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## Background

Valuation of the benefits provided by ecosystem services can aid in designing more efficient policies for the protection of the Baltic Sea and in reaching the environmental objectives for the sea. Well-covered information on the benefits provided by marine and coastal ecosystems is essential to reach the objectives of the HELCOM Baltic Sea Action Plan.

HELCOM Copenhagen Ministerial Declaration (2013) calls for initiating/intensifying “the work to attribute economic value to marine and coastal ecosystem services and their contribution to societal, cultural and ecological well-being, in cooperation with initiatives such as the Economics of Ecosystems and Biodiversity for National and International Policy Makers (TEEB), with a view to starting more comprehensively embracing an ecosystem accounting approach”.

The Regional Workshop on the Valuation of Marine and Coastal Ecosystem Services in the Baltic Sea was organized in Stockholm, Sweden, 7-8 November 2013 with the purpose of exchanging information, discussing how economic valuation of the Baltic Sea can be used for ecosystem-based marine management, and allowing experts and policymakers to meet. This work was coordinated by the Stockholm Resilience Centre (SRC) in a partnership with the UNEP Regional Seas Programme, HELCOM and the Ministry of the Environment of Sweden with financial support provided from the Nordic Council of Ministers and the Swedish Presidency of the Nordic Council of Ministers within 2013-2014.

The main findings of the Workshop and challenges in assessing the ecosystem services in the Baltic Sea area and integrating them into policy and decision-making, are summarised in the beginning of the Report and Chapter 8 in further detail.

The draft Final Report of the Workshop is attached to this document. With this report an overview of ecosystem services and associated benefits provided by the Baltic Sea is provided. Information on basic approaches being applied in the Baltic Sea region on how to assess and value ecosystem services is brought forward. The main challenges in applying such tools and ways to overcome those in regional and national policies are outlined.

The report is expected to be published in UNEP’s Regional Seas Programme Series within 2014.

## Action required

Based on the document, the Meeting is invited to:

- take note of the workshop outcomes,
- discuss in general future HELCOM work and engagement with regard to valuation of ecosystem services and socio-economic considerations to follow up on the commitments of the Copenhagen Declaration,
- prioritize proposed potential issues (under point 8 and 9 on further pages), and
- discuss how the work could be arranged.

## Possible follow-up work on application of ecosystem services valuation

1. HELCOM Baltic Sea Action Plan calls for focusing on cost-efficiency taking into account economic and social sustainability of the region, when devising the new measures, as well as refers to the cost implication of non-actions, especially in the field of eutrophication.
2. Likewise, Article 8 (c) of the EU Marine Strategy Framework Directive (2008/56/EC) requires EU Member States to carry out an economic and social analysis of the use of marine waters and of the cost of degradation of the marine environment. When drawing up the programme of measures to achieve or maintain good environmental status (GES), Member States shall give due consideration to the social and economic impacts of the measures; measures need to be cost-effective, and cost-benefit analyses are required before introducing new measures (Art.13 (3)). Programmes of measures may include economic incentives which make it in the economic interest of those using the marine ecosystems to act in ways which help to achieve the good environmental status objective (Annex VI).
3. The EU Biodiversity Strategy to 2020 raises the need for the implementation and use of valuation of ecosystem services and the Working Group on Mapping and Assessment of Ecosystems and their Services (MAES) is discussing ecosystem services in the marine domain. HELCOM committed to make the Baltic Sea region a model of good management of human activities and sustainable growth, applying best practices in the maritime field, providing jobs and prosperity thus contributing to the implementation of UN Millennium Development Goals (specifically [MDG-7](#)) and building on them to bring sustainable development to the [post-2015 development agenda](#).
4. HELCOM Copenhagen Declaration reaffirms that sustainable development, as well as sustainable growth in the region must be supported by an ecosystem-based approach to the management of human activities, including consideration of possible cumulative effects, and while enabling a sustainable use of marine goods and services, priority should be given to achieving or maintaining GES in the marine environment. HELCOM Contracting Parties have committed to:
  - enhance scientific understanding of ecosystem services and the benefits provided by the Baltic Sea environment;
  - better prepare and adapt policies in response to the impacts of climate change on the Baltic Sea ecosystem and its services;
  - initiate or intensify the work to attribute economic value to marine and coastal ecosystem services and their contribution to societal, cultural and ecological well-being, in cooperation with initiatives such as the Economics of Ecosystems and Biodiversity for National and International Policy Makers (TEEB), with a view to starting more comprehensively embracing an ecosystem accounting approach; and
  - incorporate the emerging environmental economics knowledge as well as socio-economic analysis in the work of HELCOM, with the purpose of ensuring and demonstrating cost-effectiveness of new measures to protect the marine environment.
  - promote green technologies and practices to implement all segments of the Baltic Sea Action Plan, recognizing that green investments in cleaner technologies, developing environmental know-how, and applying best environmental practices will strengthen regional economy and will improve the quality of the environment for all.

