

The entire picture of the Baltic - HELCOM Initial Holistic Assessment of the Ecosystem Health of the Baltic Sea 2003-2007 (HOLAS)



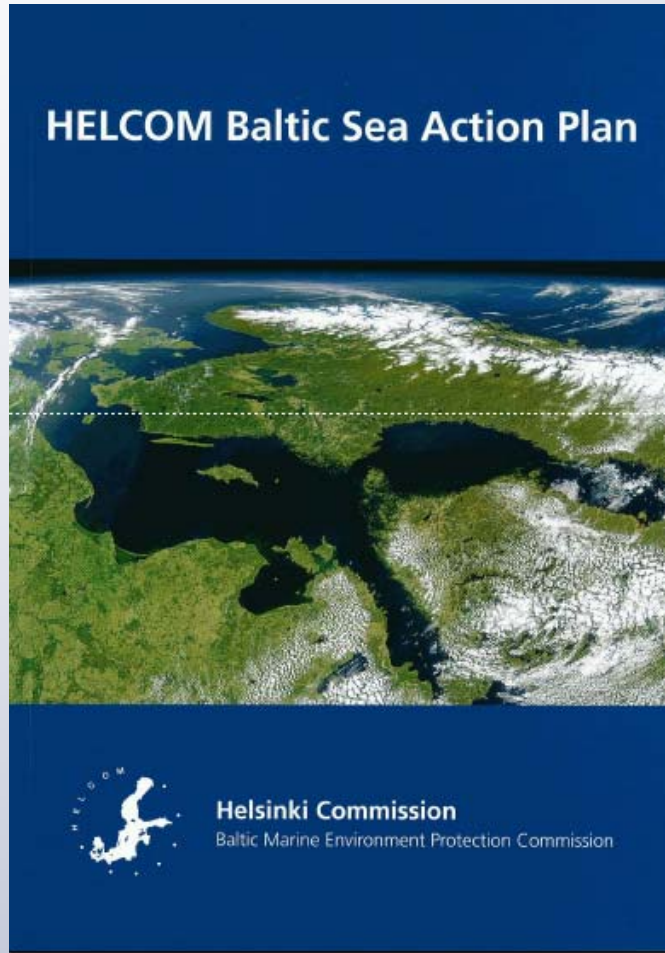
Anne Christine Brusendorff, HELCOM Executive Secretary

Building marine policy on best available knowledge,

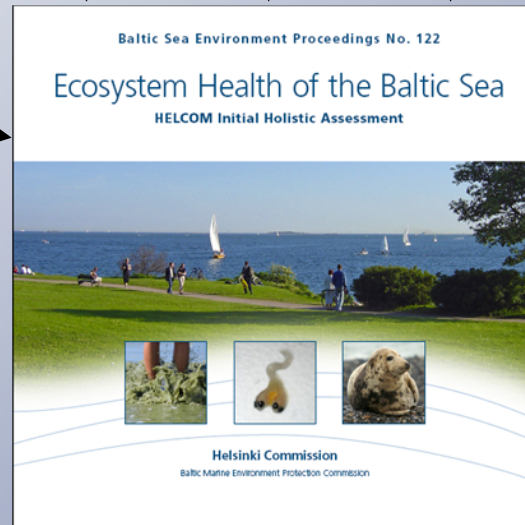
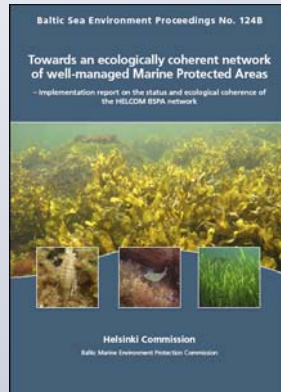
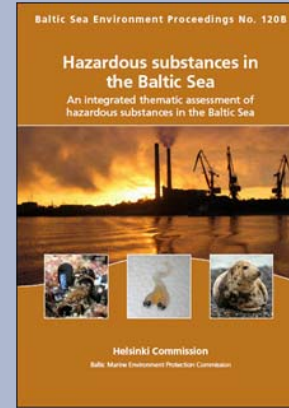
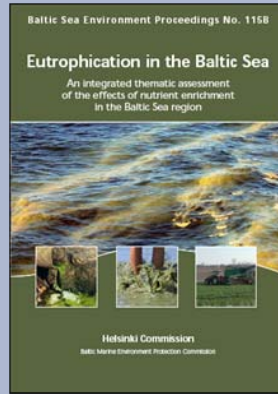
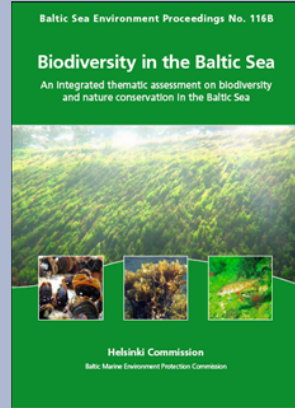
25 August 2010,

