

Foreword

The year 2004 represented both an important milestone and a new beginning for the Helsinki Commission.

In March 2004, HELCOM celebrated the 30th anniversary of the signing of the Helsinki Convention by the Baltic Sea coastal countries. Our organisation has become a mature environmental policy-maker, offering forward-looking, comprehensive and realistic approaches, with the focus on identifying problems and developing appropriate actions to solve them. After three decades of productive professional work, HELCOM is today one of the most experienced regional international organisations. Over the years, we have built up an efficient and well-functioning framework for international co-operation that has greatly contributed to welcome improvements in many aspects of the environmental situation in the Baltic Sea.

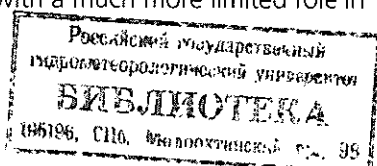
This anniversary gave us an ideal opportunity to look back at HELCOM's many achievements, review the lessons we have learned, and formulate a new approach to the considerable challenges lying ahead, especially with regard to the new political environment in the Baltic region.

The accession of Estonia, Latvia, Lithuania and Poland to the European Union in May 2004 means that eight of the nine countries around the shores of the Baltic Sea are now members of the EU. This puts most of the Baltic Sea area under the umbrella of the EU's environmental protection policies. The EU has already been working since 2002 to develop a European Marine Strategy – a unified policy for the conservation and protection of all the seas within and surrounding Europe. These developments led some people to believe that the EU enlargement and the rapidly crystallising European Marine Strategy might leave HELCOM with a much more limited role in future.

But doubts about the usefulness of HELCOM have already been dispelled. Merely complying with the unified EU environmental directives applicable in all European seas will not always be sufficient to protect the uniquely sensitive Baltic marine environment, which is so highly vulnerable to the impacts of human activities. HELCOM's regional expertise and experience will still be indispensable, since the Baltic Sea differs so much from other seas around Europe that tailor-made protection measures will continue to be required throughout the region.

In conjunction with the celebrations marking the 30th anniversary of the Helsinki Convention, the Jubilee 25th Meeting of the Commission reaffirmed the significance of HELCOM as a spokesman for the Baltic Sea area with an adjusted role and new priorities, as defined in a political document on HELCOM's future strategy. While emphasising the need to link all levels – the national, the European and the global – in order to come to satisfactory results, the meeting underlined the importance of HELCOM as an independent policy-maker and the environmental focal point and supervisory body for the entire Baltic Sea area. HELCOM will also serve as a vital bridge between Russia and the EU, ensuring that the same environmental standards are applied throughout the Baltic Sea and its catchment area.

It was decided at the meeting that future HELCOM activities will be based on several key elements: the European Marine Strategy; political commitments within the Commission; the provision of a sound scientific basis; timely and proactive actions; the inclusion of social and economic aspects; effective resource management; and harmonisation and synergies.

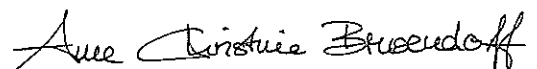


These efforts must focus on activities that bring added value to the ongoing work within all the countries in the catchment area of the Baltic Sea, ensuring that the duplication of work is avoided. HELCOM will initiate regional actions to pursue specific regional Baltic interests that have not been taken into account in other international organisations; to jointly pursue initiatives made by the nine countries within other international organisations and processes; and to harmonise the implementation of international regulations by all the Baltic Sea coastal countries. This work will be ultimately backed up by HELCOM's legal mandate to issue Recommendations and supplementary measures that take into account the specific requirements of the Baltic Sea.

In the changing international organisational framework, HELCOM is shifting away from an earlier approach that focussed on sectors and species, to an ecosystem approach through which specific Ecological Objectives are set out, including milestones and final compliance dates. The backbone of HELCOM's work will continue to be its monitoring and assessment programmes, including assessments of the efficiency of protection measures, as well as the information compiled by HELCOM on

ecosystems and habitats. This vital information on pollution loads entering the sea and the impacts of human activities on the marine environment helps to identify problem areas and emerging issues that threaten the marine environment. Actions are still urgently needed to curb eutrophication, to prevent pollution involving hazardous substances, to halt habitat destruction and the decline in biodiversity, and to improve navigational safety and the regional accident response capacity. To tackle these issues, an integrated management approach will be adopted to ensure that inter-related activities inland, in the coastal areas and at sea are all duly addressed.

I hope that this publication will provide you with useful information on current trends in the Baltic Sea marine environment, and a good overview of HELCOM's activities during the past year.



Anne Christine Brusendorff

Executive Secretary of the Helsinki Commission

1. From vision to action

HELCOM's work aims to operationalise the vision of "a healthy Baltic Sea environment with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable human economic and social activities."

Developing Ecological Objectives

HELCOM's Ecological Objectives are being developed as part of the recently adopted Ecosystem Approach, in which clearly defined Ecological Objectives will be used as tools for setting "measurable" future policy goals and evaluating management outcomes. The Ecological Objectives are being developed interactively by various stakeholders, including HELCOM Groups and the Baltic Sea Regional Project (BSRP), taking into consideration developments related to the European Marine Strategy and the work of the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) and the International Council for the Exploration of the Seas (ICES).

HELCOM monitoring procedures amended

Performance indicators are needed in order to assess how well the Ecological Objectives have been reached. To provide the necessary data on pressures from the catchment area and their impacts on the coastal and open marine environment, the existing HELCOM monitoring and assessment procedures are being revised, taking advantage of scientific and technological innovations. These improvements will bring monitoring and assessment procedures into line with the EU Water Framework Directive (WFD) and the planned pan-European and global assessment processes. A new HELCOM monitoring and assessment strategy to this end was adopted at the 26th Meeting of HELCOM in March 2005.

Identifying levels of eutrophication

Ecological Objectives and indicators developed to assess eutrophication are already being tested in the Baltic Sea. This work will develop tools that can be used to harmonise the eutrophication assessment criteria and procedures to be used throughout the Baltic, and to establish reference conditions for different parts of the Baltic Sea. It also represents a test case for the preliminary pan-European guidance on assessment of eutrophication in European waters, duly adapted to the specific ecological conditions and impact patterns in different parts of the Baltic Sea. The testing process has also been designed to promote the implementation of the EU Water Framework Directive (WFD) as well as other relevant EU Directives and the European Marine Strategy.



