

## English summary

This is the presentation of the governmental mandate that the Swedish Agency for Marine and Water Management (SwAM) received on the 6th of April 2017 N2017/02641/MRT, “mission to develop a limited number of indicators and conduct the in-depth follow-up of the government’s national maritime strategy”.

SwAM has in cooperation with the National Board of Housing, Building and Planning, the Swedish Energy Agency, the Swedish Board of Agriculture, the Swedish Agency for Economic and Regional Growth, the Swedish Transport Agency and Statistics Sweden compiled a suggestion for a follow-up system of the maritime strategy.

The follow-up system will follow-up the maritime strategy’s vision that captures the development in three perspectives. The follow-up system will encompass a limited number of yearly indicators as well as a complimentary in-depth follow-up every three years.

The formulation of the follow-up system is based upon the formulation of the strategy. Most of the indicators for the yearly follow-up deals with whether the state of the coastal areas are moving towards the desired state or not. We can call them state-indicators. That is, they describe how competitive business is, how attractive coastal areas are and if the seas are in balance or not. When we add several years together, we can also see in which direction the change in the indicators are moving.

One both practical and pedagogical challenge to take into consideration is of course that even if the states that are highlighted as important are affected by the strategy and the government’s, and other actors, actions, these conditions are also affected by other factors that are beyond the control of the government, and other actors. This means that a direct impact might be absent between the strategy, the efforts made by the government, agencies and other actors, and the states highlighted as important in the strategy.

Beyond this there are of course general limitations to what is possible to follow-up with indicators, and to what cost the follow-up can occur. Here there is some remaining work to be done before all indicators can be finally defined and the organization of the data collection can be completely clarified.

In this report, there is a proposal for a yearly follow-up based on a selection of 26 indicators that makes it possible to follow the development of the strategy’s results, both in the areas of action-level as well as the perspectives level. In addition to this, there is also a proposal to conduct an in-depth follow-up every three years, where, with the help from information that previously has not been included, the yearly indicators are supplemented and analysed. Around 20 complimentary areas have been identified.

The in-depth follow up 2017 is presented here as a current state with most recently available data.

Among the indicators, yearly follow-up is currently possible for 12 of them. Another 13 indicators have identified data sources, but indicators need to be developed in relation to the limitations of the follow-up. Finally, two indicators that are up for suggestion are in need of a greater effort in order to be compiled.

19 of the suggested indicators are contributing to the Agenda 2030 goals. The result from the Initial Assessment of the Marine Directive 2018 is currently under consultation. The consultation basis shows that the impact on our Swedish seas in most cases is so high that

good environmental status cannot be achieved. The industries that are most dependent on the sea's ecosystem services are fisheries and tourism.

In addition to this, an overarching picture is also presented in relation to how this follow-up system can be developed further.