Stockholm, Sweden

HELCOM Baltic Sea Action Plan



- Adopted in the 2007 Krakow Ministerial Meeting
- Ecosystem-based approach to management of human activities
- Ecological objectives
- Measures and actions for:
 - Eutrophication
 - Hazardous substances
 - Maritime activities
 - Biodiversity and nature conservation
- National Implementation Programmes in 2010



- Based on data from HELCOM's coordinated monitoring programmes
- Use of indicator-based assessment tools

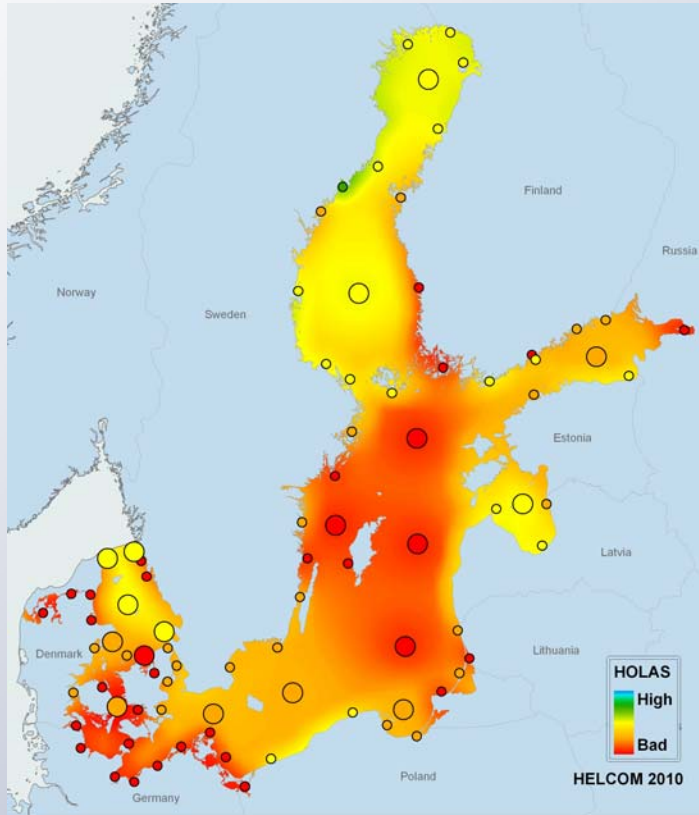


HELCOM Initial Holistic Assessment of the Ecosystem Health of the Baltic Sea 2003-2007

- Overview of the ecosystem health of the Baltic Sea in 2003-2007
- Status, anthropogenic pressures and economic analysis
- Baseline for assessing the effectiveness of the implementation of the measures of the HELCOM BSAP – How far are we from reaching good environmental / ecological status?
- Contribution to the EU MSFD implementation



Ecosystem health status of the entire sea was impaired in 2003-2007

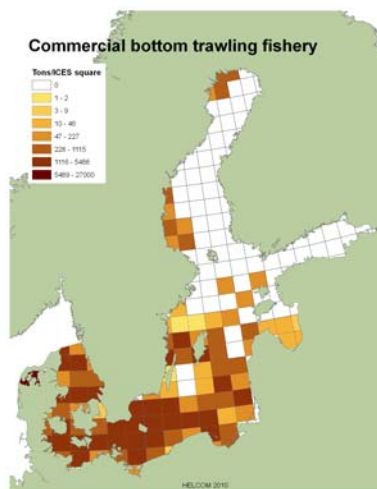


- Based on biological and chemical status indicators
- In all sub-basins the status was classified as being impaired, i.e. moderate, poor or bad
- The poor status of the Baltic Sea Proper is due to eutrophication, contamination with hazardous substances and decline of biodiversity
- Gulf of Bothnia is the sub-basin with the least impoverished status

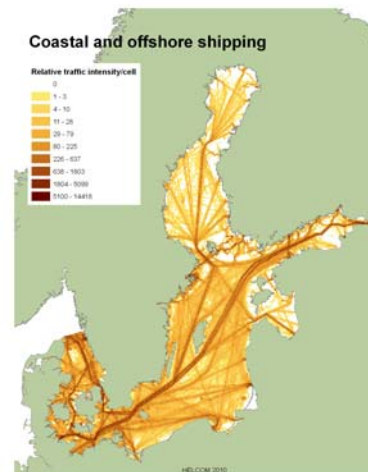
What are the pressures on the marine environment?

