

# 30 years of protecting the Baltic Sea

HELCOM 1974–2004



Helsinki Commission

Baltic Marine Environment Protection Commission

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# Message from the President of Finland Ms Tarja Halonen

## Dear Friends of the Baltic Sea,

I belong to the privileged group of people who can say that they have almost daily contact with the Baltic Sea. Through the windows of my home and office I have the opportunity to follow the seasonal changes of the magnificent marine landscape. The aesthetic and environmental values of the Baltic Sea are vast, but this area has also turned into one of the most dynamic economic regions in Europe – and even worldwide. It is crucial that the present generations, and generations to come, take proper care of this sea.

The Helsinki Commission has served during the last 30 years as the main environmental actor in the Baltic region. The signing of the Convention in 1974 by the seven Baltic coastal states was a historical milestone, because for the first time ever, all the sources of pollution around an entire sea were made subject to a single convention. Due to subsequent political changes in the area, and developments in international environmental and maritime law, the need for a new updated convention became obvious, and in 1992 a new convention was signed by all the states bordering on the Baltic Sea, and the European Community.

Over the years, the Helsinki Commission has been able to provide timely information about environmental trends and the state of this fragile marine ecosystem. It has also acted as the overall environmental policy maker establishing common environmental objectives and actions for the protection of the Baltic Sea.

Now on the eve of the EU's enlargement, the role and priorities of the Helsinki Commission are being discussed actively again. Even though significant progress has been made, much is still to be done. The Baltic Sea is still one of the world's most polluted seas, and the Helsinki Commission will also in years to come have a crucial role in ensuring that all our combined efforts are effective.

The main problems in the Baltic at the moment are the eutrophication caused by excessive nutrient loads, and the risk of serious accidents due to increasing oil transport. We urgently need actions to reduce industrial, agricultural and municipal

emissions. At the same time, the technical and safety level of the ships used on the Baltic should be improved. These two goals are also included in Finland's National Programme for the Protection of the Baltic Sea; and the implementation of this programme is among the Finnish government's top environmental priorities. The overall state of the Baltic Sea, however, can only be improved by continued and active work in all the coastal states, and through joint international actions.

Within the framework of the Helsinki Commission, the implementation of the decisions of the Bremen Ministerial Meeting 2003 represents the next concrete step along this road. The full enforcement of the network of Baltic Sea Protected Areas is an essential part of efforts to improve nature conservation and the protection of biodiversity. The Helsinki Commission also has an important role in the development of the EU Marine Strategy, as well in the preparation of regulations for winter navigation.

Citizens' commitment to sustainable development should be reflected in political decision-making. Environmental questions have been the crucial factor triggering the new global civic responsibility. The Helsinki Commission can continue to work to improve the well-being of the Baltic Sea while also contributing to the global responsibility, by transferring experience and knowledge to less developed regional programmes established to protect the marine environment around the world.



Tarja Halonen

President of the Republic of Finland



# Foreword



## Home. Living. Connection. Leisure.

These are just a few of the many meanings of the Baltic Sea – which has always been an unalienable part of the lives of the people living around its shores. Although each of us has our own unique relationship with the sea, the quality of the marine environment is directly connected with everyone's quality of life.

An increasing awareness of the crucial role of the sea in our lives first led the governments of the Baltic Sea states to take action exactly three decades ago, setting an example for the world by signing the first international agreement covering all aspects of the protection of a marine environment shared by many countries – the Helsinki Convention.

The fruits of this agreement have shown that in such circumstances only common, co-ordinated action can be truly effective. This innovative instrument for the protection of the marine environment has subsequently been adapted and applied to protect various seas around the world. Ever since the 1970s, the processes related to the Helsinki Convention have come to involve more and more

people and organisations who believe the protection of the Baltic marine environment is an issue that should not be clouded by economic and political constraints.

The impending enlargement of the European Union will again change the political setting, bringing many of the countries around the Baltic Sea closer together than ever before. This should greatly facilitate joint environmental protection work throughout the region.

I am proud to have the honour to present this special jubilee publication, which celebrates the thirtieth anniversary of the Helsinki Convention by encapsulating three decades of work by the Helsinki Commission to protect the Baltic marine environment, as well as the individual experiences of many of the people who have made valuable contributions to this work.

A handwritten signature in dark ink, appearing to read 'Inese Vaidere'. The signature is fluid and cursive.

*Prof. Dr. Inese Vaidere*

Chair of the Helsinki Commission

# HELCOM – A Bridge between East and West

Three centuries ago, Tsar Peter the Great was the first authority to recommend strict measures to protect the Baltic marine environment:

*“The riverbanks and sewers [of St Petersburg] must be well contained so that they are not covered with earth. Every citizen is responsible for keeping the bank in front of his house clean. All garbage should be collected and brought to a certain place – but in no way dumped in the river. Culprits must be punished harshly.”*

Three decades ago, a much wider set of recommendations was issued when all the countries bordering on the Baltic agreed in an unprecedented

joint endeavour to protect their common sea.

There was widespread astonishment that so many radically different states could all sign the 1974 Helsinki Convention under the prevailing political conditions.

***Water remains in the Baltic for up to 30 years – along with all the organic and inorganic matter it contains.***

The political environment will change again with the enlargement of the EU, and the future of our common sea will once more depend on HELCOM's extensive experience serving as a bridge between East and West.



1960s

Increasing awareness of the deteriorating environmental situation of the Baltic Sea

1973

First intergovernmental expert meeting about the Baltic Sea

1972

The United Nations Conference on the Human Environment in Stockholm

# The Helsinki Convention – the birth of a success story

Mr Peter Ehlers, former Chairman of the Helsinki Commission (1984–86, 2000–2002)

## The dawn of a new era

Co-operation around the Baltic started during the Cold War era, when this region was divided by the Iron Curtain. The protection of the Baltic Sea was one of the very first issues which the Baltic Sea States agreed to co-operate on. It can justifiably be said that wide-ranging co-operation within the bodies of the Helsinki Commission, established by the convention in 1974, and the personal contacts made through this work all led to improved understanding, greater openness and mutual understanding. In a modest way, this helped to overcome the split of the world into East and West, and later to tear down the Iron Curtain. Those who participated in the 1990 Ronneby Conference of the Heads of Governments of the Baltic Sea States will never forget this event, which marked the beginning of a new era not only with regard to marine environment protection.

## Encouraging results

The many measures taken by the Helsinki Commission over three decades have not been in vain. The environmental situation in the Baltic Sea is no longer deteriorating, but has improved in various fields. This is an encouraging result, but this work is by no means going to be finalised in the near future, as there is still much to do. Further measures are needed, particularly with regard to curbing eutrophication and phasing out hazardous substances, but also where the conservation of marine habitats and the sustainable use of natural resources are concerned.

## The road ahead

The future role of the Helsinki Commission will be strongly influenced and even dominated by growing regional and European co-operation. In this respect, closer links with other marine areas are indispensable, so that we can aim for the harmonisation of comparable decisions. This is particularly true concerning the work of the OSPAR Commission in the Northeast Atlantic region. Promising steps have already been taken in this direction by the first joint ministerial meeting of both commissions, held in Germany in 2003.

## European unification and enlargement

In the longer run, the accession of four more Baltic Sea States to the European Union this year will radically change the tasks and competencies of the Helsinki Commission. Starting with the European Water Framework Directive, it becomes apparent that marine environment protection will in future be a high-ranking issue for the European Community. One benefit of this will be that in contrast to the Recommendations of the Helsinki Commission, Community decisions are legally binding and can be sanctioned. On the other hand, regional

### HELCOM in brief

#### The Helsinki Commission (HELCOM)

The Helsinki Commission works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental co-operation between Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

HELCOM is the administrative body of the "Convention on the Protection of the Marine Environment of the Baltic Sea Area" - more usually known as the Helsinki Convention.

