

2-2 Development of human activities for the SOM analysis

HELCOM Secretariat
SOM Platform 3-2020



Development of human activities for the SOM analysis

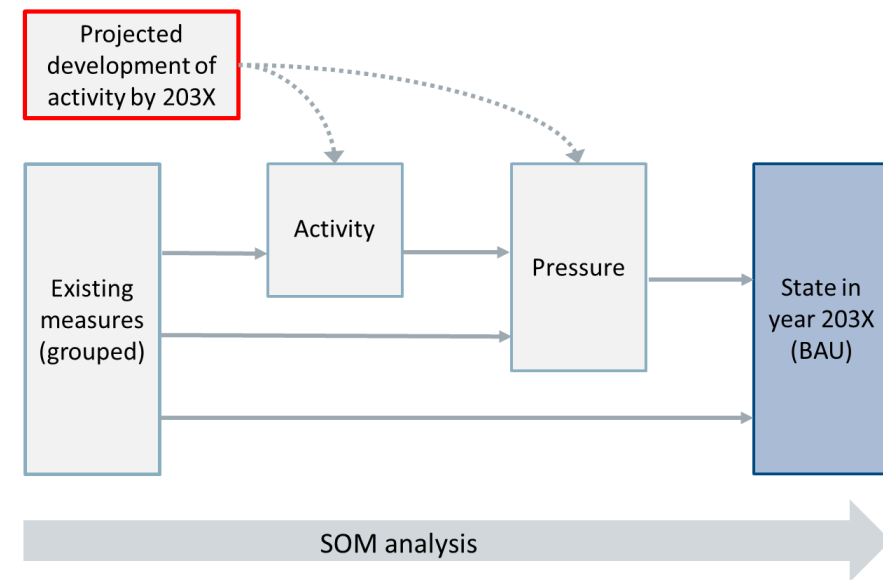
The Meeting is invited to:

- take note of the information on the development of human activities
- agree on the methodology of incorporating development of human activities to the SOM model



Development of human activities (step 5)

- Change in human activities over time
- Analysis limited to predominant activities
- Alternative assumptions/scenarios (no change, small, moderate, large)
- Qualitative information translated into percent changes
- Based on national and regional data sources



Assessment components

1. Collect data on future development of human activities in the Baltic Sea region
 2. Prepare percent change scenarios of development of activities
 3. Assess expected changes in pressures due to the development of activities
 4. Assess the effect of different scenarios of the change of human activities on the BAU state
- } SOM model

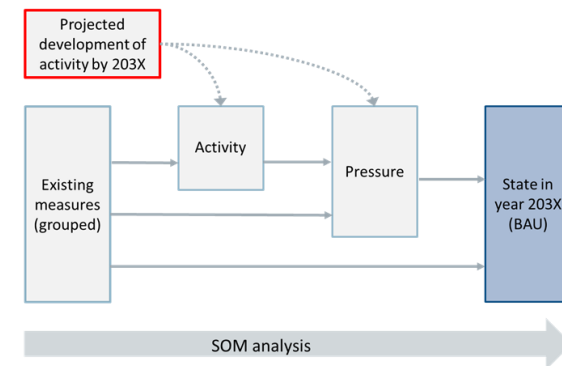
Overall approach

- Nine activities
- Timeframe: 2016–2030
- Baltic Sea scale assessment
- Uncertainties addressed with alternative (3-4) scenarios
 - No change
 - Direction unclear: negative, (moderate,) positive
 - Direction clear: small, moderate, large change
- Most likely scenario indicated when possible



Using the information in the SOM model

- Development of human activities a separate component of the "main SOM model"
- Several model runs with alternative scenarios possible
- Data as percent changes in activities => can be incorporated into the model
- Activity-pressure contributions: change in activities into changes in pressure



Proposed alternative scenarios for development of human activities

Activity	Information available	Scenarios
Agriculture	Quantitative projections for product groups Qualitative projections for the activity as a whole	Decrease by 10% No change Increase by 10%
Forestry	Quantitative projections	No change Increase by 5% Increase by 7% Increase by 9%
Commercial fishing	Qualitative projections Past development	Decrease by 10% No change Increase by 10%
Aquaculture (Scenarios for DK, FI and SE)	Qualitative projections Past development in Denmark, Finland and Sweden	No change Increase by 10% Increase by 20% Increase by 40%

Proposed alternative scenarios for development of human activities

Human activity	Available information	Scenarios
Marine shipping	Quantitative projections	No change Increase by 8% Increase by 20% Increase by 30%
Marine transport infrastructure	Quantitative projections	No change Increase by 10% Increase by 20% Increase by 30%
Tourism and leisure activities	Quantitative projections	No change Increase by 15% Increase by 30% Increase by 40%

Proposed alternative scenarios for development of human activities

Human activity	Available information	Scenarios
Offshore wind energy production	Quantitative projections	No change Increase by 150% Increase by 290% Increase by 350%
Wastewater treatment	Qualitative projections Quantitative projections on population development and urbanization and information on connection of population to urban wastewater collecting systems	No change Increase by 2% Increase by 4% Increase by 8%