

The Baltic Sea is an extremely vulnerable sea. It is a shallow, brackish water basin with a small water volume. Its catchment area is three times its size, with 90 million inhabitants, as well as intensive agriculture and industry.

By far, the biggest threat to the Baltic Sea is eutrophication caused by an excess of nutrients leaching into the water as a result of human activities

The significant overproduction of submarine plants and algae caused by nutrient leakage resulting an enormous biomass load, and the microbiological degradation it causes may result in oxygen depletion in the bottom of the sea.

TO WORK FOR THE BALTIC SEA IS TO WORK FOR THE CLIMATE AND FOR THE FUTURE.

Baltic Sea Action Group works towards a healthier Baltic Sea and the environment by engaging everyone with the expertise, enthusiasm, resources or influence to improve the condition of the Baltic Sea.

BSAG has succeeded in collecting Baltic Sea Commitments from all the states around the Baltic Sea, as well as from over 300 companies. The Commitments have been presented at Baltic Sea Action Summits. Finland's Commitment to make Finland the front-runner in nutrient cycling was the kick-start for BSAG's work towards sustainable nutrient management. In order to implement nutrient cycling on the systemic level, BSAG has been promoting the inclusion of nutrient cycling into the European Union's Circular Economy Action Plan.



BALTIC SEA ACTION GROUP
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WATCH OUR FILM IN YOUTUBE :
NUTRIENT CYCLING IN CIRCULAR ECONOMY
[HTTP://BIT.LY/2Q7IVQS](http://bit.ly/2Q7IVQS)



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THE BALTIC SEA

**HOW BEAUTIFUL...
BUT WHAT LIES BENEATH?**

WHAT ARE THE THREATS
AND WHAT CAN WE DO TO
SAVE THE BALTIC SEA?



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Baltic Sea Action Group (BSAG) paves the way for sustainable nutrient management and mitigation of eutrophication and climate change.