#### The 1974 Convention

For the first time ever, all the sources of pollution around an entire sea were made subject to a single convention, signed in 1974 by the then seven Baltic coastal states. The 1974 Convention entered into force on 3 May 1980.

#### The 1992 Convention

In the light of political changes, and developments in international environmental and maritime law, a new convention was signed in 1992 by all the states bordering on the Baltic Sea, and the European Community. After ratification the Convention entered into force on 17 January 2000. The Convention covers the whole of the Baltic Sea area, including inland waters as well as the water of the sea itself and the sea-bed. Measures are also taken in the whole catchment area of the Baltic Sea to reduce land-based pollution.

1974 Diplomatic conference signs the Helsinki Convention (22.3.74)

The first Convention on the protection of the Baltic Sea is signed by the coastal states.

1975 Regional Seas Conventions and related Protocols

1979 The "Antonio Gramsci" oil spill (5,500 tonnes)



expertise will still be needed, as problems in the Baltic Sea area may differ considerably from those elsewhere in Europe.

### Back to HELCOM's roots

The Helsinki Commission will continue to play an important role in assessing the environmental state of the Baltic, and in elaborating measures, even though decision-making tasks might be taken over by other European bodies.

Another task of outstanding importance for HELCOM will be to strengthen indispensable links with Russia. Close and proactive co-operation between Russia and the Baltic Sea EU Member States is a vital prerequisite for any further progress in environmental protection. In a sense, this means returning to the Helsinki Commission's roots as a major contributor to a process of integration. Hopefully HELCOM will be successful again in this role.

*Several persistent organic pollutants (POPs) including organochlorine pesticides such as DDT and technical grade HCH have been completely banned since the 1980s.*

### Questions and Answers

Protecting a whole sea involves organisations and people from all walks of life – including lawyers, bankers, politicians, scientists, factory owners and municipalities. Over the last 30 years, many people have worked with the Helsinki Commission and become members or friends of the HELCOM family. We invited some of them to share their views on the past 30 years of co-operation.

#### What does the future hold in store for the Baltic?

##### Mr Marcin Plinski, Gdansk University, Poland:

I think that the expansion of the EU will be good for our Baltic Sea, because the majority of the pollution stems from contaminated soil. If there are the same environmental and economic standards everywhere, however, there will be a reduction in Baltic Sea pollution.

##### Mr Stanislaw Uminski, Gdansk University European Center, Poland:

The integration of the countries bordering on the Baltic Sea seems to be accelerating fastest on the environmental front. Many observers believe that otherwise the countries remain more divided than united.



1980  
The 1974 Helsinki Convention enters into force (3.5.80)

Guidelines for the Baltic Monitoring Programme for the First Stage

– Monitoring of physical, chemical and biological

variables starts in the open sea

# HELCOM and the EU – towards a new partnership

Ms Margot Wallström, EU Commissioner for the Environment



The Baltic Sea is one of the world's most extraordinary seas and the largest body of brackish water on the planet. The beauty and great variety of the sea and its surrounding landscapes are unique. Since the last Ice Age, the Baltic has gone through various transformations, having been at various times a strait, a large bay, a lake and now an inland sea connected to the world's oceans by narrow straits.

Throughout the thirty years of HELCOM's history, various major geopolitical, political and economic

transformations have also taken place in the area. For a long time, HELCOM offered one of the few opportunities for an East-West dialogue.

In the early seventies, when HELCOM was founded and got down to work, only two of the contracting parties, Germany and Denmark, were members of the European Community. The Community itself also benefited from the lead set by HELCOM, since environmental policymaking for the then 10 member states was still in its early stages.

Now, the Iron Curtain is long gone, and the European Union is about to enlarge eastwards. Among the countries that will join the EU on 1 May 2004 are Estonia, Latvia, Lithuania and Poland. This will bring a large new area under the umbrella of EU environmental protection policies. Without doubt, this will be to the advantage of the Baltic Sea environment.

However, despite some remarkable progress in recent years, the overall state of the Baltic Sea environment is still unsatisfactory. The EU has recognised that some of its policies, on issues such as fisheries, agriculture and transport, were developed for other reasons than to protect the marine environment. These policies are now being reformed with a view to controlling the pressures and improving the quality of European seas. This requires integrated action. The implementation of EU environmental legislation in the new member states will contribute to this goal, reducing the pollution that the Baltic Sea is exposed to.

In 2002, the European Commission launched a process to develop a European Marine Strategy. This strategy will represent a significant step forward in the development of a single, coherent policy for the conservation and protection of the fragile resources that are our seas. Each policy

## How have attitudes towards the sea changed since the 1970s?

### Ms Eeva Furman, Marine Biologist, Finnish Environment Institute:

In the 1970s it was common to flush the "toilet" of sailing boats and other leisure craft straight into the sea, or wash one's hair in the water.

Today, people pay more attention to their everyday activities: peeing from the shoreline into the sea is not very popular anymore, either!

### Mr Paavo Tulkki, Finnish Institute of Marine Research:

The amount of information presented to citizens on the nature and state of the Baltic Sea has greatly increased, which is important for environmental awareness.

### Mr Sergej Jakutseni, director of the State Control Department for the Northwestern Region of Russia:

For us, environmental protection is a new concept: our authority was only established four years ago.

### Mr Felix Karmasinov, director of St Petersburg's Vodokanal water supply and sewerage company, Russian Federation:

25 years ago in St. Petersburg - I mean then in Leningrad - there were absolutely no water treatment plants. That means that until 1979, everything went into the Neva and its tributaries exactly as it left industries or sewerage systems - and there were a lot. In St. Petersburg alone there were 30,000 so-called "direct drains", in addition to obsolete sewage systems, chemical sewage and so on...



*Some of the fish caught in the Baltic Sea exceed the EU limits on concentrations of dioxin in food and livestock feed.*

sector will have to consider the side effects, positive or negative, that it has on other sectors and on marine ecosystems. This is, in simple terms, what scientists call an ecosystem approach to the management of human activities.

To make this strategy effective from the Baltic to the Black Sea – and ultimately globally – all international governmental and non-governmental organisations concerned with marine management must

join forces. For the Baltic Sea, HELCOM is the key player in this process. Together, we must exploit every opportunity for synergies, co-operation and co-ordination. This will undoubtedly require a change in how HELCOM operates. But at the same time, it provides an opportunity for HELCOM to strengthen its role as the 'promoter' of a healthy Baltic Sea environment in the enlarged European Union, and as a think-tank offering solutions that can be applied even more widely.



1983 Manual on co-operation in combating marine pollution

the freedom of the oceans and the right and duty to wisely use

the oceans in the interests of present and future generations

1986 The Chernobyl accident

# The Baltic – A Sea of Change

Mr Harald Velner, former Chairman of the Helsinki Commission (1990–92, 1994–96) and former Executive Secretary (1984–88)



During my work as Executive Secretary of the Helsinki Commission from 1984 to 1988, the atmosphere in the Secretariat was very good. However, my job as Executive Secretary was not easy at all times, because of my Soviet citizenship. During discussions on controversial questions it was necessary, but challenging, to find compromises that would satisfy all the Contracting Parties, especially the Soviet Union.