The above commitments set up the directions for applying ecosystem services thinking in future HELCOM's work.

5. There is already some knowledge in the region and region-wide analyses such as those by BalticSTERN research studies (based on specific BSAP objectives for eutrophication) which serve general policy developments, communication and involvement of “non-conservation orientated stakeholders”, etc. BalticSTERN is recalculating the cost-benefit analysis based on the new nutrient reduction scheme targets. Some more specific studies are also in the pipeline such as the VALUES project on valuation of services linked to essential fish habitats in Sweden.

6. More detailed studies could support implementation of BSAP and reaching out to sectors, they could be scoped for specific issues and cover local/national/regional scale. Some of the examples of such possible sectorial/thematic work are indicated below:
- a) HELCOM core indicators of environmental status could be coupled with socio-economic indicators (with inputs from and in cooperation with relevant partners). This could be built on the national work done for initial assessments. As an example of incorporating socio-economic considerations, dioxin concentrations in fish flesh above or below food safety thresholds (already covered in HELCOM work) could be linked to human health and well-being. The OECD/UN work on [Green Growth Indicators](#) or [Human Development Index](#) can be explored and utilized, e.g. in preparation to the next HELCOM Holistic Assessment.
  - b) Another action could be to further build on the BalticSTERN results and follow-up studies on costs and benefits of reaching non-eutrophied sea and respective cost-efficiency of needed nutrient reduction measures. This would allow e.g. a closer link of to-be-developed EU MSFD programmes of measures for HELCOM EU member states with scientifically derived and jointly adopted BSAP nutrient reduction targets per country and per sub-basin. Further focusing of measures and sector-wise cost-efficiency would be also possibly scoped (e.g. supporting the need for further actions in agriculture). Utilization of marine- and land-based ecosystem services aiming at multi-beneficial effects e.g. to trap/remove/recycle nutrients and protect biodiversity maybe further explored based on available experiences (e.g. wetlands, thrash fish, mariculture);
  - c) Ministerial Meeting in Copenhagen agreed on elaboration of Recommendation on conservation plans for threatened species and relevant valuation data could support/help prioritize specific conservation measures. HELCOM RED LIST of species and biotopes in danger of extinction provides essential information for the marine environment protection as well as - when converted to electronic mapping - also for the planning of the sustainable use of the sea. The next step could be to attribute values to services that will be lost if these species/habitats are lost, and/or the benefits they could provide if restored. Species/areas-focused cases can be explored, for instance this could cover values of services provided by essential fish habitats within Marine Protected Areas to be combined with work towards development/testing/application of Low-Impacting Fishing gear and practices. Another example could be support to designation of new, as well as development/update of management plans for existing MPAs, where economic values attributed to specific conservation objectives (including ecosystem services) could form the basis for decision-making.
  - d) The result and findings within [the GES REG project](#) that focused on environment, economic growth as well as attractive and dynamic societies in the central Baltic Sea area, should be captured and evolved within the network derived from the project. The main aim of the GES-REG project was to support coherent and coordinated marine environmental management in the region via dissemination efforts towards the main target groups of environmental authorities, institutions responsible for marine monitoring and assessment, HELCOM, stakeholders and wider public. The project utilized the methods of analysis, publications, and meetings with environmental officials as well as thematic seminars.
  - e) Ecosystem-based Marine Spatial Planning (MSP) could substantially benefit from mapping where and when ecosystem services “occur”, and overall from more information and knowledge on (and recognition of) values of ecosystem services.
  - f) Specific case could be dedicated to evaluation of socio-economic impacts of alien species, based on already undertaken ([Globallast](#) and national e.g. [US](#)) studies, to support sooner ratification and implementation of the IMO Ballast Water Management Convention and upcoming EU Regulation on alien species, as appropriate.

- g) Mapping/compilation/cataloguing of greener industries/practices in various sectors contributing to a green growth/green economy would provide regional examples of implementing UNEP's [Green Economy Initiative](#)<sup>1</sup>, facilitate promoting them within Contracting Parties and beyond the BSR, provide a linkage to advisory services on ways to move towards a green economy in specific countries and help engaging a wide range of regional research, NGOs, business in implementing the Initiative, e.g. in cooperation with EU Strategy for the Baltic Sea Region and relevant EU/Russia frameworks.
  - h) Major European and regional IFIs are working on integration of ecosystem approach into their lending policies with respect to sustainability and environment, e.g. through revision of relevant policies ([EBRD](#)) or developing specific toolbox to reflect ecosystem services values in project development cycles ([NIB](#))
7. One option for future collaboration between HELCOM and other institutions regarding socio-economic aspects is the [2014 BONUS call](#) for Sustainable Ecosystem Services, where linking ecosystem services to human well-being is one of the main research themes. There will most probably be several project proposals addressing this issue, and HELCOM could take an active role also in providing the input to the preparation of the proposals to ensure that the results of these projects are useful in HELCOM work.

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1. UNEP's [working definition](#) of a green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive"..