy Programme 2005 and special programmes of forests, shoreline management, national parks, nature reserves, cultural heritage etc.

In Finland, there is a traditional privilege not based on legislation, which guarantees the common right of access to nature to the public, the so-called Everyman's Right. The concept of Everyman's Right gives everyone the basic right to roam freely in the countryside, without needing to obtain permission, no matter who owns or occupies the land. It includes the right to go on undeveloped shores by the sea and to use water areas for bathing, boating and fishing. Fishing rights, however, are limited. Everyone is obliged not to harm the environment or disturb other people's privacy

2.3 Legislation

In Finland, there is no overall national legislation specifically for coastal zone planning. On the national level, the Land Use Department of the Ministry of the Environment is responsible for the legislation and guidelines for an integrated approach to spatial planning and the management of land resources as well as environmental protection. Therefore, the ministry has an important role in the national co-ordination and guidance of land use planning.

A new Land Use and Building Act came into force on 1 January 2000. The main aims of the new act are to create a sustainable basis for the development of communities, to improve public participation in area development, to delegate decision-making to local authorities and to improve building quality. Planning and building in coastal areas follows the guidelines laid down in 1997 legislation.

In 1997, the new Nature Conservation Act came into force. The aim of this act is to protect endangered plants and animals and some valuable habitat types. The shore is not considered a protected environment in Finland so the law does not prevent building in the shore zone. The overall guidance of land use and the siting of various activities take place locally by means of master plans. The introduction of a provision into the Building Act states that building in the shore zone requires a land use plan drawn up by a local authority. This was meant to ensure sustainable use of the shore areas. For this reason the main instruments used for land use planning of shorelines are the “shoreline master plans”.

3. Spatial Planning in the Coastal Zone

The extent of the Finnish coastal zone and the abundance of islands means that Finland has an exceptionally long shoreline. The feature that has brought about most changes in the coastal landscape of Finland is the rapid increase in the number of holiday houses. As a result of the attraction of the sea these houses tended to be built as close as possible to the shoreline. However, they have sprung up along the coast without any real land use planning. The shores that are most ideal in terms of their landscape and natural environment have now been occupied. The authorities and available instruments for spatial planning are shown in Table 1.

Table 1. The responsible authorities and available instruments for spatial planning.

	Responsible authority	Instrument
National	National government	*Legal framework and main legislation* Land Use and Building Act 2000
Regional	19 Regional counties and Åland	*Strategic plans* Regional plans
Local	454 Municipalities	*Framework plans* Local master plans *Regulatory plans* Local master plans Local detailed plans

4. Coastal and Marine Environmental Policy

4.1 Policy

Finland has been a member of HELCOM since the signing of the first convention in 1974, since when a great deal has been accomplished. A great effort has been made for the conservation of natural sites. In 1994, HELCOM adopted a recommendation on the protection of the coastal zone. It requires the states, outside urbanised areas and existing settlements, to establish a generally protected coastal strip extending 100-300 m from the coastline both landwards and seawards. HELCOM has also adopted a recommendation aiming at establishing a network of protected coastal and marine areas and another at preserving natural coastal dynamics. Close monitoring and researching have also been taking place to test water quality and observe the health of the marine flora and fauna.

4.2 Legislation

In 1961, the Water Act was passed in Finland and it has been revised several times since. According to this Act, permission is required to build constructions or to discharge wastewater which may cause a decrease in natural resources or damage to the natural landscape, have harmful effects on fish or change water biology. Applications for permits are processed individually and permits are granted on terms laid down separately case by case. The permit authorities are the regional Environmental Permit Offices whose decisions can be appealed to Administrative Courts and, in certain circumstances, the local environmental authorities. During the past few years, Finland has harmonised its legislation on water protection in accordance with that of the EU.

4.3 Programmes

Eutrophication is the most urgent problem in the protection of Finnish waters. In marine areas, eutrophication is worst in the Gulf of Finland. The high incidences of blue green algae in the Baltic Sea in the summer of 1997 were an indication that the waters are slowly becoming more eutrophic. In March 1998, the Finnish government decided upon a Decision-in-Principle on goals of the Water Protection Programme to 2005. The main goals of the programme are reduction and prevention of eutrophication which are fundamental in the planning and supervision of water protection and the related decision-making. The general goal of water protection is to prevent further deterioration in the state of the Baltic Sea and inland waters caused by human activities and to improve the condition of those watercourses that have already been contaminated.

4.4 Environmental co-operation

In the environmental sector there are many multilateral conventions, agreements and programmes, which, in addition to the impact on each country's internal policies, impact on the forms, priorities and trends of co-operation with neighbouring countries. Co-operation in the environmental sector has been a priority, ever since the beginning of neighbouring area co-operation of the Ministry. The main focus of projects has been on the air and water protection as well as waste management. Other key priorities include promotion of nature conservation, preservation of biological diversity and the sustainable use of natural resources.

The co-operation in the environmental sector is based on bilateral agreements and protocols that have been concluded between Finland and the Russian Federation, Estonia, Latvia, Lithuania and Poland, as well as on the Council of State Decision on making grants to promote action to protect the environment in neighbouring areas.

The strategic objectives of the Ministry of the Environment in neighbouring areas are expressed as follows:

- reducing and preventing the harmful pollutants entering Finland from neighbouring countries (through co-operation in the main sectors of air protection, Baltic Sea protection and hazardous waste management),
- promoting the protection of nature and biodiversity and sustaining the values of nature,
- promoting sustainable development in regional planning, housing and building.

During the 1990's the pollutant loads entering the Baltic Sea have been reduced. The main reason has been the reduction of economic activity in Russia and other neighbouring countries. The construction -and reconstruction- of a large number of municipal wastewater treatment plants has also had a significant positive impact on the Baltic Sea. The biggest point source reduction in the catchment area of the Gulf of Finland was achieved by the installation of the biological treatment plant in Tallinn; a project in which Finland's environmental co-operation played an important role.

According to the Ministry of the Environment, enrichment of nutrients (eutrophication) still remains the major problem in the Baltic Sea calling for additional abatement measures to be taken in many locations. As the state of the Gulf of Finland is still unsatisfactory and St. Petersburg and the surrounding region is responsible for most of the loading, environmental co-operation resources should to a large extent be directed at St. Petersburg in the near future.

5. Coastal and Marine Nature Conservation Policy

5.1 Policy

In August 1998, the Finnish government proposed to the EU Commission the inclusion of a total of 1,458 sites into the Natura 2000 Network. The total area of these sites is approximately 12 per cent of Finland's area cover. The areas proposed for Natura 2000 mainly consist of existing conservation areas, wilderness areas and sites covered by protection programmes.

5.2 Legislation

The aim of the new Nature Conservation Act (1996) is to preserve the diversity of nature in Finland. The Act considerably extends the range of measures available for nature conservation. Sensitive areas can now be protected temporarily as well as being designated

as permanent nature reserves. Other options include specific management and protection agreements for certain areas, legislation to help preserve certain protected species and areas of their habitat, habitat protection as such, and the designation of areas of valuable landscapes for protection. There are currently about ten conservation programmes still being implemented in Finland such as schemes to protect herb-rich woodlands, wetlands rich in bird life and old-growth forests. The Act also introduces new tools for the protection of valuable landscapes even in areas where human activity is minimal.

The new Act (1996) was drawn up to meet the latest conservation needs and Finland's obligations under the EU Bird and Habitats Directives. The Nature Conservation Decree (1997) lists protected species, threatened species, species needing special protection and species which need strict protection according to the EU Habitats Directive.

5.3 Programmes

In 1990, a Shore Protection Programme was established with the aim of creating a network of protected areas. The areas included are to be maintained in a natural state without exploitation in the form of construction, building of summerhouses etc. Public access in accordance with the principle of Everymans Right will normally be allowed. These areas are intended to be either purchased by the state, required by the state in exchange or protected by agreement with the owner. Landowners are to be compensated. About 2,6 % of the coastline will be protected through this programme.

6. Economic Developments, Important Sectors and Trends

6.1 Recreation and tourism

The Ministry of Trade and Industry is responsible for co-ordination and implementation of tourism policies in Finland and for international co-operation. Under the Ministry of Trade and Industry the Finnish Tourist Board has been established. The Board is responsible for the general promotion of tourism in, and to, Finland and also of the domestic tourist industry. In spring 1996, the Ministry published the "Tourism Strategy of Finland to the Year 2000". According to the strategy the aim of Finnish tourism policy is to develop the tourism industry and its effects on employment at the same time protecting the important values of nature and the environment.

1999 was a successful year for tourism in Finland. In spite of an air controllers' strike during the ski season and a sharp drop in the number of Russian tourists, the industry recorded a 2% growth. If the 28% fall in Russian tourists is excluded, foreign tourism increased by about 7%. The number of German tourists turned upward after a lengthy decline.

6.2 Coastal defence

Because of the absence of any significant tide, a relative sea level decline and moderate wave climate, coastal defence is not an issue in Finland.

7. The Current State of Integrated Coastal Zone Management

7.1 Legal framework

The Ministry of the Environment, Land Use Department, is the responsible body for integrated coastal zone management and sustainable development. The Advisory Board

undertakes co-ordination for the Marine Environment which works in connection with the Ministry of the Environment to find common understanding in marine environment matters. The Council of State nominates members of the Board for a period of three years. The Board gives advice to the authorities in matters related to marine environment, mostly in the context of international co-operation. The Board has members from some Ministries, Central Associations for different sectors and nature protection organisations of relevance to marine protection matters. In the past it had stronger influence in decision-making but nowadays its role is mostly informative.

7.2 Completed projects

- *Coastal Planning on the Gulf of Finland*

The project, one of the EU Demonstration Programmes on ICZM, comprised several municipalities, regional councils, and also the Uusimaa and Southeast Finland Regional Environment Centres drawing up master plans for their coastal zones. The master plans were to follow the new Nature Conservation Act, the new Forest Act and the new rules about planning and building in coastal areas in the Building Act and in the Water Act. At this moment, the master plans have already been approved in each municipality and the administrative processes (final ratification and/or appeals) are ongoing. During the implementation, several goals were achieved: the municipalities succeeded in encouraging the participation of the inhabitants and landowners in the planning; solutions were found for some difficult conflicts and progress in integrating environmental impact assessment was made. Co-operation between municipalities helped them find new solutions to the problems and support each other in the ICZM process. The project team also co-operated with the main regional authorities and with other interest groups (*e.g.* local schools). Problems of sustainable development in coastal zones were discussed with some European countries. The co-operation with planning bodies in Sweden and Estonia was not as useful as expected because of the differences in their legal systems and their different problems.

7.3 Ongoing projects

- *3+3 Local Agenda*

This project is part of a wider co-operation between three regions in Finland and three regions in Estonia. The participating Finnish counties are Itä-Uusimaa, Kymenlaakso and Päijät-Häme. The 3+3 Local Agenda project supports regional development in the Eastern Gulf of Finland and maintenance and protection of environment according to the principles of sustainable development. It provides tools for developing the local and regional level co-operation, extension of knowledge and know-how, and exchange of information and experiences between the partner regions. The aim of the project is to initiate a long-lasting practical level co-operation, to create a network that would be viable and self-sustainable after conclusion of the project. The project creates possibilities for exchanging experiences and know-how in land use planning and management, and for adjusting the regional plans into a larger geographical context. Common themes are also to be found in developing the archipelago and coastal areas.

- *DALO-project incorporating "Tourism and Environment"*

The DALO-project is an ecologically acceptable method and demonstration for controlled, progressive use of the shore zone. The aim is to present decision-makers with proposals for concrete measures for planning and investment and other efforts that will contribute to positive development in the Bothnian Arc region. The project is to create long-term networks for regional co-operation, encourage vital agreements for development and new project ideas. It represents a totally new planning method. The project also includes development of ecologically acceptable methods for controlled and progressive use of shore zones.

The aim of the sub-project “Tourism and Environment” is to investigate conditions for sustainable development of the region’s tourism industry by making the best possible use of natural and cultural environments like destinations for tourism and to market the region as a whole. The objective is to create vital, long-term co-operation between the tourism sector and environmental protection authorities.

- *Kaspnet*

The project is focused on co-operation in a wide area in Northern Europe, called Karelia-Atlantic Spatial Development Network (KASPNET). The project will establish and support a long lasting networking on spatial planning in this Development Zone, engaging a very large number of partners which to some extent already are co-operating in the region. One of the participants in Finland is Ostrobothnia. Subjects that are being covered are, for example, analysis of the conditions and development potential in the area, thematic studies, and development of a spatial planning strategy for the area. One of the priority areas is environmental dimensions, tourism and coastal zones. By treating the coastal and island areas in Norway, Sweden, Finland and the Republic of Karelia in parallel studies, there are chances to achieve a common knowledge based on both the differences and the similarities.

- *Archibal*

The aim of the project is to develop methods and tools for nature conservation authorities to assess, steer and participate in developing the increasing tourism in Baltic archipelagos. The project calls for more consultative and detailed methods for co-operation between authorities, local society and the tourist business. Indicators for sustainable tourism will be developed.

- *BEST project*

This is focused on Sustainable Tourism Development from the seven larger islands' (B7) Bornholm - Denmark, Gotland - Sweden, Hiiumaa - Estonia, Saaremaa - Estonia, Rügen - Germany, Åland - Finland and Öland - Sweden. The approach is clearly cross-sectoral and related to the core of the measure “integrated management of coastal zone and island”. The B7 islands have been co-operating since 1998 and this project is determined as a key element in their common strategy and the action programme. It is related to the Baltic 21 action programme. The project enhances knowledge and exchange of experiences between the islands, trying to create a common long lasting network for co-operation on sustainable tourism development with links to tourism organisations, NGOs and research institutions.

- *SUSWAT*

The focus of the SUSWAT project is on the water supply in relation to environmental protection and sustainability. It enhances knowledge exchange between the B7 about planning and management of the water supply. The aim is to start up demonstration of new solutions related to management and planning of sustainable water supply. There is a clear linkage to the BEST project. The project is considered as a key element in the B7 common strategy and action programme of the BEST project.

7.4 Evaluation

According to the delegates of Finland at the PROCOAST seminar, in south east Finland, despite development of 46% of the coastline – the highest in the country - the natural state of the coast is still good. However, diffuse pollution supply, especially nutrient supply by agriculture, fish farms and sewage plants, is increasing. The industrial pressure on the environment is remarkable although industrial plants have improved their wastewater treatment remarkably. Moreover, the delegates stated that the authorities pay attention to the environment but the realisation of activities to improve the environmental state often suffers from low budgets and a lack of sectoral integration. The planning instruments in Finland are considered to be sufficient but there is, at least partly, an increasing lack of personnel.

8. NGOs and Other Private Stakeholders

- *Birdlife Finland*

An organisation of 28 Finnish bird societies. It aims to promote bird watching, bird research and protection of birds, their habitats and biological diversity. Birdlife Finland had not taken part in ICZM projects.

- *Bothnian Arc*

Focuses on regional development issues.

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *The Finnish Association for Nature Conservation*

Aims at the conservation of flora, fauna and natural areas and they are involved in ecological planning for cities and the countryside.

- *The Finnish Society for Nature and Environment*

A national organisation which produces campaigns on air and water pollution, environmental education, island and wetland ecosystems, protected areas and national parks, energy and sustainable development.

- *The Nature League*

A youth organisation concerned with environmental protection.

- *WorldWide Fund for Nature (WWF) Finland*

A national affiliate organisation of WWF. It is concerned with the organisation of conservation projects with government and municipal authorities, universities, research bodies and other conservation organisations.

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GERMANY

1. The Coastal Zone

1.1 Description of the coastal zone

Germany has a coastline of 3379 km divided roughly into 1300 km along the North Sea and 2000 km along the Baltic Sea. Two German states or *Länder,* border the Baltic sea: Schleswig-Holstein (minor part with approximately 400km) and Mecklenburg-Vorpommern (major part with approximately 1.600 km). The Baltic coast forms the eastern part of Germany‘s coastline, as opposed to the western part that embodies the North Sea coast. In the Baltic Sea region, the tide is almost absent and the water is brackish with a salinity of between 25 and 1 ppm. It is a shallow coast, often bordered by moraine cliffs. Numerous bays and lagoons, bodden, peninsulas and islands break the coast with large areas of shallow water and mudflats.

1.2 Definition of the coastal zone

There is no official definition of the coastal zone. For terrestrial planning purposes on the local level, responsibility generally ends at the mean high tide.

Schleswig-Holstein has established a 100 metre inland-protected strip along the coast under its nature conservation act and Mecklenburg-Vorpommern has established a 200 metre wide inland-and a 200 metre wide offshore protected strip under its Nature Conservation Act.

