

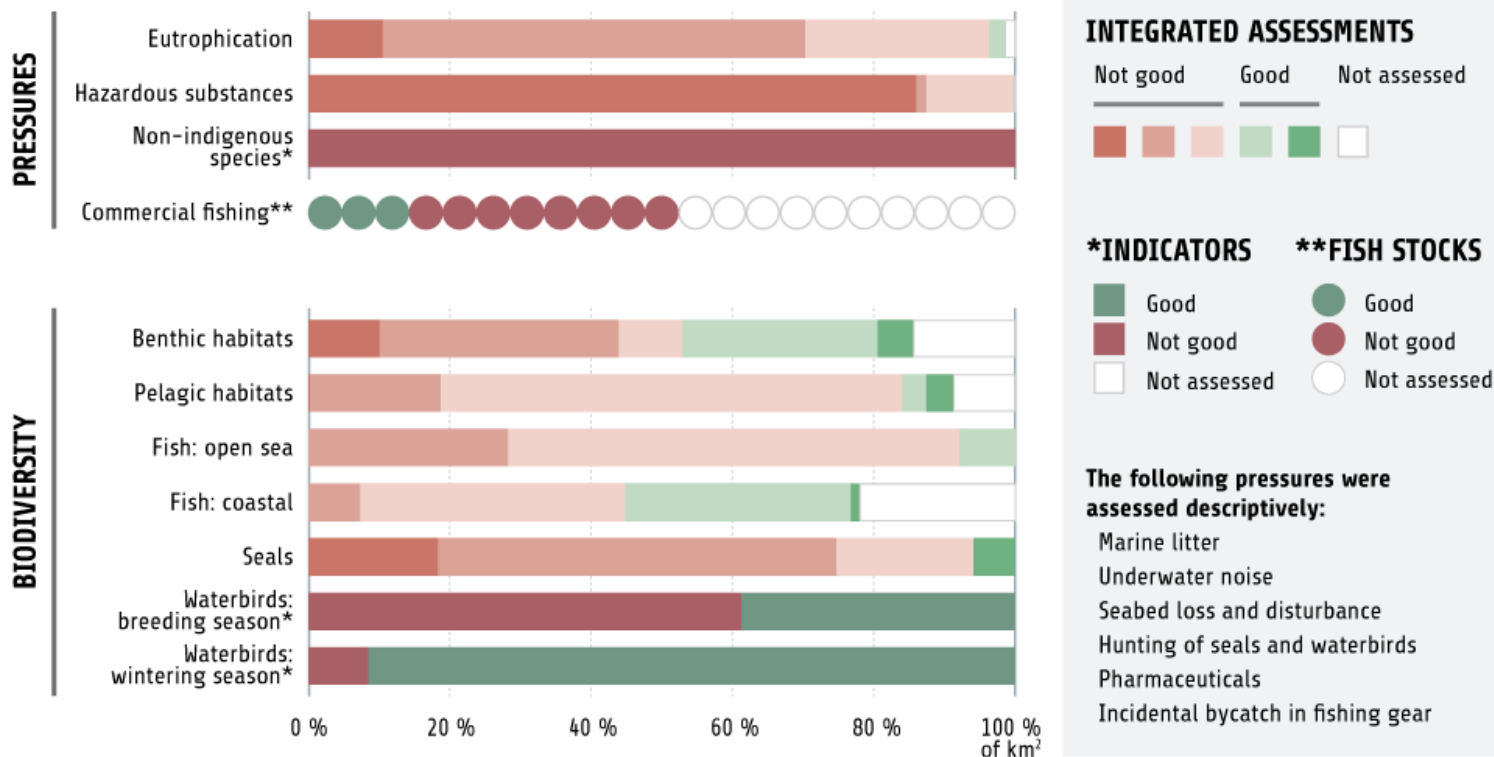
Sufficiency of measures analysis to support the HELCOM Baltic Sea Action Plan update

HELCOM ACTION project
HELCOM Secretariat
November 2019



Baltic Sea: current state

State of Baltic Sea pressures and biodiversity 2011–2016



Summary of the assessment of pressures and status for the Baltic Sea showing the proportion of area covered by different assessment status categories (based on square kilometres). For commercial fishing, the summary shows status of fish stocks. Integrated assessment results (eutrophication, hazardous substances, benthic habitats, pelagic habitats, fish, and seals) are shown in five categories. Assessment results based on indicators (commercial fishing, non-indigenous species, and waterbirds) are shown in two status categories.

