

HELCOM's experiences in combatting eutrophication and protecting biodiversity of the Baltic Sea



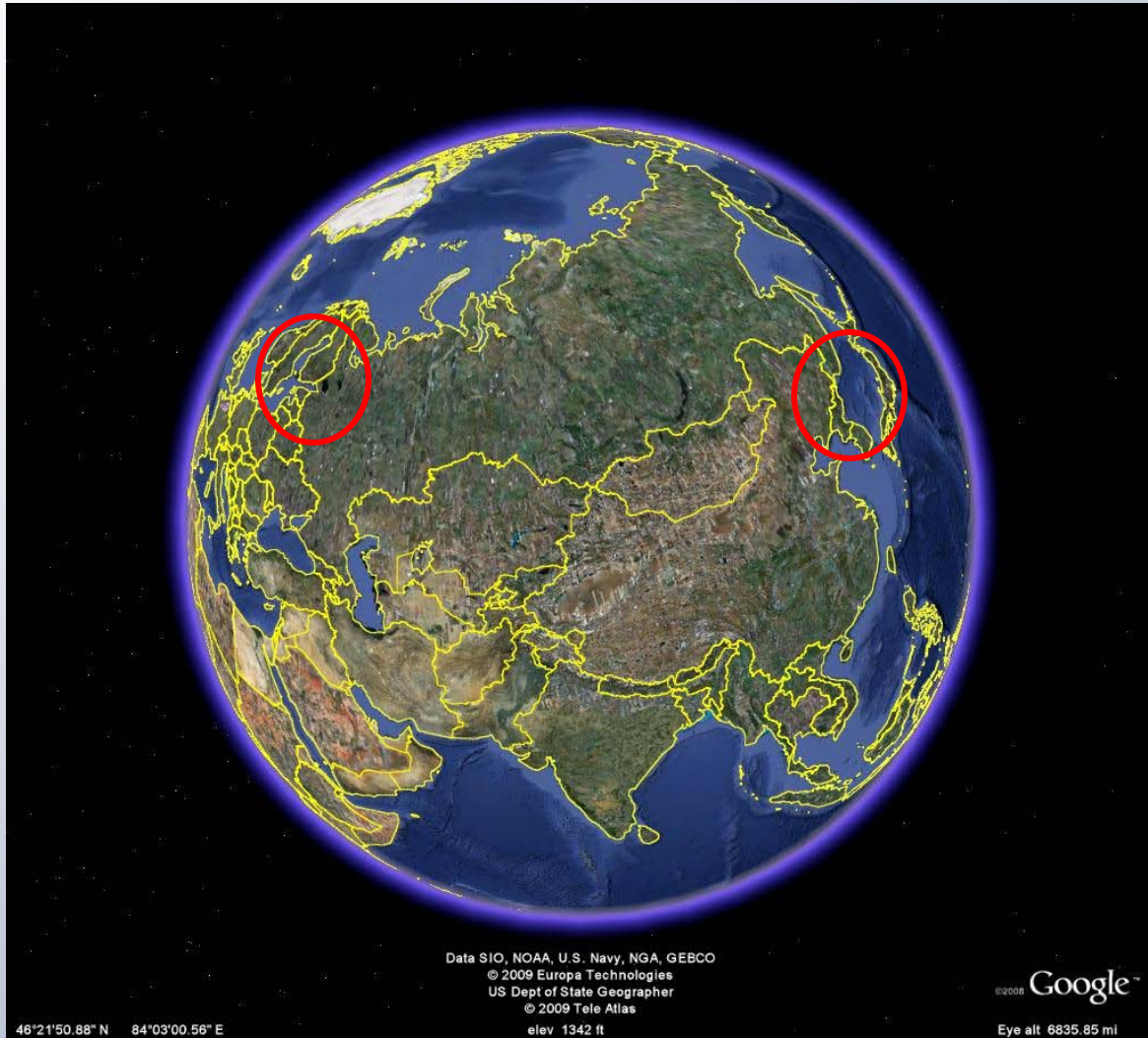
Maria Laamanen, HELCOM
Expert Meeting on Marine Biodiversity and Eutrophication in
the NW Pacific Region
4-5 August 2011, Toyama, Japan

Contents

- Baltic Sea
- HELCOM
- Combatting eutrophication
- Protecting biodiversity and enhancing nature conservation
- HELCOM's keys to success



The Baltic Sea

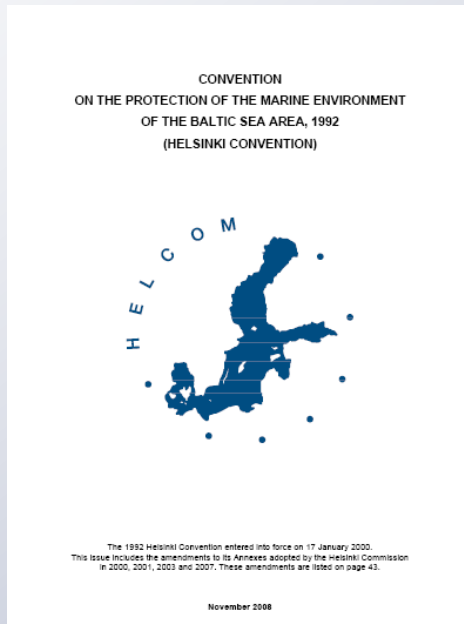


The Baltic Sea



- Semi-enclosed
- Sub-basins
- Average depth only 52 m
- Brackish water, about 2 to 12 PSU
- Large catchment with 85 million people
- Long water residence time