2. Coastal Management

2.1 Authority

According to the Constitution, both the federal government as well as the federal states have joint responsibility for most areas of coastal planning issues. The Federal Ministry of Transport, Building and Housing is responsible for providing national guidelines and co-ordinating planning policy from which the individual states derives its own planning legislation. This entails that for regional planning, nature conservation and water-management, the *Länder* have a high degree of freedom in establishing their own legislative structure and adhering laws, albeit having to be in co-ordinance with the federal legal framework.

2.2 Policy

There is no federal policy or strategy for coastal zone management in Germany. The federal states use the 1998 Federal Spatial Planning Act as a legally binding framework to establish their own legislative structures and laws. However, planning principles under the Federal Spatial Planning Act are confined to the terrestrial area and coastal defences.

The marine area is not adequately considered: national policy on oceans is integrated into the National Sustainable Development Strategy. It has an integrated coastal area management programme to encompass all marine activities within the Exclusive Economic Zone (EEZ). The policy addresses marine environmental protection and sustainable use as well as conservation of marine living resources.

2.3 Legislation

Federal legislation relevant to coastal management:

- Federal Nature Conservation Act

- Federal Spatial Planning Act
- Federal Building Act
- Environmental Impact Assessment Act
- Water Act
- Federal Waterways Act
- Waste Waters Charges Act
- Federal Emission Control Act
- Waste Act
- Federal Soil Protection Act
- Environmental information Act
- Environmental Liability Act

3. Spatial Planning in the Coastal Zone

3.1 Authority

Spatial planning in Germany is organised on at least two, generally four levels. At the federal level, spatial planning is only a policy with a framework responsibility laid down in the Federal Spatial Planning Act. It provides principles for spatial planning. A much stronger responsibility for the actual spatial planning process exists within the federal states and with regional and local authorities (Table 1).

Table 1. The responsible authorities and available instruments for spatial planning.

	Responsible authority	**Instrument**
National	Federal government	*Legal framework and main legislation* Federal Spatial Planning Act/Federal Building Code
Regional	16 Federal states	*Strategic plans / programmes* Federal state planning programme/Federal state spatial plan Regional spatial development programme
Local	Municipalities	Land use plans Building plans (physical planning) Municipal regulatory plans

At the federal state level, there are Federal State Planning Programmes (Mecklenburg-Vorpommern) or Federal State Spatial Plans (Schleswig-Holstein) which outline strategies for development and are valid up to the 12 nautical mile border. In drawing up these plans all involved authorities and municipalities as well as NGOs are able to participate. The plans are legally binding for the authorities and municipalities. In both federal states, binding regional planning programmes and plans are established incorporating federal guidelines. The administration level responsible for drawing up these programmes and plans differ in both states.

Under the principle of subsidiarity much power is placed at the municipality level, including the development of land use plans which are used as the basis for municipal building plans. The states, regions and municipalities are responsible for issuing permits for different levels of development according to the 1997 Federal Building Act which has incorporated the principle of sustainability into the planning process.

In Mecklenburg-Vorpommern the State Spatial Planning Authority is the responsible institution for conducting State Spatial Planning and called the State Spatial Planning Programme in Mecklenburg-Vorpommern. The Municipalities have the final planning sovereignty, embodied in Land Use Plans, which are detailed and legally binding preparatory land use and building plans. This system is often characterised as the 'counter-current principle' since, although the municipal plans have to meet the criteria of federal and state authorities, the municipalities are given the opportunity to participate in the preparations of the plans on those higher levels.

The German Constitution does not provide for clear administration of the EEZ. The responsibility for it, beyond the state boundary, belongs to the coastal state government under the conditions of the UN Law of the Sea Convention. *i.e.* for the purpose of exploring and exploiting, conserving and managing the natural resources and with regard to other activities, such as the production of energy from the water, currents and winds; establishment and use of artificial islands, marine scientific research and the protection and preservation of the marine environment. According to the new Federal German Nature Conservation Act from 2002, NATURA 2000 sites can be established in the EEZ.

It is important to take into consideration that spatial planning of municipalities and counties exist on land only, *i.e.* land-ward of the high tide. Consequently, there is little or no local or regional planning in the marine area. Federal State Planning only comprises the land area and the marine area up to the seaward state boundary, i.e. the outer boundary of the territorial sea. So far, the demand for integrated coastal zone planning and for concrete definitions of specific spatial use in the marine area has not been realised by the Federal State Planning Authority. As a result of the conference of the ministers for spatial planning of the Baltic States, it is foreseen that the competence of spatial planning will be increased to the 12 nautical mile border.

3.2 Policy

Spatial planning is, in accordance with the German constitution, a policy area with only framework competencies for the Federation. As a result, there is the framework Federal Spatial Development Programme from 1975. To co-ordinate the different policies in the field of spatial planning, a conference of the state ministers for spatial planning was founded which is authorised to elaborate leading concepts. This is a new informal planning instrument on the federal level.

The state spatial planning programme for Schleswig- Holstein was published in 1998 and replaced the 1979 plan. It lays out the main principles and objectives of spatial planning until 2010. In Mecklenburg-Vorpommern, the First State Spatial Planning programme was adopted in 1993, defining and regulating the principles of overall planning for the development of Mecklenburg-Vorpommern.

3.3 Legislation

National Legislation

- Federal Spatial Planning Act
- Building Act
- Environmental Impact Assessment Act
- Federal Soil Protection Act

Mecklenburg- Vorpommern Legislation

- Act on Spatial Planning of Mecklenburg-Vorpommern, 1998

Schleswig-Holstein Legislation

- State Development Principles Act
- State Regional Planning Act
- State Central Places Ordinance

4. Coastal and Marine Nature Conservation Policy

4.1 Authority

According to the Constitution, nature conservation is the responsibility of the individual federal state within the framework of federal legislation. The highest authority at the federal state level is the State Ministry of Environment, being responsible for environmental legislation.

In Mecklenburg-Vorpommern the State Office of Environment, Nature and Geology is the second state authority (technical-scientific administration). In Schleswig-Holstein, it is the State Office of Nature and Environment which acts accordingly. They are, among others, responsible for research, monitoring, technical-conceptual information and species protection. The counties are the lower nature protection authorities. In Mecklenburg-Vorpommern the regional state environmental and nature conservation authorities are, *i.a.* responsible for nature conservation in marine areas, for permits in nature conservation areas, for compiling statements concerning impacts and for consultation.

4.2. Policy

The Federal Nature Conservation Act contains provisions for general protection of certain biotopes and species. The Act lists these protected biotopes, but it is the responsibility of the federal states to implement nature conservation by adopting federal legislation. The State Nature Conservation Act of Mecklenburg-Vorpommern, as well as Acts for specific conservation areas regulates nature conservation and can be seen as a standard for all state legislation in Germany, though minor variations might exist. The most important biotopes, related to Baltic Sea coastal management that enjoy legal protection are:

- All types of dunes
- Wind-mudflats
- Cliffs and steep and rock coast
- Most types of heaths
- Salt meadows and certain types of wet meadows
- Coastal swamps, bogs, fens and lagoons
- Reeds
- Wet forests
- Spring areas and pools with standing water
- Natural and non-built creeks and rivers, incl. river banks
- Bodden waters including riparian zones

All measures which might significantly alter or threaten the state of these biotopes are forbidden. Exceptions are only allowed in case of an overriding public interest and the possibility of compensating the impacts.

Several nature protection areas, parks, and biosphere reserves exist. The largest German national park at the Baltic Sea Coast is “Vorpommersche Boddenlandschaft“. Other large protected areas along the coast line are the National Park “Jasmund“, the biosphere reserve

Südostrügen or the nature park Usedom. Furthermore, large parts of the coast zone are proposed or designated as NATURA 2000-areas. These Natura-2000 areas often correspond with different conservation areas.

Further nature reserves exist in Schleswig-Holstein: e.g., on the Fehmann Island ("Grüner Brink", "Wallnau and "Krummsteert and Sulsdorfer Wiek"), in the Hohwacht bay region ("Sehlendorfer Binnensee, "Kronswarder", "Graswarder Heiligenhafen" and "kleiner Binnensee") and along the northeast coastline ("Vogelgreistätte Oehe-Schleimünde" and "Geltinger Birk").

About 10% of the seacoast of Schleswig-Holstein is currently protected. Another 27 areas covering 12% of the coastline have been recommended for designation as nature reserves by the nature conservation authorities. National parks and nature protection areas have the highest status of protection.

4.3 Legislation

Legal instruments relevant to nature conservation:

- Federal Nature Conservation Act and States Nature Conservation Acts
- Federal Soil Protection Act
- European Union Flora/Fauna/Habitat Directive and Birds Directive
- State Water Acts
- Spatial Planning Act
- Nature Conservation Act Mecklenburg-Vorpommern
- Nature Conservation Act Schleswig-Holstein

5. Economic Developments, Important Sectors and Trends

5.1 Recreation and tourism

Germany is a main tourist market: in 1954, there were about 9.3 million trips which had increased to approximately 161 million trips by 1993. At this time, the tourist industry attained an annual total turnover of DM 140 billion, corresponding to about 5.6% of the Gross National Product. As a result, several attractive recreational areas are, at least during the main season, heavily affected to a level which exceeds the ecological sustainability of the area. Within the past years, a number of nature reserves have become overcrowded in such a way that today they no longer satisfy the criteria set when the reserve was first set up.

5.2 Coastal defence

The highest authority concerning coastal defence is the Ministry of the Environment in Mecklenburg-Vorpommern and the Ministry of Rural Areas in Schleswig-Holstein. Several departments within the ministries are responsible for, *i.a.* legislation, general planning (including the integration/participation of stakeholders in the coastal Zone), financing and the determination of state measures in coastal defence.

5.2.1 Mecklenburg-Vorpommern

At a regional level, a number of environmental and nature conservation authority departments are responsible for building and maintaining the state coastal defence measures. For basic research, planning and licensing procedures along the coast of Mecklenburg-Vorpommern, the regional environmental and nature conservation authority in

Rostock has jurisdiction whereas local water boards are responsible for other coastal defence measures, *e.g.* the protection of agricultural areas or tourist facilities. After the re-unification in 1990, basic and applied research in coastal engineering were intensified in Mecklenburg-Vorpommern. The results were included in the *'master-plan coastal defence Mecklenburg-Vorpommern'* which was adopted in 1995. This master plan represents the technical and financial concept for coastal defence. Next to an identification of the most urgent measures, it also includes technical and financial dimensions of most of the measures listed. The Federal government engages in co-financing coastal defence. A new master plan is to be elaborated shortly which will contain plans concerning implementation.

5.2.2 Schleswig-Holstein

The Schleswig-Holstein State Ministry for the Rural Areas, Regional Planning, Agriculture and Tourism realised that the implementation of an integrated coastal zone management programme is a goal that can hardly be reached in the near future. Therefore, to ensure a sustainable planning process that protects human life and assets from coastal hazards, the State Ministry has established an integrated coastal defence management programme for its coastal zone. The management programme consists of the following tasks:

- definition of general principles for coastal defence, thereby taking into account other interests in the coastal zone,
- development of public participation instruments for coastal defence planning,

development of flexible strategies to cope with possible changes in environmental conditions, e.g. climate changes and sea level rise. This programme will provide planning authorities with experience in integrated management with more advisory boards and regional councils. Furthermore, pilot studies are under way using new methods in which there is an active role for the local population in the process of planning coastal defence measures. It is hoped to serve as a precedent for further integration.

6. The Current State of Integrated Coastal Zone Management

6.1 Legal framework

With respect to integrated coastal zone management and sustainable use as well as conservation of marine living resources, Germany has engaged in several international agreements and signed numerous conventions that create legal obligations for its national policy. They are implemented according to the adopted international laws or international agreements.

National legislation in Germany shows awareness of the importance of an integrated, sustainable approach to management and (spatial) planning. The principle of sustainability has been incorporated into the 1998 Federal Building Act, the set of overarching guidelines for spatial planning. When issuing development project permits, counties and municipalities are obliged to do so according to the Federal Act.

6.2 Finished projects

- *SuPortNet (1999-2000)*

The aim of SuPortNet, sustainable development with a network of ports for boat tourism in the Baltic Sea Region promoted integrated management of coastal zones with potential for boat tourism. The project concentrated on planning activities on the various locations where possible improvements in the harbour facilities were subject to integrated spatial planning and management. The Ministry of Employment Mecklenburg-Vorpommern was the lead organisation.

- *High Quality Tourism (1998-2001)*

The *Regionaler Planungsverband Mecklenburgische Seeplatte (a regional planning association)* co-ordinated this project which aimed at integrating tourism and sustainable development in regions with a high percentage of protected areas. The end result was a handbook for local actors and linked tourism projects within, and between, the regions.

- *Cultural Assets for the Sustainable Development of Tourism in the Region of HOLM and its European Partner Regions (1999-2001)*

The goal of the project is the creation of a pearl-string of cultural events and destinations to establish high quality management. The scope of the projects comprises the creation of a common view of suitable planning methods, particularly at the local and regional level, and the elaboration of co-ordinated strategies to improve cross-sectoral planning. HOLM/Hansestadt Wismar is the organising partner in Germany.

- *BEIDS (1999-2001)*

The State Ministry of Environment of Hamburg is the project leader, aiming at setting up a Baltic Environmental Information Dissemination System. The project is an interregional, cross-sectoral initiative designed to increase economic and social cohesion among organisations in the EU and Baltic non-EU states which aims at improving cross-sectoral communication in relation to spatial planning, focussing on transport and energy issues in particular.

- *PROCOAST (1999-2001)*

The aim of PROCOAST is to bring experts on coastal zone management issues from different regions in the Baltic Sea together in order to exchange experiences on how to incorporate environmental concerns into practical management solutions for the coastal zones in the Baltic Sea region. A handbook, a state of the art report, containing a background for coastal zone planning and management in the Baltic Sea Region, is one of the results of this 'harmonisation of uses and interests in the coastal zone' project. The Schleswig-Holstein State Ministry for the Rural Areas, Regional Planning, Agriculture, and Tourism is the lead partner of PROCOAST. Partners include, *inter alia,* Sweden and Denmark.

- *BERNET (1998-2001)*

The aim of the Baltic Eutrophication Regional NETwork (BERNET) is to improve the management of eutrophication problems in the Baltic Sea Area *i.e*. the pollution of the aquatic environment with the nutrients nitrogen and phosphorus. This is taking place through the identification of major eutrophication problems in the co-operating regions around the Baltic Sea and by comparing and evaluating the present strategies of eutrophication management resulting in regional action plans which serve to implement the development improvements.

6.2 Ongoing projects

- *Integrated Coastal Management Project K.E.R.N. Region*

The Technology Region K.E.R.N. a network of the cities Kiel, Eckenförde, Rendsburg and Neumünster is co-operating with the Danish county Fyn in a project that has three parts:

- development cluster/networks
- development concept
- pilot-projects

In co-operation with the chamber of commerce and a number of university and consulting agency experts, the State Regional Planning Authority aims at identifying the possibilities for an integrated development of the coast, incorporating ecological as well as economic requirements.

- *BEST project*

This is focused on Sustainable Tourism Development from the seven larger islands' (B7) Bornholm - Denmark, Gotland - Sweden, Hiiumaa - Estonia, Saaremaa - Estonia, Rügen - Germany, Åland - Finland and Öland - Sweden. The approach is clearly cross-sectoral and related to the core of the measure "integrated management of coastal zone and island". The B7 islands have been co-operating since 1998 and this project is determined as a key element in their common strategy and the action programme. It is related to the Baltic 21 action programme. The project enhances knowledge and exchange of experiences between the islands, trying to create a common long lasting network for co-operation on sustainable tourism development with links to tourism organisations, NGOs and research institutions.

- *SUSWAT*

The focus of the SUSWAT project is on the water supply in relation to environmental protection and sustainability. It enhances knowledge exchange between the B7 about planning and management of the water supply. The aim is to start up demonstration of new solutions related to management and planning of sustainable water supply. There is a clear linkage to the BEST project. The project is considered as a key element in the B7 common strategy and action programme of the BEST project.

6.3 Initiatives related to ICZM

A number of studies dealing with integrated coastal management have been carried out in Germany by a range of research institutes. The objective of these studies was to identify the importance of integrated coastal management and how to overcome the obstacles which hamper the implementation of ICZM. *'Integrated Coastal Zone Management What Lessons for Germany and Europe?'(2000),* a report issued by the Christian-Albrechts-University in Kiel, contains recommendations and results from the *'First German ICZM Conference.* A study called *'Raumbedeutsame Maßnahmen im off-shore-Bereich vor der Küste von Mecklenburg- Vorpommern' (1999),* contains recommendations for sustainable spatial planning and incorporates suggestions for an integrated approach.

