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## Background

Progress made on the marine mammal core indicators was presented by the Task Managers in Lead, Tero Härkönen and Charlotta Moreaus at the CORESET II 2-2014 meeting 29-30 September 2014 held in Gothenburg, Sweden. The Task Managers suggested next steps for the indicators in order to have them operational by the end of CORESET II in mid-2015. It was agreed to continue the conceptual discussions on proposed changes at SEAL 8-2014.

The general outcome of CORESET II 2-2014 was presented GEAR 8-2014, held 8-10 October in Tallinn, Estonia, as GEAR is the HELCOM subsidiary body supervising CORESET II. GEAR 8 welcomed the progress made and the work done to focus the work of CORESET II as presented in Annex 3 of the outcome. GEAR 8 thus supported the suggestions for further discussion in SEAL 8, with the aim to up-date the indicator reports as soon as possible in order to provide background material to STATE 1-2014 to be held on 3-7 November, in Pärnu, Estonia.

This document summarizes the outcome of CORESET II 2-2014 of relevance to the meeting as well as suggestions for future cooperation with OSPAR.

Please note, presentations given by the Task Managers at CORESET II 2-2014, describing the indicators, progress made and remaining issues that need to be solved are available through the HELCOM Meeting Portal

- [Population growth rate, abundance and distribution of marine mammals](#)
- [Reproductive status of marine mammals & Nutritional status of seals](#)
- [Number of drowned mammals and waterbirds in fishing gears](#)

## Action required

The Meeting is invited to:

- take note of the relevant outcomes of CORESET II 2-2014 as a basis for the presentations to be given by the Task Managers,
- discuss the proposed ways forward for the indicators and potential opportunities for cooperation with OSPAR,
- evaluate how the concepts should best be developed so that a robust assessment can be provided to the up-coming HOLAS II project, and
- agree on the next steps for developing the indicator reports for STATE 1-2014.

## Marine mammal core indicators

### Relevant extracts from the outcome of CORESET II 2-2014:

3.13 The Meeting took note of the presentation (Presentation 13) by Mr Volker Dierschke on core indicator 'Number of drowned mammals and waterbirds in fishing gears' noting that such indicator would be based on individuals being by-caught in relation to population estimate for each population range, management unit or acceptable loss of individuals. At present monitoring is not appropriate to support the indicator e.g. observers or on-board CCTV is needed. The indicator is applicable for both birds and mammals in all coastal and offshore areas.

3.14 The Meeting took note of the presentation (Presentation 14) by Mr Tero Härkönen on core indicator 'Population growth rate, abundance and distribution of marine mammals' noting that the difference compared to the OSPAR EcoQO on seal abundance is due to higher monitoring frequency in the Baltic Sea allowing for an indicator that is more specific and based on more information. The indicator is expected to be fully operational for seals by end of the CORESET II; GES- boundaries have been proposed, and technical guidelines for monitoring has been developed. Assessment units differ between species. Ringed seal in Gulf of Finland and Riga is difficult to monitor since the ice situation has changed and other methods to e.g. count ringed seal on land need to be consider.

3.15 The Meeting furthermore noted that for harbor porpoise the indicator is less developed due to lack of data and it is not likely to be operational for harbor porpoise within the CORESET II project and considered developing a separate indicator for harbor porpoise.

3.16 The Meeting agreed to separate the growth rate, abundance and distribution for seals into three separate indicators, and this will be further discussed the upcoming SEAL meeting (21-23 October).

3.17 The Meeting discussed the comment from LV and LT (document 4.3) proposing to remove the indicator from the list of core indicator since there is no population to monitor in the waters for these countries. The Meeting noted the clarification from the TML that the existing HELCOM coordinated monitoring of seals is considered as sufficient to assess the state of the seal populations in the Baltic Sea. Monitoring for the indicator is based on surveys of haul out sites, and since seals do not haul out in the waters of Latvia and Lithuania, monitoring in these waters is not needed at this time. The seals move into these CPs waters to feed.