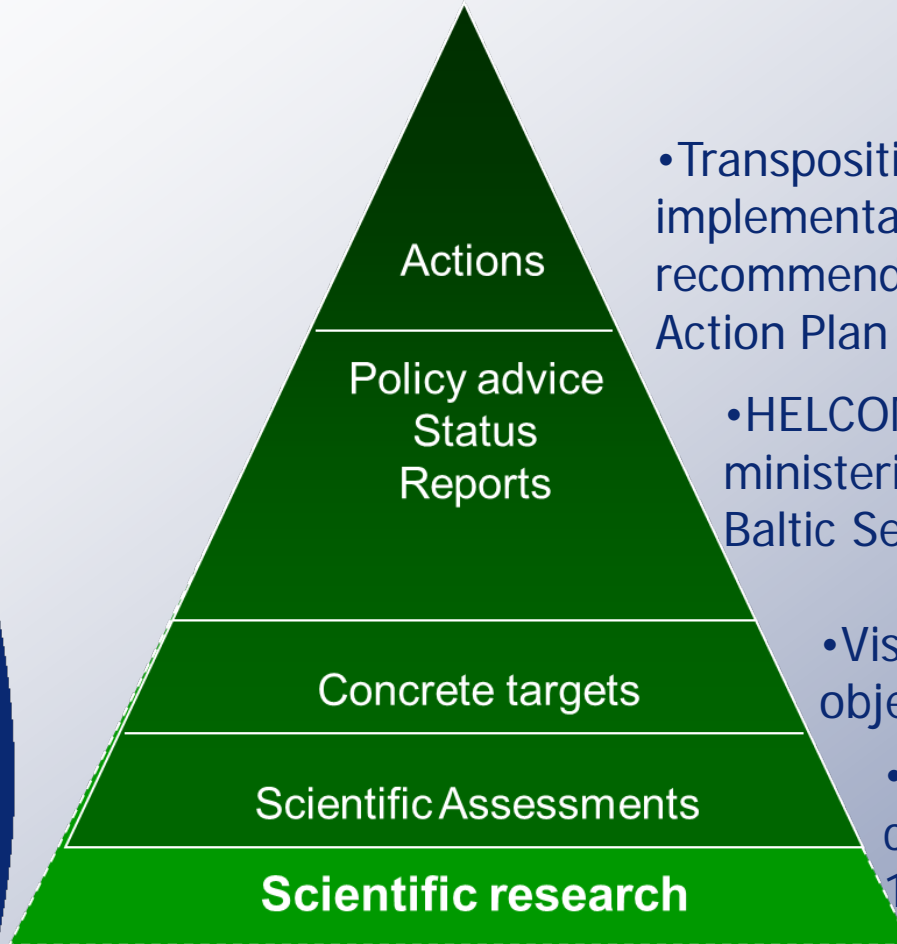
HELCOM – Convention signed by the governments of the Baltic Sea coastal countries and the European Union



- **1974: Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention)**
- **1992: revised Convention**
 - ✓ **Article 15 – Nature conservation and biodiversity**



How HELCOM works



- Transposition to national legislation and implementation of the convention, recommendations and the Baltic Sea Action Plan at national level

- HELCOM Recommendations, ministerial declarations and HELCOM Baltic Sea Action Plan

- Vision, strategic goals, ecological objectives and quantitative targets

- Assessments and indicator reports, coordinated joint monitoring since 1979, harmonised methods



HELCOM Baltic Sea Action Plan



Helsinki Commission
Baltic Marine Environment Protection Commission

HELCOM Baltic Sea Action Plan

- Adopted at a ministerial level in 2007
- Ecosystem approach, To reach Good Environmental Status of the Baltic Sea by 2021
- Four segments:
 - Eutrophication
 - Hazardous substances
 - Biodiversity and nature protection
 - Maritime Activities