- Analysis of anthropogenic pressures : 52 data layers, here just a few examples...
- A single activity may result in many pressures

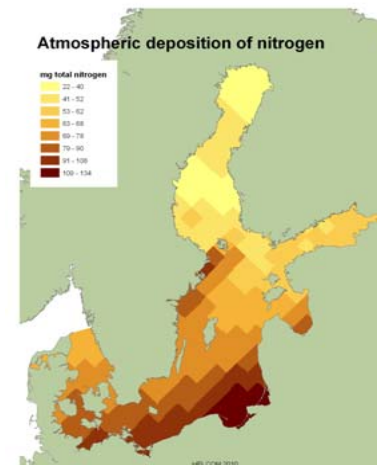
Bottom trawling



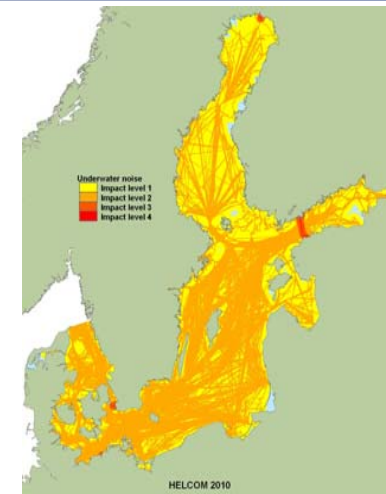
Shipping intensity



Airborne nitrogen deposition

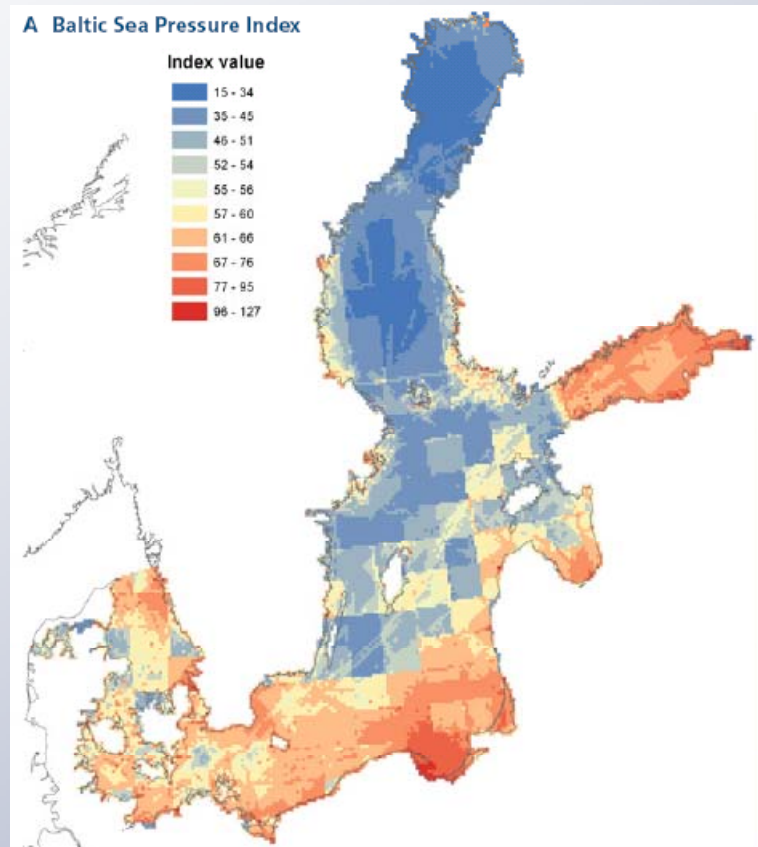


Underwater noise



Baltic Sea Pressure Index

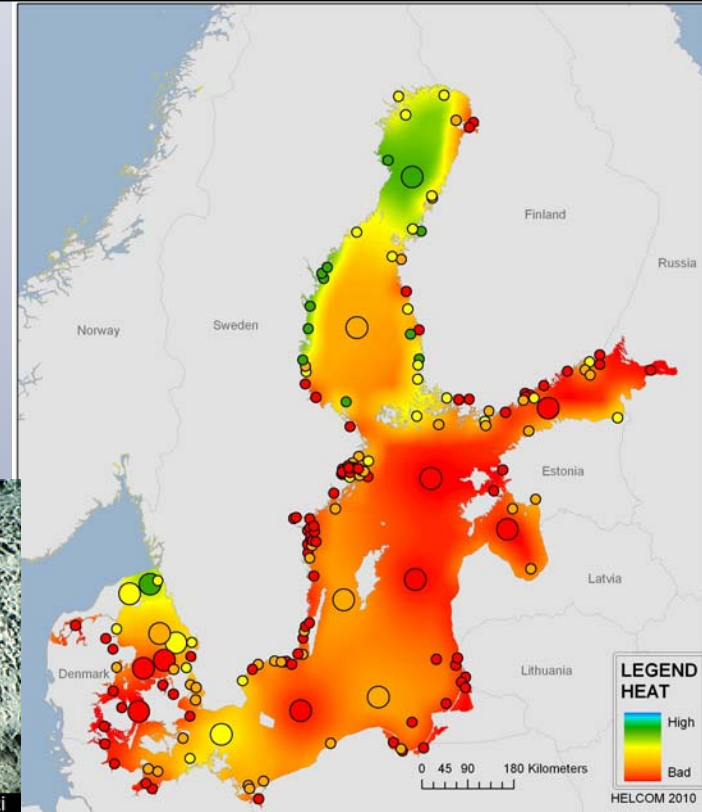