6.4 Evaluation

During a PROCOAST evaluation of coastal management in Germany it was concluded that there is a sufficient legal and organisational framework for ICZM. However, even though there is enough awareness among authorities, there is a lack of agreement between different departments. Public awareness about environmental issues has decreased and the awareness concerning coastal problems is low. On the other hand, ICZM has proven to be a big issue for both science and the authorities in Germany.

7. NGOs and other private stakeholders

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *German Association for Environment and Nature Conservation (BUND)*

An organisation with concern about wild and endangered flora and fauna, forests and lakes as well as land use, atmospheric pollution, renewable energy, ecology, sustainable development, environmental education, hazardous substances and waste disposal, Other activities include international co-operation, camps and excursions.

- Grüne Liga (Mecklenburg-Vorpommern)

An ecological network engaged in *e.g*. environmental education, sustainable development

- *Nature Conservation Society (NABU)*

National organisation for the protection of birds (partner of Birdlife International) and nature; engaged in the protection of species and habitats of high ecological value with local offices in Schleswig-Holstein and Mecklenburg-Vorpommern

- *Verein Jordsand for the Protection of Seabirds and Nature (Schleswig-Holstein and Mecklenburg-Vorpommern)*

An organisation with specific concern on seabirds and the management of protected areas.

- *WWF International, Baltic Conservation Programme*

The WWF Baltic Programme is a regional conservation programme of WWF International.

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LATVIA

1. The coastal zone

1.1 Description of the coastal zone

The length of the Latvian coastline along the sea and the gulf is 496 km. The seaside lowland stretches along the seashore and the gulf. It's width ranges from 5 to 40 km. The coastal zone is located within the boundaries of the seaside lowland and its continental boundary crosses a 3m isohypse. There are three different sub-zones within the coastal zone:

- a 40-400 meter beach zone,
- sand banks and artificially forested pine trees,
- wetland.

1.2 Definition of the coastal zone

The Law on Protected Belts (1997) gives several restrictions for land use in the coastal zone. It defines a protection belt of 300 m, starting from the permanent vegetation line, and also extending 300m seaward from the permanent vegetation line including the beach. If the dune or other coastal formation exceeds 300 m, the protected zone is extended to its natural boundaries. The law also defines a belt of 5-7 km with limited economical activities. Unfortunately, the law is not always respected.

2. Coastal Management

2.1 Authority

Planning takes place at three levels in Latvia. The Ministry of Environmental Protection and Regional Development (MEPRD) is responsible for national and regional plans. There are two levels of self-governments: the district (Rajon) and the local (Pagast), as well as seven independent cities. District plans are the responsibility of local district governments. Local self-governments are responsible for housing, making and adopting local building regulations and making master plans for their administrative territory. Responsibility for general plans of municipalities or towns lies with local authorities. The responsibilities of the districts are relatively limited. Cities are responsible for most infra-structural functions. All plans at one level are binding to plans on the next level.

2.2 Policy

A *National Spatial Plan* is in its first stage of development and an O*verview on the Use of State Territory* has been created (2001) which covers the entire area of Latvia. Special parts of the National Spatial Plan for the Coastal Territory of Riga Bay and Baltic Sea is being created, and will be adopted as, Regulations of the Cabinet of Ministers. Two of the six coastal districts, Riga and Limbazi, have elaborated District Plans, based on spatial integration principles, which include coastal issues. District plans for Liepaja and Talsi are also now under preparation. Several town and city development plans are based on an integrated approach *e.g*. the *Development Plan for Riga 1995-2000,* the *Development Plan for Jurmala* and the *Development Plan for Ventspils.*

2.3 Legislation

The *Environmental Protection Law 1991* functions as a framework for defining the fundamental principles and different legal instruments for environmental protection. Most of these principles and instruments are further elaborated in specific environmental legislation:-

- *Law on Environmental Impact Assessment, 1998*

Defines the procedures for Environmental Impact Assessment and activities where an EIA is required

- *Law on Specially Protected Nature Territories, 1993*

Established to protect and preserve natural diversity. The law provides for the designation and management of several types of protected territories.

- *Law on the Protection of Species and Habitats, 2000*

Describes the main principles for the protection of species and habitats.

- *Law on Harbours, 1994*

Describes the functions and administration of ports.

- *Law on Forest, 1999*
- *Regulations of the Cabinet of Ministers on the Environment Protection in Forest Management, 2001*

Determines overall environment protection demands in forest management, environmental constraints in final felling and thinnings and management restrictions for the breeding season of wildlife.

- *Law on Protected Belts, 1997*

Creates a number of categories of protective belts with specific purposes. One of these categories contains the 'Baltic Sea and Riga Bay Shore Protective Belts' which entails restrictions on building activities, clear cutting, draining and other activities.

3. Spatial Planning in the Coastal Zone

3.1. Authority

The planning administration comprises both state and local levels. At a state level, the Ministry of Environmental Protection and Regional Development is responsible for the preparation of the National Spatial Plan, as well as methodical guidance, control and co-ordination of the physical planning process. The Cabinet of Ministers makes decisions about producing spatial development programmes at the national level, decides about their contents and is responsible for the adoption procedure. Spatial development plans at this national level refer to the whole country.

The implementing body under the authority of the Ministry of Environmental Protection and Regional Development, the Centre of Spatial Development Planning, prepares the *National Plan of Latvia* and spatial development plans for Special Territories. Additionally, the Centre establishes and maintains a spatial development planning database.

There are two levels of local government. Districts (*Rajons*) embody the regional level, whereas at a local level, a distinction can be made between rural municipalities (*Pagasts*) and urban municipalities (*Pilsetas*). District municipalities and national cities may establish planning regions with the restriction that the involved municipalities are, *inter alia*, to sign an agreement on co-operation in the sphere of spatial development planning and establish a council of regional planning.

3.2. Policy

Latvia's national policy aims to establish a system of, and a procedure for, development on state, regional and local levels to promote the implementation of sustainable development in the country and its regions. It embraces the overall principles, objectives and tasks of spatial development planning in which development planning and physical planning issues are combined and integrated. Furthermore, the law regulates competencies and co-operation of the national, regional, and municipal authorities in the spatial development planning process.

3.3 Legislation

The main legislative act concerning spatial planning is the *Law on Spatial Development Planning,* which was adopted in 1998. It embodies Latvia's national policy and regulates competencies and co-operation of the national, regional, and municipal authorities in the spatial development planning process.

The new Regulations on Physical Plans (2000), issued by the Cabinet of Ministers, clarifies the competencies of state institutions, the contents and preparation order of plans on all levels and the public discussion on these plans.

There is no other legislation that directly regulates planning; there are a number of legal documents that apply indirectly to spatial planning:

- Law on Land Use and Survey, 1991
- Law on Environmental Protection, 1991
- Law on Self-government, 1994
- Building Law, 1995
- General Building Regulations, 1997
- Law on Protected Belts, 1997
- Law on Specially Protected Nature Territories, 1993

4. Coastal and Marine Environmental Policy

4.1 Authority

The Ministry of Environmental Protection and Regional Development forms national environment protection policy, the Department of Environmental Protection being responsible for implementation of policy and management. The State Environmental Inspectorate monitors adherence to requirements and manages activities of Regional Environmental Boards. The Marine Environmental Board implements state policy in sea-coast development, and utilisation and protection of marine environment resources. Potential interference of entrepreneurial activities with the environment is handled by the Environmental State Impact Assessment Board, which has recently been created, replacing the former Administration of State Environmental Expertise.

Regional Environment Boards implement state environment protection and regional development policy in the regions and towns of Latvia. Municipalities are responsible for environmental protection and rational use of natural resources in their administrative territory. Local authorities and district authorities can issue compulsory regulations and have administrative responsibility where regulations are breached. The two national parks and the biosphere reserve have their own administration which is responsible for environmental protection of the area.

4.2 Policy

The National Environmental Policy Plan for Latvia (NEPP), adopted in 1995, contains policy goals and principles, gives priority environmental problems and recommendations for the use of political instruments. One of the policy principles described in the NEPP is an integrated approach to solving problems. *The National Environmental Action Programme, 1997 (NEAP)* foresees measures for every priority indicated in the NEPP to achieve its aims. It considers only environmental problems and aims at finding solutions that improve environmental quality. The National Programme for Biological Diversity (1999) considers problems of environmental protection - including ecosystems like the Baltic Sea, Riga Bay, beaches, dunes and coastal lakes - with potential economic solutions. The policy concerning investments in the environment is implemented by means of the National Investment Programme.

4.3 Legislation

- Law on Environmental Protection, 1991
- Law on Hazardous Waste, 1993
- Law on Natural Resources Tax, 1995
- Regulations of The Cabinet of Ministers On Water Use Permit, 1997
- Regulations of The Cabinet of Ministers On the State Environmental Monitoring, 1997
- Law on Environmental Impact Assessment, 1998
- Law on Forests, 1999

5. Coastal and Marine Nature Conservation Policy

5.1 Authority

Local authorities have to maintain protected natural areas. They have rights to elaborate the regulations on the use of particularly protected natural territories in co-ordination with Regional Environmental Boards. The two national parks, a nature park and a biosphere reserve have their own administration. Latvia recognises seven categories of protected territories: state nature reserves, national parks, biosphere reserves, nature parks, natural monuments, nature reserves and protected landscape territories. Many nature reserves and three national parks have been established, two of which - as well as a biosphere reserve - are located in the coastal zone for which management plans have to be created, each according to the law relevant to its territory. The basis for species and habitats protection is the *Law on the Protection of Species and Habitats (2000) and lists of Protected species and habitats (Regulations of the Cabinet of Ministers).*

5.2 Policy

The long-term aim of the Nature Protection department is to promote sustainable development and to ensure conservation of biological diversity. In co-operation with the Department of Investments, the Environmental Protection Fund, the Environmental Investment Fund and other financial institutions, the Nature Protection Department participates in the co-ordination of the usage of national and international financial instruments according to priorities of the National Programme of Biological Diversity and the Strategy of Environmental Investments.

5.3 Legislation

- Law on Specially Protected Nature Territories, 1993
- Act on Self Government, 1994
- Regulations of the Cabinet of Ministers On General Protection and Use of

Specially Protected Nature Territories, 1997
- Law on Protected Belts, 1997
- Law on Reserve of Ziemelvidzemes Biosphere, 1997
- Law on Kemeri National Park, 2001
- Law on Slitere National Park, 2000
- Law on Protection of Animals, 1999 came into force in 2000
- Law on Protection of Species and Habitats, 2000
- Regulations of the Cabinet of Ministers On the List of Specially Protected Habitats
- Regulations of the Cabinet of Ministers On the List of Specially Protected Species
- Regulations of the Cabinet of Ministers On the Establishment, Protection and Management of Micro-reserves
- Regulations of the Cabinet of Ministers On the Environment Protection in Forest Management, 2001

6. Economic developments, important sectors and trends

6.1 Recreation and tourism

Tourism in coastal areas is growing steadily. The Ministry of Environment and Regional Development elaborates tourism policy, the State Tourism Board being responsible for its implementation. In 1997, the Conception of the Development of Tourism in Latvia was approved. The National Tourism Development Programme (2001 – 2010) will be accepted by the Cabinet of Ministers this year. A Strategy for the Development of Ecotourism is currently being elaborated by the Ministry. The Strategy for Tourism - Growth beyond 2000 - identified several locations in the coastal zone with opportunities for tourism but where development is hampered *e.g.* due to lack of financial support from state, poor infrastructure, under-developed service sector and poor international advertising. Poorly organised groups of holidaymakers cause problems for environmental protection.

6.2 Coastal defence

To fight coastal erosion, all forests of the coastal zone have been classified as protected and preserved forests. The Forestry Department (Ministry of Agriculture) is responsible for policy making and legislation. However, there is a lack of financial resources available. According to the Law on Protected Belts (1997), clear cutting is forbidden in the coastal protection belt.

7*. The Current State of Integrated Coastal Zone Management*

7.1 Legal framework

Since the Ministry of Environmental Protection and Regional Development (MEPRD) is responsible for state level spatial planning, it is the administrative body that is concerned with the integration of protection interests and it is also concerned with the interests of developing communications, industrial development, housing etc. in planning issues. As a result, the MEPRD is responsible for ICZM and the co-ordination of ICZM projects.

No specific legislation concerning ICZM exists so far although a number of international acts and agreements have been signed which can function as a legal framework:

7.2 Finished projects

- *Liepaja Environment Project (1995-2000)*

This project was divided into two components: a water and wastewater improvement and an environmental management component. The latter consists of the development and implementation of comprehensive management plans for two coastal areas, Jurkalne and Lake Pape and the development of an integrated coastal zone management plan for the entire west coast of Latvia including a development plan for eco-tourism along the west coast of Latvia.

- *Kurzeme Integrated Coastal Zone Management Plan (1996-1998)*

The Kurzeme coastal development plan was made to foster agreement between the interests of local authorities, enterprises, organisations and state interests, nature resources, social goals with respect to the demands of nature protection in connection with regional development.

- *Kurzeme Ecotourism development plan & Slitere Nature Reserve and Livi Coast Management plan (1996-1998)*

The Eco-Tourism Development Plan on the Courland coast (covering Liepaja, Ventspils and Talsu districts) is part of the integrated coastal zone management plan for the Courland Baltic Sea coast of the Liepaja environmental project. The main focus was on the co-existence of tourism with nature and the preservation of natural land and cultural values. The integration of tourism into local communities was encouraged.

- *ICZM Latvia (1996-1999)*

This project was part of the European Union's Integrated Coastal Zone Management Demonstration Programme. One of the main results anticipated, when adopting this project in 1996, was the preparation of integrated coastal zone management plans at both the national and the local level, the organisation of workshops, training seminars and studies at national level. Other aims were, *inter alia*, the establishment of a policy, regulatory, institutional and management framework for the management of the study area and the establishment of a programme of priority action and demonstration to protect the environment and reduce pollution.

- *ICZM Programme for the Baltic States and Poland*

This satellite-image and GIS (Geographic Information System) based project was executed from December 1997 to the middle of 2000. The aim of this project was to give Estonia, Latvia, Lithuania and Poland the opportunity to better manage their coastal resources in an environmental and sustainable way. The project includes two pilot studies in Latvia: Latvia's Ports and Harbours and Slitere Nature Reserve: nature conservation and cultural heritage.

7.3 Initiatives related to ICZM

- *Joint Comprehensive Environmental Action Programme for the Baltic Sea (JCP)*

The JCP was adopted in 1992 to constitute a 'Strategic Action Plan' for the Baltic Sea region. It provides an environmental management framework for long-term restoration of the ecological balance of the Baltic Sea ecosystem through a series of preventive and curative actions to be undertaken in a phased manner in the region. The five recipient countries, Estonia, Latvia, Lithuania, Poland and the Russian Federation opted for Global Environment Facility (GEF) assistance within this framework through the United Nations Development Programme and the World Bank. Updated and strengthened in 1998, the JCP Framework has formed a fruitful basis for further regional projects.

A Coastal Investment Strategy for Latvia was initiated with West and East Kurzeme and Vidzeme as the project area; so far with a good response and participation of the involved municipalities.

- The district plans of Riga and Limbazi, two coastal districts, are based on spatial integration principles.

- Management Plans for Lake Kanieris Area and Kemeri National Park have been elaborated.

- The first phase of the project GIS - supporting spatial planning was the Amber trail Eco-tourism project. The second, ongoing phase is a management plan for this trail.

7.5 Evaluation

ICZM in Latvia suffers from legislative and constitutional problems. Conflicting legislation between, and within, sectors and a lack of communication between various levels of government result in failure of new legislation to amend or repeal existing legislation and create overlap and conflicts in interest between agencies at all levels of management. Financial issues undermine effective coastal management, rendering local governments under-funded and there is lack of qualified manpower and capacity for adequate plan preparation on several levels of local government. The lack of a National Spatial Plan is a problem for ICZM and spatial planning.

8. NGOs and other private stakeholders

- *Baltic Environmental Forum (BEF)*

The Baltic Environment Forum started operating in June 1995. It was founded to enable the three Baltic States Estonia, Latvia and Lithuania to co-ordinate information, expertise and experience exchange in the environmental field. It provides practical support for the environmental co-operation as laid down in a trilateral agreement of the three governments in 1995.

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *Kurzeme Centre for Regional and Business Development*

The Centre focuses on tourism opportunities and home heating in Kurzeme. It operates on a local and regional level, as well as national and international.

