



Document title	Elaborating the Baltic Sea Regional nutrient recycling strategy
Code	5-1
Category	CMNT
Agenda Item	5 – Nutrient recycling strategy
Submission date	6.4.2020
Submitted by	Finland and Secretariat
Reference	

Note that this document was submitted after the established deadline. It will be decided by the Meeting whether the document can be discussed or is postponed to the next meeting.

Background

HELCOM Ministerial Meeting 2018 committed to elaborating by 2020 a Baltic Sea Regional Nutrient Recycling Strategy that aims for reduced nutrient inputs to and eutrophication of the Baltic Sea. The strategy was to be established with a step-by-step approach and propose a common vision and objectives for nutrient recycling. The Ministerial Meeting further decided to develop, as a follow-up to the Strategy, possible nutrient recycling measures to be included in the updated Baltic Sea Action Plan beyond 2021.

The Agri group is leading the elaborating of the strategy in cooperation with Pressure Working Group. AGRI 6-2018 Meeting agreed to establish a drafting group led by Finland, consisting of Contracting Parties and Observers to support the work.

HOD 56-2019 endorsed the vision and objectives for the Baltic Sea Regional Nutrient Recycling Strategy.

HELCOM Workshop on nutrient recycling measures

As a next step to find measures to meet the objectives of the strategy, HELCOM Workshop on nutrient recycling measures was organized on 5-6 February 2020 in Helsinki, Finland. The participants of the workshop came up with a long list of potential measures under each objective and sub-objective of the strategy. The notes from the workshop are available [here](#). The list of measures is available [here](#) as a separate Excel file.

Prioritization of measures

The suggested nutrient recycling measures were discussed in a drafting group meeting on 24 February 2020 and HELCOM Agri group discussed the prioritization of measures in AGRI 9-2020 meeting on 30-31 March 2020. The Agri group agreed that the aim is to find under each objective of the strategy a measure that could be included in the updated BSAP. There could be still other measures that are only included in the strategy.

The Agri group agreed on the following procedure and timetable for the prioritization of measures:

- The Secretariat to make a proposal of the measures that would be most suitable for HELCOM **by 30 April 2020**.
- Contracting Parties to nominate two national experts for making a prioritization of measures (one expert on agriculture and one expert on wastewater management) to Secretariat (susanna.kaasinen@helcom.fi) and coordinate the nomination nationally with the Agri and Pressure group representatives **by 30 April 2020**
- Prioritization of measures by experts via correspondence by **29 May 2020**

- Drafting group meeting to discuss and agree on the prioritized measures in June 2020

The Agri group discussed the criteria for prioritization of measures. As general guidance, the group suggested that the measures should be considered from the point of view of relevance to achieve objectives, but the approach is to be pragmatic. It is difficult to expect proper analysis of cost-efficiency of measures, but economic and technical feasibility is to be taken into account.

The aim is to submit the priority measures to the BSAP UP eutrophication workshop on 26-27 August 2020 where all potential new measures for the update BSAP will be discussed. Some of the measures in the list developed in the workshop overlap with synopses submitted as proposals for new measures which should be taken into account when submitting the priority measures to the BSAP UP eutrophication workshop.

Content of the strategy

The drafting group invited the Secretariat to propose a first draft of the content of the strategy that should be ready by end of 2020. The attached document includes the draft of the content utilizing previously agreed text from the background document on nutrient recycling strategy ([document 2-7](#) in HOD 53-2017) and Ministerial Declaration 2018 as an example as well as includes the agreed vision and objectives. The Agri group took note of the first draft of the contents of the strategy.

Action requested

The Meeting is invited to:

- take note of the notes from the HELCOM Workshop on nutrient recycling measures;
- take note of the list of measures that was the result of the workshop;
- take note of the procedure of prioritization of the measures;
- coordinate nationally with the Agri group contacts nomination of two national experts (one expert on agriculture and one expert on wastewater management) that could take part in prioritization of the measures via correspondence;
- discuss and provide feedback on the initial draft of the contents of the strategy.