## Clean data – clean water

One highly controversial issue was the two different scientific approaches used by the Contracting Parties to calculate permissible pollution loads: the Western approach, which measured “loads at the end of the sewerage pipeline”, and the Eastern European approach, which concerned “limitation of pollution in the recipient water body”. This latter method allowed the authorities to calculate

*The conservation work of HELCOM has contributed to many success stories, including:*

- *The recovery of white-tailed eagle populations around the Baltic Sea*
- *The return of the cormorant to the whole region*
- *Early signs of recovery in Baltic wild salmon populations*
- *Increasing numbers of seals in northern areas of the Baltic Sea*

permissible pollution loads without disclosing pollution load data from point sources.

Another challenge was how to monitor and assess water quality in the Baltic Sea. While in the open sea monitoring

was carried out jointly by all Contracting Parties, monitoring in coastal waters was subject to national responsibility, and no direct international control was possible.

In this way the integrated data – reported once a year by all the Contracting Parties – did not fully match reality consistently. Sometimes, the pollution load data reported by the Eastern Contracting

Parties of the Commission were much smaller than the true loads. For example, pollution loads from the city of Leningrad (nowadays St Petersburg) – the largest city around the Baltic Sea – were calculated on the basis of water quality data from the River Neva alone, omitting information from major point sources and the effects of sewage water purification plants. The same situation occurred for pollution load data for the River Vistula, the Gulf of Gdansk, Riga and other coastal cities.

On the other hand, the Soviet Union did support the proposals of the Scandinavian Contracting Parties to limit harmful substances, biological oxygen demand and phosphorus inputs on several occasions.

## Serving two masters

Political changes during my Chairmanship between 1990 and 1992 represented further personal challenges for me. While I was nominated Chairman of HELCOM in 1990 by the Soviet Union, my country of origin Estonia entered a transition period to independence, which ended in 1992. During the interim period I continued my Chairmanship, having been adopted by both Estonia and the Russian Federation, but this was not an easy role for me. I was happy to succeed in setting up the crucial 1992 Commission Meeting with the help of all the Contracting Parties.

By the time I served as Chairman of HELCOM from 1994 to 1996 – nominated by the Republic of Estonia – the working situation of the Helsinki Commission had changed considerably once more. Ten Contracting Parties were now working together in a highly co-operative working atmosphere, following the signing of the new Convention on the Protection of the Baltic Sea in 1992. The national reports presented to HELCOM were

now more open and representative of the real situation in the Baltic marine area, and the pollution load data was more accurate than ever before. HELCOM's work concentrated more on fulfilling Task Force decisions, and co-ordinating support for different "Hot Spots" around the region. The atmosphere and working style of the working groups and commissions were highly professional and friendly, and technical discussions were no longer unduly influenced by any political positions.

*During the 1990s, lead deposition declined by more than 50%, mainly due to the increased use of unleaded petrol.*

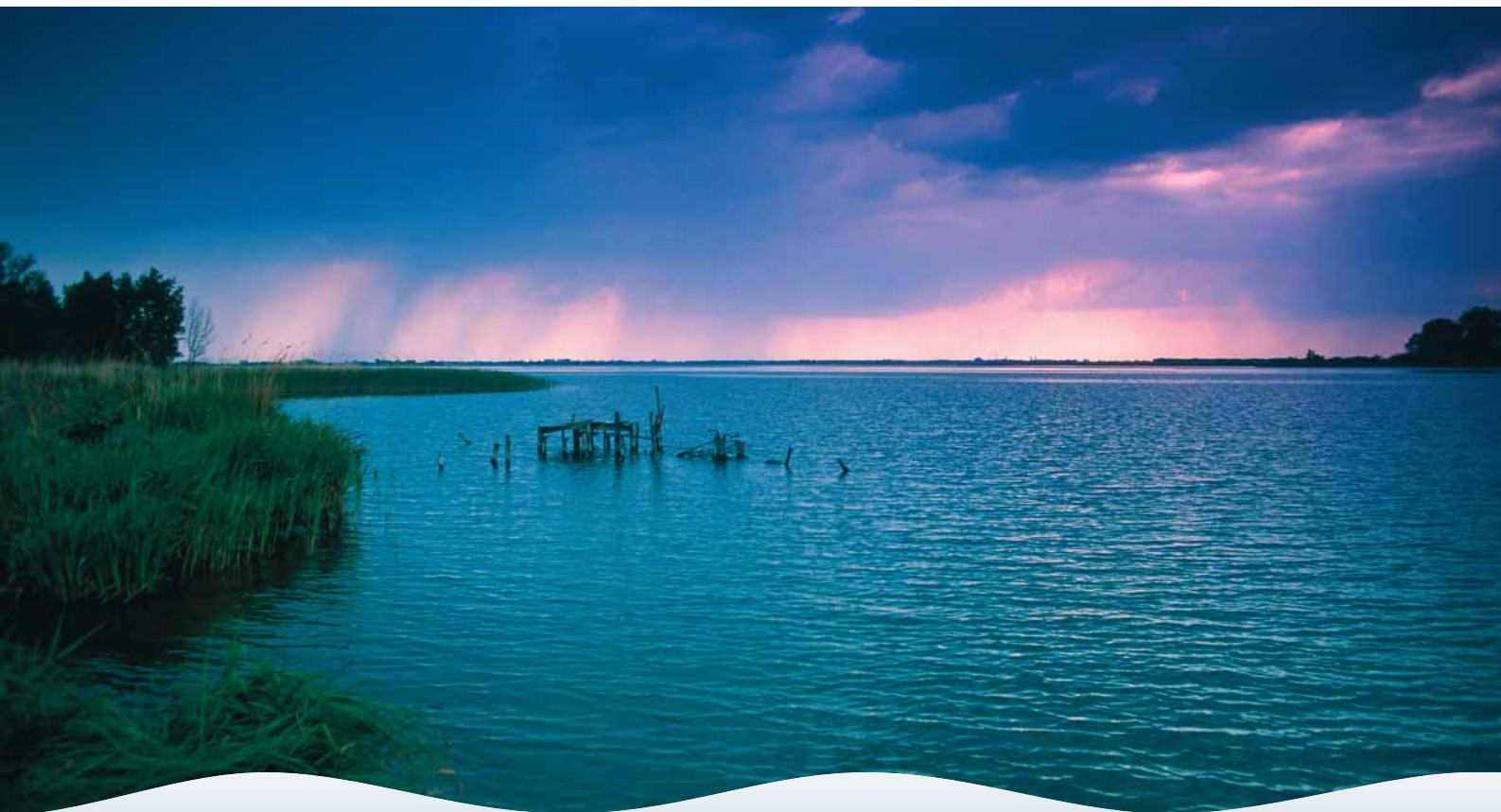
#### How have attitudes towards the sea changed since the 1970s?

##### **Mr Ilmari Aro, former ice-breaker captain of the Finnish Maritime Administration:**

During the 1970s all possible materials were just thrown over board, if they were no longer needed.

##### **Ms Ilkka Viitasalo, Committee and Board of Officers member of the Baltic Marine Biologists, former researcher at the Environment Centre of the City of Helsinki, Finland:**

The attitudes of the general public have changed most. People have slowly learned to love the Sea. There are, however, differences between age groups, income levels of families and nationalities, and even between sexes. Whatever the differences are, we all seem to be beginning to realise that because the Sea with its endless supply of resources and possibilities is free for everybody, we all must carry our responsibility for its protection, too.