Joumi Vainio / FIMR

2. Environmental monitoring and reporting

Monitoring has long been a well-established function of the Helsinki Commission. Based on the results of coordinated monitoring programmes, HELCOM provides scientifically reliable information on the inputs of harmful substances and the resulting state of the Baltic marine environment. The Indicator Fact Sheet reports on the HELCOM website have been updated. These 20 reports provide an overview of airborne inputs and of the state of the Baltic marine environment, including hydrographic events. HELCOM has also published the following major environmental assessments:

- Nutrient Pollution to the Baltic Sea in 2000, combining airborne and waterborne inputs to the Baltic marine environment
- Atmospheric Supply of Nitrogen, Lead, Cadmium, Mercury and Lindane to the Baltic Sea, 1996-2000
- The Fourth Baltic Sea Pollution Load Compilation (PLC-4) on waterborne inputs
- Dioxins in the Baltic Sea.

Anoxic conditions in deep basins

The present state of the Baltic Sea is the result of both anthropogenic pressures and natural hydrographic processes, such as the exchange of water between the Baltic Sea and the North Sea. No significant new inflows have occurred since the major Baltic inflow of January 2003, which renewed most of the deep water in the Baltic Sea, and the near-bottom water in the Bornholm and eastern Gotland Basin consequently reverted to anoxic conditions in mid 2004.

High nutrient concentrations lead to intensive algal blooms

Concentrations of dissolved inorganic nutrients were highest in coastal waters from the southern Belt Sea to the inner Gulf of Finland, due to run-off from the land. The high winter nutrient concentrations led to intense phytoplankton blooms in the spring. The 2004 spring blooms were more intense in the Gulf of Finland than in the northern Baltic Proper or the Arkona Basin off the German coast.

The proportions of nitrogen and phosphorus in the sea favoured blooms of nitrogen-fixing cyanobacteria. In 2004, the cyanobacterial blooms were more intense in the Gulf of Finland and the Baltic Proper than in 2003.

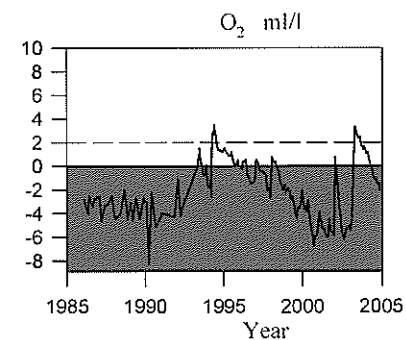
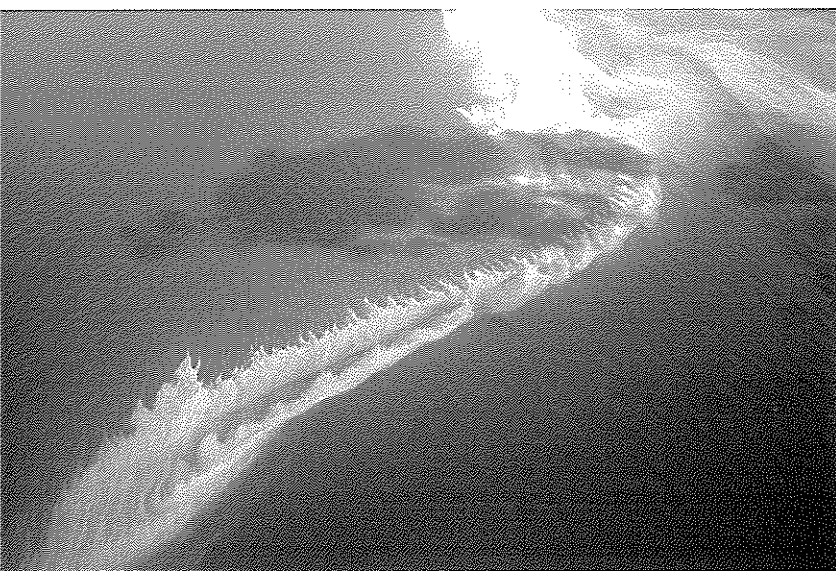


Figure 1. Long time-series of oxygen concentrations in the bottom water in the Gotland Deep. The solid line represents the amount of oxygen in the water (ml/l). Negative concentrations below zero (shaded red) indicate the presence of toxic hydrogen sulphide. Oxygen concentrations below 2 ml/l (broken line) are considered to be too low for macroscopic animals such as fish to survive. Source: SMHI.



Heavy metals and organic pollutants still persistent

The concentrations of heavy metals and organic pollutants in sea water are several times higher in the Baltic Sea than in the North Atlantic.

Concentrations of contaminants in fish vary according to substance, species and location. Concentrations of lead and PCBs have generally decreased, but dioxin concentrations in fish may still exceed the limits set by the European Commission.

The amounts of Chernobyl-derived Caesium-137 in the Baltic Sea remain largely unchanged, with the highest concentrations found in sediments in the Bothnian Sea and the Gulf of Finland.

More information on the state of the Baltic Sea and HELCOM indicators is available on the HELCOM website at:

http://www.helcom.fi/environment2/en_GB/cover/

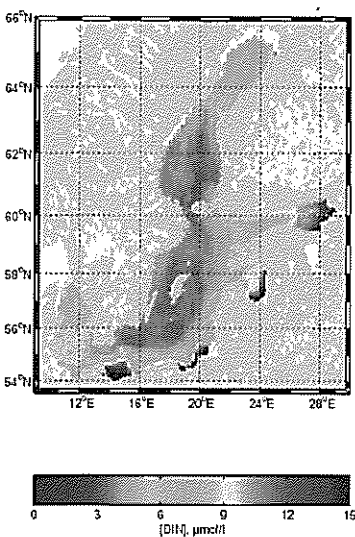


Figure 2. Long-term mean winter surface concentrations of dissolved inorganic nitrogen (DIN), 1996-2004.

Pollution from farms dominant in waterborne inputs

The Fourth Pollution Load Compilation (PLC-4) of waterborne pollution loads entering the Baltic Sea was finalised in 2004. The report covers the year 2000 and encompasses inputs via rivers and point sources discharging directly into the sea. Inputs to surface waters within the Baltic Sea catchment area of the Contracting Parties originating from diffuse sources (such as farmland, managed forests and natural background sources) and point sources have also been quantified to help evaluate the sources of waterborne inputs to the Baltic Sea.