HELCOM Baltic Sea Action Plan

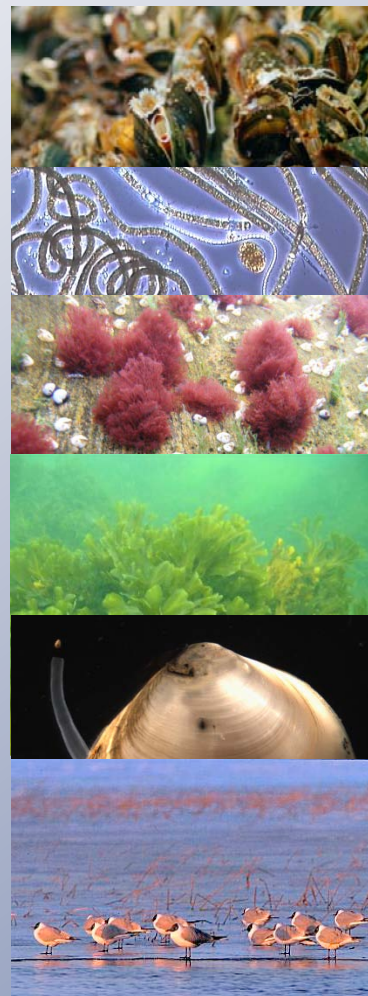
Eutrophication



Hazardous substances



Biodiversity



Maritime activities

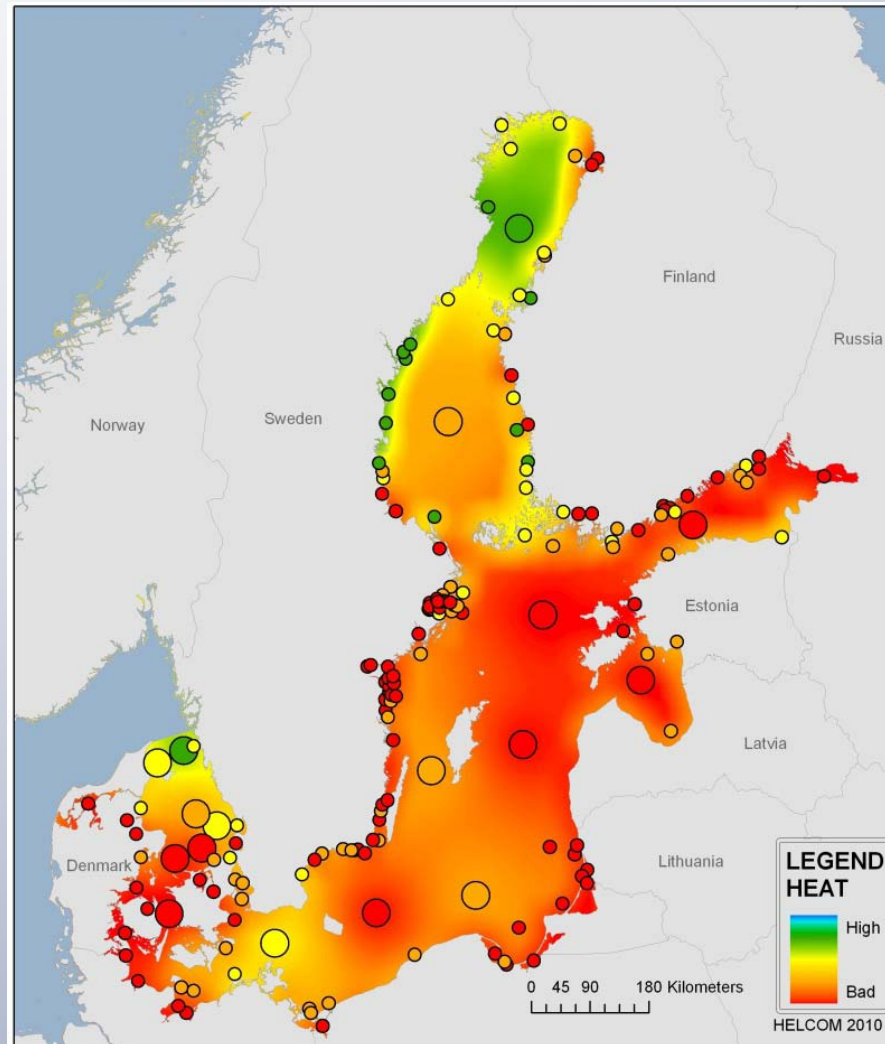




Good Environmental Status, sustainable use of the marine environment

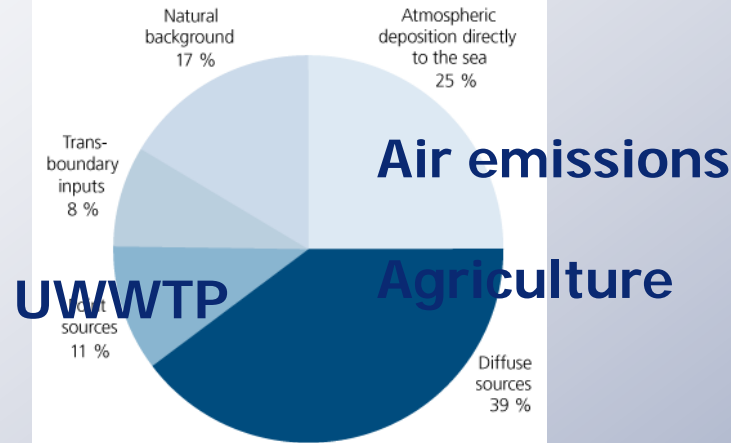
Not Good Environmental Status, unsustainable use

