



<b>Document title</b>	Proposal for a generic SOM topic report structure
<b>Code</b>	3-1
<b>Category</b>	CMNT
<b>Agenda Item</b>	3 - Preliminary results of the SOM analysis
<b>Submission date</b>	3.3.2020
<b>Submitted by</b>	HELCOM Secretariat
<b>Reference</b>	

---

## Background

The SOM analysis is organized around a set of topics including both pressures and state components. Each topic included in the analysis has been considered from viewpoint of the specific topic, e.g. in the choice of variables and geographic scale for the analysis. Also, the compilation of existing measures and surveys on activity-pressure contributions, effectiveness of measures and pressure-state linkages have been linked to specific topics.

In addition to a general report on the approach and results of the SOM analysis (format and contents to be decided), it is proposed that background material and results are prepared for each topic (birds, mammals, fish, benthic habitats, litter, noise, non-indigenous species, hazardous substances, input of nutrients), to be published as separate or a combined report, as supporting material to the BSAP update.

This document includes as proposal for the generic structure of the topic-specific background document, as well as an example of a topic-specific report for non-indigenous species to illustrate the contents.

## Action requested

The Meeting is invited to:

- take note of the structure and contents of the generic topic background report
- agree on a format for the generic and topic-specific background reports from the SOM analysis.

## Generic SOM topic report structure proposal

The proposed sources of text contributions are highlighted in yellow. Estimates for the length of each section are included wherever possible but should only be considered advisory. The table at the end of this document outlines the pressures and state components that would be covered in each topic report. Document 3-1, Att 1, includes a draft implementation of the proposed generic topic report structure for non-indigenous species.

### Background

- Background and importance of topic  
*General background on the topic in the Baltic Sea. For pressures, touch on importance/potential impact on environment. **TOPIC TEAM***
  - sub-topic (approx. 150 words per sub-topic)
  - sub-topic (approx. 150 words per sub-topic)
- Overview of latest and future developments in topic measures  
*Covers important measures frameworks with implementation deadlines of 2016 or later and comments on potential future similar measures frameworks. Examples may include Ballast Water Management Convention (NIS), EU Single-use Plastics Directive (litter), Marine Strategy Framework Directive (various). (approx. 150-300 words) **TOPIC TEAM***
- Description of topic in the SOM assessment  
*Below are analysis types that appear in the SOM model. Types will have varying relevance for different topics, see table at end of document. **SECRETARIAT/ACTION WP6 & TOPIC TEAM**. Topic Team's contribution will vary greatly by topic but is expected to cover e.g. rationale for selection of specific species/substances (1-3 sentences: HZ, Birds, Benthic, Noise, Litter), review of relevant HOLAS II indicators (length will vary with complexity of indicator, approx. 150-400 words per indicator).*
  - Pressure(s) from Effectiveness of Measures surveys
    - Indicator in HOLAS II State of the Baltic Sea report
      - current status and GES threshold value
      - assessment geographic scale
    - SOM assessment geographic scale
  - Pressure(s) from Pressure-State surveys
    - SOM assessment geographic scale
  - State component(s)
    - Indicator in HOLAS II State of the Baltic Sea report
      - current status and GES threshold value
      - assessment geographic scale
    - SOM assessment geographic scale

### Methods for the assessment of the pressure(s) and state component(s): topic

- Activity-pressure contributions  
**SECRETARIAT/ACTION WP6**
  - Data set (if other than expert elicitation used)
  - Methodology (only topic specific issues)
    - alterations to standard activity list

- Effectiveness of measures
  - Existing measures  
*Review and characterisation of existing measures included in the SOM analysis, will vary greatly by topic depending on length and diversity of existing measures list*  
**SECRETARIAT/ACTION WP6 & TOPIC TEAM**
  - Literature review methodology (only topic specific issues) **SECRETARIAT/ACTION WP6**
  - Survey methodology (only topic specific issues) **SECRETARIAT/ACTION WP6**
    - Measure types
    - Survey design
- Pressure-state linkages (only topic specific issues) **SECRETARIAT/ACTION WP6**
  - Pressures
  - State component(s)

### Results and interpretation

*Below are analysis types that appear in the SOM model. Types will have varying relevance for different topics, see table at end of document. Results including figures will come from **SECRETARIAT/ACTION WP6** with opportunity for input from **TOPIC TEAM**. Discussion will be jointly written by **SECRETARIAT/ACTION WP6 & TOPIC TEAM** focusing on evaluation of the obtained results. Length depends on model results.*