The first joint assessment  
quantifying waterborne inputs

of pollutants from all the  
countries around the Baltic Sea

1988

**HELCOM Ministerial Declaration: 50% reduction goal for nutrients and hazardous substances by 1995**

The 1988 Ministerial Meeting was a turning point in the history of the Commission, and laid down the cornerstone for

# Whose responsibility is it to keep the Baltic Sea clean?

*Ms Sylvia Bretschneider, Landtag Mecklenburg-Vorpommern, Baltic Sea Parliamentary Conference (BSPC)*

12 HELCOM 1974-2004



A clean Baltic Sea is the responsibility of everyone living and working around the sea. This responsibility begins with individuals whose actions directly or indirectly affect the Baltic Sea, and it ends with globally acting institutions such as the International Maritime Organisation. In international institutions or intergovernmental agreements, governments define the framework conditions that help to better protect or ecologically upgrade the marine environment. Such measures must not be limited to the sea itself, but must already begin on land, throughout the catchment area of the Baltic Sea.

Since the costs of financing the necessary measures are often beyond the financial scope of the Baltic Sea states, such problems can only be resolved jointly, by setting priorities. HELCOM has adopted an effective approach, choosing to start by combating pollution in hot spots, since this helps to achieve the greatest successes with the limited funds available. Governments have to become even more aware that spending funds preventively in order to limit emissions from polluters is ultimately much more cost-effective and will produce much faster results than implement-



notable changes in the political motivation for controlling marine pollution. The new reduction targets triggered environmen-

tal activities at all levels, and served as a starting point for advanced environmental policies.

1989

First BALEX DELTA exercise

Report on the deposition of airborne pollutants in the Baltic Sea area 1983-1985 and 1986

1989

Liberalisation in Eastern Europe leads to closer contacts between the Baltic Sea countries

Detailed observations of levels of some radionuclides in the Baltic Sea due to fallout from the Chernobyl accident

ing long-term and expensive remedial measures to clean up polluted sites. Industries in some Western European countries have already demonstrated that it is possible to operate more economically, more efficiently and ultimately also more profitably by using limited funds selectively. Over the past two decades, many segments of industry have thus substantially helped to reduce pollution.

However, the primary responsibility rests with each and every individual who through his or her own actions can make a contribution of some kind to protecting the Baltic Sea. The question as to whether natural resources are used sensitively and sparingly depends on the individual's awareness. When it comes to the environmental education of all age groups and social strata, in many Baltic Sea countries there is still a vast untapped potential that should be used more effectively. In future, HELCOM might also try to improve networking between policy-makers, academics and the educational sector.

### The challenge of controlling diffuse pollution and hazardous substances

The prerequisite for effective control is continuous and extensive monitoring on a suitably small scale, in order to record the inputs of both nutrients and pollutants in detail. To this end, it will be neces-

*In 1992, the spawning stock biomass of cod in the Baltic reached a record low. Particularly in the eastern Baltic, cod stocks are seriously overexploited and their numbers are below safe biological limits.*

### How have attitudes towards the sea changed since the 1970s?

#### Mr Paavo Tulkki, Finnish Institute of Marine Research:

Still in the 1960s any garbage accumulated during a stay in harbour was simply thrown into the sea when the ship had left the harbour and passed the boundary of territorial waters three miles off the outermost skerries. Even garbage from a Finnish research vessel was disposed of in this way. In just a few hours this rubbish could end up on the beaches of the outer and inner archipelagos, if the wind direction was suitable. Today the same still happens in the Gulf of Finland, but the trash – according to the texts written on it – does not originate from the Nordic countries, but from Russia, Germany, Netherlands, Poland and other countries.

sary to share responsibilities in order to avoid an imbalance in the burden to be borne by the various Baltic Sea states.

National governments will also have to impose overall limits on the inputs of nutrients and pollutants. In this context, bans on the use of harmful or environmentally hazardous substances should not be ruled out. In this context, governments should refrain from allowing transitional phase-out periods of many years, particularly in the agricultural sector.

Finally, it will be necessary to create economic incentives in order to achieve the agreed reduction targets. However, adopting measures in the Baltic Sea area alone will not be sufficient, especially where diffuse airborne pollution is concerned. In future, there should also be closer co-operation at pan-European level to ensure that the Baltic Sea area will speak with one voice, thus increasing the chances of success.

The first HELCOM assessment on airborne pollution inputs.

1990 HELCOM Recommendation No. 100 adopted

1990 First joint airborne surveillance

1990 Prime Ministerial Meeting in Ronneby – "The Baltic Sea Declaration"

1992 The revised Helsinki Convention is signed by the Baltic Sea States and the European Community

1992 UN Conference on Environment and Development and Agenda 21 (UNCED, Rio)

At a major Diplomatic Conference, the Baltic Sea Environmental Declaration

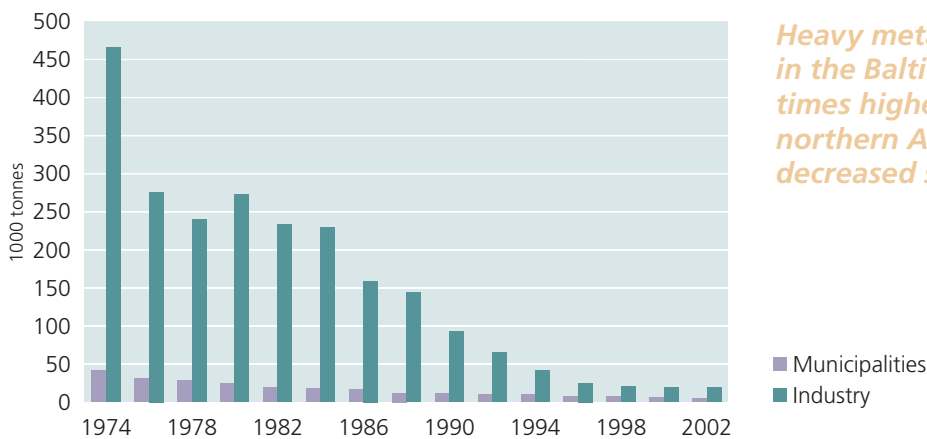
For the first time environmental issues were discussed at global level. The Agenda 21 process was

# How have pollution loads changed over the last 30 years?

Pollution loads from point sources, such as industrial plants and municipalities, have decreased significantly since the 1970s, due to technological improvements and the construction of new waste water treatment plants. Such improvements generally started in the present EU member countries before the 1980s, whereas progress in the transition countries has mainly occurred since 1990.

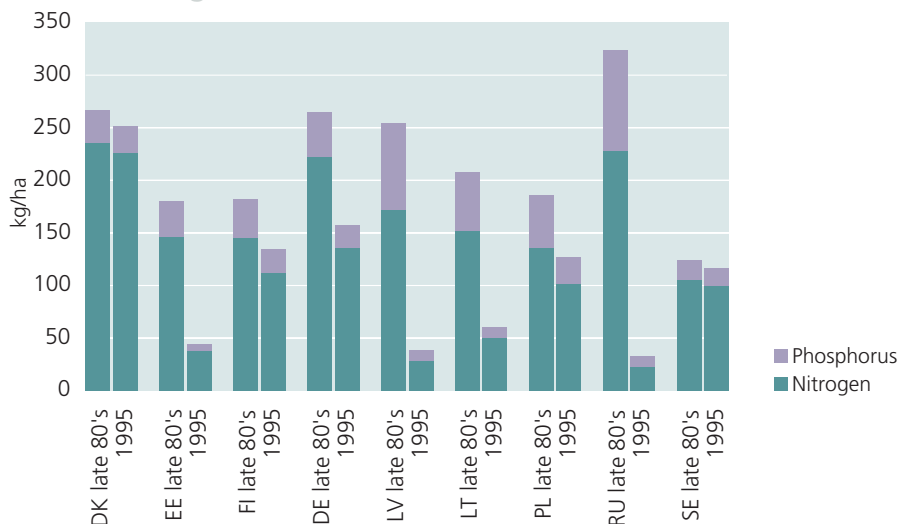
Most of the total nutrient load entering the Baltic today comes from diffuse sources. Agricultural production fell sharply in all the transition countries after the late 1980s, contributing to steeper reductions in nutrient leaching than those achieved in the present EU countries, where reductions in nutrient loads from agriculture have not been as clear as for point sources. This can partly be explained by the considerable time lag between the implementation of water protection measures and their effects in water bodies.