In 2000, the total waterborne input of nitrogen to the Baltic Sea was 744,900 tonnes. The main contributing countries were Poland, with 26 % of the total load of nitrogen, Sweden (21%), and Finland (14%). These figures include inputs from natural background sources as well as anthropogenic sources. The anthropogenic nutrient loads per capita by country are shown in Figure 3. These calculated loads include discharges per capita from both diffuse and point sources, but not the natural background loads.

The majority of waterborne nitrogen inputs (59%) originated from diffuse sources, especially from agriculture.

The second largest proportion was from natural background sources (32%), and the remaining input was from point sources (10%).



Ludmila Romanuk

In 2000, the total waterborne input of phosphorus to the Baltic Sea was 34,500 tonnes. The main contributing countries were Poland, with 37% of the total load, Sweden (14%), Finland (14%), and Russia (13%). Agriculture, together with scattered dwellings, contributed nearly 50% of the waterborne phosphorus inputs to the Baltic Sea, while point sources and natural background sources each

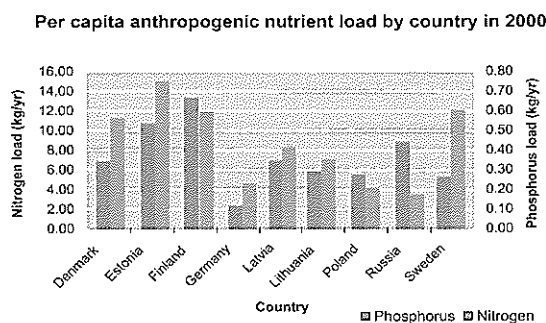


Figure 3. Anthropogenic nutrient loads per capita by country, 2000.

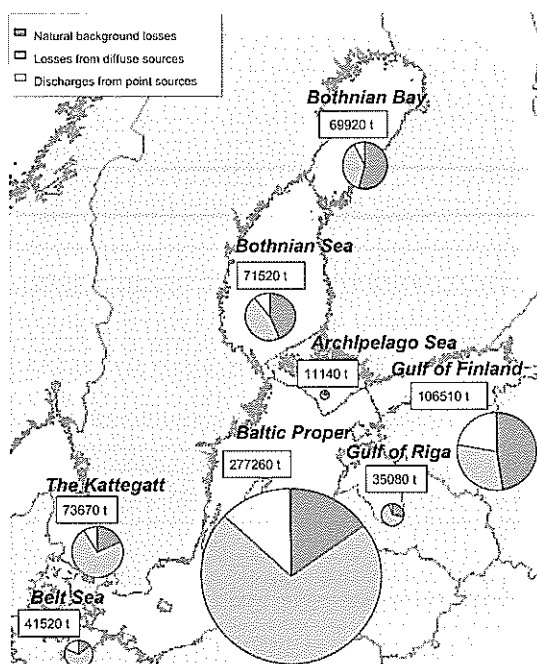


Figure 4. Proportions of sources contributing to waterborne nitrogen inputs into the Baltic Sea by sub-region, 2000.

contributed approximately 25% of the total phosphorus input.

Figures for the riverine inputs of heavy metals into the Baltic Sea show that the Gulf of Finland received the highest cadmium, lead and copper loads, while mercury inputs were highest for the Baltic Proper. A few large rivers account for very large proportions of the total riverine heavy metal loads. Since the mid 1990s riverine heavy metal loads (notably cadmium and lead) have decreased in several countries.

Airborne loads of nitrogen and hazardous substances

In 2004, the two Meteorological Synthesizing Centres, EMEP (the Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe) MSC-East and EMEP MSC-West, finalised the seventh joint summary report for HELCOM on the atmospheric inputs of nitrogen, lead, cadmium, mercury and lindane entering the Baltic Sea in 2002.

Emissions of hazardous substances to air declining

Emissions of heavy metals from the HELCOM countries decreased during the period 1990–2002 by 46% for cadmium, 62% for mercury, and 61% for lead. Anthropogenic emission sources of heavy metals in the HELCOM countries accounted for about 40–50% of total atmospheric deposition into the Baltic Sea in 2002. Natural and distant sources from outside the Baltic Sea catchment area also contributed significantly. By individual countries, the most significant depositions of lead and cadmium originated from sources in Poland, Germany, and Russia. For mercury, the largest contributions came from Germany, Poland, and Denmark.

During the 1990s the use of lindane in HELCOM countries was practically ceased, and atmospheric concentrations of lindane in the Baltic Sea region have decreased significantly.

For more information, see HELCOM website: http://www.helcom.fi/environment2/hazsubs/en_GB/front/

Agriculture the main source of airborne nitrogen pollution

Nitrogen compounds are emitted to the atmosphere as nitrogen oxides and ammonia. Shipping, road transport and energy combustion are the main sources for emissions of nitrogen oxides in the Baltic Sea region. About 90% of ammonia emissions originate from agriculture, which also means that agriculture is the most significant sectoral source for total airborne nitrogen, accounting for around 43%

of all emissions in the HELCOM countries. These figures indicate that reducing nitrogen emissions and discharges from agriculture is becoming increasingly important, especially since agriculture also accounts for the highest proportion of waterborne nitrogen discharges entering the Baltic Sea.

Nitrogen and heavy metal deposition heaviest in the south

About a quarter of the total airborne and waterborne nitrogen input to the Baltic Sea comes from airborne nitrogen deposited directly into the Baltic Sea. In addition to this direct deposition, part of the airborne nitrogen deposited in the Baltic Sea catchment area will also finally end up in the sea via runoff. In 2002, total airborne nitrogen deposition in the whole of the Baltic Sea catchment area was 1,232,500 tonnes, of which 195,800 tonnes was deposited directly into the sea. Emission sources outside the Baltic Sea catchment area account for almost 40% of the total airborne nitrogen deposited into the Baltic Sea. The highest nitrogen deposition levels affect the Belt Sea sub-basin/catchment; and the lowest levels occur in the Bothnian Bay sub-basin/catchment.