- *Latvian Environmental Protection Club*

With over 30 regional offices, this organisation aims at promoting and providing education in the fields of water management and protection at a local level.

- *Latvian Fund for Nature*

Aims at promoting and implementing nature conservation measures in Latvia.

- *Latvian Ornithological Society*

One of the largest NGOs in the field of nature conservation dealing with bird protection.

- *Latvian Union for Coastal Conservation (LUCC)*

The LUCC, a Latvia-based daughter-organisation of the European Union for Coastal Conservation, aims at promoting an integrated approach towards coastal management. EUCC is a partner in a number of nature conservation projects, among which the Kemeri National Park and the Randu Meadows projects.

- *Regional Environment Centre (REC)*

REC Latvia aims at performing activities that benefit the local, national and regional environment thus filling gaps left uncovered by other environmental organisations.

Other important NGOs that are active in Latvia are, *inter alia*, the Latvian Botanist Society, the Latvian Entomological Society and the World-Wide Fund for Nature (WWF). An extensive list of nearly all NGO's in Latvia can be found at http://www.rec.org.

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LITHUANIA

1. The coastal zone

1.1 Description of the coastal zone

The Baltic coast of Lithuania extends to 91 kilometres. The southern half is formed by the Curonian Spit, a narrow peninsula separating the Curonian Lagoon from the Baltic Sea. The Curonian spit is a sandy stretch of land extending 98 kilometres, half of which belongs to Lithuania, the other half to Russia. The width of the peninsula varies from 400 metres to 3.8 kilometres. As a result of the input of sediments from the Nemunas River and sand from the wandering dunes of the Spit, the Curonian lagoon is becoming increasingly shallow. The Curonian Lagoon includes important wetland areas, e.g. the Nemunas delta. The delta is also economically important as agricultural land which is protected from flooding by a system of dykes with water-pumping stations.

North of the Curonian Spit and Lagoon the Lithuanian coast changes into erosive - accumulative coastline, where cliff and dune coasts occur alternately. Ledges of moraines are cut off by abrasion and bights are filled with the material. In this region, there are a number of important coastal forests, such as the Klaïpeda forests which include over 2000 ha of woodland, mainly of pine and birch.

1.2 Definition of the coastal zone

There is no legal definition of the coastal zone. Nor is there a proper definition of the set back line.

2. Spatial planning in the Coastal Zone

2.1. Authority

Within the coastal strip, on a national level, the Ministry of Environment (MoE), namely the Territorial Planning Department, forms and implements policy in the field of territorial planning, urban development, architecture, landscape management and protection, coordinates the process of legal regulation of construction and elaborates rules and standards of territorial planning and construction. It is also involved in ensuring integration of coastal management and protection issues and manages regional environmental protection departments, regional agencies and inspections, counties and municipal territorial planning services. The exclusive right to issue a permit for construction or reconstruction belongs to the Lithuanian government mediated by the Klaïpeda County (since the entire coastal zone falls within the administrative boundaries of this county) and the Ministry of Environment. Proposals are usually made by different municipality administrations.

Within the coastal strip, at a county level, planning is organised by the Klaïpeda County Administration. Its Territorial Planning Department is responsible for integration of coastal management through supervision of territorial planning procedures. A Regional Environmental Protection Department under supervision of the MoE has been established which is responsible for overall planning and management protection and inspection of the territory of the coastal zone. Furthermore, an inspectorate directly supervises construction processes in the county.

Outside the coastal strip, the five municipalities of the Klaïpeda County are responsible for territorial planning and development and have the right, each for their own territory, to

develop comprehensive and detailed territorial plans which must be in accordance with state interests. There are several national protected areas (1 National Park, 2 regional parks and 4 landscape and botanical reserves) in the coastal zone *viz*. Curonian Spit National Park, Nemunas Delta regional park, Pajuris regional park, landscape reserve Kliosiai and botanical reserves Smelte, Luzijos and Kintai.

The Ministry of the Environment is the main responsible body for the marine affairs. The following specific bodies of the Ministry are responsible for Integrated Coastal Zone Management:

- The Centre of Marine Research
- The Regional Environmental Protection Department of Klaïpeda
- The Landscape and Environmental Assessment Divisions.

The following bodies of the Ministry are responsible for marine environmental protection:

- The Centre of Marine Research
- The Joint Research Centre
- Coast Guard Service of Klaïpeda
- Regional Environment Protection Department

The Klaïpeda State Seaport Authority is also involved but falls under the Ministry of Transport.

Issues of sustainable use and conservation of marine living resources belong to:-

- The Klaïpeda Regional environmental Protection Department
- Water Resources Department
- The Marine Research Department
- The Fishery Department of the Ministry of Agriculture.

On an inter-governmental level, Lithuania is closely aligned with the National Helsinki Commission (HELCOM) Committee. It was established in 1998 to facilitate co-ordination among all of the responsible organisations for the preservation of the Baltic Sea Region.

2.2 Policy

Lithuania has a national strategy on ICZM that aims to minimise the pollution in the land and seawater basins during intensive economic activities. Requirements exist to prepare territorial planning documents for coastal zone management and assess environmental impact of the planned solutions. The Biodiversity Conservation and Action Plan (1998) also affect the management of coastal and marine areas. The National Environmental Strategy (1996) aims to improve control and minimise pollution and preserve natural resources. Lithuania also has a National Oil Spills Contingency Plan which is expressed in the above Action Plan and Strategy.

At a local level, there is "the Master Plan of the Klaïpeda Palanga cities" which include issues on ICZM. There is a comprehensive plan (general scheme) of the Kursiu Nerija national park, adopted in 1989 by Cabinet of Ministers, which is used as state policy in the whole national park territory as well as in ICZM. In 1999, the Neringa municipality began the preparation of special ICZM programmes where special measures are planned to manage and protect the coastal zone.

The Klaïpeda county master plan is currently under preparation (as is compulsory according to the Law on Territorial Planning of 1995) and some issues of ICZM might be regarded as state policy as Klaïpeda County covers the whole coastal area of Lithuania. The master plan is due to be adopted this year. It aims to provide clear guidelines for sustainable and integrated development priorities of the Klaïpeda county until the year 2020. It is to become a

key part of the state spatial planning system and a guide for other plans. Since the approval of the Law in 1995 only a few municipalities have proceeded with a new master plan. In many municipalities the previous plans are still in force. Although they are bigger than municipalities in Estonia and Latvia, they still depend on external assistance for territorial planning.

2.3 Legislation

ICZM is regulated by the Administrative Law Violation Code of the Republic (1994) with some amendments later, Statute of the Klaïpeda State Sea Port of the Republic (1996), Inner Water Transport Code of the Republic (1996), Law on Construction of Buildings in the Coastal Zone and Kursiu Nerija (1995), and the Governmental Decree on Delineation of Coastal Zone 78 (1996).

Marine environmental protection is regulated by the Decree No 495 (1998), order of the Transport and Communication Ministry No 185 (1998), Law on Marine Environment Protection No VIII - 512 (1997), and the Methodical Recommendations for the calculation of damages of Nature according to the Environmental Protection Law (1992).

Sustainable use and conservation of marine living resources is regulated by the Law on Fisheries (2000), Rules on Fishing and Protection of Fish Resources in the Economic Zone of the Baltic Sea, Order on Enforcement and Management Measures for Lithuanian Fishing Vessels in the Conventional Area of the North West Atlantic and the Law on Wildlife.

Furthermore there are regulations for navigation such as the Navigable Regulations of the Klaïpeda State Port (1993).

3. Coastal and Marine Environmental Policy

Environmental policy is based on the principle that natural and recreational values of the coast must be preserved. In the national policy documents such as the *National Environmental Strategy and Action plan* (1996) and the *National Bio-diversity Conservation Strategy and action Plan* (1998), it is foreseen that natural resources and coastal landscapes should be protected. In the planning documents of the Klaïpeda county and other relevant municipalities, the Lithuanian coastal zone is interpreted as an area of environmental protection priority with sustainable tourism and fisheries proposed as the main activities to be developed. Recent proposals for harbour development, dumping, etc. have been carefully analysed and assessed in terms of environmental impact and coastal zone protection. Restoration of degraded coastal dunes in recent years is the major concern of the Ministry of the Environment and Palanga and Neringa municipalities. A precondition for implementation of the special programmes and plans is the preparation of an ICZM plan.

4. Coastal and Marine Nature Conservation Policy

4.1 Authority

The master plan of protected areas, such as state parks, is to be approved by the government. National and regional parks are administered by park administrations which fall under the responsibility of the newly formed State Service of Protected Areas under the Ministry of Environment. If objects and regions of cultural heritage are concerned then the Department of Cultural Heritage is involved.

4.2 Policy

Nature conservation in the coastal zone mainly focuses on the Kursiu Nerija National Park and two regional parks - Pajuris and Nemunas delta - as well as state reserves. Nature protection activity is also carried out in the state forests along the coastline where forest categorisation is used as areas of limited economic activity. In total approximately 70% of the Lithuanian Baltic Sea and Kursiu Lagoon coast fall under some form of nature conservancy.
The gill-net fishery in the coastal zone is managed via a special licensing system and set quotas.

4.3 Legislation

Legal acts pertaining to nature conservation protection are:

- Law on Protected Areas (2001)
- Law on Wildlife (2002)
- Law on Protected Animal, Plant, Fungi Species and their Communities (1997/revised 2002)
- Law on Protection of Plants (1995)
- Law on Wild Fauna (1997)
- Law on Forests (1994, 1998) states that all coastal forests on the Curonian Spit and on the continental coast of the Baltic and the Curonian lagoon are state-owned with exclusive state interest and special coastal management function.

5. Economic Developments, important sectors and trends

5.1 Recreation and tourism

Lithuania has a long tradition of tourism and leisure at the coast which exerts significant development pressures on the coast. Changes are taking place in this sector and in the future a strong growth of leisure industry, stabilisation of recreational flows and intensification of tourism connections in the Baltic region is foreseen. The increasing number of western tourists is encouraging investment in renovation and improvements in holiday facilities.

5.2 Coastal defence

Coastal erosion is increasing annually. Coastal forests are, according to the Law on Forests, specifically regarded as a protected category. The use of forests is limited, clear cutting of trees is not allowed in a zone of 1 km.

6. The Current State of Integrated Coastal Zone Management

6.1 Legal framework

There is no national legislation for the regulation of ICZM although an international framework for the development has been secured by ratifying several conventions.

6.2 Finished projects

- *ICZM Plan for the coastal zone of Lithuania*

The project formed part of the EU Demonstration Programme on ICZM. The project aimed to have an integrated approach to management as well as trying to promote public participation. It further aimed to establish a policy, regulatory, institutional and management framework for the management of the study area which covered the whole coastline

including the coastal lagoon. It also set out to establish a programme of priority action and demonstration to protect the environment and reduce pollution.

- *ICZM Programme for the Baltic States and Poland*

This satellite-image and GIS (Geographic Information System) based project was executed from December 1997 to the middle of 2000. The aim of this project was to give Estonia, Latvia, Lithuania and Poland the opportunity to better manage their coastal resources in an environmental and sustainable way.

6.3 Ongoing programmes

- *Conservation of Rusne island*

The island, located in the Nemunas delta, formed the background for successful integration of economic development and environmental protection. The programme has been running since 1994 and has become of model of the integration of sustainable agriculture, sustainable farming and conservation of natural values.

- *The urban waterfront development project*

The objective of this project is to find solutions for downtown and dock areas in ports and small towns situated on the waterways in their hinterlands. Especially in the eastern part of the Baltic Sea Region, city development has been discouraged from the waterfront and a new use has to be found for abandoned military sites. The project aims to create a network for exchange of experience from the various projects to be launched in the participating cities.

- *Environmental atlas for the Curonian spit, Kaliningrad and Lithuania*

Mapping of the shore line of the Curonian spit is being done. The environmental mapping will provide a foundation for oil protection planning of the coast. The atlas is following HELCOM recommendations.

6.4 Initiatives related to ICZM

- *The General Klaïpeda Region Project*,

The project was funded by the Lithuanian government and carried out by the Klaïpeda Country Administration. The plan forms the basis of the different projects set up in the region. It contains the various regulations, decrees and point of criteria the projects have to fulfil in order to receive funding. An example of such a project is the Klaïpeda Environmental Project that integrates improvements of the Klaïpeda water and waste water system with a management plan and programme for the Curonian Lagoon and Nemunas River Delta.

- *Olando kepure nature reserve*

Situated in the Palanga city coastal zone, the municipality of Palanga is implementing its plans which place particular emphasis on integrated coastal management. Interests of local private tourism and fishery enterprises are carefully balanced with conservation and environmental education. Additionally the municipalities of Neringa and Palanga have drawn up special programmes for coastal dunes protection and sustainable management.

- *·Joint Comprehensive Environmental Action Programme for the Baltic Sea (JCP)*

The JCP was adopted in 1992 to constitute a 'Strategic Action Plan' for the Baltic Sea region. It provides an environmental management framework for long-term restoration of the ecological balance of the Baltic Sea ecosystem through a series of preventive and curative actions to be undertaken in a phased manner in the region. The five recipient countries, Estonia, Latvia, Lithuania, Poland and the Russian Federation opted for Global Environment Facility (GEF) assistance within this framework through the United Nations Development

Programme and the World Bank. Updated and strengthened in 1998, the JCP Framework has formed a fruitful basis for further regional projects.

- *Chemical industry and the environment project*

The purpose of this pilot project is to improve the standards of environmental conservation in Dirbtinis Pluostas, a large chemical company based in Kaunas and producing synthetic fibres. Finnish expertise is being used to help the company develop an environmental management system that corresponds to western standards. The project also aims to promote environmental co-operation between businesses, colleges and the authorities in Kaunas and Tampere regions. This objective will be given further support in the final phase of the project by a special environment sector contact event to be held in Kaunas.

6.5 Evaluation

Information for evaluation of the projects is scarce but PROCOAST has reported that there are still problems and constraints for further development on ICZM. One such problem is that there are no special agencies or institutions responsible for planning, implementation and evaluation of ICZM. The non-existence of these specialised bodies has led to numerous conflicts among the different levels of management which are in charge of implementation. The management institutions' activities overlap each other, making the implementation of successful ICZM a slow and bureaucratic process. Additionally, the level of public participation in the decision making process is also low because there is no opportunity for it to occur. Furthermore the decision making process is unnecessarily complex as a result of the overlapping of authorities among the levels of management.

7. NGOs and other private stakeholders

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *Environmental Centre for Administration and Technology - Lithuania (ECAT-Lithuania)*

ECAT-Lithuania is a support unit for Lithuanian municipalities and organisations involved in environmental issues. It is an independent non-profit-making and non-governmental organisation.

- *EUCC Baltic Office*

A branch office of the European Union for Coastal Conservation aims to promote an integrated approach towards coastal management. The Office is a partner in a number of nature conservation projects.

- *Lithuanian Fund for Nature*

An independent charity organisation promoting any activities aimed at the preservation of living nature. The Fund was established in 1991 and it was the first public organisation in Lithuania that accumulated funds and was supporting programmes and projects designed to preserve wildlife and vegetation.

- *Lithuanian Green Movement (LGM)*

The Lithuanian Green Movement (LGM), or Friends of the Earth Lithuania, was established in 1988 and it is among the biggest and strongest Lithuanian environmental NGOs. Its most famous actions influenced the process of democratisation of Lithuania in the period 1988-1990. LGM is an umbrella union of environmental clubs, groups and individuals. Its main activities are protection of the Baltic Sea, conservation of protected territories and natural landscape, an energy campaign that works for decentralisation and democratisation of the

existing energy system, and air pollution and acid rain. Environmental education is a big part of LGM work, focusing on sustainable development and creation of a pluralistic, democratic society.

- *The Regional Environmental Centre for Central and Eastern Europe (REC)*

The Regional Environmental Centre for Central and Eastern Europe (REC) is a non-advocacy, not-for-profit organisation with a mission to assist in solving environmental problems in Central and Eastern Europe (CEE). The Centre fulfils its mission through encouraging co-operation among non-governmental organisations, governments and businesses, supporting the free exchange of information and promoting public participation in environmental decision-making.

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POLAND

1.The Coastal Zone

1.1 Description of the coastal zone

The total length of the Polish coastline, including the banks of internal sea waters, i.e. the Szczecin and Vistula Lagoons, is 843 km. It is comprised of 500 km of seacoast, 241 km of the Szczecin Lagoon and 102 km of the Vistula Lagoon. The Polish coast includes sandbars with dunes, cliff coasts and lagoons, coastal lakes, river estuaries and delta plains. Dune shores, related to littoral accumulation, occupy about 71% of the length of the coast. Upland shores occupy about 19%, the remaining 10% being low, lagoon shores and harbour areas. The majority of shore accumulation forms occurring on the Polish coast are threatened. It appears from Maritime Office data that about 50% of the dune and 65% of the cliff shores have been devastated.