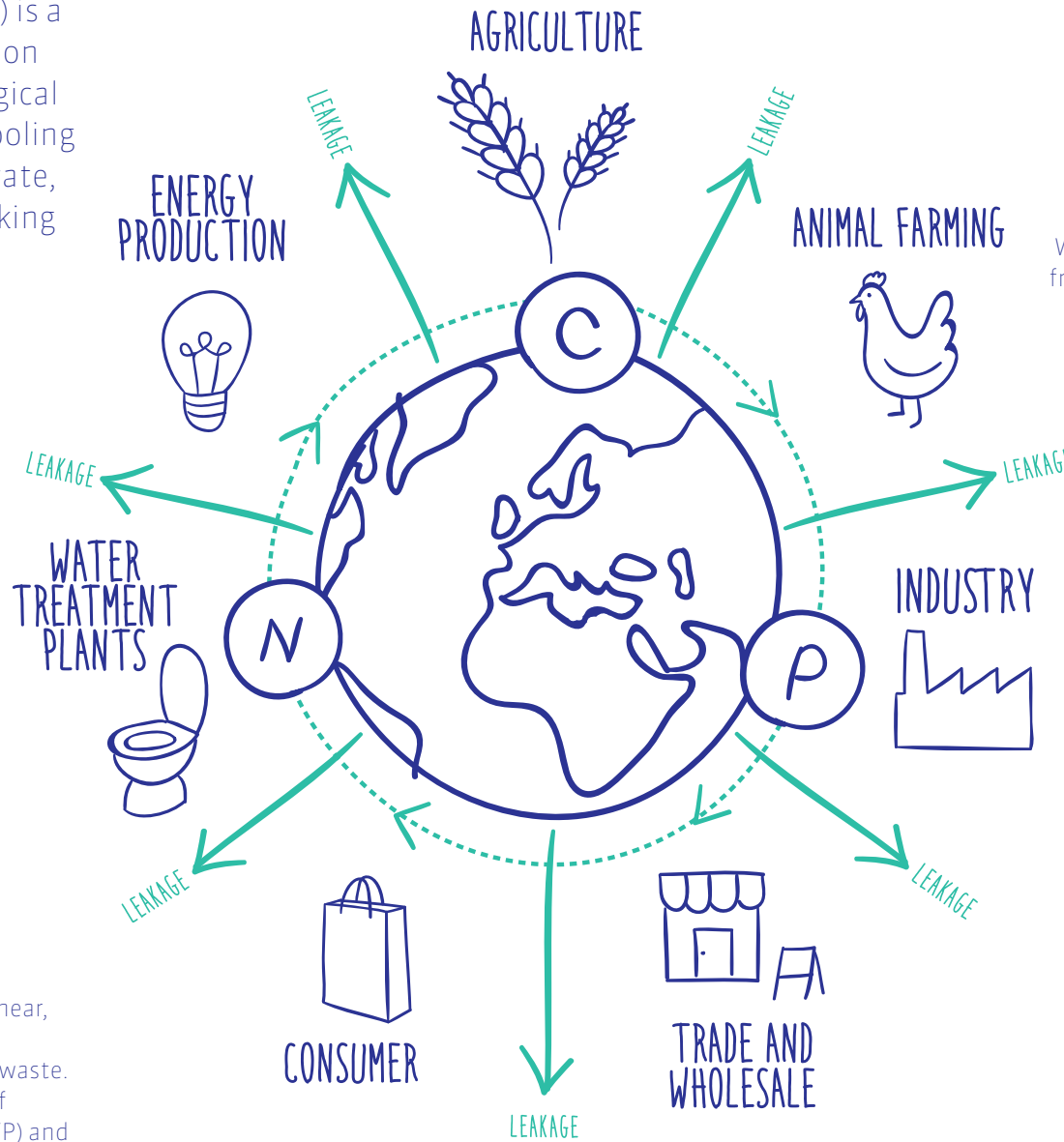
Baltic Sea Action Group (BSAG) is a private, independent foundation that aims to restore the ecological balance of the Baltic Sea by pooling resources from the public, private, and third sectors. BSAG is working hard to solve the problems of the Baltic Sea by promoting sustainable nutrient management, in particular.

Methods to combat eutrophication

- 1 -

FROM LINEAR TO CIRCULAR NUTRIENT MANAGEMENT

Our current food production system is linear, proceeding from virgin raw materials to production and consumption to, finally, waste. During this process, a large proportion of valuable nutrients, such as phosphorus (P) and nitrogen (N), are lost. Eventually they end up in water bodies. In order to prevent nutrient leaching and to gain raw materials for fertilisers, we need to move towards a closed nutrient cycle where recovered nutrients are processed to provide safe, recycled fertilisers.



NUTRIENT CYCLING

- 2 -

CARBON TO SOIL, A WIN-WIN SCENARIO FOR THE CLIMATE AND THE SEAS

We want carbon to remain in the soil and away from the atmosphere, but intensive agriculture has the opposite effect. Thankfully, carbon capture and sequestration can reverse climate change. Recycled nutrients and organic soil enrichment play a key role in binding the maximum amount of carbon into the soil. Furthermore, this improves the soil's ability to bind water and nutrients, thus improving soil fertility. In short, adding carbon into the soil will not only combat climate change but also mitigate eutrophication by decreasing nutrient leaching.

- 3 -

NUTRIENTS FROM THE SEA - EUTROPHICATION AS A RESOURCE

A prolonged state of eutrophication leads to the accumulation of nutrients in the bottom sediments. The oxygen-free conditions release nutrients for re-use by algae, thereby causing internal nutrient loading. Therefore, there is a desperate need for innovative methods for recovering nutrients from the sea and returning them to the nutrient cycle as raw materials for fertilisers. When the value of the retrieved nutrients exceeds the cost of the retrieving processes, full-scale implementation of sea-based measures can begin.