Total nitrogen emissions from sources in the HELCOM countries have been reduced by around 40% since 1980. Deposition rates have only fallen by 15% over the same period, however, with all of this decrease occurring since 1990. Nitrogen depo-

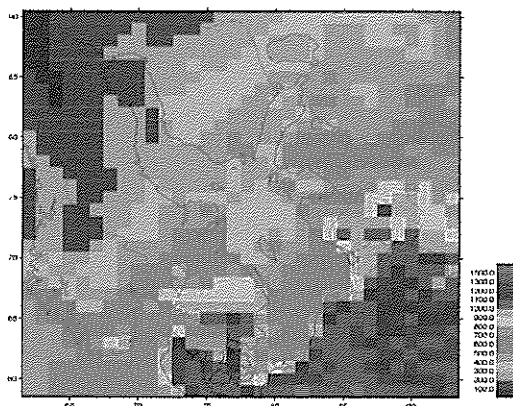
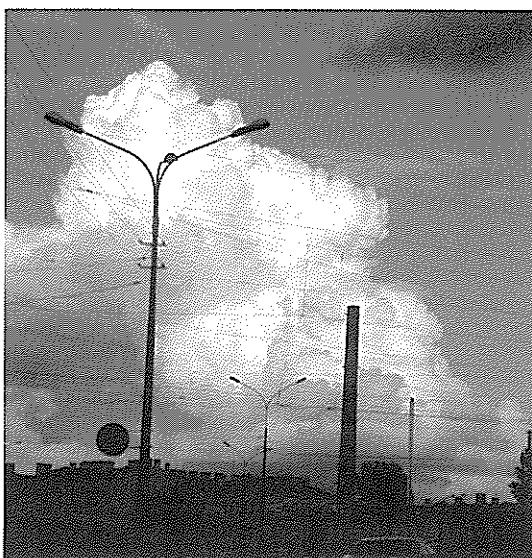


Figure 5. Annual deposition flux of total (oxidized + reduced) nitrogen in 2002. Units: mg N m⁻² yr⁻¹.

sition rates are highly dependent on meteorological conditions that vary from year to year, so reductions in nitrogen emissions do not necessarily lead to corresponding reductions in deposition.

Measured atmospheric concentrations of cadmium and lead also show a decrease from south to north, due to the distance from the main emission sources. The total annual atmospheric depositions of heavy metals into the Baltic Sea in 2002 were about 7.4 tonnes of cadmium, 3.1 tonnes of mercury, and 149 tonnes of lead. The highest levels of heavy metal deposition were experienced in the Belt Sea sub-basin. Elevated levels were also noted for the Kattegat, the Gulf of Finland, and the southern part of the Baltic Proper sub-basin. Annual deposition rates of these heavy metals have halved since 1990 around the Baltic Sea as a whole. Deposition rates for mercury have not decreased since the mid 1990s, however.



Ljudmila Romaniuk

3. Combating eutrophication and hazardous substances

HELCOM's continuing efforts to curb eutrophication will focus particularly on nutrient inputs originating from diffuse sources, especially farmland, while not forgetting the significance of airborne nitrogen. The pollution reduction measures to be implemented by 2012 at the most polluted sites (hot spots) in the Baltic Sea catchment area, as identified in the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP), are also a vital part of HELCOM's strategy to combat eutrophication.

HELCOM will likewise continue to pursue the objective of a cessation in emissions and discharges of hazardous substances by 2020, by identifying and proposing suitable measures to be taken at the most appropriate level.

Scenarios for agricultural policies

In order to ensure that adequate measures are taken to combat eutrophication, HELCOM has recommended that specific tools should be used to assess the projected impacts of different policy scenarios on nutrient inputs, and on the eutrophication status of the Baltic Sea and its specific sub-regions. For this purpose, HELCOM has established a project where modelling is used to simulate the impacts of the implementation of the EU Common Agriculture Policy and other policies in the Baltic Sea. With regard to the existing regulations, and the extent to which they have been implemented, HELCOM may also consider the need for additional measures, and examine where these measures could be implemented most cost-effectively.

Assessment of transboundary pollution

Addressing transboundary pollution originating from non-Contracting Parties has been identified as an important action for HELCOM.

HELCOM has already started to assess riverine pollution loads originating from Belarus, Ukraine and the Czech Republic. These loads are being compared with HELCOM data on total pollution loads reaching the Baltic Sea in order to assess the significance of transboundary pollution and the share coming from different sectors in these three countries.

This data has so far shown that transboundary pollution loads from Belarus, the Czech Republic and Ukraine are significant for nutrients and heavy metals. The proportions of the total pollution loads entering the Baltic Sea that originate from the upstream countries are 8% for nitrogen, 7% for phosphorus, and between 5% and 15% for selected heavy metals. The significance of this transboundary pollution is naturally higher in certain sub-catchments than in the Baltic Sea overall. These three countries are also significant sources for the airborne nitrogen pollution deposited into the Baltic Sea.

The data so far available on pollution sources in the non-Contracting Parties is however insufficient. To allow for comprehensive evaluations of the need for further actions, it is important to enhance co-operation between HELCOM and Belarus, Ukraine and the Czech Republic.



Ludmila Romanyk

Data collection on hazardous substances

HELCOM has established a project to improve the collection of data on hazardous substances in the Baltic Sea region. This project aims to develop a basis for a common strategy for collecting data on chemicals in society and in the environment, focussing on the priority hazardous substances listed by HELCOM. To achieve this aim, existing approaches to the collection of data on the occurrence of hazardous substances in markets and in use in the Baltic Sea region will be reviewed. This will help to identify the sources of hazardous substances of concern to the Baltic Sea.

The project also promotes institutional strengthening by involving the relevant authorities and stakeholders in the various countries, and enhancing their capability to meet the provisions of national and international obligations. The project particularly focuses on the need to improve data collection in Russia.

Dioxins in the Baltic Sea

HELCOM has published a wide-ranging report on the intriguing subject of dioxins, discussing their nature and origin, the risks they pose to human health, and the actions currently being implemented to reduce their input into the environment.

Concentrations of dioxins vary geographically according to their sources, but at present there is not enough data available on their concentrations in different areas and marine species. It is evident, however, that fish from the Baltic Sea are generally about twice as contaminated with dioxins as fish from the North Sea, and concentrations in certain fish species with high levels of fat found in the Baltic exceed the EU safety levels for food.

Several measures addressing dioxin sources have been adopted by HELCOM and at the European level, and new initiatives are being developed. In the future, HELCOM's work in this area should focus on the need for specific measures for the Baltic Sea, while taking into account EU initiatives and the work of other international bodies.



Ludmila Romanyuk

Diffuse sources such as small-scale combustion activities are major contributors to dioxin pollution and as such difficult to address. Possible fields for further work by HELCOM have been identified, e.g. the raising of public awareness in order to reduce emissions resulting from uncontrolled burning of waste and domestic heating facilities. Opportunities to revise the existing HELCOM Recommendation on waste incineration or to add Best Available Techniques (BAT) information to the industrial HELCOM "Umbrella" Recommendation on the effective use of BAT should also be fully considered.