1.2 Definition of the coastal zone

There is no precise legal definition of the entire coastal zone. The variable boundaries of the Protective Belt are used for terrestrial planning purposes. The seaward boundary of the Technical Belt is established as 'on the water line at mean sea level' by regulation of the Prime Minister. The lower part of the inter-tidal and the marine zone are thus outside this definition, although the small tides in this part of the Baltic Sea mean that the width of inter-tidal shore below this line is generally narrow.

1.3 Setback lines policy

The Act on Marine Areas of the Polish Republic and Maritime Administration (1991) established a protected coastal strip running the length of the Polish coastline, including internal marine areas, *i.e.* Vistula Lagoon, Szczecin Lagoon. This strip comprises the Technical Belt and the Protective Belt which must be marked on all Land Use Plans. The technical belt is used for ensuring adequate safety and state of the environment, whereas the protective belt is established in order to control the negative impact of human activity in areas directly adjoining the technical belt landward of the technical belt.

The Technical Belt has been established for the whole Polish coastline and extends up to 200m inland, according to the type of coast. In dune areas it is up to 200m landward of the dune ridge; for cliffs it is up to 100 m landward of the upper edge of the cliff; and for the lagoons it is up to 200 m landward of the shore. In some areas, it has been increased to as much as 1 km wide, but in urban areas and along the shores of lagoons it can be much narrower. According to the 1991 Act, it is 'an area designed for maintaining the coast in a state conforming with the requirements of safety and environmental protection'. The relevant Maritime Office must approve all uses of this strip. It is primarily intended for coastal and environmental protection.

The Protective Belt extends generally up to 2 km inland from the landward boundary of the Technical Belt but in some places it widens to 5 km. In urban areas it can be much narrower. The Belt is intended to limit the impact of human activities on the Technical Belt and consequently there are restrictions on land use and development to ensure they do not have a negative influence on the state of the Technical Belt. All permissions for building within these zones must have the approval of the relevant Maritime Office. In essence, it is acting as a buffer zone.

2. Coastal Management

2.1 Authority

The scope of competence of maritime administration and other local and governmental administrative bodies can be divided into three areas:

- The territorial sea and marine internal waters

Maritime Administration enjoys full competence as regards the location and the substance of issues, with the exception of construction permits and water supply and sewage effluent disposal consents, i.e. the so-called water law permits. However, these require consultation with the competent head of the maritime office within the territory. Another exception is permits for the extraction of seabed resources which require consultation with the Ministry of Transport and Maritime Economy. Construction and water law permits are issued by provincial governors. Maritime Administration is competent to issue decisions in terms of land development and spatial management in this area.

- The technical belt

Maritime Administration is responsible for the preparation and execution of the protection of the shore and the environment, as well as for issuing permits for all kinds of use, with the exception of construction and water law permits and for the consultation of local spatial management plans and decisions. Construction and water law permits are issued by other administrative bodies on condition that they have received the approval of a competent maritime authority.

- The protective belt

Water law permits and decisions related to construction, changes in land use, as well as the elaboration of spatial management plans, are effected by competent 'land' bodies in consultation with the competent maritime authority.

2.2 Policy

There is no national policy regarding coastal management. A new concept of spatial planning for the coastal zone is being discussed. At a regional level, the principles of development and conservation are being discussed as a first step to create the *Regional Strategy of Development*. On a local level, some documents are being prepared which should function as a framework for spatial planning in the future.

2.3 Legislation

There is no separate national legislation for coastal zone planning and management. A number of legal instruments cover either the terrestrial or the marine part of the coastal zone. Many of these instruments are recent Acts that have been introduced in the course of the major political and administrative transition in Poland.

Legislation relevant to coastal zone management:

- The Environmental Law Act, 2001
- The Act on Access to Information on the Environment and Its Protection and on Environmental Impact Assessments, 2000
- The Act on Nature Conservation, 1991 and the changes made to it in 2000

This describes and defines the protection of e.g. dunes.

- The Act on the Protection of Agricultural and Forest Land, 1995
- The Act on Environmental Protection and Development, 1994

This act forms the basis of current environmental legislation in Poland.

- The Geological and Mining Law Act, 1994
- The Hunting Law, 1995
- The Act on Marine Areas of the Polish Republic and Maritime Administration, 1991

This legal instrument regulates the administration of both marine areas and the coastal belt. The Act also establishes the competence of the maritime administration (Maritime Offices) and other governmental and local authorities.

- The Water Law Act, 1974

The Act defines tasks associated with the management and protection of water and its sources. Regional water management boards are responsible for the strategic management of water resources. The Act describes the terms of proper water usage and the regulatory tool used for this purpose, the so-called water permit.

3. Spatial Planning in the Coastal Zone

3.1 Authority

There are four planning levels in Poland, i.e. national, regional, county and local.

- National

The Housing and Urban Development Office is the governmental agency that is responsible for the general co-ordination and standardisation of physical planning. The Government Centre for Strategic Studies is responsible for the national physical development policy and other kinds of planning at this level. Furthermore, the Ministry of the Environment has guiding and control tasks in respect to environmental issues of spatial planning.

- Regional

There are 16 provinces, or *voivodships*, in Poland, three of which are situated on the coast, being the West-Pomeranian, Pomeranian and Varmian-Masurian. The voivodships are self-governing authorities. The regional self-government, headed by the Marshal of the Vovoidship, has full responsibility for strategic and spatial planning. The regional body for planning is the Marshal's Office and the Department of Strategy and Development. Other institutions involved in the formulation and implementation of regional plans include regional development agencies, NGOs, foundations, etc.

- County

The role of counties in public administration is an intermediary one, with no specific planning competencies.

- Local

There are 1489 communes in Poland which have substantial planning responsibilities, however their enforcement potential is rather weak. All local communes are obliged to prepare and approve a 'local comprehensive planning document', which formulates the preconditions and directions for physical development. National and regional goals and directions are to be taken into account when elaborating these plans. The detailed spatial plans are prepared as a legal instrument for the development permits.

3.2 Policy

The 1994 Physical Development Act regulates the goals and principles of spatial development and planning, adopting sustainable development as a foundation. Since the mid-1990s, most of the planning and policy-forming activities in Poland have been performed at the local and regional level by self-governmental institutions. The basic regulation is the Physical Development Act of 1994 but the drawback of the Polish system is that planning, building and environmental protection issues are regulated by completely different acts. It also must be said that many communes have not yet enforced their local comprehensive plans. The Ministry of the Environment is responsible for the so-called "protection plans", prepared for the National and Landscape (regional) Parks. However, these plans do not belong to the category of spatial plans in the sense of the Physical Development Act and their provisions are binding for the regulations of the statutory local comprehensive and detailed spatial development plans.

At the national level, the Concept of National Spatial Development Policy is being elaborated as a strategic document (the present document is called “Poland 2000 plus”). One of the key components of the Concept is sustainability. Alongside the socio-economic and environmental policy documents (strategies), it is supposed to operate as a tool for indirect regulation of structural changes in Poland (especially the physical space, incl. environment), during the process of transition to a market driven economy. In this respect, it is co-ordinated with the umbrella document of the Polish government “Sustainable Development Strategy for Poland till 2025”.

Moreover, drafts of substantial amendments to the Physical Development Act and the Environmental Protection Act have been submitted to the Parliamentary Commission.

3.3 Legislation

Other regulations and legislation relevant to spatial planning are:

- The Act on Municipal Self-government, 1990,
- The Act on Marine Areas of the Polish Republic and Maritime Administration, 1991,
- Construction Law, 1995,
- General Building Regulations, 1997, and the
- Protected Belts Act, 1997

4. Coastal and Marine Environmental Policy

Over the last few years no national plans, programmes or strategies have been approved at the ministerial level. One of the main problems in this field appears to be that at the ministerial level no lobbying bodies exist that work on coastal zone management and protection. Although some preliminary work has been started, large-scale successes have not yet been achieved. The new Polish Constitution states that sustainable development shall be a basic principle of any policy which is at least a good general platform for the introduction of ICZM.

At present, the New National Environment Policy is formulated by the government and being discussed in the Parliament. The document calls for actions in the field of environmental protection and sustainable development of Poland at the turn of the century. The principle of sustainable development has been adopted as a leading principle of the New National Environment Policy. The primary objective of the state environmental policy is to ensure ecological safety for the country, its inhabitants and natural resources by applying such measures as legal regulations and control in reference to the use of the environment. The transposition of the respective EU regulations into the Polish legal system is an important element necessary for the achievement of this objective.

5. Coastal and Marine Nature Conservation Policy

5.1 Authority

The provincial governor has the basic competencies in terms of the introduction of certain forms of nature conservation and is authorised to establish reserves. Boards of communes are competent to implement different forms of individual protection, to establish protected landscape areas and to introduce species protection. Certain rights, related to management, organisation and supervision lie with the head of the county. The authority regarding protective forests is either the minister, in the case of forests that are the property of the State Treasury, or the provincial governor, for all other forests.

5.2 Policy

A long-term programme for coastal protection was approved in 1986 and revised in 1989. A new long-term coastal policy in under preparation which will mainly consist of technical guidelines. Moreover, Poland has established several parks, reserves and protected areas.
Protected areas in the coastal zone cover a total of 154,512 ha, almost 0.5% of the country's area. There are 2 national parks, 66 nature reserves, 5 landscape parks and 5 areas of protected landscapes. The following tables present the basic data concerning the large protected natural areas in the coastal zone.

Table 1: *National parks and their geographical status (in hectares)*

National Park area (hectares)	Total	Forest	Water	Under strict control
1. Wolinski National Park	4,897	4,422	165	
2. Slowinski National Park	18,247	4,536	9,763	5,935

Table 2: *Landscape parks and their geographical status (in hectares)*

Landscape Park Area	Total	Forest	Agriculture	Water
1. Szczecin Landscape Park – Beach Forest	9,096	6,742	1,616	241
2. Nadmorski Landscape Park	15,493	3,043	285	10,345
3. Trojmiejski Landscape Park	20,104	18,154	1,805	145
4. Vistula Spit Landscape Park	4,410	3.330	186	269
5. Elblag Upland Landscape Park	13,460	6,775	5,024	159

Table 3: *Protected landscape areas and their total surface (in hectares)*

Protected landscape areas	Overall area
1. Koszalin Coastal Belt	48,330
2. Coastal Belt west of Ustka	7,520
3. Coastal Belt east of Ustka	3,336
4. Area of protected landscape of Vistula Lowlands	5,320
5. Area of protected landscape of the River Bauda	2,150

Two national parks protect two different types of dry coastal ecosystems in Poland. The Wolinski National Park in the north-western cliff zone was established in 1960, while the Slowinski National Park on the sandy coast, with large mobile dunes, was established in 1966. The latter was nominated as a 'Biosphere Reserve' in 1980. Both these parks have made large scientific investigations possible in all spheres of the national sciences. They have preserved the most valuable landscapes with their vegetation and fauna.

Many nature reserves of different character protect special forms of coastal landscapes, special types of soils (notably naspa soils and classical podzolized soils), rare plants, plant communities and animals. In the so-called 'reserves of protected landscape' the human impact on nature is greatly restricted. Another aspect concerns the stabilisation of primary white dunes developing along the beach. The main danger for the landscape, and for the coastal vegetation, consists in the invasion of tourists and holiday-makers as well as in the construction of different kinds of weekend houses with camping and parking areas or even of big tourist amenities in the direct vicinity of the coast.

5.3 Legislation

Legal Acts pertaining to environmental protection:

- The Water Law Act, 1974
- The Act on the establishment of the Ministry of Environmental Protection, National Resources and Forestry, 1989
- The Act on Nature Conservation, 1991
- The Act on Marine Areas of the Polish Republic and Maritime Administration, 1991
- The Act on the establishment of the State Inspection for Environmental Protection, 1991
- The Act on Nature Conservation, 1991 and the changes made to it in 2000
- The Act on fees for Economic Use of the Environment, 1993
- The Geological and Mining Law Act, 1994
- The Act on Environmental Protection and Development, 1994
- The Act on the Protection of Agricultural and Forest Land, 1995
- The Act on Access to Information on the Environment and its Protection and on Environmental Impact Assessments, 2000
- The Environmental Law Act, 2001

6. Economic Developments, Important Sectors and Trends

6.1 Recreation and tourism

The coastal zone is a traditional area of mass recreation and tourism activity. About 30% of the tourist facilities in Poland are located along the coastal strips. Unplanned development of tourism facilities on the Polish coast in the past has caused a concentration of recreation places in, or close to, areas of natural beauty. A number of these areas have experienced serious degradation, water and air pollution, devastation of flora on sand dunes and cliffs and deterioration of forests and open spaces. Programmes for the protection of about 100 landscape parks and many nature reserves in Poland are being planned and implemented. To prepare for the sustainable development of the Polish seaside, a study of the coastal zone has been made. This study includes: documentation of the natural resources, protection programmes, comprehensive assessments including environmental impact assessment for recreation and health services needed; assessment of the degradation or anthropogenic effects on the natural environment and assessments of the environmental impacts of existing and proposed investments and developments.

6.2 Coastal defence

Over 100 km of the Polish shoreline is now protected in some form by means of groynes, seawalls, bulkheads, revetments and increasingly artificial beach nourishment. The Act on the Forests (1991) describes which forests in the coastal belt are understood as 'protective forests'. A strategy for coastal defence is under preparation which will mainly consist of technical guidelines.

7. The Current State of Integrated Coastal Zone Management

7.1 Legal framework

There is no national legislation that can be identified as ICZM regulations or decrees. Since no formal mechanism has been installed to facilitate or promote integration as regards ICZM and there is no national policy or legislation for ICZM, overall legislation concerning management and planning is applied. Poland has created a framework for the development of ICZM which could be perceived as an important international incentive for a more integrated approach by signing numerous conventions. Moreover, Poland has engaged in international discussions on the implementation of ICZM and accepted international obligations to meet certain criteria and pursue a strategy of sustainable development in numerous fields, including coastal areas.

7.2 Finished projects

- *ICZM in The Baltic States and Poland*

This satellite-image and GIS (Geographic Information System) based project was executed from December 1997 to the middle of 2000. The aim of this project was to give Estonia, Latvia, Lithuania and Poland the opportunity to better manage their coastal resources in an environmental and sustainable way. The specific pilot project in Poland (Coastal Processes and Dynamics, Wladyslawowo Municipality) was located in the Wladyslawowo area. The establishment of an Information Centre in Gdansk, and adhering hardware and software installation and testing, in combination with training of the Information Centre personnel are some of the main results, next to the elaboration of the project itself.

- *High Quality Tourism*

The focus of this project is to improve and combine tourism and sustainable development in regions with a large share of protected areas. The end result was a handbook for local actors and linked tourism projects within, and between, the regions.

- *SEBtrans (The South East Baltic Future Transport pattern and the TEM-TER development zone)*

The project aimed to establish a transport corridor as a zone of accelerated development, TEM (Katowice-Gdynia-Karlskrona) and consisted of four sub-projects dealing with transport corridors, modes and technologies and regional development in the South East Baltic. It includes transport patterns and intermodal solutions on short sea shipping and combined transports, an impact study in the TEM/TER development zone, a forecast of passenger traffic in the South-East Baltic and a regional impact study to evaluate the impact of traffic development and trade flows on a local and regional level.

7.3 Ongoing projects

- *Conservation of the Oder Delta*

This joint demonstration project, executed by EUCC - The Coastal Union and (EUCC) Poland, started in 1995. The main aims of the project are to purchase strategically located land and to promote ecologically sustainable development in the area. The goal is to integrate environmental protection with economic development.

- *ICZM plan for the Oder and Vistula Lagoons*

These plans have been developed under the auspices of the HELCOM Working Group for Coastal Lagoons and Wetlands (HELCOM PITF MLW), being the subsidiary of HELCOM PITF. Provisions included in these plans have been incorporated into the development strategies for Poland's coastal provinces. Additionally, the Union of the Vistula Lagoon is to take responsibility for the implementation of ICZM plans for the Vistula Lagoon. A programme to support the participation of integrated management of the Vistula Lagoon was

elaborated in 2000. The aim of the project is to provide the support for implementation of the ICZM plan for the Vistula Lagoon by dissemination of knowledge on ICZM among local authorities and the public, by organising public hearings on ICZM. A similar project is to be implemented for the Szczecin Lagoon.

