6-8 Progress on the analysis of sufficiency of measures (SOM)

PRESSURE 12-2020

HELCOM Secretariat
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The Meeting is invited to:

- take note of the progress of the SOM analysis and the input data for nutrients, hazardous substances, marine litter, benthic habitats and underwater noise
- take note of the data validation by the Pressure Group that will take place in June-September 2020

Analysis of sufficiency of measures (SOM)

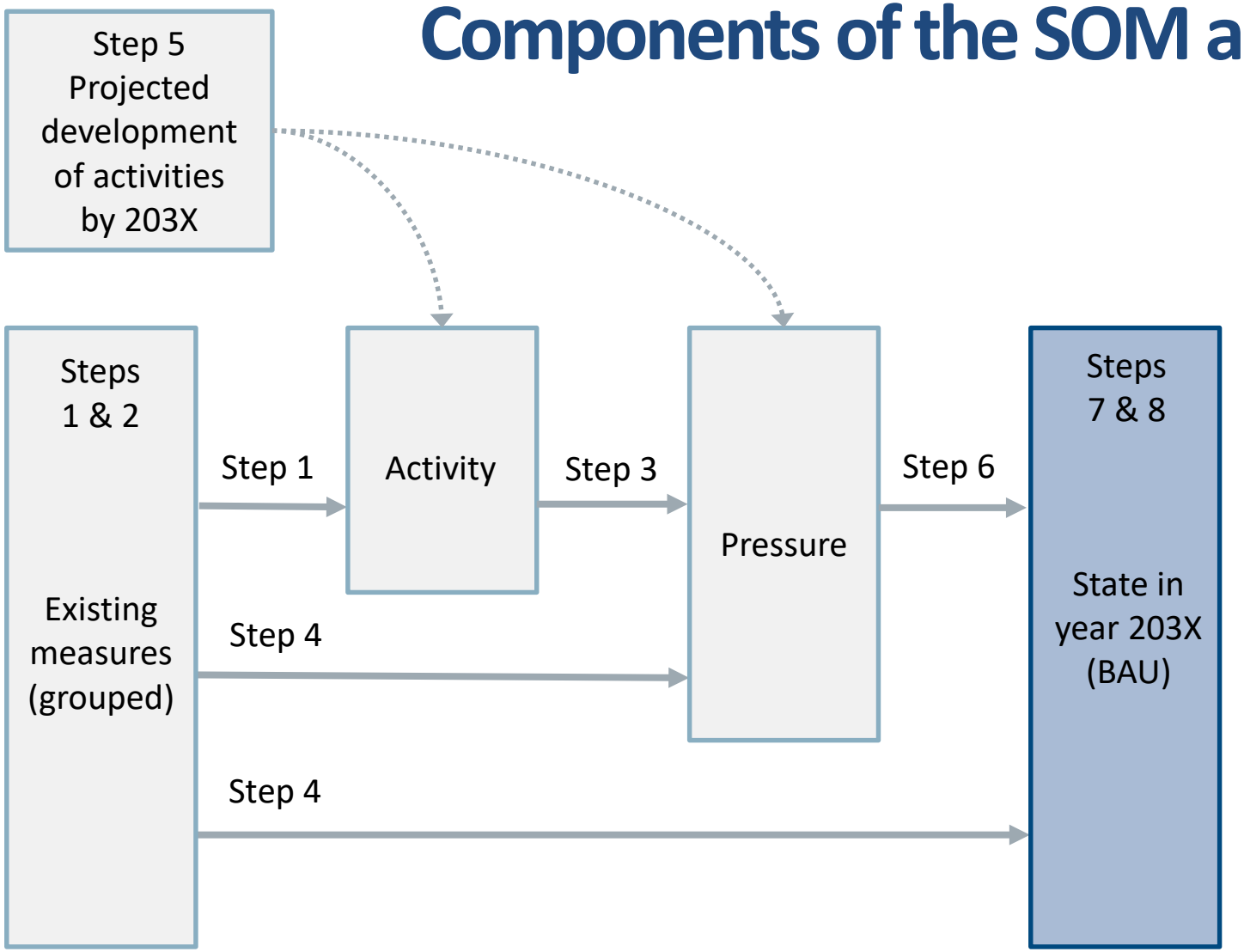
- One of the activities for the HELCOM Baltic Sea Action Plan (BSAP) update
- Carried out by the HELCOM SOM Platform and HELCOM ACTION project in 2019-2020
- Overall SOM approach endorsed by HOD 56-2019 and amended and supported by SOM Platform meetings 1-2019, 2-2019 and 3-2020

Features of the SOM analysis

- Supports assessing
  - how far we are from achieving good status with existing measures
  - the need for potential new measures

- First time in this extent in the Baltic Sea region or elsewhere
- Natural and social sciences approaches
- Same approach across all topics for comparability
- Scientific literature and expert elicitation for comprehensive inclusion of measures, pressures and state components

