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Raising awareness and building capacity about eutrophication: Integrating ocean literacy in the Baltic Sea Action Plan

Communication and communication gaps about marine challenges in the Baltic Sea

The Helsinki Commission (HELCOM) and the EU Strategy for the Baltic Sea Region (EUSBSR) are the cooperation frameworks for the Baltic Sea. HELCOM was ultimately established to ensure the protection of the Baltic Sea and has set up the objective to achieve a Good Environmental Status (GES) by 2021. "Saving the sea" is one of three objectives of the EUSBSR.

Eutrophication is one of the key environmental problems in the Baltic Sea. It is caused by excessive nutrient pollution load, with agriculture as the single biggest diffuse source of nutrient pollution in the region. As a result, the project ResponSEAble chose *Eutrophication & Agriculture* as the key story of the Baltic Sea Region. The goal was to explore potential opportunities on how to increase ocean literacy around this well-known environmental threat and to understand the reasons why past communication efforts may not have been as successful.

Eutrophication has been recognised by policy makers of the Baltic Sea countries as well as in Europe as a major challenge. The Baltic Sea Action Plan 2007-2021 (BSAP) is a policy document containing measures to achieve the Good Environmental Status. So far, regulative measures to reduce nutrient runoff as well as the engagement with farmers to motivate them to modify their land management practises, have been the main solutions of choice to combat eutrophication.

The BSAP acknowledges the importance of public engagement and stakeholder involvement in activities that are promoting a healthy Baltic Sea and public participation in decision making. In the current BSAP, the chapter "Awareness raising and capacity building" mentions the importance of raising awareness and building capacity when tackling emerging environmental issues such as hazardous substances, marine litter and ship-generated waste discharges. However, concrete strategies for implementations are very limited.

> Knowledge generation and communication

Although the D(A)PSI(W)R framework assessing the causal-effect relationships is well known by environmental authorities, the approach is not often applied to the review of communications efforts or with the intent towards increasing ocean literacy.

Applying the DAPSIWR framework to past communication efforts about eutrophication, the project ResponSEAble reviewed 766 sources in an attempt to answer two questions: (1) What information is transferred? and (2) Who transfers information to whom?

Knowledge content

Based on this review, the project determined that the knowledge transfer does not cover the entire D(A)PSI(W)R framework (Figure 1). Instead, the knowledge dissemination focused most strongly on the pressures (nutrients' runoff from land into water), state (e.g., concentrations of nutrients, transparency of waters), impacts (algal blooms, oxygen-depleted zones) and responses (reduction of pressure) related to agricultural activity (practices and techniques) that causes the pressure.

The largest drawback in current communication efforts is the exclusion of the drivers, which are key factors for determining agricultural activities such as the food industry and related trades and markets.



Figure 1. Communication content about eutrophication in Percent [%] of total: over 80% of the media content told the story as activity-pressure-state/state change narrative. Some media entries described (potential) responses, mainly based on technical solutions and regulative measures. Only few publications described welfare aspects or the driver "food system" as the cause and solution for eutrophication in the Baltic Sea and elsewhere.

Actors in communication

The media assessment determined that the main target groups receiving information were citizens, consumers and farmers. These groups were mainly approached by NGOs, knowledge associations and scientific institutions. Farmers were additionally approached by manufacturers (e.g. fertilizer producers). However, retailers, wholesalers and policy makers were seldomly targeted.

Lessons learned: how does ResponSEAble contribute to fill the gaps?

Telling the entire story about eutrophication is crucial to understand different roles and responsibilities of the actors within the system. Globalisation mechanisms, global markets, import and export balances of agricultural products as well as consumption patterns strongly impact land use practises and the different actors that are involved in the food system. Only if these parts of the story are discussed, solutions that tackle the sources of eutrophication can be developed.

All actors must be involved in better communicating the issues around eutrophication. Actors from the different sectors of the agricultural value chain – farmers, retailers/wholesalers, consumers, policy and decision

makers, knowledge institutions and environmental interest groups/NGOs – impact each other and can have direct and indirect impacts on the eutrophication state of the Baltic Sea. Figure 2 highlights which actions could be taken by the various actors.



Figure 2: Actors of the agricultural value chain and actions to be taken to combat eutrophication in the Baltic Sea.

Multiple tools and communication products must be produced to launch awareness raising activities and social campaigns. In order to empower target groups to act within their circles of influences, each group should be approached with tailored information to address their particular viewpoints. Hence, the more accurately target groups are defined (e.g. their needs are known), the more specifically the tools can be designed and the more effective they can be.

The project ResponSEAble developed diverse communication tools targeting consumers, advanced learners, educators and policy makers,



Figure 3: Logo of the social media campaign #KeepTheBalticBlue

and the international social media campaign #KeepTheBalticBlue. Social media as well as radio broad-casting were effective tools for reaching out to large audiences. Networking with media and educators was essential in reaching target groups.

The social media campaign *#KeepTheBalticBlue* was a cooperation with Coalition Clean Baltic (including 17 Baltic NGOs in the campaign) and took place in 8 countries of the BSR. The campaign was widely recognised: over the course of 3 weeks, it counted about 179 000 reaches.



Recommendations and visions for regional policy makers

HELCOM, EUSBSR and regional policy makers need to incorporate a holistic communication approach based on the DAPSIWR framework. The updated BSAP must contain a stronger strategy on raising awareness beyond the traditional angle of pressure-state-response.

Any awareness raising strategy must cover the food system and the agricultural value chain and must address different key actors. Furthermore, the efforts in awareness raising in the effects of eutrophication must be accompanied by options for environmentally friendly agricultural practises. Advisory approaches and explanations ("why" and "how" to act differently) must be made available and transparent instead of only telling farmers that they must reduce nutrient loads.

As investigated by the ResponSEAble project, cross-sectoral communication and cooperation are very weak in the region. A dialogue between the environmental sector and agricultural policy makers has been started just recently by HELCOM. This needs to be continued as well as expanded by involving other actors (e.g. retailers/wholesalers) of the value chain.

In 2020, a new EU Common Agricultural Policy (CAP) will be agreed upon by the Member States. Hence, HELCOM/EUSBSR must communicate more clearly and more strategically regarding their environmental goals and ambitions, to avoid contradictory policy decisions such as the intensification of agriculture versus environmental protection. Environmentally friendly practises must be further supported.

Media and educators are willing to use and distribute data and information, but these need to be tailored for the needs of the target group. As a result, HELCOM, who has the knowledge and information depository, must play a much more active role in the future to increase ocean literacy.

Although the ResponSEAble activities for the Baltic Sea focused on eutrophication, the same approach and needs for promoting the ocean literacy are valid concerning other environmental problems, such as plastic marine litter and hazardous substance pollution and loss of biodiversity.

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