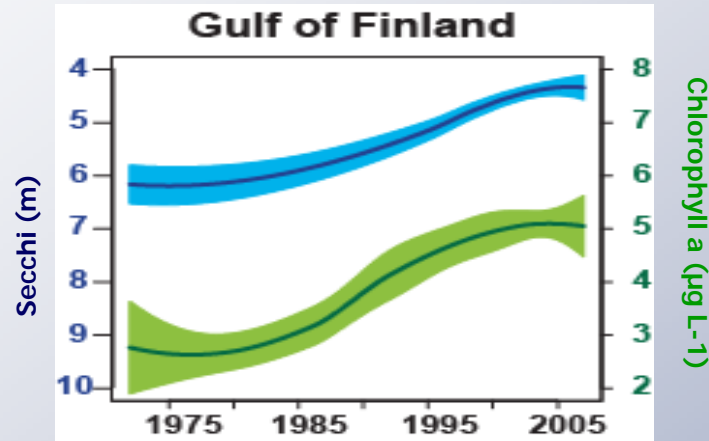
Spatial distribution of the sum of human-induced pressures



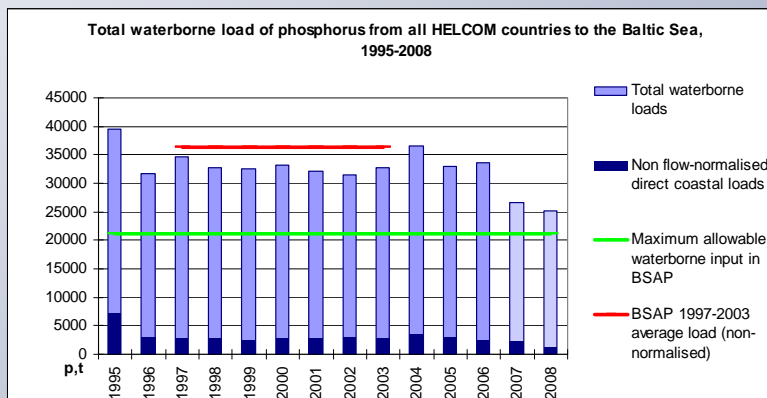
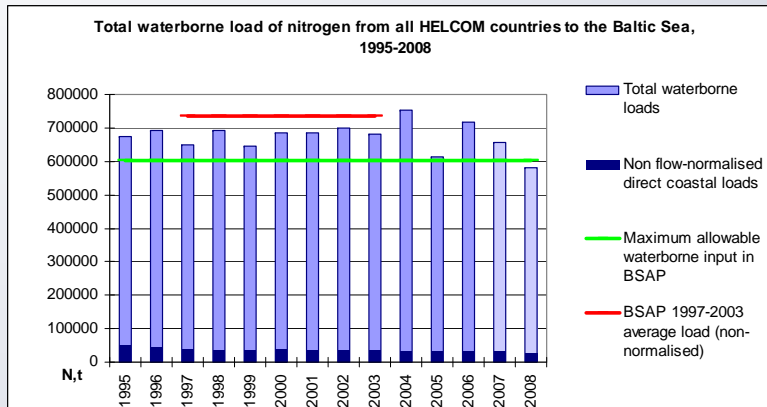
- For each 5x5 km square of the sea, pressures taking place in that area were summed up
- Human activities put a pressure on the entire sea area with the least pressure in the northern areas and the most in the eastern, southeastern and southern areas



