HELCOM HOLAS II

Monika Stankiewicz
HELCOM Executive Secretary
HELCOM assessments – history in a nutshell

Three decades later....
HELCOM Monitoring and Assessment Strategy

carried out in six-year monitoring and assessment cycles

Holistic Assessments
- periodical
- using assessment tools

Thematic Assessments
- periodical
- using assessment tools

Core indicators
- updated regularly
- measure distance to GES

Supplementary Indicators & Supporting parameters
- Updated as needed
- Linked to specific core indicators
Project for developing a Second Holistic Assessment of the Ecosystem Health of the Baltic Sea (HOLAS II)

2015-2018
Proposed holistic assessment framework

Align: data, data products, linkages between boxes, terminology, classifications

Conceptual framework for the analyses and the non-quantitative parts
The 2010 Pressure indices

HELCOM BSPI (Baltic Sea Pressure index)
- Pressure data layers (intensity)

HELCOM BSPII (Baltic Sea Impact Index)
Pressure data layer & Ecosystem component data layers & Impact scores

Baltic Sea Pressure and Impact index

Pressure data layer

$\times$

Impact score

$\times$

Ecosystem component data layer

Impact scores rate the sensitivity of the ecosystem component to the concerned pressure, eg from 1-3.
Collation of spatial datasets

HUMAN ACTIVITIES 43 datasets

PRESSURES 44 datasets

ECOSYSTEM COMPONENTS
- Pelagic habitats (2)
- Broad-scale seabed habitats (6)
- Habitat-forming species (5)
- Natura 2000 habitats (8)
- Fish species (7)
- Important bird areas (3)
- Marine mammals (3)
Status assessment - indicators


Indicator was updated for update of overall eutrophication status of the Baltic Sea, and published as web reports (http://www.helcom.fi/baltic-sea-trends/indicators/). (BSEP 143).
## Coverage of the core indicators

<table>
<thead>
<tr>
<th>D2 Non Indigenous Species (C-GES 1)</th>
<th>D3 Commercial fishing (C-GES 1)</th>
<th>D6 Seafloor integrity (C-GES 0)</th>
<th>D8 Contaminants (C-GES 6)</th>
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<tr>
<td>NIS ARRIVAL (C-GES)</td>
<td>COMM FISH 3.1 (ICES-GES)</td>
<td>SEAFOOR CUM IMPACT (PC)</td>
<td>HAZ HBCDD (C-GES)</td>
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<td>HAZ ACI (PC)</td>
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<td>HAZ LMS (PC)</td>
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<td>HAZ REPR (PC)</td>
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<tr>
<th>D5 Eutrophication (C-GES 5)</th>
<th>D10 Marine litter (C-GES 0)</th>
<th>D11 Energy and noise (C-GES 0)</th>
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<tbody>
<tr>
<td>EUTRO DIN (C-GES)</td>
<td>LITTER BEACH (PC)</td>
<td>NOISE CONTINUOUS (PC)</td>
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<td>EUTRO DIP (C-GES)</td>
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<td>EUTRO CLARITY (C-GES)</td>
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<td>EUTRO PTOT (PC)</td>
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<th>Bithic habitats (C-GES 0)</th>
<th>Pelagic habitats (C-GES 1)</th>
<th>Food webs (C-GES 0)</th>
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<tr>
<td>BENTHOS POP STRUCTURE (C)</td>
<td>PELA ZOPLANKTON (C-GES)</td>
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<td>BENTHOS BQI (C)</td>
<td>PELA DIATOM DINOS (PC)</td>
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<td>BENTHIC DISTR BIOTOPES (PC)</td>
<td>PELA SEASON SUCC (PC)</td>
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<td>VEGETATION DEPTH (PC)</td>
<td>EUTRO PRIM CSA (PC)</td>
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<td>EUTRO SPRING BLOOM (PC)</td>
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**C-GES=Core indicator with GES definition, C=Core indicator still lacking GES definition, PC=Pre-Core**
Draft grouping of indicators in HOLAS II

- **Biodiversity**
  - D1
  - D3
  - D4
  - D6

- **Eutrophication**
  - D2
  - D5
  - D7

- **Hazardous substances**
  - D8
  - D9
  - D10
  - D11

**Categories:**
- Biodiversity
- Commercial fish
- Seafloor integrity
- Food webs
- Hydrographical conditions
- Non-indigenous species
- Eutrophication
- Contaminants
- Marine litter
- Energy incl. noise
Test assessment: overall eutrophication status.
Economic and social analyses (ESA): how to link the natural science-based assessment to analyses of benefits and consequences for human well-being

- Use of marine waters
  - Linked to assessment of human activities and pressures
- Cost of degradation
  - Benefits forgone if GES is not reached
- Ecosystem services?
Overview of HOLAS II outputs at different level of detail

Introduction
Overview
Characteristics of the Baltic Sea

Assessment of ecosystem health
State based descriptors
Pressure based descriptors

Human activities and pressure acting on the marine environment
BSPII output
Trends in key pressures
Core pressure indicators
Socioeconomic importance

Ecosystem services
to be developed further

Measures
to be developed further

Biodiversity elements

BIODIV
D1,D4,D6

D2

D3

D10

D6

D7

D9

D11

EUTRO D5

HAZ D8

MAM-MALS

PELAGIC

BENTIC

BIRDS

FISH
Timeline

- 2015: Development of tools and concepts, Improvement of data flows, Operationalization of core indicators
- 2016: Carrying out assessments
- 2017: Prepare first results, Consultation period
- 2018: Updating report
How is this possible?
Keep key stakeholders informed

A FISHY PART OF MARINE ENVIRONMENTAL POLICY?

Category: News
09/05/2016 09:20

This week is all about fish in the Baltic Sea as three HELCOM meetings dealing with sustainable fisheries are held back-to-back in Gothenburg, Sweden. Key topics for HELCOM professionals gathering this week include migratory fish species, indicators, as well as the follow-up of the recent HELCOM Recommendation on aquaculture. HELCOM has worked for years for healthy Baltic Sea fish populations as important parts of the ecosystem, weakened by unsustainable fishing as well as pollution including eutrophication-induced oxygen depletion and high levels of hazardous substances.

Baltic herring. Photo: Riku Lumiero/SYKE.

RELATED

Action area: Fisheries

HELCOM Fish Group

Second Meeting of the HELCOM Task Force on migratory fish species (FISH-M 2-2016), 9 May 2016.

HELCOM workshop on fish indicators (FISH IND WS 2016), 10 May 2016.

4th Meeting of the Group on Ecosystem-based Sustainable Fisheries (FISH 4-2016), 11-12 May 2016.
Lena Bergström
Project Coordinator (HOLAS II)
+358 400 803 428
Skype: helcom71

Ulla Li Zweifel
Professional Secretary (Gear, State and Conservation)
+358 46 850 9198
Skype: helcom64

Lena Avellan
Project Manager (CORESET II)
+358 40 162 2054
Skype: helcom35

Baltic BOOST
Co-funded by the European Union

TAPAS
Co-funded by the European Union

HELCOM
Recommendations

- In absence of knowledge on status or impacts, assessment of human activities and pressures could still be of great value
- Utilize global monitoring for regional purposes
- Grass root work needed to harmonize national monitoring
- Include social-economic analysis from the beginning
- Spatial data important (maritime spatial planning)
- No restriction on data use
- Engage national experts in assessments to build capacities
Baltic Marine Environment Protection Commission

Come work with us! Vacancy for HELCOM Communication Secretary - apply by 25 November