- *Waterfront Urban Development*

The objective of this project is to find solutions for downtown and dock areas and small towns situated on the waterways in their hinterlands where numerous cities have been turned away from the waterfront.

- *SuPortNet*

SuPortNet focuses on planning activities in regions of the South- East Baltic. SuPortNet aims at implementing integrated spatial planning and management in various locations that need improving harbour facilities.

- *MATROS*

This is a project on spatial (incl. environmental impact) issues connected with the maritime transport and harbours.

- *WUD*

This project is concerned with waterfront urban developments, coastal zones in the towns and cities attractive for multipurpose development).

7.4 Initiatives related to ICZM

- *Joint Comprehensive Environmental Action Programme for the Baltic Sea (JCP)*

The JCP was adopted in 1992 to constitute a 'Strategic Action Plan' for the Baltic Sea region. It provides an environmental management framework for long-term restoration of the ecological balance of the Baltic Sea ecosystem through a series of preventive and curative actions to be undertaken in a phased manner in the region. The five recipient countries, Estonia, Latvia, Lithuania, Poland and the Russian Federation opted for Global Environment Facility (GEF) assistance within this framework through the United Nations Development Programme and the World Bank. Updated and strengthened in 1998, the JCP Framework has formed a fruitful basis for further regional projects.

7.5 Evaluation

A PROCOAST report concluded that in Poland, 'Although nutrient supply could be stabilised by establishing new sewage treatment plants, eutrophication is still a problem. Changes in fish stock composition could be observed. There are protected areas, but a monitoring programme exists for the marine environment only. Parts of the coasts are affected by coastal defence construction due to the danger of flooding and erosion'. The general conclusion that was drawn is that there is a lack of knowledge and attention to coastal environmental issues.

8. NGOs and Other Private Stakeholders

Some of the most important NGO's concerned with nature conservation are:

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *ECOBALTIC Foundation*

The foundation aims to raise the public awareness and to conduct ecological education in the field of nature protection and related scientific research. It publishes materials on ecological issues.

- *EUCC - The Coastal Union - Poland (EUCC Poland)*

An organisation concerned with sustainable use of coastal resources.

- *International Union of Anthropological and Ethnological Sciences, Commission of Human Ecology (CHE/IUAES)*

The CHE/IUAES is specifically concerned with support for research in human ecology, information exchange, co-ordination of international research programme on the bio-social status of human populations as an indicator of environmental changes.

- *League for the Conservation of Nature in Poland*

The organisation aims at the conservation of nature, ecological education, especially in schools, protest group, publications, co-operation with other organisations in Poland and abroad.

- *National Council for Protection of Nature in Poland*
- *OTOP*

The Polish Society for the Protection of Birds

- *PTOP*

The North Podlasian Society for Bird Protection is active in North Eastern Poland, and aims at protecting birds and their habitats, documenting the current status of and the changes in the birdlife of the North Podlasian Lowland. Another goal is to raise public awareness of the threat to the survival of bird-life and the possibilities of their protection.

An extensive list of nearly all NGO's in Poland can be found at http://www.rec.org.

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RUSSIA

1. The coastal zone

1.1 Description of the coastal zone

The Russian Federation has three federal areas on the Baltic Sea coast: Kaliningrad oblast, Leningrad oblast and the City of St. Petersburg.

Kaliningrad oblast (Kaliningrad Region) is the westernmost part of Russia, separated from the mainland by Belorussia and Lithuania. The district is 15,100 square kilometres with a population of about 930,000 people. The length of the coastline is about 185 km. Kaliningrad region is a special economic zone with some privileges in custom rules and tax exemptions. Two significant natural landscapes form a large part of the Kaliningrad coast: the Curonian Spit, continued to north within Lithuania, and the Baltic Spit generally placed in Poland.

Leningrad region is situated across the eastern part of the Gulf of Finland and subdivided near the mouth of the Neva River by the City of St. Petersburg. There is a forest region where woodstands occupy near 53 per cent of the area, however, the population density is high (75 inhabitants per sq. km) and some large cities (Vyborg, Sosnovy Bor, Primorsk) have sea harbours. The total population of the Leningrad region is about 1,675,000 people (approx. 400 000 in coastal municipalities) and the whole maritime agglomeration including the City of St. Petersburg has 5,200,000 inhabitants.

The coast of the Gulf of Finland is quite different with fjords and fjards in the north, shallow brackish Neva Bay semi-isolated by the St. Petersburg flood protection dam in the east and large bays in the south.

1.2 Definition of the coastal zone

The coastal zone and sea-shores in the Russian Federation are not a subject for any special acts. The rights of the federal and regional authorities concerning coastal zone management are delineated by the 1993 Constitution of the Russian Federation, the Water Code of the Russian Federation (1995), the Land Code of the Russian Federation (2001) and a President's Decree "On federal natural resources" (1993).

It was established that the territorial sea and the inner marine waters below the coastal line are a “federal resource” and should fall under the responsibility of the federal government. The territory above zero depth line is assumed as "land", even rivers and lagoons, which are known as "water fund lands". Any land is under regional responsibility.

The Water Code of the Russian Federation has defined "the water protection zone" defined as a land with a special regime of economic regulation along any water object (i.e. river, lake, sea). The purpose of special regime designation is sustainability of water quality and nature conservation for water fauna and flora protection.

That part of the water protection zone which is in immediately contact with waters is known as the "coastal strip". This term appears in a number of federal acts, which deal with environmental policy and use and protection of water resources. It will be presumed as an analogue of the coastal zone for this report. Direct prohibition of forest cutting, ploughing and new construction within the coastal strip was established for any territory with exceptions for city areas and harbours.

The size of both the water protection zone and coastal strip vary according to the1996 Governmental Directive. Generally, the width of the water protection zone for the sea-shore is 2 km land-ward with a 500 m coastal strip. The same rules existing in sanitary regulations and some other acts.

The real protection measures are those closest to the sea part of the coastal strip, which is 30-100 m wide depending to the slope of the coast.

1.3 Setback lines policy

Article 111 of the Water Code of the Russian Federation established a statute of "water protection zone of water objects", where "water object" is any stream, river, lake, reservoir, sea within the boundaries of the Russian Federation.

Governmental Decision No. 1404 from 23 November 1996 appoints general regulations on water protection zones and includes determination of the "coastal protective strip" laying along the water object within the boundaries of the water protection zone.

The minimum size of the water protection zone for the seacoast is defined as 500 m from the maximal water stand whereas the minimal size of the coastal protective strip is varying from 30 up to 100 m. Normally, the general scheme of the water protection zone should be determined by the regional government, following a suggestion of the Basin Board on Water Management of the Ministry on Natural Resources of the Russian Federation. In practice, in most cases, planners use minimal sizes as default.

A wide range of activities (use of chemicals for agriculture and forestry, oil and fuel operations, any construction without specific permission) is prohibited in the water protection zone and some extra ones in the coastal protective strip (ploughing, any use of fertilisers, etc.). However, it is important to note that the restrictions of the water protection zone are not valid for urban territories (i.e. those lands which are officially included in city or town territories).

Federal sanitary regulations assume a regime of sanitary protection of the sea coast with a 2 km wide protective zone.

2. Spatial Planning in the Coastal Zone

2.1 Authority

Russia is a federal state consisting of 89 regions. Planning takes place at a federal, regional and local level. The General Settlement Development Scheme (GSDS) for the Russian Federation Territory (national-planning guidelines, the last one adopted in 1995) is to be enforced by the Government of the Russian Federation. However, GSDS has low importance for real planning due to rapid changes in the economic situation and investors' interests, while the state authorities remain passive in spatial planning.

In Russia, at present, there is no organisation managing and planning the coastal zone and special state agencies responsible for ICZM are absent. Definition of a structure and authorities of state institutions is still a problem for the control of coastal areas. At a federal level, the main responsibility for implementation and co-ordination of the national urban development policies lies with the State Committee on Construction.

A sophisticated system of duplicating development, urban planning and land planning authorities operates at a regional level. Regional subdivisions of the State Committee on Land Cadastre, supervised both by the federal and regional governments, need to have a consensus with the regional Committee on Urban Development and Architecture, the regional Ministry on Economic Development and elected heads of municipalities for any decision. However, there is also a significant role of THE regional boards of the Ministry on Natural Resources and State Sanitary Survey of the Ministry on Health which should be mentioned.

Finally, at a municipal and regional level the final decision on every planning project should be adopted by the appropriate mayor or governor in consecutive order.

2.2 Policy

Two kinds of plans could be developed for every territory: general plans (for federal lands, cities and municipalities) and territorial comprehensive schemes (sectoral tools for forestry, agriculture, energy sector, transportation system, etc.).

General plans are for a 25 year period of implementation and territorial comprehensive schemes for 10 years. Unfortunately, all three federal lands on the Baltic coast have old general plans (which have not yet been adapted to the new socio-economic conditions and geopolitical situation), which are not in use.

Municipalities have authority on urban development and architecture at their level, to approve urban development documentation and to issue building permits. Every municipality (with the exception of the municipalities within the City of St. Petersburg) has a general plan reviewed at least once during the last decade. Two coastal municipalities in the Leningrad region (Kingisepp and Lomonosov district) have a special Surplan on Environmental and Economic Zoning developed in the last 5 years.

2.3 Legislation

The existing system of the national legislation of the Russian Federation does not cover coastal protection or ICZM as a special issue.

- Water Code (1995)
- Governmental Directive on water protection zone and coastal strip (1996)
- Land Code (2001)
- Urban Development Code (1998)
- Law on Protected Areas (1995)
- Law on General Principles of Municipal Self-Governance (1996)

3. Coastal and Marine Environmental Policy

3.1 Authority

There is no special governmental body for the coastal and marine environmental policy. Ministry on Natural Resources presumes general competence in this field.

The Marine Board of Government is a special administrative body which develop plans and supervise on any policy in this zone. The Board is a consultancy body directed by the Prime-Minister of the Russian Federation.

Part of the land, as well as the territorial sea, the continental shelf and the exclusive economic zone of the Russian Federation, falls under exceptional federal regulations, when

planning is governed by other responsible ministries. Also, several ministries are responsible for coastal zone policy (on the terrestrial and maritime sides) according to their mandate e.g. the Ministry of Health, the State Committee on Fishery, the Ministry of Fuels and Energy, etc. The Special Maritime Inspection of the Ministry on Natural Resources has a key role in controlling pollution of marine waters.

At a regional level, the coastal zone policy is under the jurisdiction of regional administration and regional branches of corresponding ministries.

3.2 Policy

General statements of environmental policy in the country were established in the Concept of sustainable development adopted by the Russian government in 2002. The spirit and main principles of the Concept came from international agreements signed by Russia.

3.3 Legislation

- Law on Environmental Protection (2002)
- Water Code (1995)
- Law on Environment Impact Assessment (1995)

4. Coastal and Marine Nature Conservation Policy

4.1 Authority

On the federal level of jurisdiction, several agencies are responsible for nature conservation. The main administrative body is the Ministry for Nature Resources with its departments of Protected Areas and Biodiversity Conservation. These two departments are responsible for the supervision and management of all the activities of the federal level protected areas (strict scientific protected areas – “zapovedniki” - and national parks) and all the activities related to rare and threatened species. The department of ecological expertise is responsible for the evaluation of any environment impact assessment. According to the delineation of rights between federal and regional competence, all the projects in coastal waters are under federal jurisdiction.

Protection of marine resources in coastal and exclusive economical zones is a responsibility of the Marine Boundary Forces, a special department of the Federal Boundary Guard. Wise-use and protection of resources for fisheries (including invertebrates and marine mammals) are under the supervision of the State Committee for Fishery which is responsible for the adoption of the Rules for Fishery and the estimation of the available stock for each area and species. The Department of Hunting and Game falls under the Ministry of Agriculture and is responsible for the management and protection of game species.

On the regional level, regional branches of the corresponding ministries have to co-ordinate their activities with the regional administration. The regional administration is responsible for the creation and management of regional level protected areas, such as nature parks, nature monuments and reserves. It is also responsible for the adoption of Regional rules for fisheries and game and hunting within the framework of federal law. Regional lists of protected and threatened species are also compiled regional authorities.

4.2 Policy

The mainstream of Russia’s conservation policy is in accordance with international agreements and conventions signed by the country. The milestones have been determined by global conventions e.g. Biodiversity Convention, Ramsar Convention on the protection of

wetlands and regional conventions and agreements such as Helsinki Convention on protection of the Baltic Sea.

On the federal level, several documents determine the conservation strategy. General guidelines for conservation policy are provided by the Concept of sustainable development (2002) mentioned above. The approaches to the further development of a federal network of protected areas are identified in the General Scheme of Protected Areas. Territories proposed for zapovedniki and national parks are listed there. Wetlands, which have to be protected under the Ramsar convention, are listed in the List of the Ramsar Sites and proposed areas are included in periodically updated List of Proposed Ramsar Sites. The Red Data Book of the Russian Federation includes species under threat, which cannot be removed without special permission. The habitats of these species are also protected and any type of activity which could destroy the object of protection are prohibited.
On the regional level, the regional development plans can include special parts on natural and biodiversity conservation. Urgent measures for conservation of any territory or species can be adopted by the regional administration.

4.3 Legislation

The protection of biotopes of the coastal zone of the Baltic Sea is regulated by:

- Law on Fauna (1995)
- Water Code (1995)
- Land-use Code (2001)
- Forest Code (1997)
- The rules for prevention of coastal seawater pollution (1983)
- Sanitary rules and norms for prevention of coastal seawater pollution at the regions of public water consumption (1988)
- Resolution of the USSR Council of Ministers about establishing boundaries and regimes for sanitary protection of recreation areas (1982)
- Regulations on the National park Kurshskaya kosa (1993)

5. Economic developments, important sectors and trends

5.1 Transport and harbours

There are two main harbours in Kaliningrad oblast – Kaliningrad City and Baltiisk. The development plan for the district propose to increase the marine transportation including the new ferry line between Kaliningrad and harbours of Leningrad oblast, reconstruction of the container terminal in Kaliningrad and development of the sea-port in Baltiisk. The passenger's port in Kaliningrad should provide transportation for 100,000 passengers, 25,000 tones of luggage, 2,000 cars and 2,000 lorries in 2010. At the same time seaport in Baltiisk should be available to maintain the traffic of 2 million tonnes cargo per year.

In Leningrad oblast, new seaports have been designed for Luga bay, Batareinaya bight and in the vicinity of Primorsk city. The last one will be the largest, having 12 million tonnes capacity now with planned second (2003) and third (2005) stages to provide the transportation up to 50 million tonnes of oil and oil products. The new pipeline systems for oil transportation is being constructed and will be re-developed in a few years for the new terminals in Primorsk and Batareinaya bight.

In Luga bay sea port is designed for 35 mln t cargo transportation including coal terminal for 8 mln t. Sea port in Batareinaya is planned as an oil terminal for 15 mln t of oil.

Existing harbours in St. Petersburg, Vyborg and Vysotsk will be reconstructed. The St. Petersburg port now has capacity for 34 million tonnes cargo but has a programme for its enlargement. The port in Vyborg is now restricted by the deep-water channel and operates with 1,7 million tonnes cargo, the existing capacity of the port in Vysotsk is about 2 million tonnes.

Gasprom, the monopoly-holding Russian gas company, is planning to construct a marine gas pipeline from Leningrad region to Germany and United Kingdom, during the next decade, known as the North European Gas System.

5.2 Energy

A few projects in the energy sector relate to the construction of new generating power stations using gas fuel in Kaliningrad region and the St. Petersburg City.

The existing nuclear power station in Sosnovy Bor uses waters of the Gulf of Finland for temperature balancing and causes exceptional impact on neighbouring coastal ecosystems through warming of the coastal waters.

Oil exploration began in the Kaliningrad offshore area close to the Kurshskaya Kosa national park and will be enhanced in a few years.

5.3. Fishery

Kaliningrad is a main base for the distant operating fishery fleet working in the Baltic and North Atlantic. The local fishery sometimes plays an important role in the local economy of the coastal zone. The most vulnerable area for the coastal fishery is the Curonian Bay. The coastal fishery in the Leningrad region was mainly stopped during the last years due to a low operational profit. Economic values of fishing are low in both cases.

5.4. Recreation

Kaliningrad oblast is an important resort and recreational area. About 100 companies for tourism and recreation operate here, the number of resorts and camps is about 70 and 22 camps accommodate about 34,000 schoolchildren per year. The most important resort and recreational areas are Zelenogradsk and Svetlogorsk and Kurshskaya Kosa National park. The income from tourism and recreation was 164 m roubles in 1999 and the total number of visitors and guests in the oblast that year was 8.6 m.

