



Document title	HELCOM Workshop on Blue Carbon in the Baltic Sea region
Code	2-1
Category	DEC
Agenda Item	2 – Matters arising from HELCOM/Baltic Earth work of relevance to the network
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Submitted by	Secretariat

Background

German Chairmanship of HELCOM inter alia aims to strengthen scientific and governmental exchange on effects of climate change in the Baltic Sea region as well as on potential adaptation strategies. As “Blue Carbon” was already mentioned in the 2018 Ministerial Declaration, Germany plans to progress the topic of natural carbon sinks and sequestration rates within the Baltic Sea region. These are important for biodiversity as well as for contributions within climate change mitigation strategies.

There are only limited scientific studies on Baltic marine systems available, though Germany expects various more ideas and projects to be in preparation. In this early stage, Germany postulates the need for an international workshop to gather scientific and governmental experts who handle projects and ideas in marine and coastal compartments of the HELCOM area, ranging from seagrass restoration to coastal wetland protection activities. The outcome of this workshop could serve to establish a common understanding on the meaning of Blue Carbon in the HELCOM area as well as future planning of joint projects and actions of neighboring countries for Baltic Blue Carbon contributions. Results of discussions will be presented in a summarizing document as well as at the HELCOM Stakeholder Conference on Climate Change in early 2022 (see document 2-2).

HELCOM HOD 60-2021 approved the organization of a HELCOM Workshop on Blue Carbon in the Baltic Sea region on 17-18 November 2021 (one and a half day) in cooperation with Germany and noted that the Workshop on Blue Carbon will specifically focus on mitigation measures related to the potential of the Baltic Sea for carbon sequestration while the Stakeholder Conference (see document 2-2) will address broader issues related to climate change, including the presentation of the joint HELCOM/Baltic Earth Climate Change Factsheet.

This document contains an initial outline for the online *Blue carbon in the Baltic Sea region* Workshop on 17-18 November 2021 in cooperation with Germany.

Action requested

The Meeting is invited to take note of the plans for organizing a HELCOM Workshop on Blue Carbon in the Baltic Sea region.

HELCOM Workshop on Blue Carbon in the Baltic Sea region

Idea and aim:

- Bring together representatives of all HELCOM members to discuss the relevance, potentials and opportunities of Blue Carbon (habitats) on shore and off-shore the Baltic Sea
- Link knowledge on carbon sequestration rates by coastal wetlands and marine ecosystems to create common understanding of the complete Baltic Blue Carbon sequestration potential
- Build on the HELCOM Climate Fact Sheet on Blue Carbon
- Identify and pool potential projects and activities which could help to support carbon sequestration rates of both already known Blue Carbon habitats and further potential carbon habitats in HELCOM member states
- Discuss potential options for implementation in context of Blue Carbon projects

Organizers/ Hosts: HELCOM Secretariat and Germany (UBA/BfN); Co-Host: Deutsches Meeresmuseum (DMM)

Location: Online

Date: 17/18 November 2021 (one and a half day)

Budget: Costs for hosting the workshop will be covered by Germany

Potential Participants: About 50 people; as far as possible each HELCOM member state (plus EU) should nominate about two representatives (scientific experts and/or governmental representatives); invited guest speakers

Motive:

Currently "Blue Carbon" is the term to describe worldwide carbon sequester potentials of coastal and marine ecosystems. On a global level, mangroves, seagrass beds and wetlands (inclusive the linked sedimentation processes) play an important role. The progressive loss of these biotic communities since the beginning of the 20th century has demonstrably resulted in less CO₂ being long-term bound from the atmosphere. Additionally, carbon is released from these habitats when directly or indirectly degraded by human activities. The renaturation of already destroyed marine and coastal habitats, the protection of still existing habitats and possible establishment of new blue carbon habitats have the potential to support and enhance the original function of existing marine natural carbon sinks to bind CO₂ by the habitats on the long term.

For the Baltic Sea, there are individual case studies on the potential of blue carbon, which focus primarily on seagrass and binding of CO₂ in marine sediments (e.g. [Röhr et al. 2016](#) in Blue Carbon stocks along the coasts of Denmark and Finland). To our knowledge, there are a few ongoing specifically targeted research contributions, e.g. German projects by [HI-CAM](#) (Helmholtz Initiative Climate Adaptation and Mitigation: Two Sides of the same Coin) or BALTZOS. New impulses may be available from the recently defined [research mission on "Marine carbon storage as path to decarbonization"](#) of the German Alliance for Marine Research (Deutsche Allianz für Meeresforschung; DAM) or similar activities in other HELCOM Contracting Parties. The recently by EN CLIME developed "Climate Change in the Baltic Sea Fact Sheet" (to be released in autumn 2021) includes amongst others one focusing on "Blue Carbon storage capacity"; this Fact Sheet describes very well the status quo of Blue Carbon ecosystems and the increasing global challenges with accelerating climate change. So, current expert knowledge will be an important part of the evolving workshop discussions.

Initiating common perception of Blue carbon projects in the Baltic Sea region would also be a valuable contribution in the context of the starting United Nations Decades on Ocean Science for Sustainable Development as well as the Decade on Ecosystem Restoration.