3.18 Ms Charlotta Moreaus on core indicators 'Reproductive status of marine mammals' and 'Nutritional status of seals' (Presentation 15) noting that

- the indicator on nutritional status is based on using body condition of seals as an indicator for their status. At this time FI and SE is holding most of the data that is primarily based on necroscopy of hunted seals and by-catches, and are currently discussing further development of the method. GES for blubber thickness for grey seal has been proposed while additional work is needed to develop the indicator for ringed seal and harbour seals. The indicator is expected to be operational for juvenile grey, ringed and harbor seals by end of CORESET II. Data on harbor porpoise is insufficient at this time.

- that female reproductive status is sensitive for hazardous substances. GES has been proposed for grey seals while for the other seal species data analyses are still ongoing. At present sufficient data is available from the Gulf of Bothnia and the Swedish west coast while there is a lack of data from Baltic Proper and Gulf of Riga. Data on harbor porpoise is insufficient at this time.

3.19 The Meeting discussed the comment from LV and LT (document 4.3) proposing to remove the two health related indicators from the list of core indicator since there is no population to monitor in the waters of these countries. The sufficiency of Finnish and Swedish monitoring data to support a Baltic wide assessment will be analyzed.

## Annex 3 of the CORESET II 2-2014 outcome

### Population growth rate, abundance and distribution of marine mammals

Develop further. Close to operation indicator for seals; however **suggested to split** the indicator in the three respective parameters. For harbour porpoise the indicator is not expected to be ready within the timeframe of CORESET II project, and it is suggested to develop a **separate indicator** for harbour porpoise in cooperation with ASCOBANS.

The existing HELCOM coordinated monitoring is considered as sufficient to assess the state of the grey seal populations in the Baltic Sea, for harbour seals in the southern areas and for ringed seals in the northern areas. Since seals do not haul out in the waters of Latvia and Lithuania monitoring in these waters is not needed at this time.

### Reproductive status of marine mammals

Develop further. Renamed from 'Pregnancy rate'. GES is proposed for grey seals while for the other seal species data analyses are still ongoing. At present sufficient data on seals is available from the Gulf of Bothnia while there is a lack of data from Baltic Proper and Gulf of Riga. Data on harbour porpoise is insufficient at this time. Since the data is based on existing hunting, data will aggregate over time and there is no intent to increase the numbers of hunted seals for assessment purposes. Work will be done to evaluate the extent of areas that can be assessed based on the available data.

### Nutritional status of seals

Develop further. The indicator is expected to be operational for grey seal, ringed seal and probably harbour seals by end of CORESET II. Data on harbour porpoise is insufficient at this time. The sufficiency of FI and SE monitoring data to support a Baltic wide assessment will be analysed. Data for this indicator will aggregate over time, data stems from seals of all ages, both sexes, hunted, stranded and by-caught.

### Number of drowned mammals and waterbirds in fishing gears

Develop further, however noting that the survey circulated by the TML indicated severe gaps in monitoring. The aim is to estimate acceptable mortality for the species in question.



## Suggestions on potential opportunities for cooperation from the joint meeting of HELCOM CORESET II and OSPAR ICG-COBAM, 1 October, 2014

### Key message

- There is potential for cooperation on three indicators, but the situation is a bit complex.
- There are a number of existing groups (WGMME, OSPAR expert group on marine mammals, HELCOM Seal, ASCOBANS working group). It is proposed that the capacity in these groups could be brought together into 2 mammal groups – a seal group and a cetacean group.
- It was proposed that considering the objectives are almost the same, the assessments delivered for the Habitats Directive and the RSC work for MSFD could be merged;
  - *Every member state needs to report on mammals under Article 12 Habitats Directive. The adequacy of monitoring is variable across states. Are member states happy for OSPAR and HELCOM to define common standards for implementation of HD? HD requires distribution, abundance and avoiding by-catch of each marine mammal species within each Member state's waters. For MSFD, we need to assess GES so requirements may be slightly different. Assessment scale is different for MSFD (custom-made for each species depending on extent of range of individual animals) compared to Habitats Directive (member state's waters). There is an historical requirement under Habitats Directive to assess abundance, distribution and structure and function of individual species using largely qualitative judgements. The role of these OSPAR and HELCOM indicators is to provide assessments of GES based on quantitative data and for only those species where such data exist. The common standards established by these indicators could be used in Habitats Directive assessments, depending on whether member states agree to this.*
- Regular surveys are desired at a sufficient geographic scale building on the SCANS experience where appropriate;
- There is potential for a single assessment methodology for the two convention areas;