What is the status? – Eutrophication

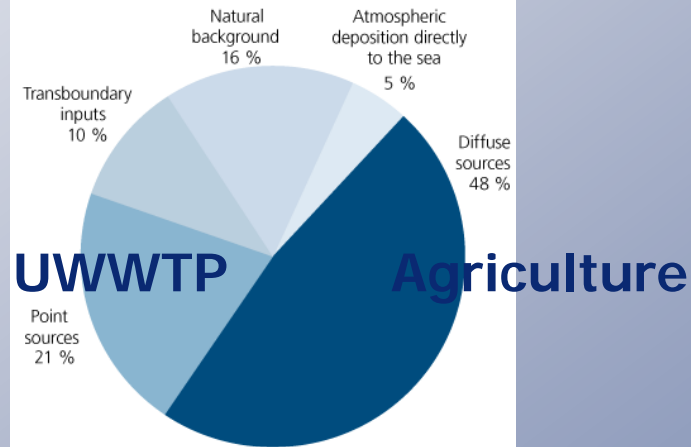


Causes of eutrophication: Inputs of nutrients

Sources of nitrogen inputs to the Baltic Sea



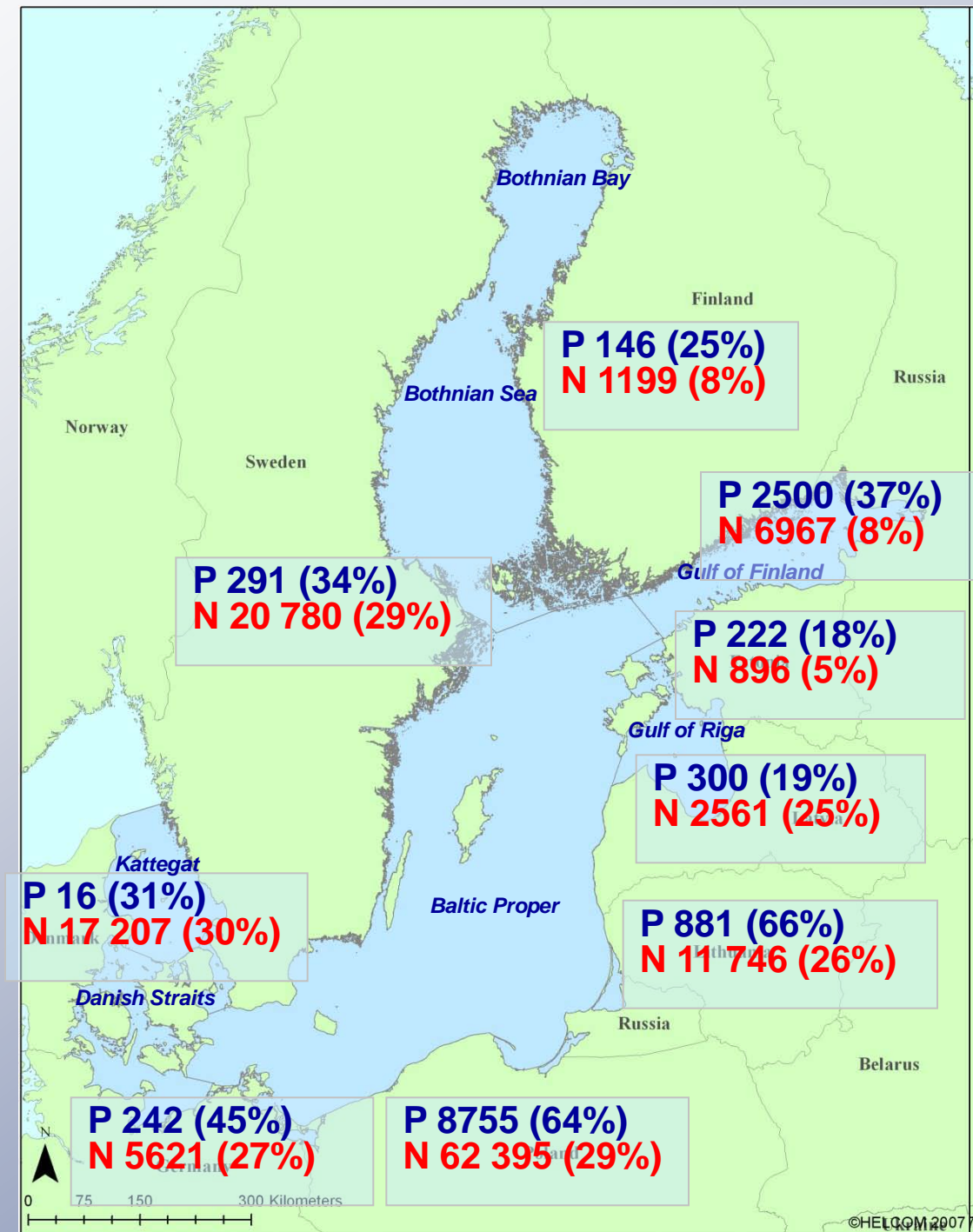
Sources of phosphorus inputs to the Baltic Sea