Development of BOD7-discharges from point sources in Finland



*Heavy metal concentrations in the Baltic Sea are many times higher than in the northern Atlantic, and have not decreased since the 1990s.*

Use of fertilizers in late 1980's and 1995 (kg/ha)



approves the Baltic Sea Joint Environmental Action Programme (JCP)

and establishes the Programme Implementation Task Force (PITF)

The concept of Baltic Sea pollution Hot Spots is established, and helps to focus public

interest on curbing pollution in the catchment area of the Baltic.

also initiated, and the concept of "sustainability" appeared in an environmental context

1993 Gdansk Declaration (High Level Conference on Resource Mobilization)

# Why is eutrophication so difficult to tackle in the Baltic Sea region?

Mr Mika Raateoja, Finnish Institute of Marine Research,  
and Mr Heikki Pitkänen, of the Finnish Environment Institute

Eutrophication has long been considered as one of the most serious threats to the Baltic Sea environment. Since this first became apparent in the 1970s and the 1980s, the countries around the Baltic have directed considerable financial investments into reducing nutrient discharges into the sea. The aim of these measures is to curb eutrophication (a process that leads to increases in total biomass and the production of phytoplankton and macroalgae) and its adverse effects – such as the spread of extensive anoxic areas on the sea-bed, where no higher life-forms can survive. But in spite of all these efforts, and some notable successes in reducing nutrient loads, the Baltic seems to keep resisting, and eutrophication problems persist.

Even though the natural characteristics of the Baltic Sea system facilitate eutrophication, the current situation is largely anthropogenic: the nutrient reserves in sediments are excessively high, as a result of heavy nutrient loads entering the sea over a long period, from human settlements, industry and agricultural activities.

For decades, the Baltic acted as a buffer against these continuous nutrient loads, but the eutrophication process now functions similarly in both ways; and it will take considerable time before the biogenic pool of nutrients moving between the water and the sediments is reduced to below a critical threshold at which improvements will really begin to become evident.

Furthermore, experiences from EU countries have shown that even in cases when the use of fertilisers has been greatly reduced, the corresponding changes in the nutrient loads entering water recipients have

been small. This can be explained by the long retention periods of old nutrient inputs in agricultural soils. The situation in farmland in the Baltic's catchment area is somehow analogous to the situation in the bottom sediments; it will take a long time to get rid of the nutrients that have been accumulating in the soils over many years of over-fertilisation.

From this perspective, it is easy to understand that decision-makers can sometimes find it hard to fully understand the need for financial investments in improvements at municipal wastewater treatment plants and other measures to reduce the



## What kinds of changes have you noticed in the Baltic Sea over the last 30 years?

### Mr Henryk Sniegocki, ship's captain and director of the Polish Sea Academy in Gdynia, Poland:

When I began sailing in 1972, the water was much cleaner. I can remember how we used to be able to see the sea-floor one or two miles before we reached the coast, where the water was one or two metres deep. In some places today you can't see the bottom at all anymore, even when you're standing knee deep in the water

### Mr Piotr Bykowski, Institute for Marine Commerce in Gdynia, Poland:

Baltic herrings have been getting smaller and thinner, and their percentage of body fat has decreased from 15% to 7%. Without fat, the herring is not well suited for certain dishes, so people have been buying the bigger, fatter herring, from Norwegian waters – with bad consequences for the Baltic fishermen.

### Ms Eeva Furman, Marine Biologist, Finnish Environment Institute:

Negative changes in the environment include the lack of clarity in the water, the increasing occurrence of slimy algae along the coast, and intensified blue-green algal blooms.

*Almost 35% of the total nitrogen load entering the Baltic Sea originates from airborne inputs.*

1993  
**First Assessment of the State of the Coastal Waters of the Baltic Sea**

A joint report prepared on the basis of national reports submitted by all Contracting Parties

1994  
**Establishment of the Baltic Sea Protected Areas (BSPAs)**  
The initiation of a network of coastal and open sea areas covering all sub-

regions of the Baltic Sea to protect vulnerable habitats and species  
**First JCP Hot Spot deleted from the List of Hot Spots**

*In August 2002, bottom-dwelling animals died across large areas of the Kattegat, the Belt Sea, the Sound and the Western Baltic Sea following serious oxygen depletion.*



**1966** Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

**1996** Baltic Strategy for Port Reception Facilities

**1996** The Visby Summit reviews regional cooperation in the light of sustainable development.

The Baltic Strategy for the reception of ship-generated wastes addresses issues

**The Kalmar Communiqué (CBSS)**

including waste minimization onboard, the application of best available technologies onboard

A target is set for the cessation of emissions, discharges and losses of hazardous substances within one generation.



nutrient loads entering the Baltic. The whole task might feel like tilting at windmills in many respects.

It will certainly take time before we can steer the state of the Baltic to a new, improving path, but this time-period can be shortened by active, sustained, and co-ordinated water protection measures taken by the countries surrounding the Baltic. The windmills are not necessarily unbeatable on this occasion, although any far-sighted policy must take into account the inevitable time lag between investments and the actual results.

In defining the desired state of the Baltic for the future, we have to be realistic. The most conspicuous manifestations of eutrophication within the Baltic, intensified mass occurrences of blue-green algae, are in fact natural phenomena that have occurred here since long before the era of industrialisation – even for thousands of years. Only their present extent and intensity can be put down to eutrophication. This means we should not expect the Baltic to return to some kind of pristine environmental state, but we must nonetheless strive to return the sea to a state that will guarantee that the high value of the Baltic for livelihoods and recreational purposes will be preserved for future generations.

### Gaining control over eutrophication

Measures taken against eutrophication must be effective, and must cover all the important sectors causing nutrient losses. So far, efforts at reducing phosphorus from municipal and industrial sources have been clearly more successful than those aimed to reduce agricultural loading. The technology also exists for the efficient removal of nitrogen

*The spring algal bloom in 2003 was the most intense since 1992.*

and ashore, information systems, port state control, enforcement of regulations,

and appropriate measures in cases of violations. HELCOM Recommendation 17/11 on

Reception Facilities is elaborated for the implementation of the Strategy.

### The science of eutrophication

Compared to other estuarine-like sea areas, the area-specific nutrient loading of the Baltic is not very high. But the Baltic is very sensitive to nutrient inputs and other external perturbations due to its small water volume, poor water exchange with the North Sea, and particularly the strong salinity stratification caused by inflows of saltier North Sea water, and the voluminous river water input into the Baltic. As a result, eutrophication has advanced in the open Baltic Sea, despite reductions in nutrient loads, and positive changes have been evident only in some restricted coastal waters.

The increased production of organic matter associated with eutrophication boosts the flux of organic matter into bottom sediments. Decomposition of this matter leads, in turn, to a considerable oxygen demand, facilitating hypoxic/anoxic conditions at the sediment-water interface. In this condition, the inorganic nutrients already bound to sediments get released back into the water column. The process is called internal loading.

In the Baltic, the reasons for internal loading include the Baltic's unique hydrodynamics, as well as the high accumulation of organic matter.