What is the status? – Eutrophication



Eutrophication: Development of the nutrient inputs

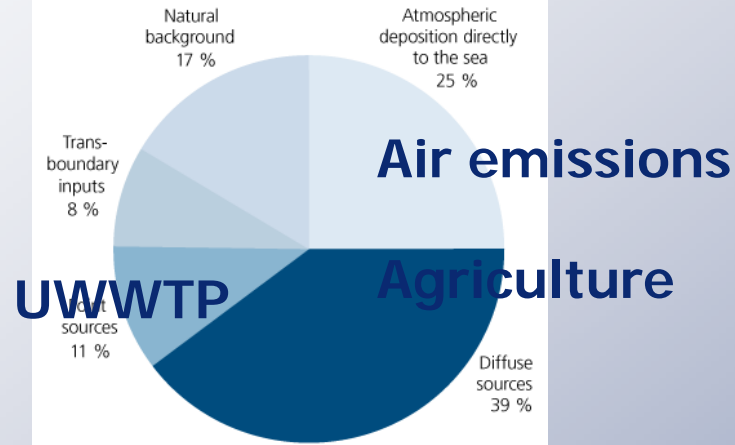


- During 1995-2006, there was no obvious reduction of nitrogen and phosphorus inputs due to measures taken (some data lacking for 2007/08)
- The BSAP targets have not been permanently reached for either nutrient and there are differences in the performance of the countries
- Further work will be needed especially if climate change increases the loads

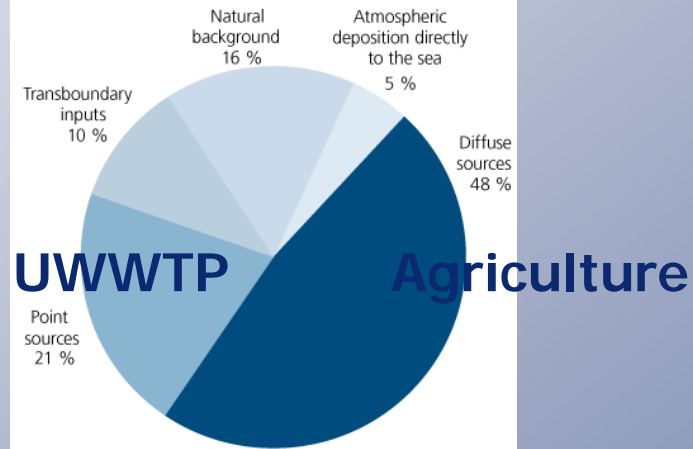


Eutrophication: Inputs of nutrients

Sources of nitrogen inputs to the Baltic Sea



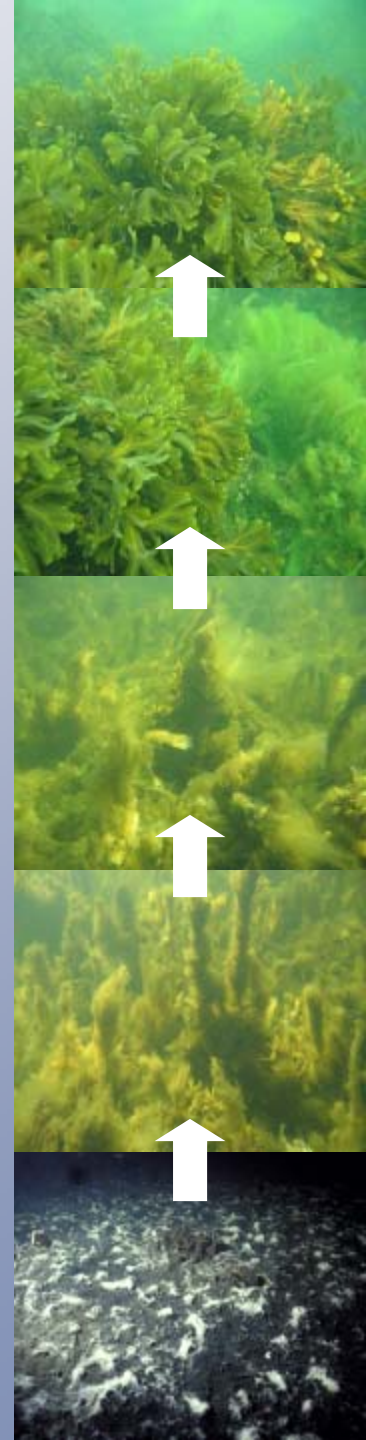
Sources of phosphorus inputs to the Baltic Sea