For more information, see: http://www.helcom.fi/stc/files/Publications/OtherPublications/Dioxins_in_BS-2004.pdf

Pollution hot spot deletion continued

Two more hot spots have been deleted from the HELCOM list of Baltic Sea major polluters: hot spots 17 (Helsinki Municipal Waste Water Treatment Plant, Finland) and 119 (Lübeck Municipal Waste Water Treatment Plant, Germany). Both plants have made major investments in waste water treatment techniques, resulting in significant reductions of pollutants in the waste water discharges from these cities.

Altogether 51 of the original 132 hot spots have now been deleted, as have 4 additional sub-hot spots. Investments and remediation projects carried out at pollution hot spots around the Baltic Sea have contributed substantially towards overall pollution load reductions in the Baltic Sea catchment area.

4. Improving the Baltic Sea Protected Areas network

In 2003, the joint Ministerial Meeting of HELCOM and OSPAR agreed on a common work programme on marine protected areas. To implement this programme, HELCOM has established a project to 1) develop management guidelines and tools and 2) investigate the implementation status of HELCOM Recommendation 15/5 on "System of Coastal and Marine Baltic Sea Protected Areas". This project will also analyse the ecological coherence of the network, and evaluate by 2006 whether the Baltic Sea Protected Areas (BSPAs) that have so far been identified are sufficient to constitute the network.

Implementation status of BSPAs

The current degree of implementation, the legal status and management issues on each BSPA will be analysed based on the results of a comprehensive questionnaire developed by the Project and sent to the Contracting Parties. In addition, the Project will identify problems related to the implementation of the Recommendation and the pressures threatening the marine environment within the BSPAs.



Ludmila Romaniuk

Ecological coherence

The ecological coherence of the existing and proposed network of BSPAs will be evaluated, taking into account the Natura 2000 sites designated under the EU Birds and Habitats Directives. These results will help to identify possible gaps in the existing BSPA network and be used as the basis for its further development.

Management guidelines and effectiveness

In order to guarantee the effective implementation and functioning of the network of BSPAs, further guidelines will be provided for the practical management of BSPAs. Methods and indicators for evaluating the effectiveness of the BSPA management plans will also be developed.

HELCOM list of threatened and declining species

At the joint Ministerial Meeting in 2003, HELCOM and OSPAR also decided to develop by 2005 a common proposal for a programme to enhance the protection of species and habitats in European marine waters, taking into account the work done by OSPAR, HELCOM and the European Community. This programme will produce suggestions for amendments to the annexes to the Habitats and Birds Directives to be considered by the European Commission.

In order to implement this programme, HELCOM is compiling a list of threatened and/or declining plant and animal species in the Baltic Sea area based on existing national "red lists" and other information. This list will be a useful tool for the management of endangered species and biotopes. The list will include the following species groups: macro-algae and submerged vascular plants, benthic invertebrates, fish, seabirds, and marine mammals.

The HELCOM list will apply the classification criteria of the IUCN (World Conservation Union) as the starting point for species selection, while also taking into account criteria developed by OSPAR.

5. Reducing the impact of shipping on the marine environment

Safety of navigation on the agenda

In 2004, HELCOM continued its work related to maritime safety in the Baltic. Important activities have been carried out within the Expert Working Groups created to look into specific maritime issues.

Proposals for routeing measures (from Gedser/Kadetrende, through the Bornholmsgatt, well south and east of Gotland, and into the Gulf of Finland) have been developed and submitted by the group of the Baltic Sea countries to the 51st session of the IMO NAV Committee. Investigations into the need and possibilities for further routeing measures in the Baltic will be continued by HELCOM's Expert Working Group.

HELCOM is also currently developing a single source/overview of useful navigational information for ships navigating or planning a voyage through the Baltic Sea. This "HELCOM Transit Guide" will be available as a hard copy and on the HELCOM website.

HELCOM actions bring results

According to aerial surveillance data, the numbers of illegal discharges of oil in the Baltic Sea have been gradually decreasing from 488 in 1999, to 292 in 2003. This decrease has occurred in spite of the rapidly growing density of shipping, illustrating the success of the complex set of measures known as the Baltic Strategy, as well as the effectiveness of regular aerial surveillance of the Baltic Sea carried out by the coastal countries.

The success of HELCOM's actions to reduce pollution of the Baltic Sea by ship-generated wastes is also indicated by the increasing amounts of waste being delivered to Baltic Sea ports. More and more ships are today delivering their oily wastes to port reception facilities, rather than illegally discharging them into the sea.

Further measures to reduce pollution from ships

The 26th Meeting of the Helsinki Commission decided to extend the "no-special-fee" system, which is currently applicable to oily wastes from machinery spaces, to also include garbage and sewage, as of 1 January 2006. This extension can be seen as the next step in the development of the Baltic Strategy on ship-generated waste and associated issues. A Recommendation was approved by the 26th Meeting of the Helsinki Commission, and this measure can be expected to further reduce the amount of ship-generated waste discharged into the Baltic Sea.

By encouraging ships to deliver waste ashore, the "no-special-fee" system ensures that the waste burden is shared responsibly, thus supporting the Baltic Strategy and substantially reducing the number of operational and illegal discharges polluting the marine environment.



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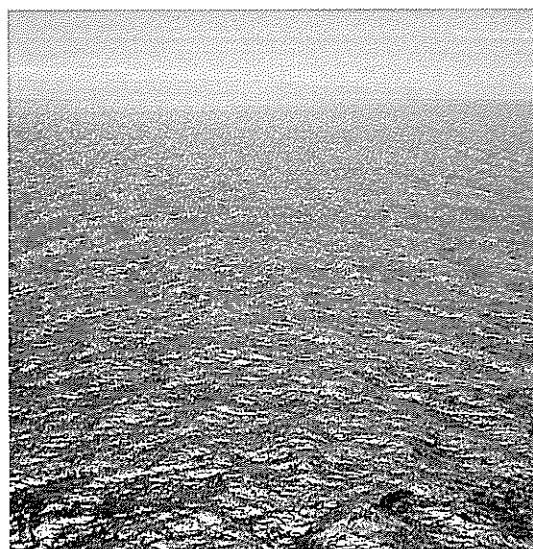
Construction of AIS network in progress

The complete network of Automatic Identification System (AIS) shore-stations in the HELCOM Contracting States will be fully functional by the agreed date of 1st July 2005. The AIS information from the whole Baltic Sea will be accumulated and processed in a HELCOM server, which is currently being tested. The processed AIS information will also provide vital information on shipping traffic to facilitate decisions on further measures to improve maritime safety in the Baltic.