### Poor oxygen conditions

The poor oxygen conditions in the deeper waters of the Baltic are largely caused by the permanent salinity stratification and seasonal temperature stratification within the sea. The resulting density gradients prevent vertical mixing, thus isolating deeper waters from the atmospheric oxygen supply. For the deeper parts of the Baltic, the only occasional source of oxygen is inflows of water from the North Sea, so oxygen reserves in deeper waters are only renewed very slowly. There is clear evidence that poor oxygen conditions nowadays exist in shallower areas than earlier. This may be due to increased organic sedimentation, changes in climatic conditions or structural changes in stratification.

Whichever of these factors is the primary cause, the effect remains the same: inorganic nutrients, released from sediments, end up fuelling primary production. This internal nutrient source, mainly concerning phosphorus, is out of our immediate control. These nutrients fertilise the Baltic ecosystem also during late-summer - when the availability of phosphorus is usually the key factor limiting the growth of blue-green algae, and when the availability of phosphorus is otherwise dependent on the decomposition of organic matter.

*In 2000, about 660,000 tonnes of nitrogen and 28,000 tonnes of phosphorus entered the Baltic Sea via rivers, most notably the Neva, Nemunas, Vistula, and Oder rivers.*

from waste water, and as a result of HELCOM's recommendations and EU legislation, nitrogen loads from both municipal and industrial sources have decreased.

Nutrient loads within the Baltic catchment area have decreased over the last 15 years – partly due to active water protection measures, but also due to changes in the economic systems of the Baltic States, Germany, Poland and Russia.

With regard to agriculture, reductions in loads have only been substantial in the countries where radical political changes have reshaped agriculture, namely the Baltic States and Russia. These reductions have occurred due to substantial reductions in the use of both artificial and organic fertilisers, and in the number of livestock. As economic recovery progresses in Russia, and the Baltic States and Poland join the EU, more effective methods are likely to be applied in agricultural production. This may result in increased nutrient loads again. These trends will be highly dependent on the future agricultural policies of the EU.



**1991** HELCOM sets an objective with regard to hazardous substances.

HELCOM's objective with regard to hazardous substances is to continuously reduce discharges,

emissions and losses of hazardous substances towards the target of their cessation by the year 2020,

with the ultimate aim of achieving concentrations in the environment near background values for

**1998** The Saltsjöbaden Declaration initiates BALTIC 21

# How powerful are HELCOM's tools to protect the Baltic Sea in legal terms?

*Mr Fleming Otzen, commander, former HELCOM Executive Secretary (1988–92) and former Chairman of the Helsinki Commission (1992–1994)*

The success of the Helsinki Commission can be seen in the fact that after 30 years of work protecting the Baltic marine environment, HELCOM is still the main organisation in this area.

Many players are involved in protecting the Baltic Sea, ranging from environmental organisations to financial institutions, and this underlines HELCOM's important role as watchdog and caretaker of the Baltic Sea Area.

## How binding are HELCOM Recommendations and the Convention?

It must be remembered that HELCOM was born in 1974 as an intergovernmental organization based on the principle of consensus and regulated by the 1974 Helsinki Convention. Law-enforcement measures as such have never been used by HELCOM, as the Convention has no such options, and this has in many ways been a blessing.

It should be recalled that in the beginning the Contracting Parties included countries belonging to either the Warsaw Pact or the NATO Pact, as well as neutral countries. There was widespread amazement that these states could all sign the 1974 Helsinki Convention under the prevailing political conditions.

## Positive negotiations

Ever since those days, HELCOM has believed in positive negotiations and dialogue between these various parties, and this dialogue continued very favourably even when the number of Contracting

Parties increased during the late eighties and early nineties. The Convention has consequently been revised from time to time in order to update its text according to regional and global developments in the field of marine environmental protection.

I feel that the Helsinki Commission should continue according to these principles, remembering that one important Contracting Party is not a member of the European Community, and continuing this work will be a noteworthy achievement for both the Helsinki Commission and the European Community.



### What kinds of changes have you noticed in the Baltic Sea over the last 30 years?

#### Mr Paavo Tulkki, Finnish Institute of Marine Research:

Some of the largest estuaries are in much better condition now than they were 30 years ago. Due to improvements in processes used in the extensive forest industry along the Kymi River the water is now so clean that fishes in the salmon family occur there again.

#### Mr Esko Joutsamo, Finnish Association of Nature Conservation:

Hazardous substances (DDT, PCB, mercury) have been reduced following an international ban on the use of these chemicals, resulting in better reproduction rates for the formerly threatened seals of the Baltic, and the white-tailed sea eagle.

naturally occurring substances and close to zero for man-made synthetic substances.

**The JCP is reviewed and updated.**

**A Red List of Marine and Coastal Biotopes and Biotope Complexes of the**

**Baltic Sea, the Belt Sea and the Kattegat is compiled.**

# How do International Financial Institutions assess the cooperation with HELCOM?

Mr Roland Randefelt, Senior Environmental Analyst, Nordic Investment Bank



The Prime Ministerial Conference on the Environment of the Baltic Sea held at Ronneby, Sweden in September 1990 formally initiated the involvement of the international financial institutions (IFIs) in the work of the Helsinki Commission (HELCOM). The co-operating IFIs involved in this work have

included the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Nordic Environment Finance Corporation (Nefco), the Nordic Investment Bank (NIB) and the World Bank (WB). In recent years these IFIs have also been joined by the Council of Europe Development Bank (CEB).

## The key strengths of HELCOM include:

- The strong and sustained commitment of the co-operating countries to HELCOM's objectives and the implementation of the Helsinki Convention
- A well-managed and adequately funded Secretariat with stable professional and support staff
- The development of a regional framework of environmental guidelines complemented by national legislation and regulations
- A well-established network of scientists and technical experts working through the HELCOM committee structure to disseminate and promote access to information
- An ability to effectively plan and conduct complex meetings and to disseminate their results promptly
- A well-maintained regional archive of information on environmental issues in the Baltic Sea area and beyond

## Key issues related to the continuing co-operation between HELCOM and the IFIs include:

- The need to make HELCOM more flexible and responsive to changing needs and opportunities in the Baltic Sea area
- The need to continue revising HELCOM's administrative procedures and approaches to programme management to make them more responsive to changing needs and emerging issues
- The need to develop a mechanism to continue the role of the IFIs as invited partners in the work of HELCOM and the implementation of the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP)
- The need to maintain a regular dialogue between HELCOM and the IFIs recognising that the professionals in the HELCOM network tend to be scientists, while their counterparts in the IFIs generally are economists and engineers
- The need for HELCOM to recognise the complementary nature of the IFIs, and to avoid getting involved in work related to the development of investment projects and the financial aspects of these investments
- The need for HELCOM to work with the IFIs to identify mechanisms, such as financial intermediaries, that can support urgently needed small-scale lending operations targeted at farming, fishery and eco-tourism

## The Role of the IFIs

Although the IFIs have a diversity of mandates and ownership structures, they all share a common commitment to the environment and have had a common interest in financing projects to improve the environment in the Baltic Sea area. The co-operating IFIs were all active members of HELCOM's Programme Implementation Task Force, which proved to be a useful mechanism for the co-ordination of this work at the regional level, providing a forum for the exchange of ideas and information and bringing together representatives of regional organisations, countries, IFIs and NGOs.

## HELCOM as an Intergovernmental Organisation

From the perspective of the IFIs, the experience of over a decade of co-operation has increased everyone's understanding of the strengths, weaknesses and opportunities for HELCOM as an intergovernmental organisation. In general, both the role of HELCOM and its relationship with the IFIs should be redefined to facilitate continued co-operation in the future.