Draft content of the Baltic Sea Regional Nutrient Recycling Strategy

Contents

1. Introduction
2. Vision
3. Objectives
4. Measures
5. Follow-up

1. Introduction

Circular economy is one of the keys to more sustainable production and consumption systems of the future. Agriculture and food production rely on natural resources and cycles. As demands on natural resources grow, we risk depleting them beyond sustainable limits. We therefore need to be more resource-efficient in the way we use and re-use resources, improving feedback loops and integrating circular economy principles. The recycling of nutrients is essential to circular economy.

Nutrients that have leached into the Baltic Sea cause eutrophication. This is one of the most serious challenges to the Baltic Sea. Phosphorus and nitrogen are essential nutrients to the growth of plants and the food production. The valuable resources have turned into a serious problem, when in the wrong place and not efficiently used. There is a need to improve recycling of nutrients on land and reduce losses to the sea to minimize the impact on the Baltic Sea. Recycling of nutrients from eutrophicated waters to land can also be developed. This also would help to preserve phosphorus resources for the future generations.

In nutrient recycling biomass or other matter including nutrients is utilized by man so that it will end up back to the cycle and will be used by the plants. Recycled matter will be used as such or processed to products, materials or raw materials.

Nutrient recycling and efficient use aim at creating a systemic approach to optimal use of nutrients in plant production which also minimize loss of nutrients in all parts of food system from field to fork. Key issues are fertilization according to the plant needs and soil nutrient content, good soil structure and other conditions for optimal nutrient intake, efficient manure management, efficient management to reduce impact from animal grazing and trampling, returning of nutrients from food industry's side products back to the fields, reduction of food waste from the whole food system and proper treatment of the sewage sludge from waste water treatment plants returning the nutrients back to the cycle without risk to the human health and environment.

The development of the strategy was stipulated by the decision of the HELCOM 2018 Ministerial Meeting which also recognized that, in addition to abating eutrophication, recycling of nutrients could contribute to reducing greenhouse gas emissions and securing phosphorus resources. The Ministerial Declaration also pointed out that environmentally safe nutrient recycling in the Baltic Sea region is to be based on the best available scientific knowledge.

2. Vision

Nutrients are managed sustainably in all HELCOM countries, securing the productivity of agriculture and minimizing nutrient loss to the Baltic Sea environment through efficient use of nutrients and cost-effective nutrient recycling.

3. Objectives

Objectives and sub-objectives
<p><i>Baltic Sea region as a model area for nutrient recycling</i></p> <ul style="list-style-type: none"> - Increasing nutrient use efficiency - Increasing the circulation of the available nutrient resources and reducing nutrient inflows to the region - Utilizing nutrient rich organic residues originating from areas with high nutrient surplus for production of fertilizer products
<p><i>Reducing environmental impacts</i></p> <ul style="list-style-type: none"> - Reducing nutrient losses to the Baltic Sea area and closing nutrient cycles - Reducing greenhouse gas emissions - Reducing ammonia emissions - Utilizing appropriate solutions to recycle nutrients for the specific conditions preventing contamination of the environment - Improving soil quality and enhancing carbon sequestration by using organic fertilizers - Promoting/advancing site specific optimized fertilization plans
<p><i>Safe nutrient recycling</i></p> <ul style="list-style-type: none"> - Minimizing the risks for humans and environment posed by contamination
<p><i>Knowledge exchange and awareness raising</i></p> <ul style="list-style-type: none"> - Promoting new research and technological development - Increasing research and knowledge sharing on risks and safe practices - Facilitating knowledge transfer and information exchange on nutrient recycling - Cooperating with other regions and global organizations to exchange information on the most up-to-date knowledge and techniques - Raising awareness of the benefits of nutrient recycling - Promoting holistic view of food production
<p><i>Creating business opportunities</i></p> <ul style="list-style-type: none"> - Encouraging new business models with cross-sectoral cooperation - Improving the economic viability of nutrient recycling
<p><i>Improving policy coherence</i></p> <ul style="list-style-type: none"> - Increasing cooperation of governmental agencies to improve policy coherence - Updating legal framework to facilitate nutrient recycling

4. Measures

[to be specified]

5. Follow-up

[to be specified]