Update of the Baltic Sea Action Plan

Key guiding documents:

- HELCOM 2018 Ministerial Declaration:
 - as a first priority, **achieve already agreed actions** with renewed efforts to make progress towards the goals of the current BSAP by 2021,
 - in addition, **address new issues**, on the basis of the commitments made in this Declaration and further deliberations during the BSAP updating process,
 - the updated BSAP should include **actions necessary for managing human activities** in such a way that the current HELCOM strategic goals can be achieved,
 - the updated BSAP will at least **maintain the ambition level of agreed actions and objectives**.
- Strategic plan for the BSAP update
- Work plan for the BSAP update



Analysis of sufficiency of measures (SOM)

(activity 2.5 of strategic plan, SOM Platform, ACTION project, Working Groups, now-end of 2020)

- Agreed as an activity in the Strategic Plan for the BSAP update
- To be carried out by the HELCOM SOM Platform and HELCOM ACTION project
- Overall SOM approach endorsed by HOD 56-2019 and amended and supported by SOM Platform meetings 1-2019 and 2-2019

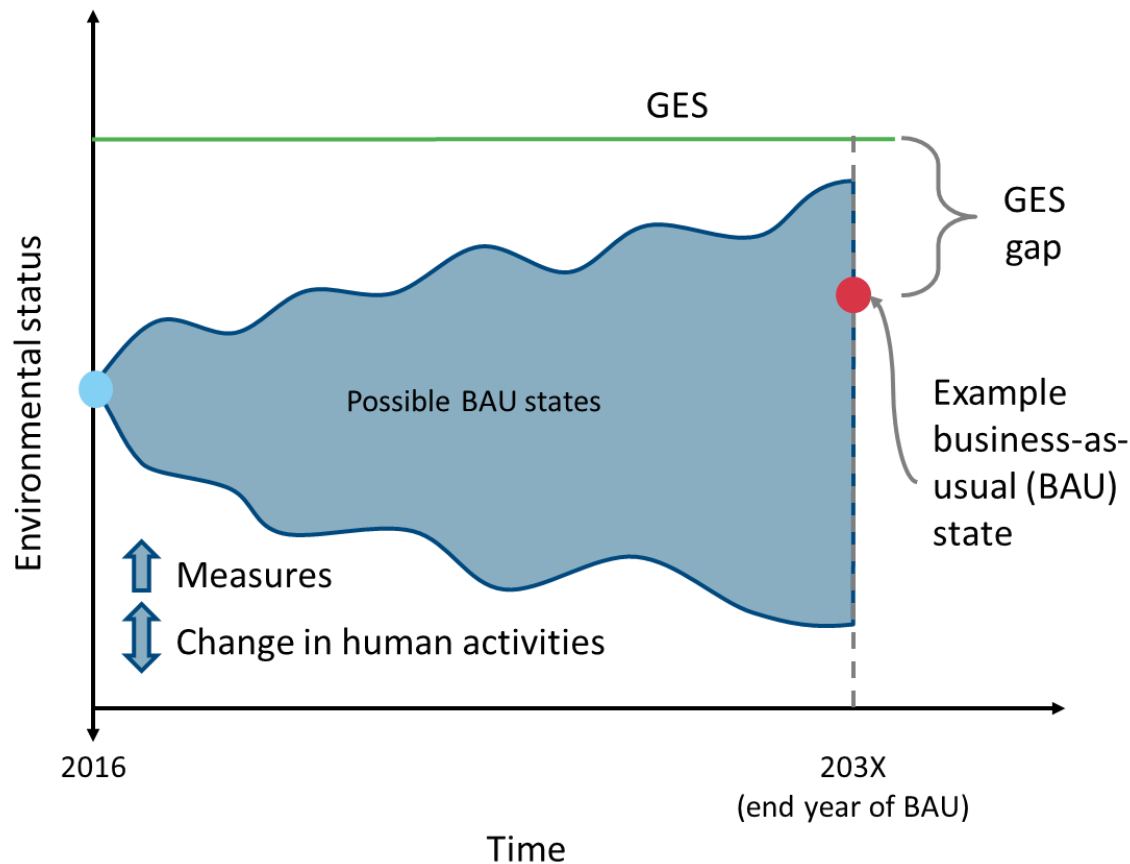


Features of the SOM analysis

- Supports the BSAP update by
 - assessing how far we are from achieving good status (GES) with existing measures
 - providing information for identifying the need for potential new measures
- First time SOM assessment is done in this extent in the Baltic Sea region or elsewhere
- Combines natural and social sciences approaches
- Same approach applied across all topics to ensure comparability and coherence (birds, mammals, fish, benthic habitats, hazardous substances, marine litter, underwater noise, non-indigenous species, input of nutrients)



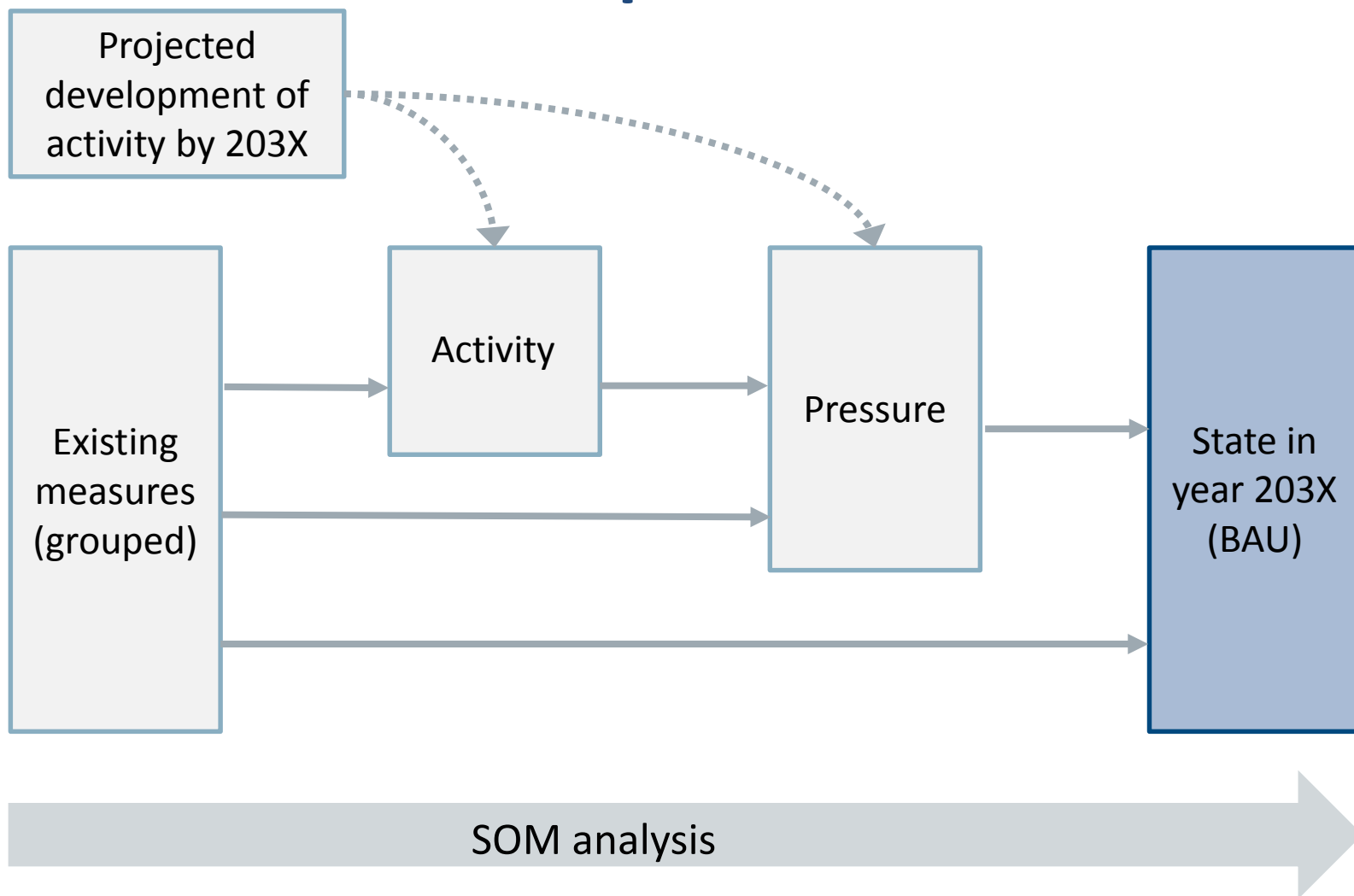
Assessing the business-as-usual (BAU) state for the SOM analysis