Costs and benefits of reaching the BSAP targets for eutrophication

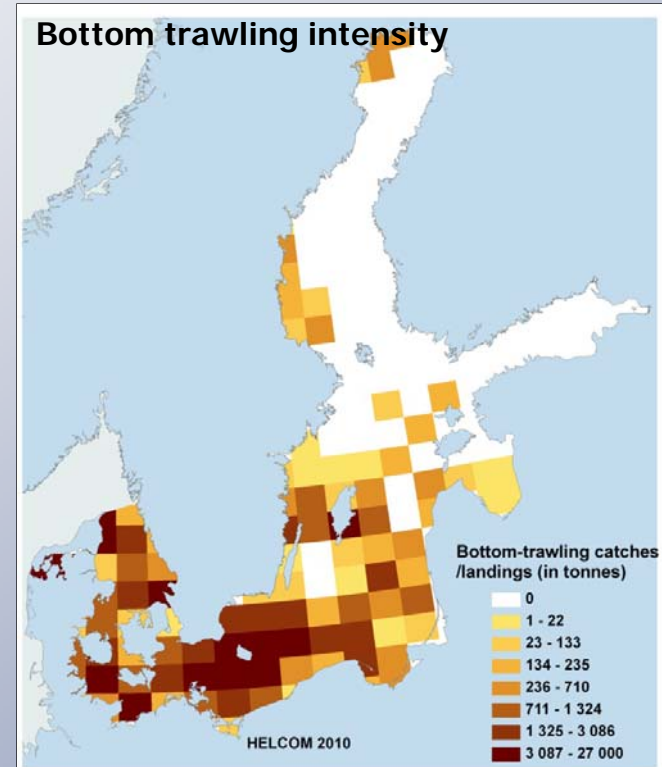
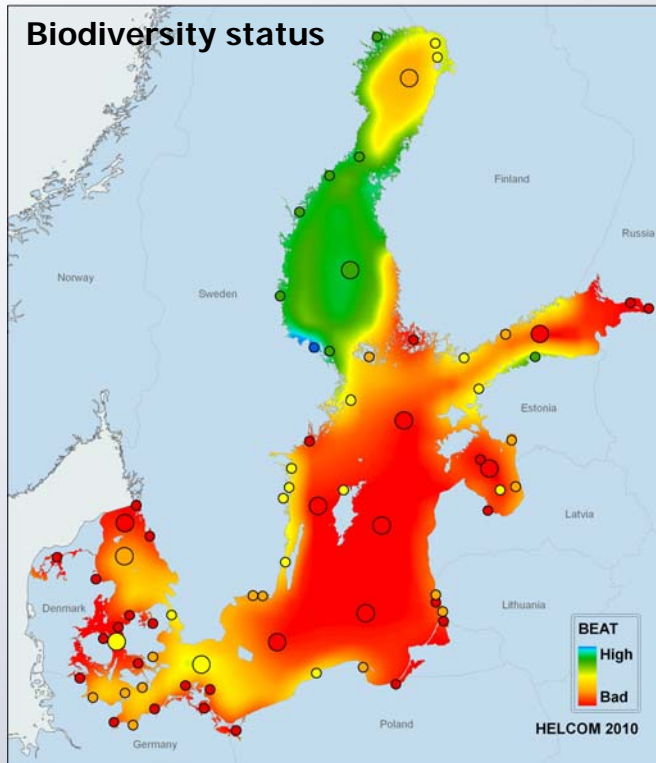
Costs of proactive actions:	Million €
Total minimum cost of achieving the BSAP targets for emission reductions (Swedish EPA 2009a).	2 560
Total cost of achieving the BSAP targets for emission reductions (HELCOM and NEFCO 2007).	3 000

Benefit gained from reaching targets:	Million €
Total benefits of avoiding the effects of eutrophication estimated on the basis of the willingness of people to pay (Swedish EPA 2009a).	4 830
Total benefits of improved water quality based on meta-analysis (Huhtala et al. 2009).	2 564



What is the status?