Indicator	Description	Comments
<i>P1 A Balanced Marine Environment:</i> Environmental impacts on the seas	The indicator consists of two parts: <ul style="list-style-type: none"> <li>The share of (percentage) the total Swedish sea area with high environmental impact</li> <li>The share with low environmental impact</li> </ul> Source: SwAM, The Marine Planning unit.	The indicator consists of an aggregate of the total environmental impact, in regards to several affecting components. Data is collected and shows the total cumulative impact according to tools developed for the marine planning.  The indicator is connected to goal 6.3, 14.1 and 14.2 in Agenda 2030.
<i>P2 Attractive Coastal Areas:</i> Access to work places in the coastal areas.	The share of the total amount of workplaces in Sweden that can be found in the coastal areas.  Source: Statistics Sweden (SCB) Central Business- and workplace-registry,  SCB:s definition of coastal areas	The indicator shows the total access to workplaces in the coastal areas. This reflects the opportunity for the coastal population to work in the local area.  The indicator also shows the competitiveness of the coastal areas compared to "the rest of the country" when it comes to attracting jobs.  Alternatively, "the rest of Sweden with exceptions for urban areas with over 10 000 inhabitants" can be used in order to get a more "fair" comparison.
<i>P3 Attractive Coastal Areas::</i> Destination attractiveness	The share of all guest nights in Sweden that is spent in the coastal areas.  Source: SCB:s processing of the Swedish Agency for Economic and Regional Growth's Guest nights statistics.  SCB:s definition of coastal areas.	The indicator shows the share of all guest nights that is spent in the coastal areas. The indicator shows the coastal areas destination attractiveness in relation to Sweden as a whole.  Alternatively, "the rest of Sweden with exceptions for urban areas with over 10 000 inhabitants" can be used in order to get a more "fair" comparison.  The indicator is connected to goal 8.9 and 12.b in Agenda 2030.
<i>P4 Attractive Coastal Areas::</i> Attractive residential environments	The number of Sweden's population living in the coastal areas  Source: SCB:s population registry,  SCB:s definition of coastal areas.	The indicator shows the development of the population in the coastal areas. The indicator shows the attractiveness of the coastal areas when it comes to settlement.  An increase in numbers shows that the attractiveness of the coastal areas is increasing compared to the rest of Sweden.  Alternatively, "the rest of Sweden with exceptions for urban areas with over 10 000 inhabitants" can be used in order to get a more "fair" comparison.
<i>P5 Attractive Coastal Areas::</i> Connected coastal areas	The share of Sweden's coastal municipalities that have access to broadband (at least 100mb/s)  Source: the Swedish Post and Telecom Authority  The coastal municipalities consists of the National Board of Housing, Building and Planning's definition of coastal municipalities. 82 in total.	The indicator shows a dimension of the coastal areas prerequisites to be attractive for residents, visitors and jobs.  The access to broadband is defined as access to broadband at fixed points, such as households and workplaces.  The indicator is connected to goal 9.c in Agenda 2030.

<p><i>P6 Attractive Coastal Areas:</i></p> <p>Smart coastal areas</p>	<p>The coastal municipalities' combined ranking of all Sweden's municipalities in regards to the number of highly educated and the number of "creative professions". For definitions, see the source.</p> <p>Source: Jönköping Business School, Charlotte Mellander</p>	<p>The higher the aggregated ranking, the "smarter and more creative" the coastal areas of Sweden are in comparison to the municipalities in general.</p> <p>The indicator shows the coastal municipalities' ability to attract people with higher education and with creative professions.</p> <p>The indicator shows the potential of the coastal areas.</p>
<p><i>P7 Competitive Industries</i></p>	<p>The indicator consists of three parts that together shows the combined maritime industries according the SCB:s definition:</p> <ul style="list-style-type: none"> <li>• The number of people employed within the maritime industries</li> <li>• The value added in the maritime industries (million sek)</li> <li>• Export in the maritime industries (thousand sek)</li> </ul> <p>Source: SCB</p>	<p>The three measures taken together gives a good picture of the competitiveness of the maritime industries. The development of the different measures can be compared to other sectors or industries in other parts of the country.</p> <p>The indicator is connected to goal 9.2 and 8.2 in Agenda 2030.</p>
<p><i>ÅO1 A Healthy and Safe Marine Environment:</i></p> <p>Eutrophication</p>	<p>The indicator consists of two parts, divided on geographical sea basins.</p> <ul style="list-style-type: none"> <li>• Phosphorus load on the sea</li> <li>• Nitrogen load on the sea</li> </ul> <p>Source: SwAM:s follow-up of the environmental goal No Eutrophication</p>	<p>To decrease the eutrophication is according to the strategy an important prerequisite for balance in the marine ecosystems. Decreased eutrophication is also a part of the national environmental goals and the Agenda 2030 goals.</p> <p>The indicator shows the eutrophication status of the Swedish sea environments in relation to the conditions of the sea areas in general.</p> <p>The indicator is connected to goals 6.3, 14.1 and 14.2 in Agenda 2030.</p>
<p><i>ÅO2 A Healthy and Safe Marine Environment:</i></p> <p>Environmental toxins in Swedish-caught fish</p>	<p>The indicator is calculated by using the data from eight premises and is a compilation of nine hazardous substances.</p> <p>Source: SwAM:s follow-up of the environmental goal A Balanced Marine Environment.</p>	<p>The indicator shows the development of environmental toxins in the sea. Toxin-free marine food stuffs are fundamental in order to ensure "ecosystem services that are needed for a continued development of the maritime industries"</p> <p>The indicator is connected to goals 6.3, 12.4, 14.1 and 14.2 in Agenda 2030.</p>
<p><i>ÅO3 A Healthy and Safe Marine Environment:</i></p> <p>Sustainable use of the fish stocks</p>	<p>The indicator is an aggregated measure of the number of fish and seafood stocks that are sustainably used.</p> <p>Source: SwAM:s follow-up of the environmental goal A Balanced Marine Environment.</p>	<p>Sustainable fishing is one of the fundamental prerequisites in order to ensure balanced marine ecosystems as well as "ecosystem services that are needed for a continued development of the marine industries".</p> <p>The indicator is connected to goals 12.2, 14.2 and 14.4 in Agenda 2030.</p>
<p><i>ÅO4 A Healthy and Safe Marine Environment:</i></p> <p>Accidents and incidents in Swedish waters</p>	<p>The indicator is a measure of the total amount of reported accidents and incidents with Swedish flagged and foreign ships in the Swedish territorial waters. The data is divided into three categories: severe accidents, less severe accidents and incidents.</p> <p>Source: The Swedish Transport Agency.</p>	<p>To decrease the number of accidents at sea is in many ways important in order to reach the vision of a healthy and safe sea. The indicator shows the development of the number of accidents and incidents divided according to the character of the event.</p> <p>The indicator is connected to goals 8.8 and 14.1 in Agenda 2030.</p>