HELCOM is also exploring new opportunities to deter illegal oil discharges using AIS information. With this aim in mind, a new project has been set up to develop the "Usage of AIS information in the Seatrack Web oil drift forecasting system for identification of the ships illegally discharging oil into the sea". This project will be carried out during 2005 creating a tool to help the Contracting Parties to identify the ships responsible for illegal oil discharges. Presently it is still very difficult to identify such offenders, but in future comparisons of ships' routes from AIS information with the backtracking of oil drifts through the Seatrack Web will greatly facilitate the identification of the guilty ships, and provide reliable evidence to use against them in court.

Addressing the threat of invasive species

Following the adoption of the IMO's International Convention on Management of Ballast Water and Sediments, HELCOM has increasingly been addressing issues related to invasive species in the Baltic Sea. A planned HELCOM Recommendation will include measures to address the threat of invasive species transported in ships' ballast water. This preliminarily drafted Recommendation contains proposals to deal with the threat of marine bio-invasions at the regional level in co-operation with the North Sea area, while also emphasising the importance of carrying out risk assessments in all the Baltic Sea States to help prepare for future management measures in accordance with the Ballast Water Convention. A scientific workshop was organised in the beginning of 2005 to help finalise the Recommendation.



Ljudmila Romaniuk

Practising response to pollution incidents

A total of 19 ships and smaller vessels from the Baltic Sea countries participated in BALEX DELTA 2004 – HELCOM's international oil spill response exercise held in Warnemünde, Germany, on 26th August 2004. The main aim of the exercise was to test the alarm procedure, response capability, response time and co-operation between the various response units of the Baltic Sea States. The exercise was conducted at the same time as the alarm exercise BALEX BRAVO and the Coordinated Extended Pollution Control (CEPCO) flight, to test in practice all information exchange between aerial surveillance and the exercise command. Numerous observers and journalists were present for the exercise, which was given extensive media coverage.

BALEX DELTA response exercises have been held annually since 1990, allowing HELCOM to steadily improve the readiness of the countries around the Baltic to jointly respond to a spill at sea. The Baltic countries have a total of more than 30 response vessels on standby, able to reach any location in the Baltic Sea within 6-48 hours.



Ludmila Romanyk

More online information

In 2004, HELCOM launched the Maritime Accident Response Information System (MARIS), which is now available on the HELCOM website (http://www.helcom.fi/gis/maris/en_GB/main/). MARIS contains data on response, emergency and aerial surveillance capacities around the Baltic, as well as information about the sensitivity of marine areas and the coastline to oil pollution and shipping traffic. MARIS has mainly been designed to be used by the oil pollution response authorities of the Baltic Sea States, the Nordic Council of Ministers and HELCOM, but the system provides unrestricted access to information on oil pollution risks and response capacities in the Baltic for the general public and specialists from other regions.

The MARIS system was created by combining existing data from various sources, including studies, analyses and statistics that are collected and updated annually. Most of the data is collected as part of the work of HELCOM, but some data has been collected by other organisations.

6. Strengthening international ties

2004 was a year of radical political changes in Europe. HELCOM has been actively working to strengthen international co-operation within the Baltic region, preserving HELCOM's key role as the mouthpiece of the region in addressing other international organisations, including the EU, with regard to the specific needs of the Baltic Sea.

To this end, HELCOM has developed a collective statement on its role in the implementation of the forthcoming European Marine Strategy, including outlines linking HELCOM's ongoing work to each of the proposed objectives of the Strategy. Recognising the special sensitivity and characteristics of the Baltic marine environment, HELCOM has also participated in various working groups established to provide inputs to the European Marine Strategy. These working groups have dealt with issues including the implementation of the ecosystem

approach, assessment criteria for eutrophication, and procedures for harmonising the selection, prioritisation and development of measures related to hazardous substances.

To obtain recognition of the special sensitivity of the Baltic with regard to inputs of hazardous substances, HELCOM particularly supported the development of an EU Mercury Strategy by submitting information regarding the specific situation in the Baltic Sea on concentrations and gaps in requirements.

Considerable attention has been paid to co-operation with the newly established European Maritime Safety Agency (EMSA). HELCOM representatives attended several EMSA meetings, and HELCOM has developed and submitted a joint proposal concerning technical specifications for an "EMSA response vessel" to be located in the Baltic.



Ljudmila Romaniuk

In 2004, HELCOM also further strengthened co-operation with the Bonn Agreement in the aerial surveillance field, resulting in the adoption of the BONN/HELCOM Pollution Observation Log and reporting format for aerial surveillance data. These measures will enable the comparison of aerial surveillance data from both regions.

7. The Baltic Sea Regional Project (BSRP) gains momentum

HELCOM is managing the Baltic Sea Regional Project (BSRP), which has been in operation for more than a year. The BSRP is funded by the Global Environment Facility (GEF), with the World Bank acting as the Implementing Agency. HELCOM manages the project in close co-operation with the International Council for the Exploration of the Seas (ICES), the International Baltic Sea Fisheries Commission (IBSFC), the Swedish University of Agricultural Sciences (SLU) and the World Wide Fund for Nature (WWF) of Sweden. The BSRP has been designed according to the principles of the Large Marine Ecosystem (LME) concept, which is one of the cornerstones of worldwide marine protection policies designed to promote the sustainable use of the seas and to conserve marine ecosystems.

The aim of the Project is to implement *an ecosystem approach* by linking activities inland, along the coast, and out in the open sea; and by ensuring that consideration is given to their interdependence. A key element in the process is strengthening the human, scientific and technical capacity of the beneficiary countries to manage valuable marine resources and to ensure that Baltic ecosystems are sustainable.

Since the Project is aiming for a profound change in how the Baltic ecosystem is taken into account in economic activity, it emphasises the permanent adoption of improved natural resource management practices in the beneficiary countries. Therefore, it is essential that local, regional and national administrative institutions are involved in the Project, and that activities are closely linked with national, regional, European and global level policies and processes. To facilitate co-ordination between the three international commissions working in the Baltic (HELCOM, IBSFC and ICES), and to inform the national ministries about the Project activities, a steering group was set up in the beginning of 2004. The steering group meets twice a year. The intention is to continue to apply the results of the Project and the developed methods even after the closure of the Project.