BAU state = status of the marine environment at a specific future year given measures in existing policies, their implementation status, natural time lags and possible development of human activities over time

Comparison of BAU and GES => whether existing measures are sufficient

Components of the SOM analysis

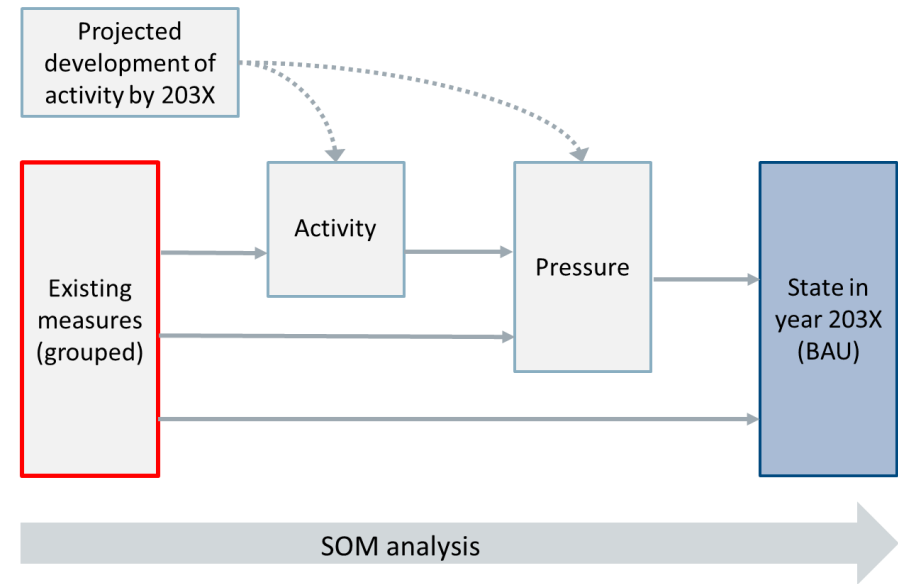


Steps in the SOM analysis

1. Existing measures
2. Identifying main pathways for pressures using activity-pressure-linkages
3. Estimation of effects of measures
4. Projected development of human activities/pressures
5. Linking reduced pressures with state components
6. Comparison of BAU and GES and sufficiency of measures
7. Time lags in measure-pressure and pressure-state links and state recovery