<p><i>Å05 Knowledge and Innovation:</i></p> <p>Innovation for Maritime Industries</p>	<p>Total public resources allocated to maritime industries from Innovation programs from Vinnova, the Swedish Energy Agency and the Swedish Agency for Economic and Regional Growth (exact definition of innovation programs remains).</p> <p>The definition of maritime industries is based on SCB:s definition.</p> <p>Source: Respective innovation authority.</p>	<p>The governmental innovation resources constitutes an important prerequisite for the renewability and long-term sustainability of the industries.</p> <p>The indicator shows the maritime industries ability to attract these resources.</p> <p>The indicator has a connection to goals 8.2 and 9 in Agenda 2030.</p>
<p><i>Å06 Planning with a Maritime Perspective:</i></p> <p>Comprehensive planning of coast, sea and archipelago</p>	<p>The share of Sweden's coastal municipalities that have a comprehensive plan for its coastal- and sea area.</p> <p>Source: the National Board of Housing, Building and Planning, survey to Sweden's municipalities.</p>	<p>The physical planning creates preconditions for the maritime industries. In order to follow the development of the coastal- and sea areas it is therefore relevant to measure the development of the physical planning. The number of municipalities that have a comprehensive plan for the coast, archipelago and sea is therefore an important indicator.</p> <p>The indicator has a connection to goals 11.a and 14 in Agenda 2030.</p>
<p><i>Å07 Functional Rules and Effective Permit processes:</i></p> <p>Fair traffic regulations</p>	<p>The maritime traffic's internalization of socioeconomic costs (percentage of the socioeconomic costs that are internalized in taxes, fees etc.).</p> <p>Comparisons with for example road and railroad traffic is possible.</p> <p>Source: Transport Analysis</p>	<p>To follow up the functionality of regulations is hard. With this indicator, we get a measure of the functionality of the regulations for maritime traffic.</p> <p>The indicator has a connection to goals 8.4 and 9.2 in Agenda 2030.</p>
<p><i>Å08 International Cooperation:</i></p> <p>Resources for international cooperation concerning innovation and maritime environment</p>	<p>Public resources allocated to Swedish maritime environments and businesses from a selection of international cooperation programs.</p> <p>Efforts in Horizon 2020, Interreg Baltic Sea Region and Interreg North Sea Region are proposed to be included.</p> <p>Source: Respective authority responsible for the program</p>	<p>The sum of the resources that are invested in international cooperation within the selected programs is an indication of the total resources that are invested in international cooperation regarding maritime industries.</p> <p>The indicator also shows the development of Sweden's ability to be included in this kind of cooperation.</p> <p>The indicator has a connection to goals 7a and 17 in Agenda 2030.</p>
<p><i>Å09 – 13 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>The competitiveness of the industries (Transport, Maritime Technology and production, The Sea as a Resource, Leisure and Tourism, and Service – it is desirable to divide the industries into subsectors)</p>	<p>Each of the indicators for the subsectors in turn consists of three partial measures:</p> <ul style="list-style-type: none"> <li>• Number of employed in the maritime industries</li> <li>• Value added in the maritime industries (million sek)</li> <li>• Export in the maritime industries (thousand sek)</li> </ul> <p>Source: SCB:s special follow-up of the maritime industries – all subsectors</p>	<p>A more detailed picture of the development of the different maritime subsectors is presented here.</p> <p>The indicator is connected to goals 8.2 and 9.2 in Agenda 2030.</p>
<p><i>Å014 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>Sea based energy production</p>	<p>The indicator consists of three partial measures:</p> <ul style="list-style-type: none"> <li>• Installed effect in sea based wind power in Swedish waters and in Swedish economic zone (Megawatt) Source: County Administrative Board Västra Götaland (<a href="http://www.vindlov.se">www.vindlov.se</a>)</li> <li>• Number of marine energy</li> </ul>	<p>The indicator complements the industries within the area of the Sea as a Natural Resource, through showing the extent and development of the sea based energy production.</p> <p>The indicator is connected to goal 7.2 in Agenda 2030.</p>