– Biodiversity and nature conservation



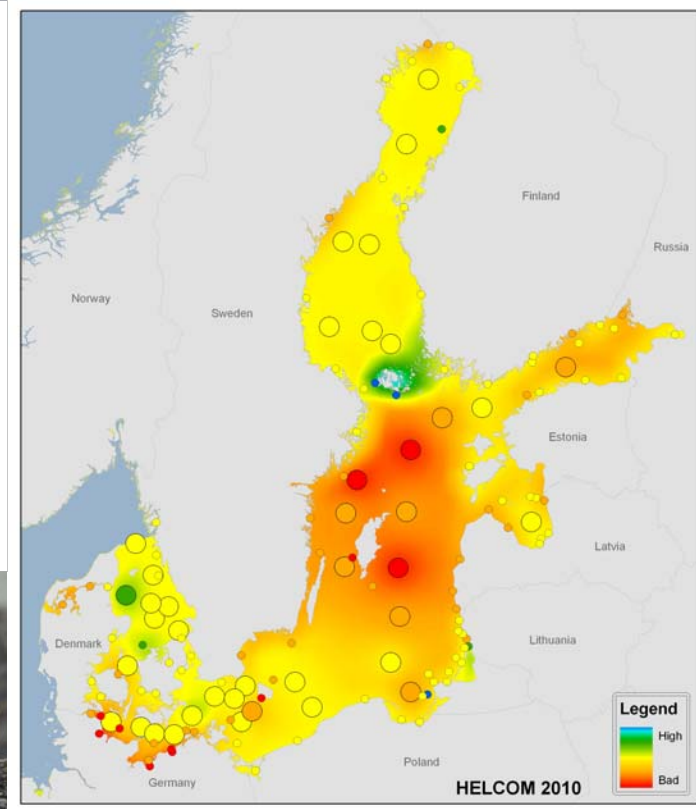
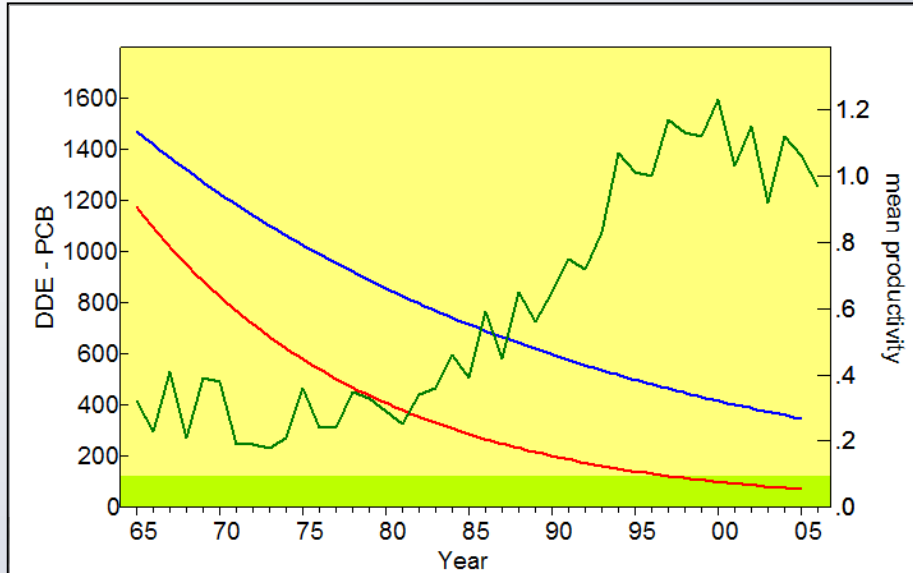
Follow-up actions:

- Continue dialogue between the fisheries and environment sectors – HELCOM's Fisheries and Environment Forum
- Assess if unsustainable fishing practices are taking place in protected areas