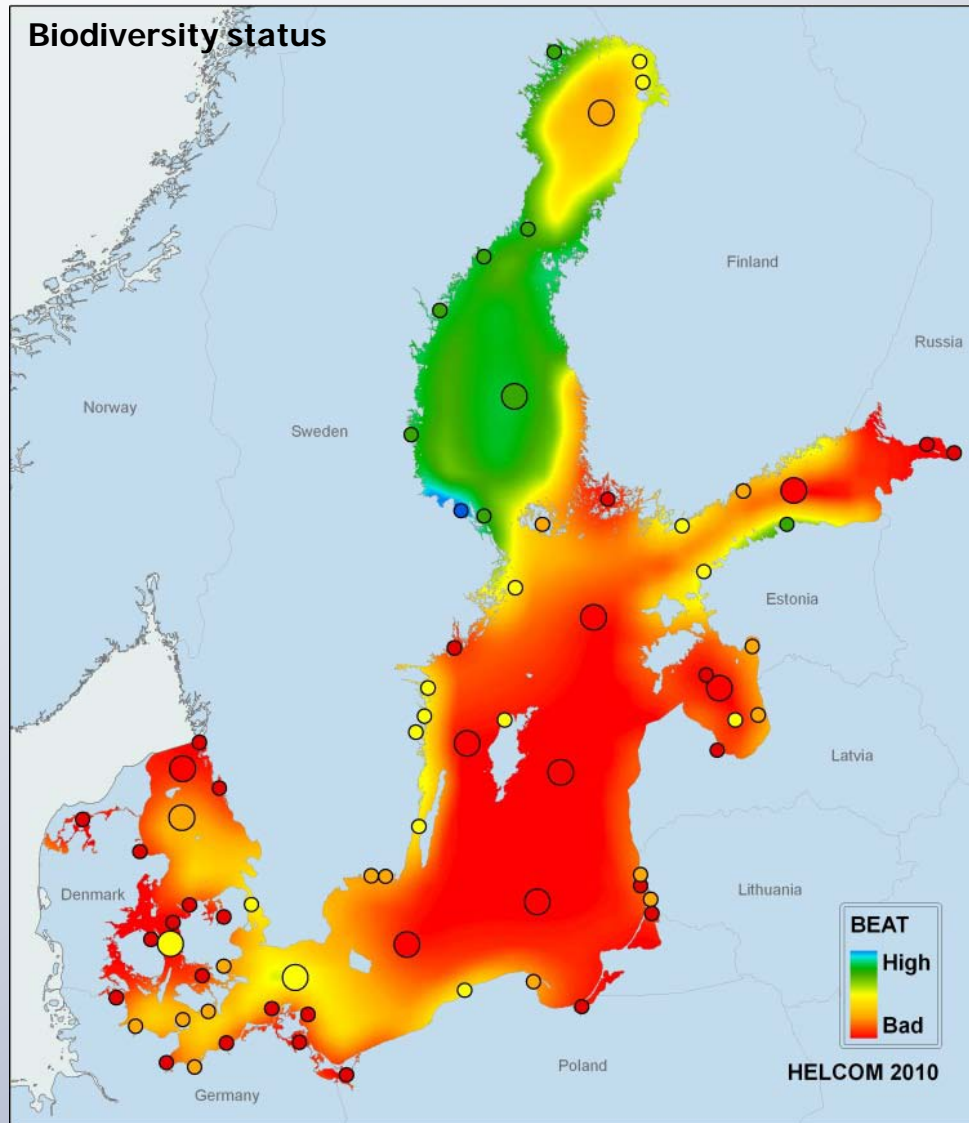
**Total
reductions
needed
(tonnes/year)**