*Forecasts indicate that by 2015 the total amount of oil transported in the Baltic will amount to more than 130 million tonnes a year.*

2000 The 1992 Helsinki Convention enters into force (17 January)

2001 The HELCOM Copenhagen Declaration

Ministers adopt a package of new measures to improve maritime safety and pollution prevention in the Baltic

Sea, including routeing, pilotage, hydrographic surveys, automatic identification monitoring system for

2001 The "Baltic Carrier" oil spill (2,700 tonnes)

## Joint Challenges in the Future

Political developments and economic growth around the Baltic Sea over the last decade, and the pending accession of Estonia, Latvia, Lithuania and Poland to the European Union reflect the major

*It is estimated that the increasing oil transportation will raise the risk of a large oil-spill involving over 10,000 tonnes of oil by 35% for the whole of the Baltic Sea, and by 100% for the Gulf of Finland.*

changes that have occurred since the Ronneby Conference and the launch of the JCP.



vessels, the phasing out of single-hulled oil tankers, and adequate emergency and response capacities.

**HELCOM Recommendation No. 200 adopted**

**2002 First Joint HELCOM – IBSFC seminar**

The International Baltic Sea Fisheries Commission and HELCOM jointly find ways to mitigate environmental problems related to fisheries.

**2002 World Summit on Sustainable Development (WSSD), Johannesburg**

It is anticipated that NIB will continue to emphasise projects that mitigate pollution in the Baltic Sea area in its lending policies. The invitation to Estonia, Latvia and Lithuania to become members in the bank will give NIB a new ownership structure as of 1.1.2005, with six Baltic Sea states among the eight members. Increased engagement in NDEP will lead to increased environmental lending in Northwest Russia, and the new ownership structure will give added focus to NIB's environmental lending in the Baltic Sea in general as well as in the member countries. In the EU accession countries, it should also be anticipated that the European Commission and EIB will take a greater role. While still active in the Baltic Sea area, the EBRD, Nefco and World Bank may be expected to increase their efforts in Russia while reducing, over time, their role in the EU accession countries. These changes justify intensified dialogue between HELCOM and the IFIs on how their respective roles will change between now and 2010. An important challenge for HELCOM as an intergovernmental organisation is to demonstrate the relevance of HELCOM's activities to the business plans of the IFIs.

#### **Why is a clean Baltic so important?**

##### **Ms Aleksandra Koroljowa, Eco-Defense, Kaliningrad, Russian Federation:**

If the Baltic environment is not well, it is difficult for us to earn money. When the oil began to be visible on the shores, many tourists stopped coming.

##### **Ms Ramune Solovjova, manager of the tourism centre in Neringa, Lithuania:**

Ultimately we have nothing here except culture and nature. That means only three months of income in the summer, when we have fish and tourists. Local people must earn their living during these three months, and live on that for the other nine months.

##### **Mr Jurij Muraschko, PR director for the Northwestern Forestry pulp and paper business group in the Kaliningrad Region, Russian Federation:**

Environmental protection is also an economic advantage. The less dirty water we discharge, the less fines we will have to pay later.

*Surveillance aircraft detect about 400 illegal oil discharges a year in the Baltic Sea.*

2003 **First Indicator Fact Sheets 2003**

HELCOM starts a new operational process to provide current

information on the state of the Baltic marine environment

**The HELCOM Bremen Declaration**

2002 **A collision between the "Fu Shan Hai" and the "Gdynia" north of Bornholm**

# How has co-operation between intergovernmental and non-governmental organisations changed since the 1970s?

*Mr Risto Veivo, Union of the Baltic Cities*

There have been dramatic changes over the last 30 years. Everybody has realised that the environment can only be successfully improved through co-operation involving all players. At the same time, the major political changes of the late 80s and the early 90s cleared the way for totally new types of partnerships throughout the whole Baltic Sea Region. Cities now co-operate much more closely with each other, while municipal organisations are also dealing more and more closely with governmental bodies. Today, this type of co-operation is carried out on equal basis and with a common cause – we all want the condition of the Baltic Sea to improve, and everyone aims to implement sustainable development at national and local level throughout the Baltic Sea Region.

## A mixed crew steering towards the same goal

From the point of view of municipalities, things have changed dramatically. From the recognition

of environmental problems and the application of rather narrow technical and legal solutions, cities and towns have moved towards comprehensive environmental and sustainable development programmes and processes. All stakeholders play important roles in such processes through extensive co-operation.

In this respect, HELCOM has been an important source of inspiration, pointing the way for three decades towards regional co-operation all around the Baltic Sea, regardless of political and other boundaries. The shared focus for all actors in this co-operation has been the state of the Baltic Sea.

*During the period 1996–2000, annual emissions of heavy metals in the HELCOM countries decreased by 26% for cadmium, 15% for mercury and 10% for lead.*



### The First Joint Ministerial Meeting of the Helsinki and OSPAR Commissions

Ministerial representatives from twenty countries and the European Community work together in the first joint meeting of

HELCOM and OSPAR to improve the protection of the marine environment of the North-East Atlantic and the Baltic Sea. This

unprecedented meeting demonstrates the depth of political commitment to protecting our seas across the whole of Europe

# The Operation of the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP)

Mr Göte Svenson, former Chairman of HELCOM PITF (1992-2003)



Any attempt to evaluate HELCOM activities – given the historic political realities of the Baltic Sea arena – must consider one specific feature of HELCOM co-operation: the complete lack of political tension between Contracting Parties when debating measures to attain the objectives of the Helsinki convention. This can in itself be seen as a success story, regardless of the resulting substantive achievements. More interesting is, however, the question about the impact of HELCOM activities on the Baltic Sea environment and especially of the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP).

with success as a gateway to widened East-West co-operation in general.

As an evidence of foresight four international financial institutions were invited to join the conference preparations. The reason for this is self-evident: resolute and effective action to enhance the marine environment was correctly presumed to become very costly and probably impossible to bring about without active participation of money-lending institutions. Therefore, any decision in this direction was more likely to be followed by action, if the banks could be involved from the start.

When the draft, which was eventually to become the Baltic Sea Declaration, was nearing completion, the concept of a Joint Comprehensive Action Programme (originally Polish proposal) was accepted as a cornerstone of the text. It can be noted for the record, that it was not at all taken for granted that HELCOM should be involved in the process. Some of the negotiating parties questioned HELCOM's ability to shoulder the envisaged new, demanding task. Luckily enough, a majority of participants in the preparatory group - including the author of these lines - were "old hands" of HELCOM.

As an upshot an ad hoc high level Task Force was set up within the Helsinki Commission to prepare the Joint Comprehensive Programme. The aim of the JCP was worded in magnificent terms: "to restore the Baltic Sea to a sound ecological balance".

The composition of the Task Force was determined in the declaration itself. An innovative principle was to include not only coastal states (Contracting Parties to the convention) but also the other countries within the entire catchment area as well as the major international financial institutions.

It is not the purpose of this article to describe the JCP in detail, but the main features can be summarized as follows. The JCP encompasses both

## *The successful elimination of around 50 of the 132 pollution hot spots has contributed substantially towards overall pollution load reductions in the Baltic Sea catchment area.*

This certainly is a success story of HELCOM. But, paradoxically, this major contribution to intensified environmental co-operation in the Baltic Sea region came into being independently of HELCOM. Admittedly, however, without having been a party to the conception, HELCOM in due time became a good foster parent to the child.