The city of St. Petersburg is an important historical and cultural centre, included in the Convention on World Heritage. Its impressive architecture and a great number of museums attract a lot of visitors throughout the year. Recreational areas and resorts are also distributed along the coast of the Gulf of Finland in the Leningrad region serving a population of 5 m.

6. The Current State of Integrated Coastal Zone Management

6.1 Legal framework

ICZM in the Russian Federation is just being established with some model cases known and some important measures having been done in the past, for example coastal engineering in the Kaliningrad region. Coastal planning and coastal management practitioners will be important in the forthcoming future of the Russian Federation. This was shown in decisions of the Second Congress on Environmental Protection (2000), which recommended the

adoption of a specific federal act – the Coastal Code. The draft of this act includes appropriate ICZM regulations.

Traditionally, the coastal zone of the Russian Federation has been developed in a highly centralised and sectoral manner. The need for an integrated approach to coastal issues was not regarded as important. While initiatives are encouraging, socio-economic and political instability may constrain implementation significantly.

6.2 Finished projects

- EU-COMET

The overall long-term objective of this project on “Development of Integrated Coastal Management training and education” is to promote higher education in ICZM. It entails the development of a methodology of ICZM training and education within a wider European framework. The development of the first training course in Russia specialising in ICZM has been initiated and launched by the Faculty of Oceanography of the Russian State Hydrometeorological University (RSHU, St. Petersburg).

- Coastal conservation and local Agenda 21 - a pilot project for Russia

This project started in 1997 and is a complex project with many partners involved. The "Coastal conservation" part includes: development of the management plan for the Koorgalsky Peninsula, development of proposals for enhancement of the regional coastal legislation, assessment of biodiversity on the coast of the Gulf of Finland and proposals for the inclusion of the coastal peninsula in the Pan-European Ecological Network.

One of the local projects was realised in the Kingisepp District of the Leningrad Oblast. The main aim of the project was to test a policy document - The Coastal Code of Conduct for Coastal Zones - in a pilot project for complex development of the coastal zone of the Kingisepp District. Implementation of the project appeared to be extremely useful to Russian specialists since it made it possible to compare “best practice” dealing with the problems under consideration with ongoing practice in the Kingisepp District and to show ways for its improvement. The authority of the district has adopted the document and pledged to implement several of its findings within the constraints of their budget.

- Environmental and Economic Zoning for Lomonosov municipality of the Leningrad region

This project was finished in 2001 with the adoption of municipal zoning at a regional level including ICZM concept regulations. The project was organised by a large number of partners headed by the State Institute for Urban Planning (LenNIIPGradostroitelstva). It was an important example of the co-operation of local stakeholders for planning environmental measures and economic projects at a municipal level.

6.3 Ongoing projects

- TACIS projects on strategic planning in Kaliningrad region

The regional law on strategic planning was adopted by the Kaliningrad regional representative body and includes appropriate environmental planning regulations. A wide spectrum of experts from the EU, Lithuania and the Russian Federation are trying to involve regional government into a comprehensive programme of long-term planning.

The programme put special attention on public participation, accounting of stakeholders' interests and the exceptional role of the region, which will be surrounded by EU member-states in the forthcoming future.

6.4 Initiatives related to ICZM

- Waste Water Treatment of St. Petersburg

The untreated wastewater from one and a half million St. Petersburg residents is currently discharged directly into the river Neva. Untreated waste waters pollute the city's waterways causing eutrophication. Some of this nutrient load remains on the eastern side of St. Petersburg's unfinished protective dam but most of it reaches the Gulf of Finland. It presents an exceptionally serious problem. Construction of the southwest wastewater treatment plant was initiated in the year 2000. International co-operation on the project involved Denmark, Finland and Sweden. A financial and implementation strategy for the project will be ready by the beginning of 2001 and the technical plan based on this strategy will be completed by the start of 2002. This would enable construction work to begin during 2002 so that 2004 could complete the main work.

- General Transportation Scheme for the Gulf of Finland

This is a planning project for the co-ordination of infrastructure policy on the coast of the Gulf of Finland. The goal is for joint transport infrastructure development and environment impact assessment. The Marine Administration of St. Petersburg Harbour is the main co-ordinator of the project, which involves directly or indirectly some federal ministries (Ministry of Transport, Ministry of Natural Resources, etc.), the largest companies in metal, chemical, oil and gas industry and the regional authorities of the City of St. Petersburg and of the Leningrad region. Co-ordinated activities are related to new harbours', railroads, pipelines, specific industrial facilities (like oil refineries, for example) construction along the shoreline areas.

- Joint Comprehensive Environmental Action Programme for the Baltic Sea (JCP)

The JCP was adopted in 1992 to constitute a 'Strategic Action Plan' for the Baltic Sea region. It provides an environmental management framework for long-term restoration of the ecological balance of the Baltic Sea ecosystem through a series of preventive and curative actions to be undertaken in a phased manner in the region. The five recipient countries, Estonia, Latvia, Lithuania, Poland and the Russian Federation opted for Global Environment Facility (GEF) assistance within this framework through the United Nations Development Programme and the World Bank. Updated and strengthened in 1998, the JCP Framework has formed a fruitful basis for further regional projects.

6.5 Evaluation

A modest or decreasing political will and a lack of funding may be a problem in Russia. Where there is a sufficient legislation, it is often the problem that legislation is not implemented in an adequate way and exceptions from regulations may be granted too liberally. In Russia, there is either a lack of a responsible ministry/authority or a legal framework. Moreover, the regional authorities seem to have a negative attitude to coastal problems. Local authorities and the public have a positive attitude but lack the necessary influence and funding. The process of national implementation of environmental and planning recommendations of HELCOM and VASAB is a problem in Russia. They have problems to fulfil the implementation due to institutional instability. In Russia at present there is no

organisation managing and planning the coastal zone. At the same time some expert groups and consulting companies exists working in the ICZM sphere and interested in lobbying of adoption of coastal legislation on federal level.

7. NGOs and other private stakeholders

NGOs

- Baltic Fund for Nature

A structural unit of St. Petersburg Naturalist Society (SPNS). It is set to enhance the SPNS nature conservation activities in north-western Russia and implement joint projects and programmes.

- KE Association

Consulting institution working for environmental protection and sustainable development. Leading lobbying group working on coastal legislation on federal level. The organisation had participated in a number of ICZM projects in the Leningrad region area and provides expert services in fields of legal aspects of environmental protection on coastal and marine protected areas and within offshore oil projects.

- Oil Club

Co-ordinating tool of main oil transportation and fuel retail companies operating in St. Petersburg market.

- Trans-boundary Environmental Information Agency (TEIA)

An independent registered non-profit organisation established in 1995, whose goal is to promote international co-operation on a non-governmental level by assisting in the distribution of information across border areas in the Baltic States and north-western Russia. It is based in St. Petersburg.

Private stakeholders

- Oil and Gas Transportation Development Companies

Gasprom, Lukoil, Rosneft, Transneft, Transnefteproduct, Surgutneftegas are operating, planning or constructing new transportation facilities and coastal infrastructure in the region.

- Terminal operators

Ust-Luga, Marine Commercial Port of St. Petersburg and Wood Harbour are the largest terminal operators and developers in the region.

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SWEDEN

1. The Coastal Zone

1.1 Description of the coastal zone

Sweden's coastline is about 7,600 km long, including all mainland bays and the coasts of the large islands. The coastal environment includes the landscape as a whole and the sea and sea-bed close to the shore. The salinity of the water varies from about 30 parts per thousand in the Skagerrak to only about 1 in the Bothnian Bay. The varied marine ecological systems are adapted to the level of salinity. The Skagerrak is rich in fauna and flora species whereas the brackish waters off the east coast are characterised by few species but large numbers which nevertheless constitute a unique ecosystem.

Along more than half of the Swedish coastline there are skerries that vary in size and character. The broadest is off Stockholm (the Stockholm archipelago). The skerries in Norrland are low and often consisting of moraine or sand. The coast of Västernorrland has Sweden's highest coast with 200- 300 m high cliffs (the High Coast World Heritage Site). The coastal archipelagos to the north and south of the Stockholm archipelago are more diversified with thousands of small islands. The Blekinge islands are characterised by green oak woods whilst the Bohuslän skerries (on the west coast of Sweden) have a more bare and bleaker coast environment. Rocky beaches are mostly found along the high coastal stretches (Bohuslän, Östergötland and Södermanland) whereas sandy beaches are common in the southern part of Sweden (Skåne and Halland) and in the northern part (Norrbotten). Beaches with shingle and boulders are dominant on the east coast.

In spite of Sweden's extremely long coastline, the amount of space available for houses and industrial sites is not unlimited. In past decades considerable parts of the coast have been blocked by buildings, making the beaches inaccessible for the public. A field study in the late 1960s showed that along 50 per cent of Sweden's coast, with the exception of Gotland and Norrland, it was not possible to enjoy natural bathing or outdoor activities because of reeds, steep cliffs and so on. A full 40 per cent of the rest was inaccessible for the public because of buildings, mainly weekend cottages.

According to a newly presented Swedish statistical report, about 3 million people (one third of the total population) inhabit the coastal areas within a distance of five kilometres from the coast. About 0.8 million of the 2.6 million buildings in Sweden are situated within this area.

1.2 Definition of the coastal zone

The Swedish Environmental Code (1999) includes special management provisions for particular coastal zones in Sweden. The inland and off-shore extent of the coastal zone is not explicitly defined in the Code but the areas were comprehensively showed on maps connected with the bill in which the regulations were proposed. According to the bill the more detailed definition of the various coastal zones is a task for the municipal comprehensive (physical) planning. The extension off-shore is suggested to be 1 – 3 nautical miles from the base-line.

In the Environmental Code there are also provisions on shore protection. The purpose of the shore protection is to protect pre-conditions for outdoor activities of the public and to

preserve good living conditions for fauna and flora on land and in water. Shore protection comprises generally all land and water areas (inland and off-shore) up to 100 meters from the shoreline. This can be extended to 300 m in individual cases. Within this area there is a prohibition on all development, including the construction of new buildings, fences or piers although exemptions may be granted.

2. Coastal Management and Spatial Planning in the Coastal Zone

2.1 Authority

The central government ministries most relevant to coastal zone planning and management are the Ministry of the Environment and to some extent the Agricultural Ministry where issues concerning fisheries are handled. The National Boards or Agencies in Sweden also have great responsibilities regarding environmental issues and planning since they produce guidelines and some of them give permits to larger projects within their sector. Most important are the Swedish Environmental Protection Agency (EPA), the National Board of Fisheries, the National Board of Shipping and Administration, the Swedish Board of Housing, Building and Planning and the Coast Guard. With the purpose to achieve a sustainable community, these agencies together with the regional organisations have a responsibility to inform, consult and co-operate with the municipalities in different matters concerning physical resources.

The municipalities in Sweden are responsible for physical planning both at the comprehensive and detailed level although the County Administrative Board can intervene if decisions by the municipalities threaten national interests.

2.2 Policy

In April 1999, the Swedish parliament decided on 15 national environmental quality objectives which are important to obtain sustainable development. Many of the objectives are relevant to coastal areas and one of them - “A balanced marine environment, sustainable coastal areas and archipelagos” - is specially addressed to the coastal areas.

The environmental quality objective is an action plan for environmental policy. The environmental code is adjusted to the development within environmental policy and the legislation is used as a tool for reaching the environmental objectives. Environmental quality objectives are political by nature and should provide a basis for the forthcoming environmental policy. The rules and prescriptions of the code are tools to reach the targets. There is no contradiction between the code and the environmental quality objectives; they interact to reach the final objective of sustainable development. It should be stressed that Spatial Planning is an instrument to achieve environmental objectives.

In Sweden there is a tradition of public access which is a common right known as Everyman's Right (or the Swedish Right of Public Access) which entitles any person to roam freely, even on private property (excluding gardens and areas close to a dwelling house), provided that it does not disturb or cause any damage. It includes the right to swim, moor a boat temporarily, go ashore everywhere except close to dwellings or where entry has been prohibited by an authority, for instance in a bird or seal sanctuary . However, there may be certain restrictions, such as speed limits, no entry or no water-skiing. Hunting and fishing are not covered by this Right, but fishing with a rod or other hand tackle (except for salmon on the coast of Norrland) is allowed anywhere in the five largest lakes and along the coasts.

2.3 Legislation

There is no overall national legislation specifically for coastal zone planning in Sweden. The

main legal framework is the Environmental Code and the Planning and Building Act (1987) which apply to both terrestrial and marine areas. According to the Planning and Building Act all municipalities must produce a comprehensive plan that covers their entire area and can be used as a decision making tool. The Environmental Code includes special provisions for the management of land and water areas. A major part of the coastal zone has been identified as an area of national interest. Many of the provisions in the Environmental Code should be used when applying the Planning and Building Act.

The special management provisions in the Environmental Code include regulations on siting new industrial installations, tourism and recreational functions and restrictions on summer cottage developments. Other laws of particular concern for the coastal areas are the Swedish Economic Zone Act and the Fishery Act. An economic zone was established in January 1993 outside the Swedish territory. The Swedish Economic Zone Act consists of the regulations concerning protection of the marine environment and utilisation of natural resources in the zone. The Fishery Act regulates fishing.

3. Coastal and Marine Environmental Policy

3.1. Policy

Sweden is a member of HELCOM since 1974. HELCOM makes many recommendations for all sorts of sea pollution in the Baltic Sea area including discharges from land, ships, atmospheric deposition, dumping and pollution caused by investigation or exploitation of the sea bed etc. The parties have undertaken to counteract discharges of environmentally hazardous substances that may end up in the Baltic Sea. Decisions taken by the Helsinki Commission - which are reached unanimously - are regarded as recommendations to the governments concerned. These HELCOM Recommendations are to be incorporated into the national legislation of the member countries. Sweden is incorporating the recommendations in its environmental policies as much as possible.

3.2 Legislation

Since 1 January 1999 a new Environmental Code has come into force. The aim of this new Environmental Code is to promote sustainable development that ensures a healthy environmental impact on both the current and future generations. Rules from fifteen former environmental laws were incorporated in the Environmental Code with the purpose to create a stronger environmental legislation in Sweden. The Natural Resources Management Act of 1987 has been directly incorporated into the Code including its special management provisions for coastal areas. These include guidance on siting new industrial installations, tourism and recreational functions and restriction on summer cottage developments.

4. Coastal and Marine Nature Conservation Policy

There are several forms of protection with differing content depending on what is to be protected. The legal method in Sweden is to establish national parks or nature reserves along the coast. Special areas can be put aside with directions that restrict hunting and fishing rights or the right to visit the area. The most common way to protect is through nature reserves. The Environmental Code states that the decision to found a national park is made by parliament and the Swedish Environmental Protection Agency decides on their management. County administrative boards and local governments actually decide on the establishment and are responsible for the management and monitoring of designated areas. A national park is an example of extensive protection. One problem when protecting areas is

the liability to pay compensation to private property owners. It should be noted that all nature reserves as well as national parks in Sweden are freely accessible for all people.
A total of 9% of Sweden's territory is protected in one way or another. About 530 of Sweden's almost 2,300 national parks and nature reserves are situated along the coast or in the sea. A total of 230 islands and small skerries are protected and prohibited to public access during the breeding season of birds.

5. Economic Developments, Important Sectors and Trends

The Swedish government and some regional organisations support sustainable development in coastal regions. Among other financial sources the EU Structural Funds are used to support economic development and wise management in a lot of Swedish islands. The Regional Environment and Management Programmes are examples of the ambition to integrate ecological, economic and social aspects in regional development.

5.1 Tourism and recreation

The population in some popular parts of the coastal areas surpasses the total of permanent residents many times over during the summer. There are plenty of camping sites, vacation cottages, leisure boats and harbours. In some municipalities almost half of the housing stock is summer-cottages.

Tourism is one of the major industries, which generates jobs and fiscal means to the coastal region. A few busy months during the tourist season do in fact keep many kinds of public services alive for the rest of the year and are very beneficial to the people who are permanent residents in the area. The local authorities have a great responsibility in the management and development of tourism. They are owners of more than 1/3 of the beds available in hotels, cottages, camping sites etc. They also play an important role is establishing the local and regional tourist organisations.

The increasing number of foreign and Swedish tourists has also created problems in some parts of the coastal zone. In some areas the heavy pressure from the tourists and the small boats affect the ecosystems, especially near islands where seals and birds breed. Other problems are the inappropriate camping activities and use of motor boats in the coastal areas around the big cities.