Components of the SOM analysis



Current status of SOM work

- Data collection largely ready
  - Existing measures and measure type linkages
  - Activity-pressure data
  - Pressure-state data
- Effectiveness of measures data incomplete
  - Survey data complemented in April-May
  - Literature review for some topics finalized in April
- Methodology ready
- Next version of results in June

Results from the SOM analysis

1. Lists of existing measures and their implementation status
2. Relative contribution of activities to pressures
3. Relative effectiveness of measures types in reducing pressures from activities
4. Effectiveness of measure types in reducing pressures (%)
5. Most significant pressures affecting state components
6. Pressure reductions required to achieve GES/status improvements
7. Pressure reductions and status improvements/from existing measures
8. Sufficiency of existing measures to achieve GES/a specific status improvement
9. Information on spatial areas and topics where measures are likely to be insufficient
10. Types of measures still needed and activities/pressures they should target
11. Time lags between measures and environmental state

Data collection for

- input of nutrients
- hazardous substances
- underwater noise
- marine litter
- benthic habitats

Input of nutrients data

- ACTION WP4
- Activity-pressure contributions: HELCOM PLC
- Effectiveness of measures
  - Wastewater treatment (reductions achieved by implementing the HELCOM Recommendation 28E/5 on municipal wastewater treatment)
  - Atmospheric nitrogen emissions (HELCOM ENIRED II data and predictions)
  - Scattered dwellings (joint survey with the PLC-7 project)
  - Nutrient runoff from agriculture (expert surveys)

Survey	DE	DK	EE	FI	LT	LV	PL	RU	SE
Nutrient runoff from agriculture	2	2	3	1	*	1	3	-	*

* indicates data submitted by correspondence

Hazardous substances data

Activity-pressure

Country	DE	DK	EE	FI	LT	LV	PL	RU	SE
Number of responses		1	1	4					

Effectiveness of measures

Sub-topic (whole Baltic)	Number of responses
Mercury	11
TBT	9
PFOS	12
Diclofenac	12

Pressure-state

Sub-topic (whole Baltic)	Number of responses
Mercury	12
TBT	8
PFOS	8
Diclofenac	11

Underwater noise data

Activity-pressure

Pressure	DE	DK	EE	FI	LT	LV	PL	RU	SE
Input of underwater noise	1	1	1				2		2

Effectiveness of measures

Sub-topic (whole Baltic)	Number of responses
Continuous noise 63/125 Hz	8
Continuous noise 2 kHz	6
Impulsive noise with peak energy below 10 kHz	8

Marine litter data

Activity-pressure

Country	DE	DK	EE	FI	LT	LV	PL	RU	SE
Input of marine litter	1	1	1	1			1		1

Effectiveness of measures

Country	DE	DK	EE	FI	LT	LV	PL	RU	SE	Total
Number of responses	2	3	2	1	1	1	1	-	3	14

Benthic habitats data

Activity-pressure: data-based approach based on HELCOM HOLAS II (Baltic Sea Pressure Index and Baltic Sea Impact Index)

Effectiveness of measures

Sub-topic (whole Baltic)	Number of responses
Benthic habitats	23

Pressure-state

Sub-topic	Geographic area	Number of responses
hard substrate vegetation dominated community	Kattegat	5
	Southern Baltic	9
	Eastern Baltic	5
	Northern Baltic	4
soft substrate vegetation dominated community	Kattegat	2
	Southern Baltic	7
	Eastern Baltic	3
	Northern Baltic	3
hard substrate epifauna dominated community	Kattegat	5
	Southern Baltic	10
	Eastern Baltic	3
	Northern Baltic	3
soft substrate infauna dominated community	Kattegat	3
	Southern Baltic	9
	Eastern Baltic	4
	Northern Baltic	4
coarse substrate infauna dominated community	Kattegat	2
	Southern Baltic	5
	Eastern Baltic	2
	Northern Baltic	2

Validation of data

Validation of data by Pressure Group

- Input of nutrients, hazardous substances, marine litter, benthic habitats and underwater noise
- Activity-pressure contributions data
- Effectiveness of measures data from the surveys and the literature review
- Pressure-state data from the surveys
- Proposal for approach and guidelines
- Intersessionally June–September 2020

Expert surveys: raw data and summary statistics by topic and survey

- Activity-pressure contributions: percent share, possible distribution
- Effectiveness of measures: relative and percent effectiveness (mean, median and standard deviation)
- Pressure-state linkages:
  - significant pressures to state components (list, percent share)
  - required percent pressure reductions to achieve good state/state improvements (mean, median and standard deviation)
- Overview of the background of respondents for each survey (country, organization type, fields, years of experience) (individual responses not linked to personal information)

Literature review: full data by topic

- Effectiveness of measures
- Measure name and description
- Activity, pressure, state component
- Associated measure type
- Effectiveness (%), min, max, most likely
- Confidence of effectiveness
- Spatial information (region, water body)
- Other supporting information
- Potential use for each data point (model, interpretation, none)

Next steps

- Complementing data in May
- Analyses and results in June
- Validation of data intersessionally by Working Groups in June–September 2020
- BSAP update workshops in August–September 2020

More information

Website with SOM materials

SOM Platform 3-2020