**Reductions/
sub-basin
(tonnes/year)**

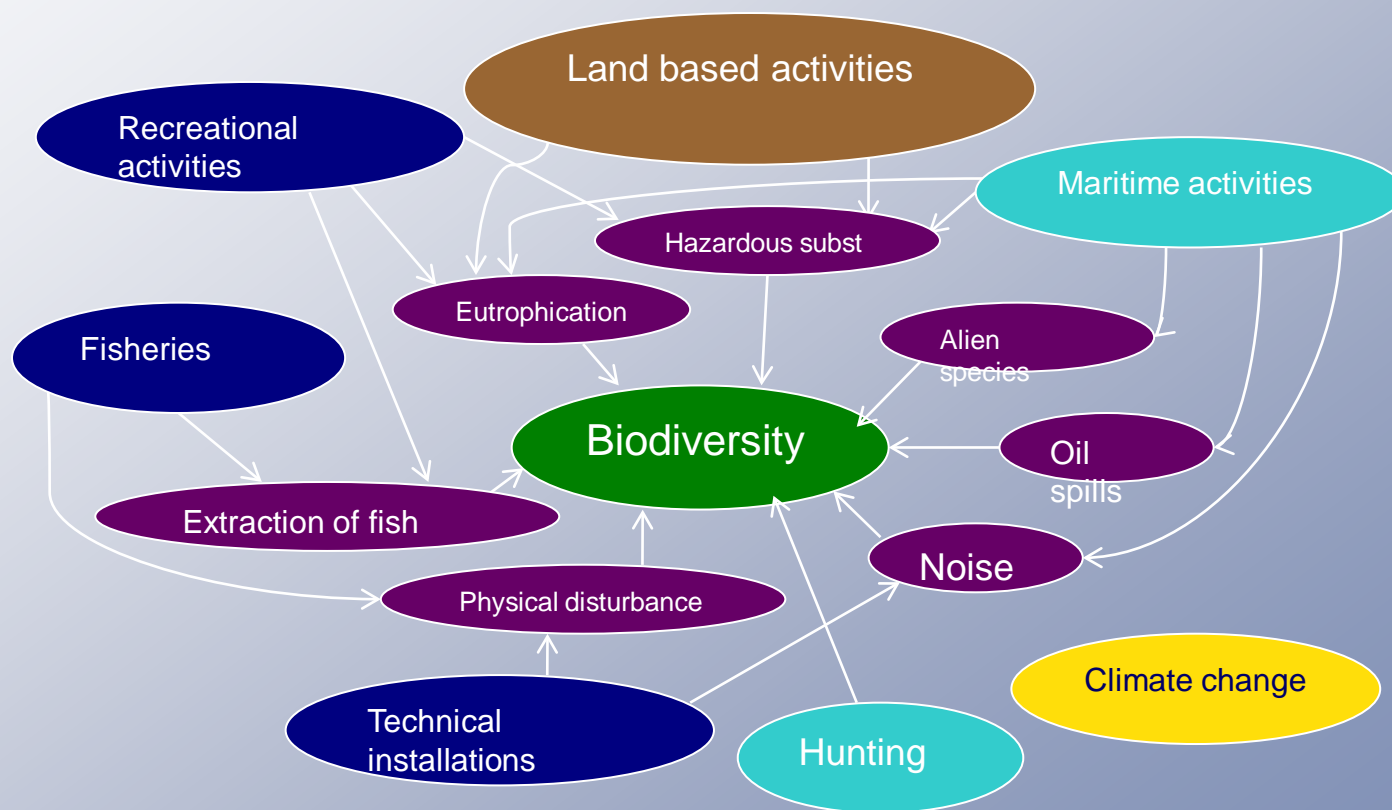
**Reductions/
country
(tonnes/year)**



Biodiversity and nature conservation: What is the status?



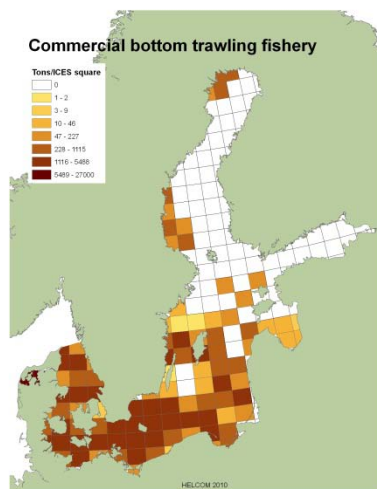
Pressures on biodiversity are multiple and cumulative



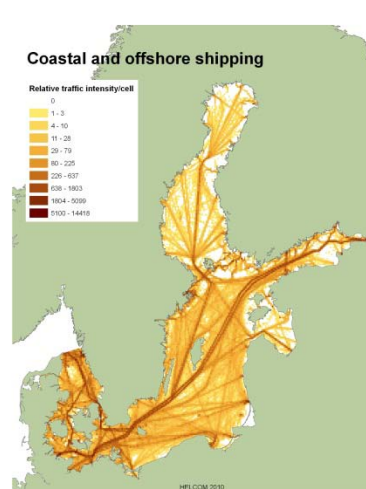
What are the pressures on the marine environment?