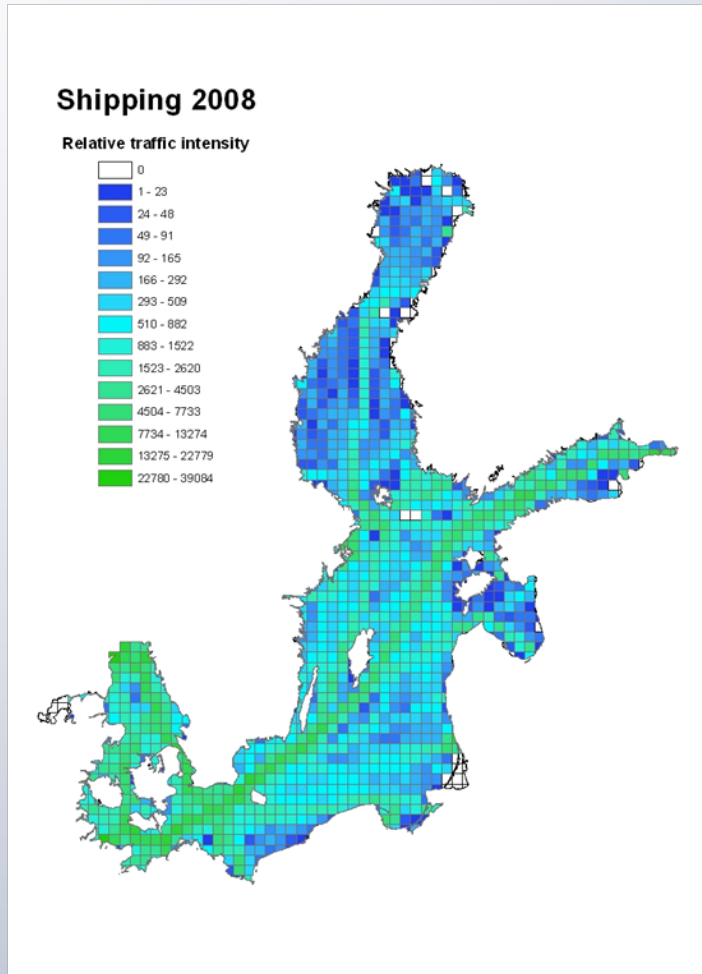


What is the status?

–Hazardous substances



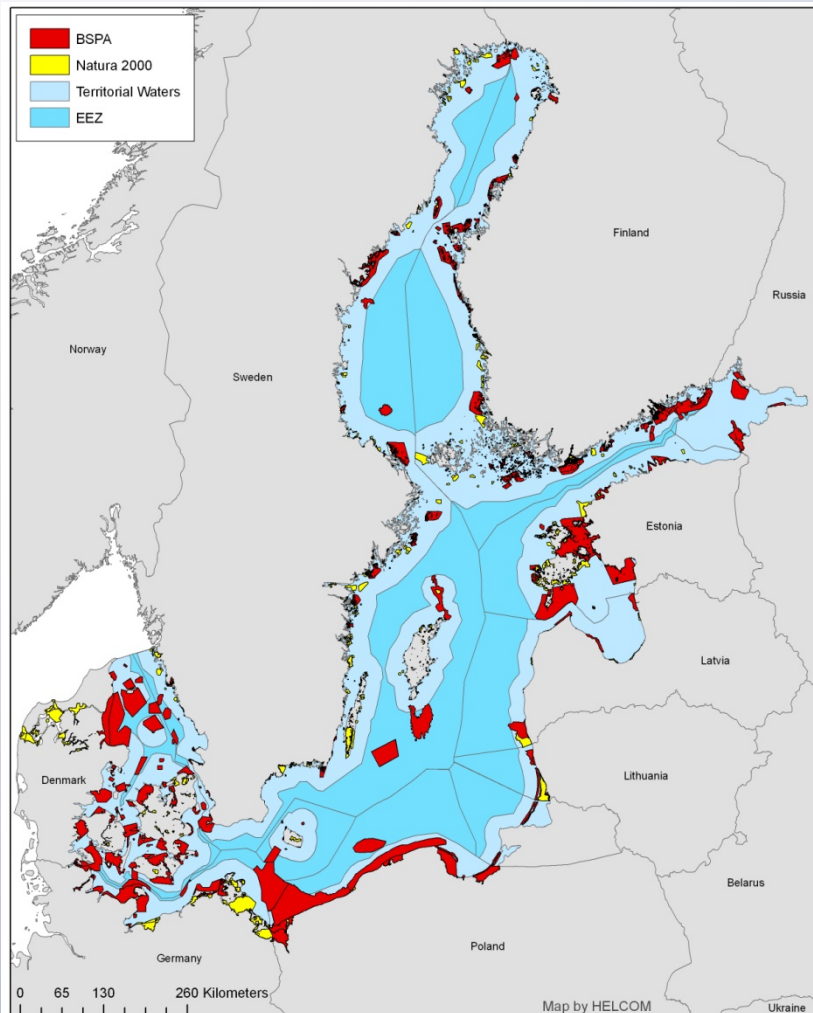
Safe and clean shipping



Follow-up actions:

- Increased safety of navigation – e.g. speeding up hydrographic re-surveys in the Baltic Sea
- Establishing the Baltic Sea a NO_x Emission Control Area under the international law
- Upgrading port reception facilities for ship-generated waste, especially sewage - pre-condition for banning discharges of untreated sewage from passenger ships

We have reached the 10 % target for the regional network of marine protected areas set by the UN CBD COP7



... but the network is not yet ecologically coherent and well-managed

Follow-up actions:

- Joint HELCOM-VASAB Working Group on Maritime Spatial Planning to finalize:
- Joint HELCOM-VASAB broad-scale transboundary Maritime Spatial Planning Principles

A large number of white gulls are flying over a snowy landscape. The sky is overcast and grey. The ground is covered in snow, and there are some dark patches of vegetation or rocks visible in the distance. The gulls are in various stages of flight, with some wings spread wide and others tucked. The overall scene is a natural, outdoor setting.

Thank you!

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