- Results: Pressure(s) from Effectiveness of Measures surveys
  - Activity-pressure linkages
  - Effectiveness of measures
    - Expert survey
    - Literature review
- Discussion: Pressure(s) from Effectiveness of Measures surveys
- Results: Pressure(s) from Pressure-State surveys
  - Review of P-S results concerning topic
- Discussion: Pressure(s) from Pressure-State surveys
- Results: State component(s)
  - Time lags
- Discussion: State component(s)
  - Time lags

### Evaluation of quality and confidence

***SECRETARIAT/ACTION WP6** with opportunity for input from **TOPIC TEAM**, unless otherwise noted.*

- Number of responses
- Geographic distribution of responses

- Reported confidence level
- Distributions of responses and model outputs
- Unanalysed issues important to the topic e.g. Mammals: distribution and health indicators; Noise: high frequency impulsive noise; Birds & HZ: other species/substances  
*Open platform for issues not covered by SOM model (less than 400 words) **TOPIC TEAM***

### Implications and future perspectives

Uncertain length **SECRETARIAT/ACTION WP6 & TOPIC TEAM**

### Annexes

All annexes created by **SECRETARIAT/ACTION WP6**

Annex 1 Activity-pressure data (if data based)

Annex 2 Modified activity list (if modified)

Annex 3 Measure types list

Annex 4 Linking existing measures to measure types

Annex 5 Literature review search terms

Annex 6 Literature review summary

Annex 7 Topic structure

Annex 8 Effectiveness of measures survey

Annex 9 Pressure-state survey

TOPIC	Pressure(s) from Effectiveness of Measures surveys	Pressure(s) from Pressure-State surveys*	State components(s) <sup>†</sup>
HZ	Input of mercury Input of PFOS Input of TBT Input of diclofenac	Bycatch in fishing gears (for birds and mammals only; excludes ghost nets) Bycatch in ghost nets Impulsive underwater noise	Mercury concentration TBT concentration PFOS concentration Diclofenac concentration
Litter	Input of the relevant top litter items present on the beach	Continuous underwater noise Extraction of fish (includes prey depletion)	-
Noise	Input of continuous noise 63/125 Hz Input of continuous noise 2 kHz Input of impulsive noise with peak energy below 10 kHz	Species disturbance or displacement by human presence Species disturbance: obstructions and collisions	-
NIS	Primary introductions of NIS	Intentional killing (for birds and mammals only; hunting, illegal killing)	-
Benthic	Loss of seabed Disturbance to seabed	Effects of non-indigenous species Physical disturbance of marine habitats Physical loss of marine habitats Effects of marine litter (excluding bycatch in ghost nets)	Hard substrate vegetation dominated community Soft substrate vegetation dominated community Hard substrate epifauna dominated community Soft substrate infauna dominated community Coarse substrate infauna dominated community
Birds	Bycatch of waterbirds – pelagic feeders, benthic feeders, surface feeders Intentional killing of waterbirds Disturbance or displacement of waterbirds by human presence Waterbird disturbance: collisions	Effects of eutrophication River, lake, or land habitat loss/degradation Hydrocarbon pollution Radioactive pollution Organohalogen pollution (e.g. PFOS, PCBs, PBDEs, dioxins)	Common eider - Breeding Season Great cormorant - Breeding Season Sandwich tern - Breeding Season Long-tailed duck - Wintering Season Red-throated diver - Wintering Season Great black-backed gull - Wintering Season
Mammals	Bycatch of porpoise Disturbance or displacement of porpoise by human presence Bycatch of seals Disturbance or displacement of seals by human presence Intentional killing of seals	Organotin pollution (e.g. TBT) Heavy metal pollution Pharmaceutical pollution Effects of pressures occurring outside the Baltic Sea region (migratory species only) Change in hydrologic conditions	Grey seal Ringed seal Harbour seal Harbour porpoise
Fish	Targeted extraction and bycatch of coastal fish Targeted extraction and bycatch of cod Targeted extraction and bycatch of flatfish	Human-induced food web imbalance	Perch and other coastal piscivores Cyprinids and other mesopredators Flounder

	Targeted extraction and bycatch of pelagic fish Targeted extraction and bycatch of salmon Targeted extraction and bycatch of eel & seatrout Disturbance of species: obstructions (dams)		Cod Herring Sprat Plaice Salmon Seatrout Eel
Nutrients	Input of nitrogen Input of phosphorous		-

\*Relevant pressures determined by Pressure-State survey results

†Additional spatial divisions exist within the listed state components