To trace the origin of the JCP we have to go back to a conference of Heads of Government, held at Ronneby, Sweden, in September 1990.

The decision to hold the Ronneby Conference did not emerge from within HELCOM. It was in fact a top level political initiative, launched by the prime minister of Poland and Sweden in order to promote closer relations between states in the Baltic Sea area on the basis of the ongoing political momentum, created by increased openness in Eastern Europe. Originally the theme of the forthcoming conference was not specified in precise terms by the initiators. It became obvious, however, that the area of environmental co-operation was the field of action, where political rapprochement was most likely to meet



preventive action to promote sustainable use of the Baltic Sea environment and curative actions to rectify the legacy of environmental degradation. Investment activities, amounting at close to 18 billion EURO focus on pollution reduction at 132 identified "hot spots", responsible for a major part of pollution in the Baltic Sea. In addition to these investments the Programme contains proposals to support development of appropriate national environmental policies and legislation, to promote the use of economic incentives to encourage environmentally sound actions and to strengthen institutional capacity to finance environmental measures.

It may be worth recalling that the listing of "hot spots" followed pre-feasibility studies, carried out by professional consultants, hired by the international financial institutions as "executing agencies". The justification for this procedure was, of course, the need to present a basis for designing projects, which would be "bankable".

The implementation of the JCP is mainly a national responsibility. When the JCP was launched, however, it was also agreed to establish a special mechanism "to co-ordinate and monitor Programme implementation and to provide a focal point for periodic updating of the Programme". This mechanism known as the Programme Implementation Task Force (PITF) was characterised by its wide range of stakeholders involved. The functions as Lead Party for various components of the JCP were distributed among its members and observer organizations.

JCP implementation started in 1992. Since the time-frame needed for Programme completion has been estimated at 20 years, it is still too early to make any final assessment of its impact. Suffice it to state that considerable progress can be noted and that JCP, so far, represents the peak of environmental co-operation among countries in the Baltic Sea catchment area.

### Case study: Hot Spot No. 77

(Frantschach Swiecie SA, Poland)

In 2002, following investments amounting to 59 million, Frantschach Swiecie SA, one of the largest pulp and paper producers in Poland, was deleted from the list of Hot Spots of the Baltic Sea Joint Comprehensive Environmental Action Programme. In 2003 the company was honoured by the Swedish Baltic Sea Water Award for its outstanding efforts over the last 10 years to reduce both pollution discharges into the River Vistula, and overall water consumption.

Mr Maciej Kunda, Managing Director of Frantschach Swiecie SA, looks back at the difficult early days:

In the late 1960s and early 1970s our main concern was just to start the production, machine by machine, and keep it running. All employees were focused mainly on learning to produce sellable products and capture markets. Environmental issues were not a priority in the mill, or in Poland in general.

The period from 1977 to 1989 was very difficult for Poland in political and economical terms, and the same was true for the mill. It was difficult for any state-owned company in Poland to grow sustainably, since many decisions were taken in governmental offices, and only a very small part of the profits could be reinvested in new developments at the mill. Basic equipment started to deteriorate, access to Western European know-how and spare parts was limited, and the quality of Eastern European work was generally not good enough. Environmental issues were still not seen as a priority.

The biggest changes and improvements came after 1990. Privatisation and restructuring occurred during the transformation to the market economy. Changes in ways of thinking and new ways of acting followed on.

New opportunities soon arose. Committed to continuous improvement, the company employed a variety of innovative technologies in converting raw wood to finished products, implementing closed production processes to capture and recycle materials, and conducting stringent environmental monitoring. While making these positive efforts, the company has also managed to double its overall production – a win-win situation for both the environment and our company.

*Monitoring indicates that the loads of some hazardous substances have been reduced considerably over the past 20–30 years, but problems still persist*

50 JCP Hot Spots deleted out of 132 on the original list.

2004

The 30<sup>th</sup> Anniversary of HELCOM marks 30 years of progress on the protection of the Baltic marine environment.

2004

Accession of Estonia, Latvia, Lithuania and Poland to the EU

# The Baltic through children's eyes

Compiled by Fran Weaver, freelance journalist

Environmental protection work is always designed to preserve our natural heritage for future generations, and the fate of the Baltic Sea will soon depend on how the next generation chooses to continue with the work done so far by HELCOM and other environmental organisations. With this in mind, we asked children from Soukka School in Espoo, Finland – just a stone's throw from the Gulf of Finland – to tell us what they know about the Baltic, and what they feel about important environmental issues.

The kids were unanimous about the evils of

**marine pollution:**

- This is a bad thing. Pollution comes when an oil tanker sinks, for instance. Things like this happen sometimes... Satu, 9
- People throw rubbish into the sea and factories pollute. Tiia, 9
- In some countries they tip hazardous waste into the sea, and then you can't swim in it any more. Olli, 11.



- I just don't understand at all why some people pollute the water. Maybe they have something that they can't put in the rubbish bin. Heli, 9
- Oil can't be very good for the Baltic Sea. Ilkka, 11

The problem of **eutrophication** is a little more mysterious:

- I'm not sure what eutrophication is, but it's probably a good thing. Mari, 10
- It makes me think of a rock with green stuff on it. Joel, 11
- It comes when there are too many nutrients in the sea. Ville, 11.
- Too many plants and seaweeds start to grow in the sea. Mira, 11
- If some place has eutrophication, it means wastes like sewage have been taken there. Janne, 10

Finnish children are all too familiar with the dangers of **blue-green algae**:

- It's blue-green, it irritates your skin, and it's not edible. Tiia, 9
- It's seaweed that can make you sick. Heta, 9
- I don't like blue-green algae because I get an allergic reaction to it, and then I can't go swimming. Anni, 11
- There are often signs on the beach in summer about poisonous blue-green algae. Olli, 11
- It comes when pollution and too many nutrients get into the sea. Mira, 11
- It appears in the hottest time in the summer. It's poisonous and it looks like blue paint on the water. Satu, 9

People have already been talking for years about **sustainable development**. With luck, the next generation could be the first to work out what it really means:

- Development that never needs to stop. Suvi, 11.
- The development of rock-hard plants. Georgi, 9

- Sustainable development might be some kind of aid, like the Red Cross. Waltteri, 9
- If this means development that helps keep the sea clean, let's hope it works! Sally, 11

The older children could name all or most of the nine **countries around the Baltic Sea**. Norway was also included in many lists, and this is partly true, as water from some Norwegian mountain-sides does run into the Baltic. The younger kids mainly listed Finland's nearest neighbours, especially nearby Estonia. Among the wilder guesses were the North Pole, Australia, Iraq, and several countries in the Far East – perhaps because the Baltic is misleadingly known in Finnish – as in several other languages – as “the East Sea”.

Whose **responsibility** is it to keep the Baltic Sea clean?

- Ours, I suppose. Henriika, 11
- Don't know. Maybe Finland's? Sonja, 10
- The people in all the countries around it. Anni, 11.
- Everyone's. Karri, 9.
- The EU's. Linda, 8.
- The Government's. Johanna, 9.
- Russia's. Olli, 9.
- Water treatment plants'. Satu, 9.
- There must be some special conservation organisation. Heli, 9

*As many as 90% of the marine and coastal biotopes around the Baltic Sea area are to some degree threatened today.*

Long live the Baltic!  
Lad Østersøen leve!  
Lase Läänemerel elada!  
Anna Itämeren elää!  
Lasst die Ostsee leben!  
Lausim Baltijas jurai dzivot!  
Leiskite Baltijos jurai gyventi!  
Chron wogy Baltyku!  
Дай Балтийскому морю жить!  
Låt Östersjön leva!



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