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

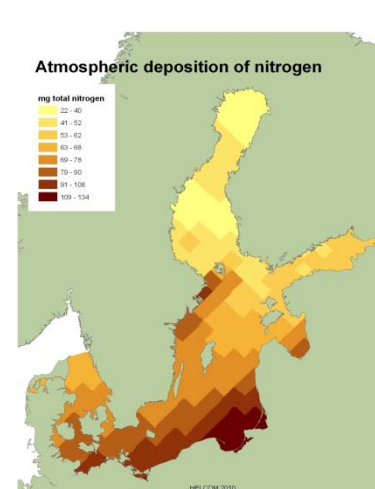
Bottom trawling



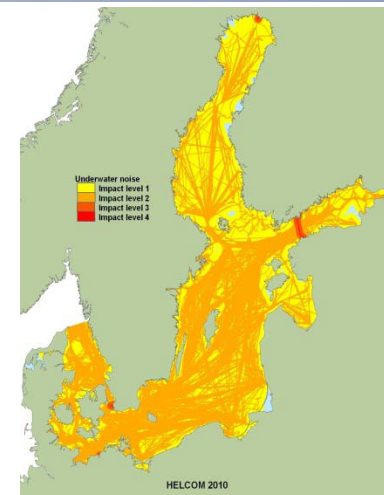
Shipping intensity



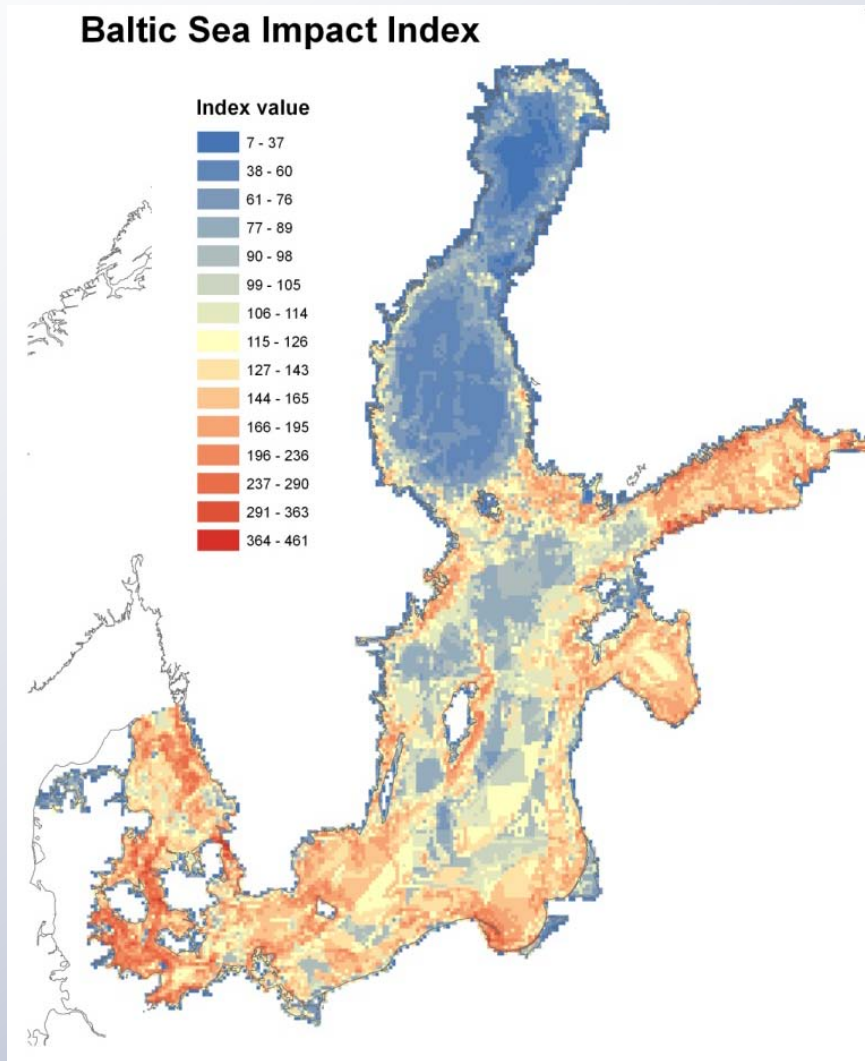
Airborne nitrogen deposition



Underwater noise



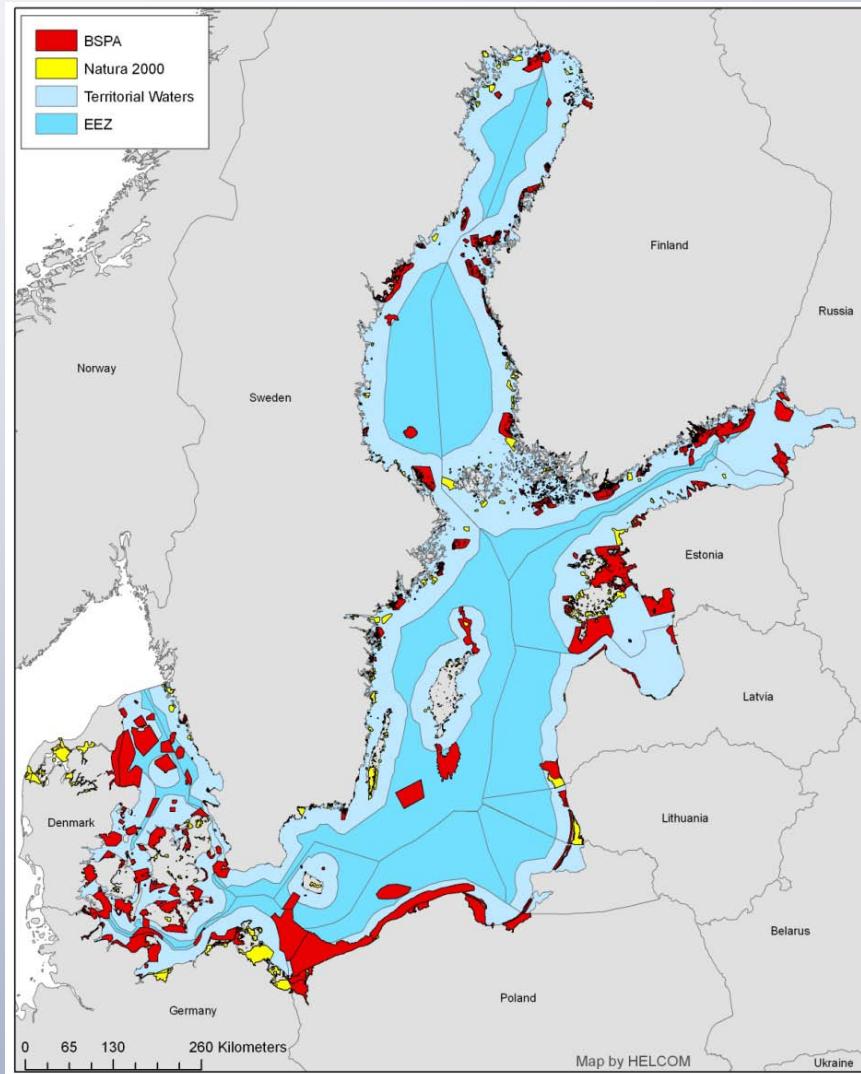
Baltic Sea Impact Index (BSII)