The Project activities have been divided between two overall components: marine activities which take place mainly in the open sea and in the

coastal area; and agricultural activities implemented inland. These two components are highly interdependent, and close links are maintained between scientists and institutions around the Baltic to promote the adoption of working plans that incorporate knowledge from the sea and from the land.

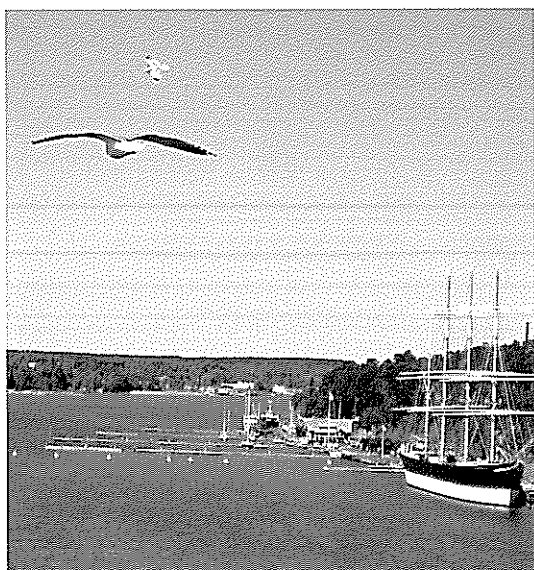
HELCOM has been actively integrating the work of HELCOM Groups with selected activities under the BSRP. Such work is being carried out in the fields of fisheries, invasive species, the development of a Baltic Sea Geographic Information System (GIS), the setting of Ecological Objectives, as well as in monitoring and modelling activities. Support is also provided for the BSRP beneficiary countries' participation in the relevant HELCOM and ICES working groups.

Assessing and upgrading the scientific capacity of the participating institutions and laboratories is an important element of the BSRP. It is essential to ensure at this stage of the Project that all participating bodies have equal capacity to operate, and that new techniques, methods and practices can be introduced and implemented throughout the Eastern Baltic region at the same time. Such capacity building activities support the establishment of regional thematic centres of excellence.

The activities of the marine component are being carried out by combining the activities of several laboratories related to specific areas of environmental management concerning the health of the ecosystem, productivity, fish, data management and socio-economic assessment. Considerable efforts during the initial preparatory stage have been put into making use of all available knowledge, and ensuring that the involved organisations are suitably equipped. Data collection, sampling and analyses will begin in 2005.

Under the coastal zone management activities, the Project's two main components meet both thematically and in practice. Monitoring activities are carried out both on land and in the coastal waters of the sea in order to develop a comprehensive picture of nutrient loads from the land and their effects in the sea. Coastal zone demonstration sites have been established in Estonia, in Latvia, and in

the coastal lagoons around the Kaliningrad region. These sites have been selected due to their valuable biological diversity, particularly with regard to their importance as breeding and feeding areas. The restoration of these areas also contributes to nutrient reduction, as coastal lagoons and wetlands serve as nutrient traps. Some of these areas are also important for tourism, which adds to the pressure on them, thereby creating a realistic setting for assessments on the kinds of environmental measures that can be feasible in practice.



Ludmila Romaniuk

During 2004, agricultural training courses have been conducted in all the Baltic States and in the Kaliningrad region. This training introduces farmers and other stakeholders to the benefits of new farm investments designed to reduce discharges of nutrients and harmful substances. Participation in the courses has exceeded expectations, indicating a widespread desire in these countries to improve agricultural practices. After completing training courses, farmers may develop investment plans and apply to participate in a programme, organised in co-operation with the Nordic Environment Finance Corporation (NEFCO), through which farmers can receive grants and loans on generous terms. Participation in this programme does not exclude the farm from other finance mechanisms, such as EU programmes.

General information about the Project and its progress, along with supporting documents, is available for the public on the Project's website, http://www.helcom.fi/projects/GEF-BSRP/en_GB/bsrp/. The website provides links to the Project partners' websites and the HELCOM Document Publications System (<http://sea.helcom.fi/dps.html>) holds meeting documents and presentations about the Project. A public information brochure about the Baltic Sea Regional Project is available from HELCOM.

8. Appendices

Recommendations adopted by HELCOM 26

The following Recommendations were adopted by the 26th Meeting of HELCOM in March 2005:

The Compilation of Waterborne Pollution Load (PLC Water). The main aim of the Recommendation is to obtain a reliable assessment of the waterborne load of pollutants entering the Baltic Sea from the land-based sources for the concerted action to limit the pollution of the marine environment of the Baltic Sea area. It requests the Contracting Parties to regularly report the quantified waterborne total loads from rivers, unmonitored and coastal areas as well as point sources and diffuse sources discharging directly to the Baltic Sea.

Monitoring of Radioactive Substances. This Recommendation will support further efforts to protect the Baltic Sea against harmful effects possibly caused by radioactive substances, and will help collect reliable data on the radionuclides in the different compartments of the environment. It recommends each Baltic Sea State to set up environmental stations on the sea or on the coast to conduct monitoring of radioactive substances, and regularly report data to the Commission.

Application of the "no-special-fee" system to ship-generated wastes in the Baltic Sea area.

It proposes to extend, as of 1 January 2006, the so called "no-special-fee" system which is currently applicable to oily wastes from machinery spaces to also garbage and sewage. The "no-special-fee" system has the dual purpose of encouraging ships to deliver waste ashore thus avoiding discharges into the sea, and encouraging a sound sharing of the waste burden thus avoiding undesirable waste streams between ports. It is also one of the prerequisites of the Baltic Strategy for a substantial decrease in the number of operational and illegal discharges and thus for the prevention of pollution of the marine environment by ships.