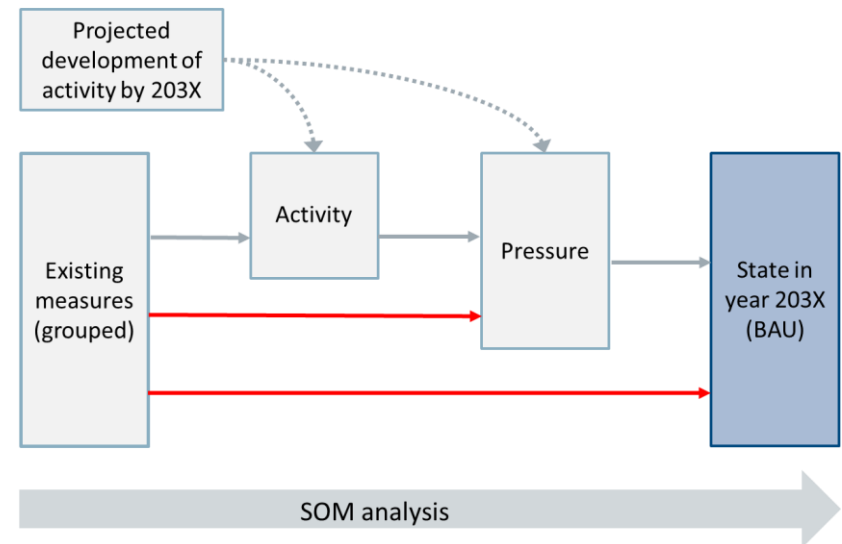
Existing measures

- Measures in existing relevant policies, e.g. current BSAP, MSFD
- Implemented, ongoing and planned in the time frame of BAU
- Grouped to general measure types to reduce the number of measures and improve the feasibility of the analysis



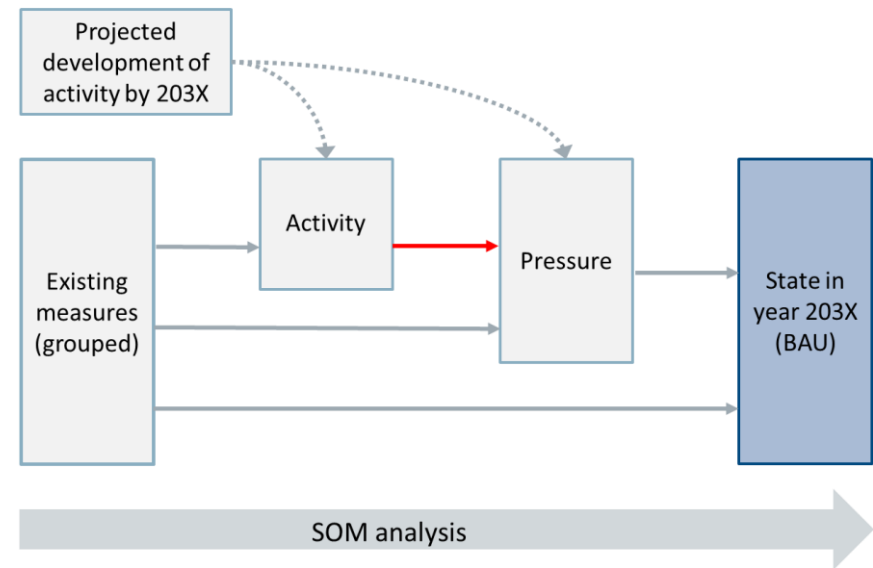
Effectiveness of measures

- Reduction in a specific pressure from a specific activity from implementing a generalized measure
- Assessed as a percent (%) change
- Restoration measures
- Based on expert elicitation and existing literature and models