6. The Current State of Integrated Coastal Zone Management

An integrated approach to the management of the coastal zone is already to a large extent demanded in Swedish legislation with the Ministry of the Environment as the responsible body. Taking this into consideration, an integrated approach is already practised in many plans and projects. It is therefore less easy to identify specific projects with an integrated approach. Nonetheless, over the last few years, several projects have been started up by the Swedish government, local or international NGOs or other interest groups. Lately, Sweden has also been involved in bilateral and multilateral projects related to ICZM in several regions in the world.

6.1 Finished projects

- *Archipelago projects*

In 1998, a national project named the Archipelago project was set up. It was initiated by the Swedish national government for the development of all archipelagos around Sweden. The aim was to create a concrete action programme designed to achieve sustainable

development of the archipelagos. Seven County Administrative Boards were involved. The County Administration was the project leader and so had total responsibility for the project in which there was also a group of coastal specialists from the municipalities and other people with special knowledge of the coast. The project was completed in 2000.

As a part of the project, Regional Environment and Management Programmes were developed for four coastal areas: the coastal area in the counties of Stockholm, Uppland and Södermanland, the coastal areas of Östergötland and Kalmar, the Blekinge Coast and the coastal zone between Gothenburg and the Norwegian border. Besides some legal aspects the Regional Environment and Management Programmes included the following components:

- definition of issues and problems of the environment and management of natural resources in a way which is beneficial to the environment and at the same time integrated with employment and economic growth;
- economic possibilities and conditions for support of development, for example EU Structural Funds Programmes, to achieve ecologically sustainable solutions; and
- special programmes developed to deal with the environment and management issues in regional and local planning.

- *The Nordre Älv Estuary Project*

In 1997 the municipality of Kungälv set up projects to establish nature preservation areas or community renewal schemes, a successful example is the Nordre Älv Estuary which is now a nature preservation area. The project was initiated by the National Environment Protection Board and was approved by the municipality and the Country Administrative board. Another successful planning project in the same municipality was in the town of Hedvigsholmen. The shipyard of the town underwent a renewal project, to exploit the old shipyard with its surrounding area at Marstrand. Again, the project was finished at the end of 1999.

- *SAMS*

In 1997, a national project started, called Environmental Objectives and Indicators in Spatial Planning (SAMS). The aim of the project was to find out how environmental objectives could be adapted to spatial planning and which indicators could be used to determine whether a planning alternative contributes to, or obstructs, the environmental objectives. The project was finished in the autumn of 2000 and has resulted in a lot of publications in which methods, tools, good examples and case studies are presented. The focus is not specifically on the coastal areas but the methodological results presented could be applied in the coastal areas.

6.2 Ongoing projects

- *SUCOZOMA*

Sweden is running Europe's largest research programme on ICZM of marine resources: the Research Programme on Sustainable Coastal Zone Management of Marine Resources (SUCOZOMA). This programme aims to develop the concepts, evaluate instruments and procedures needed in order to resolve, on a basis of science and public participation, conflicts concerning the use and conservation of the natural resources of the Swedish coastal zone. The programme also aims to create local jobs in coastal communities in activities that are ecologically and economically sustainable. It has recently submitted its plans for the years 2001-2003 (phase II), in which "it wants to focus completely on solid problem identification, giving eutrophication and mis-management of fish stocks in the coastal zone top priority". SUCOZOMA aims, in this way, to provide the local or national government with a report based on their findings and analyses to re-structure the problems identified in the local fisheries.

- *BEST project*

This is focused on Sustainable Tourism Development from the seven larger islands' (B7) Bornholm - Denmark, Gotland - Sweden, Hiiumaa - Estonia, Saaremaa - Estonia, Rügen - Germany, Åland - Finland and Öland - Sweden. The approach is clearly cross-sectoral and related to the core of the measure “integrated management of coastal zone and island”. The B7 islands have been co-operating since 1998 and this project is determined as a key element in their common strategy and the action programme. It is related to the Baltic 21 action programme. The project enhances knowledge and exchange of experiences between the islands, trying to create a common long lasting network for co-operation on sustainable tourism development with links to tourism organisations, NGOs and research institutions.

- *SUSWAT*

The focus of the SUSWAT project is on the water supply in relation to environmental protection and sustainability. It enhances knowledge exchange between the B7 about planning and management of the water supply. The aim is to start up demonstration of new solutions related to management and planning of sustainable water supply. There is a clear linkage to the BEST project. The project is considered as a key element in the B7 common strategy and action programme of the BEST project.

- *The Maritime Heritage Project*

The Maritime Heritage project is a co-operation of four coastal zones in the Baltic Sea region, of which one is located in the municipality of Härnösand, Sweden. The aim is to find ways to benefit from their marine heritage, since all of the regions bear a rich variety of maritime elements, and marine structures. The regions will also work at a master plan to improve spatial development by using maritime heritage and develop maritime structure.

- *VILLNET*

VILLNET is a project whose aim it is to identify natural, cultural and human resources in rural districts around the Baltic Sea region with different potentials and, after analysis, find models for sustainable development. The overall objective will be to make it possible to live and work in the district in the future. Measures will be directed to find a balanced adjustment between protection and economic development in coastal zones and other interesting protection areas will be used as pilot models for other regions. Through using natural, cultural and human resources the project will create models for new income sources in rural districts, introduce long-term sustainable perspective in rural spatial planning and establish a networking co-operation between villages on a national and international level. The result of the project is *e.g*. a survey of the resources in the villages, better knowledge of the needs for future development and ideas of how to meet and satisfy them. Participating Swedish villages are Päryd, Loftahammar, Blankaholm, Bråbygden and Skäfteskärr.

- *High Quality Tourism*

High Quality Tourism is a project focusing on increasing tourism and sustainable development in regions with a large share of protected areas. This includes a study assessing the total income generated from enlarging tourism and job opportunities in the project areas. The result will be a handbook for local actors and linked tourism projects within, and between, the regions.

- *. Bothnian Arc*

Bothnian arc- transport systems project is also a part of the umbrella project Bothnian Arc. The objective of the project is to develop combinations and co-ordinations between different transport systems and between countries, in order to increase and intensify the transportation through the regions in a safe and sustainable way. The project concerns the whole communication system.

- *Örsbaken project*

The Örsbaken project is a regional coastal project which deals with three river basins: the Nyköping River, the Kila River and the Svärta River - a geographical region covering an area of nearly 4,500 square kilometres and containing three counties and 13 municipalities along the Baltic Sea coast in an area south of Stockholm. The overarching objective is to achieve an acceptable utilization of resources in the river basin and to create a good water environment in the longer perspective. At the same time it is important to obtain clean water-courses, a good sea environment, good conditions for flora and fauna, an attractive landscape as well as new jobs and wide-ranging co-operation

The method of doing this is to start a co-operation between regional and local authorities as well as to involve the interested parties concerned, the process owners (local participants, landowners), so that they take an active interest in the project. The Örsbaken project is conducted in process form which means that visions and alternatives are formulated. It is assumed that the private process owners will accept responsibility for that part of the water system they are familiar with and wish to conserve. For this reason, more extensive control by these parties themselves is a necessary prerequisite. By learning how the system reacts to different activities, the process owners should specify the objectives in their area. Research activities are connected to this project.

6.3 Initiatives related to ICZM

- *KASPNET*

The project is focused on co-operation in a wide area in Northern Europe, called Karelia-Atlantic Spatial Development Network (KASPNET). The project will establish and support a long lasting networking on spatial planning in this Development Zone, engaging a very large number of partners which to some extent already are co-operating in the region. One of the participants in Finland is Ostrobothnia. Subjects that are being covered are, for example, analysis of the conditions and development potential in the area, thematic studies, and development of a spatial planning strategy for the area. One of the priority areas is environmental dimensions, tourism and coastal zones. By treating the coastal and island areas in Norway, Sweden, Finland and the Republic of Karelia in parallel studies, there are chances to achieve a common knowledge based on both the differences and the similarities.

6.4 Evaluation

According to PROCOAST 2000, Sweden's coast is in a fairly good environmental state although, in the south, there is pressure for further recreational development.

7. NGOs and Other Private Stakeholders

In recent years NGOs have been more active in the planning process, especially in trying to protect certain areas for natural and cultural purposes. The new Environmental Code also enables NGOs to participate in decision making in a substantial form. Some of the most important NGOs in Sweden concerned with nature conservation limited with respect to the coast are:

- . *Agenda 21 Forum Skåne*

Network of organisations for the promotion of sustainability in the Swedish province of Skåne. The forum is multi-sectoral with business, municipalities, adult education societies, universities, and regional government as members.

- *Baltic Marine Ecologists*

An international non-governmental scientific organisation whose aim is to promote studies on the biological diversity, structure, function and sustainable management of the Baltic Sea ecosystems.

- *Coalition Clean Baltic* (CCB)

The first environmental NGO-network established in the Baltic Sea Region, established in 1990. Today it has 25 member organisations in all 9 countries bordering the Baltic Sea. The main goal of CCB is the protection and improvement of the Baltic Sea environment and natural resources. It is gathering, producing and distributing information about environmental problems in the Baltic Sea Area.

- *Erosionskade Centrum*

An NGO involved in shoreline management.

- *National Association for Swedish Archipelago*

An NGO that was closely involved in the National Archipelago Project.

- *The Centre for Natural Resources and Environment research of the University of Stockholm*,

A public institute that provides research in the field of efficient environmental planning along the Baltic coast line and is closely aligned with Ballad, an independent forum for networking in the Baltic region.

- *The Green Library Lund Association*

An information centre for environmental issues which gives free service to the public, in this way contributing to raising the level of knowledge among the public as well as among decision makers.

- *The Stockholm Environment Institute (SEI)*

Provides information for "sustainable development at a systems level for the Baltic Sea Region (so-called Baltic 21) leading to cleaner production and improved environmental management.

- *The Swedish Society for Nature Conservation*

Established in 1909. Today the organisation is the biggest nature conservation and environmental organisation in Sweden, with 274 local branches across the whole country and 140,000 members.

- *The World Wide Fund for Nature (WWF) Sweden*

Is part of one of the largest NGOs for nature conservation.

8. References

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CONCLUSION

The information drawn together in the preceding chapters is the first time that such data has been brought together in one document. These State-of-the-Art reports of the nine riparian States of HELCOM allow some interesting comparisons to be made and conclusions to be drawn about ICZM in the region.

Each State is responsible for the management of quite differing stretches of coastline varying from less than 100 km (Lithuania) to more than 46000 km (Finland) out of a total of nearly 70000 km. (Table 1). Nonetheless, only four States have formally defined their coastal strip (Table 2) and only three have defined a setback lines policy (Table 3). Only Russia has done both.

Table 1. Length of the Baltic Coastline

Country	DK	EE	FI	DE	LV	LT	PL	RU	SW	Total
Length (km)	7300	3794	46064	2000	496	91	843	839	7600	69027

Table 2. Definition of the Coast

Country	Definition
DK	No formal definition. There is a 3km inland planning zone from low water mark
EE	Protected coastal strip 100-200m with building forbidden
FI	No formal definition. Width varies from 50-200m
DE	No formal definition. 100-200m inland protected strip
LV	Protection belt of 300m, also 300m seaward. Belt of 5-7 km with limited economic activity
LT	No formal definition
PL	No formal definition
RU	Coastal protection zone of 100m, also 100m seaward. Further limited activity belt 2-3.7km wide
SW	Protection zone 100-300m inland, also offshore.

Table 3. Setback lines policy

Country	Setback lines policy
DK	300m strict beach protection zone. At sea restrictions (fishing/hunting) 100m, 500m & 1000m from shore
EE	No setback lines policy
FI	No setback lines policy but development controlled 100-200m from shore
DE	No setback lines policy
LV	No setback lines policy
LT	No setback lines policy
PL	Protected coastal strip 100-200m inland, some areas 1000m. Is a 2-5km limited activity belt
RU	1000m zone outside urban areas (Kaliningrad)
SW	No setback lines policy

Despite this official lack of definition, it can be seen (Table 4) that all but one country (Lithuania) has, nonetheless, described landward protection zones. Whilst the conditions within these protection limits vary from country to country, it does appear that a belt of 50 - 300 m is strictly protected throughout most of the Baltic coastline. Four countries have further defined a line extending up to 2-7 km from the strict protection limit where some restrictions are still in force. (Table 4). On the seaward side too, there is some affordable protection. Here, five countries have some sort of protection in place 100 m seawards, in some cases extending to 1 km. These include the three countries with the longest coastline ensuring protection of some 85% of the marine near-shore area (Table 4).

Table 4. Overview of Protected Zones

Country	Landward Protection (m)		Seaward Protection (m)
	Strict	Some restrictions	
DK	300	3000	100-1000
EE	100-200	None	None
FI	50-200	None	100-200
DE	100-200	None	None
LV	300	5000-7000	300
LT	None	None	None
PL	100-200 (up to 1000)	2000-5000	None
RU	100	2000-3700	100
SW	100-300	None	100-300

The responsibility for coastal management tends to reside within the Ministry of the Environment (or equivalent). However, there are often other ministries involved dependent upon the specific issue at hand (Table 5).

Table 5. Responsible National Coastal Authorities

Country	Ministerial Authorities
DK	Environment (ICZM); Defence (oil); Industry (tourism); Transport & Works (defence)
EE	Environment
FI	Environment (planning); Transport & Comm. (shipping); Agric & Forest (water resources)
DE	Transport, Building & Housing
LV	Environmental Protection & Regional Development
LT	Environment; Transport
PL	Environment; Housing & Urban Development Office
RU	Construction
SW	Environment; Agriculture (fisheries)

In all cases, ICZM is handled, at the local level, at county and municipality level (Table6).

Table 6. Responsible Local Coastal Authorities

Country	Local Authority Level
DK	County
EE	County
FI	Municipality
DE	Municipality
LV	Regional, district and local
LT	County & Municipality
PL	Regional, district and local
RU	None
SW	Regional & municipality

However, when it comes to legislation specifically covering ICZM, no country has developed explicit legal instruments (Table 7). This, in fact, reflects the situation throughout Europe.

Table 7. Specific ICZM Legislation

Country	Specific ICZM Legislation
DK	None
EE	None
FI	None
DE	None
LV	None
LT	None
PL	None
RU	None
SW	None

ICZM has, therefore, to be covered through existing legal means. Table 8 shows that the predominant national instruments are Planning and/or Building Acts. This is not surprising given the implementation of ICZM will always require planning decisions. However, the lack of environmental legislation that needs to be consulted will not always ensure that biodiversity and environmental issues will necessarily be covered in any ICM planning applications. Also of interest is that the legislation pertaining to ICZM is all recent, having been passed in the last decade.

Table 8. Relevant legislation for ICZM

Country	Legislation	Year
DK	Planning Act Protection of Nature Act, Environmental Protection Act	1994 1992 1991
EE	Planning and building Act	1995
FI	Land Use & Building Act	2000

	Nature Conservation Act	1997
DE	Building Act Spatial Planning Act	1997 1998
LV	Law on Spatial Development Planning Regulation on Physical Plans Environmental Protection Law	1998 2000 1991
LT	Law on the Construction of Buildings in the Coastal Zone Administrative law Violation Code	1994 1995
PL	Physical Development Act Environmental Law Act Act on Nature Conservation	1994 2001 1991/2000
RU	Land Use Code Urban Development Code	1991/96 1998
SW	Planning & Building Act Economic Zone Act	1987 1993

Although there is no specific legislation pertaining to ICZM which must use existing policies and instruments, all countries are, without exception, engaged in ICZM work. This is not systematic within any country, let alone within the region, but it is clear that the lack of legislation need not hamper the development of ICZM in the region. The ICZM work that is being conducted is summarised in Table 9. This assessment is largely subjective since there is no clear definition of what constitutes an ICZM project. The inclusion of a project here has been determined by whether elements of the ICZM process have been implemented during the project. However, whilst different researchers may assess on-going and related ICZM projects differently, it is clear that ICZM projects are taking place. The apparent discrepancy between the total number of projects taking place and the number of projects is because some of the projects are multinational and are mentioned in all countries where that project is being implemented.

Table 9. ICZM projects in the Baltic States

Country	Completed	Ongoing	Related	Total
DK	2	5	0	7
EE	7	6	3	16
FI	1	6	0	7
DE	6	3	1	10
LV	5	0	1	6
LT	2	3	4	9
PL	4	5	1	10
RU	3	2	3	8
SW	4	7	1	12
Total	34	37	14	85
Individual Projects	*28*	*24*	*9*	*61*

The main challenge now for HELCOM is to take the implementation of individual ICZM projects in each of the member States to a systematic approach at an international level.