### Introduction Remark

When implementing indicators for marine mammals under the MSFD it is essential to consider the obligations for every member state and most contracting parties to report on the conservation status of all marine mammals under Article 17 of the Habitats Directive. Requirements under the Habitats Directive include an assessment of distribution, abundance and structure and function (which includes bycatch) of each marine mammal species within each Member state's coastal waters and EEZ. MSFD requirements to assess GES may slightly differ from the requirements of the Habitats Directive, e.g. assessment scale is different for MSFD (marine region) and Habitats Directive (Member state's waters). However, in the final assessment of the conservation status in the Member State's Waters must be aligned to the GES in the region for each marine mammal species. Up until now, monitoring and assessment standards did not need to be harmonised within marine regions for the Art. 17 Habitats Directive reporting, the work within the OSPAR and HELCOM to develop regional marine mammal indicators under OSPAR and HELCOM indicators provides an excellent opportunity to catch up.

Comparison of OSPAR and HELCOM indicators for <b>marine mammals</b>							
OSPAR indicator name Common/Priority Candidate/Non-priority candidate	HELCOM indicator name Core/Pre-core/Candidate	Concept	Monitoring strategy or -method	Assessment method and/or GES boundary	Data arrangements	Overall conclusion (A – C)	Comment
M3- Abundance and distribution seals	Population growth rate, abundance and distribution of marine mammals	A	B	B	B	B	Every CP has their own custom-made monitoring programmes that vary in frequency and parameters depending on population size and local conditions. HELCOM assesses population size against targets as well as assessing trends, which is what is done in OSPAR. Additional species in Baltic – ringed seal
M4 – Abundance (and distribution) of cetaceans	Population growth rate, abundance and distribution of marine mammals	B	B	B	B	B	Depending on current densities of cetaceans two principally different monitoring methods (aerial surveys and acoustic monitoring) are applied by CPs of HELCOM. Synergy can be utilised only within these methods and not between the methods. Intensive acoustic monitoring is only applied in the Baltic Sea and only on a regular basis in a few CPs. No current common data structures, apart from SCANS database have been established, but a collation of aerial and boat survey data both with and between HELCOM and OSPAR would be beneficial
M5 - Seal pup production	Pregnancy rates of the marine mammals	C	C	C	C	C	OSPAR indicator derived from live pup counts. HELCOM derived from post-mortems of female seals that have been shot during the seal hunt. These data would be very difficult to harmonise to produce comparable indices of productivity which would be required in a joint indicator. Also grey seal pup production is mainly used as a measure of population size.
	Nutritional status of seals	C					See above
M6 - mammal bycatch	Number of drowned mammals and waterbirds in fishing gears (proposed to develop as pressure indicator at CORESET II 2-2014)	A	A	A	A	A	In principle, the indicator should differentiate between fishing methods and not between regions. Currently no agreed monitoring concept exists for any of the fisheries methods, for neither OSPAR nor HELCOM. Assessment approach could aim to be the same but thresholds area specific. No data arrangements exist. HELCOM uses numbers of mammals bycaught, whereas OSPAR uses bycatch rate. Rate could be calculated from numbers if it was combined with abundance measurements. It is difficult to conclude how much synergies exist, because the indicators are poorly developed at this stage.