- In each 5x5 km² square, results of analyses of pressures, ecosystem components and impact estimates are summed up to give an index value. Thus, the more there are pressures and 'ecosystem components', the higher the BSII score.

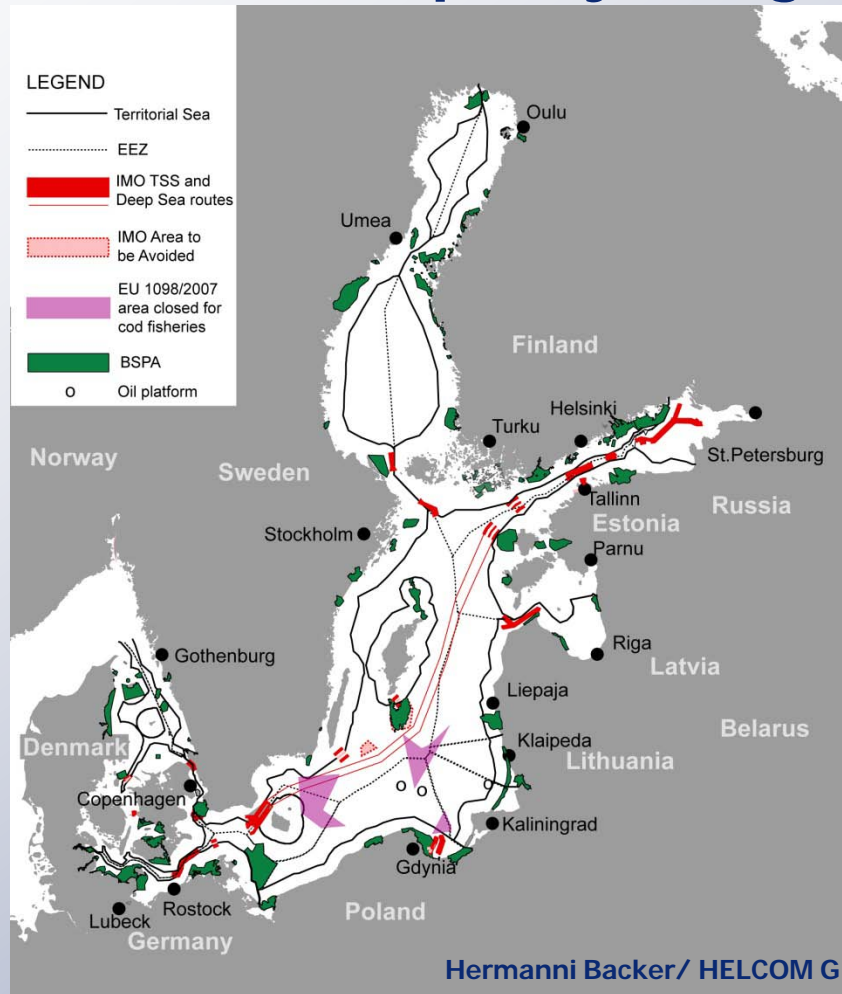
- Human activities put a pressure on the entire sea area with the least pressure and potential impact in the northern areas and the most in the southeastern, southern and eastern areas

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



Enhance transboundary Maritime spatial planning

- Sectoral and policy integration



Follow-up actions:

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

What have been our keys to success?

- Good scientific knowledge of the Baltic ecosystem
- Joint cooperative monitoring and assessments since the 1970s
- Common understanding of the current status and common environmental goals
- At least to some extent shared sense of urgency related to the environmental status
- "HELCOM family" – sense of community and trust
- Proactive Secretariat
- Involvement of International Funding Institutions





Thank you!

www.helcom.fi