	<p>facilities (wave- and currents, energy recovery from differences in temperature and salt content) in Swedish waters and Swedish economic zone.</p> <ul style="list-style-type: none"> <li>• Installed effect (megawatt) in all facilities</li> </ul> <p>Source: the Swedish Energy Agency (IEA OES-report)</p>	
<p><i>AO15 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>Sweden's fleet</p>	<p>The number of merchant ships and special vessels with a gross tonnage of above 100, in the Swedish registry and in Swedish regime.</p> <p>Source: Transport Analysis</p>	<p>This indicator shows the size of the Swedish merchant's fleet and the fleet that is controlled by Swedish shipping companies. The size of the Swedish fleet affects, among other things, Sweden's influence on international maritime affairs, the possibility to maintain jobs and shipping competence in Sweden.</p>
<p><i>AO16 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>Overnight stays/visits in the coastal area</p>	<p>The indicator consists of three partial measures:</p> <ul style="list-style-type: none"> <li>• The number of guest nights in visit facilities in Swedish coastal areas (SCB:s definition)</li> <li>• The number of visitors/guest nights in the cruise traffic in Swedish harbours</li> <li>• Number of nights in guest harbours</li> </ul> <p>Source: The Swedish Agency for Economic and regional Growth, The Swedish Guest Harbour Association, Swedish harbours and SCB.</p>	<p>The indicator complements SCB:s data on maritime tourism with additional maritime guest nights.</p> <p>The indicator is connected to goal 8.9 in Agenda 2030.</p>
<p><i>AO17 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>Season extension</p>	<p>The indicator consists of the change in the share of total number of guest nights in the coastal areas outside the months of June-August</p> <p>Source: The Swedish Agency for Economic and regional Growth's accommodation statistics</p>	<p>The indicator gives a measure for the total season for visit facilities in the coastal areas.</p>
<p><i>AO18 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>Fish and seafood catches</p>	<p>The indicator consists of the total catch of fish and seafood from the commercial fishing in the sea, expressed in alive weight.</p> <p>Source: SCB/SwAM yearly official statistics for commercial fishing</p>	<p>The indicator gives a measure on how much fish and seafood the commercial fishing in the sea is fishing each year and hence the productivity of the sector.</p>
<p><i>AO19 Conditions for the Business Sector and Industry Specific Measures:</i></p> <p>Production of aquaculture</p>	<p>The indicator consists of the total production of aquaculture products.</p> <p>Source: SCB yearly statistics for the aquaculture</p>	<p>The indicator gives a measure of how much fish and seafood that aquaculture is producing on a yearly basis and hence the productivity of the sector.</p>