<i>Specified tasks and aspects for coordination:</i>			
<b>M3- Abundance and distribution of seals</b>			
<b>Population growth rate, abundance and distribution of marine mammals</b>			
<i>Aspect</i>	<i>Problem/Task</i>	<i>Process</i>	<i>Expected output(s)</i>
<i>Concept</i>	Difference in concept because HELCOM looks at annual trends as well as abundance estimates. OSPAR uses only abundance estimates.	ICES WGMME and HELCOM seal group to work together to produce a common parameter for seal abundance or distribution across both regional seas.	A common indicator seal abundance or distribution across both regional seas derived from a single parameter.
<i>Monitoring strategy or –method</i>	Frequency vary more considerably between CPs in OSPAR than in HELCOM (annual)	ICES WGMME and HELCOM seal group to work together to produce a) a common strategy for monitoring b) an interpolation model for combining both data sets.	A common strategy for monitoring and an interpolation model for combining both data sets
<i>Assessment method and/or GES-boundary:</i>	HELCOM uses trend based targets as well as targets relative to baselines. Where OSPAR uses only trend based targets <b>Distribution – no agreed assessment methods in HELCOM or OSPAR</b>	ICES WGMME and HELCOM seal group to work together to produce a common assessment method	Documented assessment methods and requirements for the combined indicators.
<i>Data arrangements:</i>	<b>No central data storage mechanism.</b>	OSPAR and HELCOM CPs to agree on development of a joint database. Secretariats to scope work needed, and identify who will do it. The work may include a) identify data custodians in Baltic and in Atlantic b) draw up plans for a shared database	Proposals for a joint database  Joint OSPAR and HELCOM database
<i>Quality assessment and review</i>	Need Common HELCOM & OSPAR QA Standards	The formation of common QA standards could be addressed by the work described above	Common HELCOM & OSPAR QA Standards
<i>Research calls/applications</i>	See data arrangements <b>Also need to develop common abundance distribution assessment methods</b>	See data arrangements <b>ToR for WGMME (only possible from spring back)</b>	See data arrangements Recommendations for common assessment methods
<b>Proposed working arrangements</b>			
<b>Development of OSPAR/HELCOM combined indicators on Marine Mammals abundance, distribution and bycatch</b>			
<b>Timeframe: 2015/16 onwards</b>			
<u>Indicators or themes/topics considered</u>			
<ol style="list-style-type: none"> <li>1. A single common/core indicator of abundance for OSPAR &amp; HELCOM incorporating onshore and offshore data.</li> <li>2. A single common/core indicator of distribution for OSPAR &amp; HELCOM incorporating onshore and offshore data.</li> <li>3. A single common/core indicator of seabird bycatch for OSPAR &amp; HELCOM</li> </ol>			
<u>Expected outputs</u>			
For each of the three OSPAR & HELCOM common/core indicators listed above, a combined technical specification, which contains the following:			

- a. Monitoring requirements;
  - b. Assessment methods; and
  - c. Common QA Standards.
2. Funding proposal for development of offshore assessments of marine mammal abundance and distribution in the Baltic
  3. Joint OSPAR and HELCOM database for marine mammal bycatch.

*Specified tasks and aspects for coordination:***Cetaceans**

<i>Aspect</i>	<i>Problem/Task</i>	<i>Process</i>	<i>Expected output(s)</i>
<i>Concept</i>	Synergy required in aerial and ship based surveys. But no potential synergies in areas of low density in the Baltic where there is more reliance on acoustic surveys. Need to work out how to combine the requirements of Habitats directive and MSFD.	ICES WGMME and ASCOBANS working group to work together to produce a common parameter for cetacean abundance and distribution across both regional seas.	A common indicator on cetacean abundance and distribution across both regional seas derived from a single parameter.
<i>Monitoring strategy or –method</i>	Need an agreed frequency – currently highly variable between CPs in both OSPAR & HELCOM	ICES WGMME and ASCOBANS working group to work together to produce a common strategy for monitoring	A common strategy for monitoring
<i>Assessment method and/or GES-boundary:</i>	Need to develop <b>assessment methods in HELCOM or OSPAR</b>	ICES WGMME and ASCOBANS working group to work together to produce a common assessment method	Documented assessment methods requirements for the combined indicators.
<i>Data arrangements:</i>	No current common data structure apart from SCANS database. But would benefit from a collation of aerial and boat survey data both with and between HELCOM and OSPAR	OSPAR and HELCOM CPs to agree on development of a joint database Secretariats to scope work needed, and identify who will do it. The work will include a) Identify data custodians in Baltic in Atlantic b) draw up plans for a shared database Investigation on how to combine visual and PAM data in assessments	Proposals for a joint database  Joint OSPAR and HELCOM database
<i>Quality assessment and review</i>	Need common HELCOM & OSPAR QA Standards	The formation of common QA standards should be addressed by the work described above	Common HELCOM & OSPAR QA Standards
<i>Research calls/applications</i>	See data arrangements <b>Also need to develop common abundance and distribution assessment methods</b>	See data arrangements <b>ToR for WGMME</b>	See data arrangements Recommendations for common assessment methods