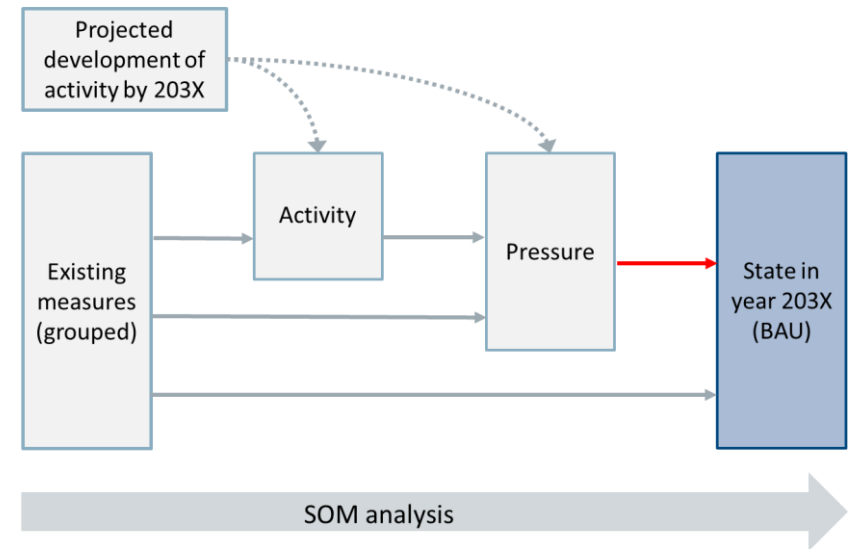
Activity – pressure link

- Contribution (%) of activities to pressures
- Mainly based on expert surveys
- Loss and disturbance to the seabed
 - Approach used in HOLAS II
 - Links percent contribution of activities to the two physical disturbance pressures
- Input of nutrients: data from ACTION WP4



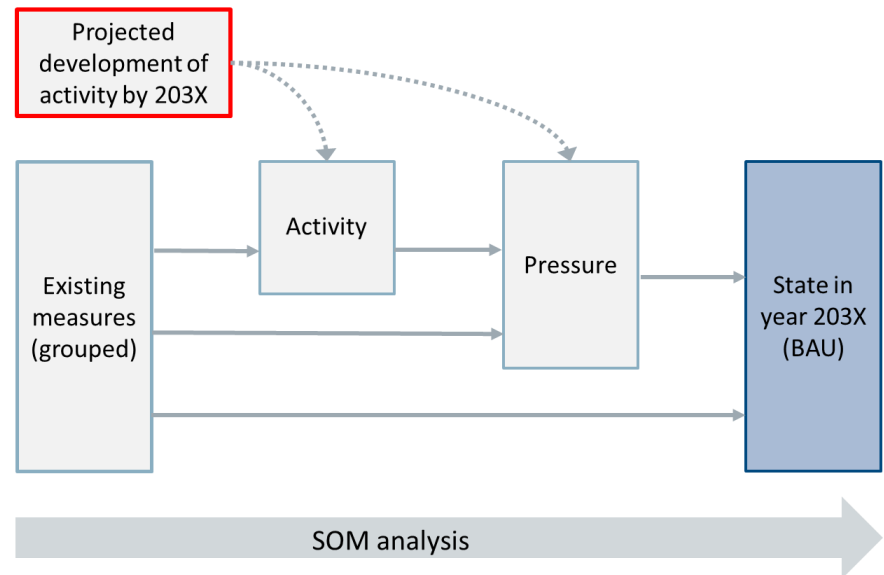
Linking pressures with state components

- Links between pressures and state components
- Depending on the existence of GES threshold:
 - Required pressure reduction (in %) to reach or maintain GES
 - Change in the state component from a specific reduction in pressures (in %)
- Mainly based on expert elicitation



Development of human activities

- Changes in human activities over time
- Two alternative assumptions: 1) no change, 2) most likely change in activities
- Analysis limited to predominant activities
- National and regional data sources
- Qualitative information translated into percentages



Main components in SOM analysis using expert elicitation

1. Linking activities to pressures
 2. Effects of measures on pressures
 3. Linking pressures with state components
- Information from scientific literature and expert elicitation to allow for comprehensive inclusion of measures, pressures and state components

Expert SOM workshops and surveys

- Five SOM topic workshops in fall 2019
 - Mammals, birds, hazardous substances, fish, benthic habitats
 - Effectiveness of measures and pressure-state links
 - Aim to test and discuss the surveys and gather comments and feedback for finalizing them
- Expert surveys
 - Implemented online in December - January
 - Respondents: nominated experts

Timeline for 2020

- Survey and literature data collection completed in January 2020
- Data analyses and model runs in January-February
- Results and draft report presented to SOM Platform 3-2020 at the end of March



More information

[Document on SOM approach](#) for SOM Platform 2-2019

[Document on use of survey results in the SOM model](#)
for SOM Platform 2-2019

[Notes from SOM Platform 2-2019](#)