Press releases

24.03.2005 Speech by the Executive Secretary of HELCOM at the Baltic Sea Day

15.03.2005 HELCOM Secretariat delegation to attend the Baltic Sea Day in St. Petersburg

03.03.2005 HELCOM to develop an Action Plan for the Baltic Sea

03.03.2005 Speech by the Chair of HELCOM at a diplomatic working lunch with the ambassadors of the Baltic Sea countries

02.03.2005 Statement by the Executive Secretary of HELCOM at the 26th annual Meeting of the Helsinki Commission

28.02.2005 Latest HELCOM Newsletter available as a PDF file

25.02.2005 HELCOM Executive Secretary to hold media availability on 2 March 2005

24.02.2005 HELCOM countries to consider three new Recommendations on measures to prevent pollution in the Baltic Sea area

16.02.2005 HELCOM launches new web site

20.01.2005 January Inflow may not have been enough to flush out the Baltic Sea

05.01.2005 HELCOM to hold a Conference on maritime safety and response issues on 1 March 2005

04.01.2005 Invitation to the second HELCOM Youth Forum to be held in Rostock, Germany, 2-4 August 2005

04.01.2005 HELCOM presents the Baltic Sea environmental Indicator Fact Sheets for 2004

03.01.2005 The Baltic Sea fish are becoming less contaminated with lead and PCB's

10.12.2004 Algae blooms intensified in parts of the Baltic Sea in 2004

- 10.12.2004 Water transparency continues to decrease in all sub basins of the Baltic Sea
- 01.12.2004 Validation of Algorithms for Chlorophyll a Retrieval from Satellite Data in the Baltic Sea Area (2004), now available as PDF
- 30.11.2004 Illegal discharges of oil in the Baltic Sea are decreasing
- 29.11.2004 Thematic Report - Status of the Hot Spots in Denmark, Finland, Germany and Sweden (2004), now available as PDF
- 29.11.2004 Thematic Report - Status of the Hot Spots in Saint-Petersburg and the Leningrad region (2004), now available as PDF
- 26.11.2004 New HELCOM publication: Clean Seas Guide 2004, now available as PDF
- 25.11.2004 Levels of radioactivity in the Baltic Sea continue to decline
- 05.11.2004 HELCOM adopts a Statement on the European Marine Strategy at the Heads of Delegations Meeting
- 02.11.2004 HELCOM MONAS approves several new projects to improve the monitoring and assessment strategy
- 29.10.2004 HELCOM MARITIME approves the draft HELCOM Recommendation on Application of the no-special-fee system to ship-generated wastes in the Baltic Sea area
- 29.10.2004 HELCOM to delete two more plants from the list of the Baltic Sea major polluters
- 21.10.2004 HELCOM MARITIME to consider new Recommendations on pollution prevention in the Baltic Sea
- 21.10.2004 HELCOM MONAS to consider a new assessment and monitoring strategy
- 05.10.2004 HELCOM Secretariat delegation visits Lukoil's Kravtsovskoye (D-6) oilfield
- 24.09.2004 HELCOM delegation to visit Russian oilfield on the Baltic Sea shelf
- 14.09.2004 25 incidents of chemical munitions caught by fishermen in the Baltic Sea were reported in 2003
- 10.09.2004 HELCOM RESPONSE Meeting discussed measures to improve the emergency capacity in the Baltic
- 06.09.2004 HELCOM Response Group to hold its regular meeting 8-10 September 2004
- 27.08.2004 No illegal discharges of oil detected during the CEPCO South aerial surveillance flights over the Baltic Sea
- 27.08.2004 HELCOM successfully tests Baltic readiness to respond to oil accidents at sea during BALEX DELTA 2004 exercise
- 25.08.2004 Abstracts of the International Conference to commemorate 30 years of the Helsinki Convention (March 22-24, 2004, Riga, Latvia), now available as PDF
- 24.08.2004 BALEX DELTA 2004 – HELCOM to hold its annual international oil spill response exercise
- 23.08.2004 New HELCOM report - Dioxins in the Baltic Sea
- 30.07.2004 Several illegal oil discharges detected in the Baltic Sea
- 19.08.2004 The European environment agency measures climate change in 22 easy steps
- 17.08.2004 European Commission urges global ban on "nasty chemicals"
- 15.07.2004 BSEP 95, Checklist of Baltic Sea Phytoplankton Species, now available as PDF
- 08.07.2004 The Fourth Baltic Sea Pollution Load Compilation (PLC-4), now available as PDF

01.07.2004 New amendments to the Helsinki Convention on sewage discharge from ships come into force

01.07.2004 Lithuania takes over the chairmanship of the Helsinki Commission on 1 July 2004

29.06.2004 Radio series "The Baltic - A Sea of Change" gets Silver World Medal at New York International Radio Festival

17.06.2004 HELCOM releases 2003 annual Activities Overview

16.06.2004 Vast agenda discussed during the 15th regular meeting of HELCOM Heads of Delegations

15.06.2004 HELCOM launches new information web service

10.06.2004 HELCOM Heads of Delegations to meet in Helsinki, Finland, 14-15 June

03.06.2004 Five illegal discharges of oil detected during the CEPSCO North aerial surveillance flights over the Baltic Sea

03.06.2004 Identifying endangered species and habitats to implementing a Baltic Sea Protected Areas network

02.06.2004 HELCOM LAND to identify cost-effective measures to combat eutrophication

25.05.2004 New publication "The HELCOM Jubilee Session-Presenting the Past, Present and the Future" now available online

30.04.2004 EU Enlargement and the Protection of the Baltic Marine Environment

15.03.2004 HELCOM's new animation "Lord of the Things"

04.03.2004 HELCOM - Celebrating the past and meeting the future

Baltic Sea Environment Proceedings and other publications

The following lists include HELCOM publications that have been released since the 25th Meeting of HELCOM in March 2004. A complete list of HELCOM publications is available at: <http://www.helcom.fi/publications>.

Baltic Sea Environment Proceedings

No. 100 Nutrient Pollution to the Baltic Sea in 2000 (2005)

No. 99 Thematic Report - Status of the Hot Spots in Denmark, Finland, Germany and Sweden (2004)

No. 98 Thematic Report - Status of the Hot Spots in Saint-Petersburg and the Leningrad Region (2004)

No. 97 The HELCOM Jubilee Session - Presenting the past, present and the future (4 March 2004) (available only on website)

No. 96 Activities 2003 Overview (2004)

No. 95 Checklist of Baltic Sea Phytoplankton Species (2004)

No. 94 Thematic Report: Validation of Algorithms for Chlorophyll *a* Retrieval from Satellite Data in the Baltic Sea Area (2004)

No. 93 The Fourth Baltic Sea Pollution Load Compilation (PLC-4) (2004)

Other publications

Dioxins in the Baltic Sea (2004)

30 years of protecting the Baltic Sea - HELCOM 1974-2004 (2004)

Clean Seas Guide (2004)

