



# AMBER

## ASSESSMENT AND MODELLING BALTIC ECOSYSTEM RESPONSE

Climate change, nitrogen cycle, and biodiversity loss together with the change in land use are the research foci of the AMBER project. The results by the AMBER scientists show, for example, that the impact of organic matter on near coastal eutrophication is completely underestimated. Science basis for developing and implementing ecosystem approach to management is imperative in the Baltic Sea region.

### KEY RESULTS

- Present and future changes in precipitation patterns will cause a decrease in salinity and a loss of marine biodiversity.
- Coastal areas of the Baltic have specific dynamics in nutrient cycling decoupled from the open sea. While terrestrial organic matter is an important component in river loads, its role is currently grossly underestimated.
- The combination of climate and land use models indicate that it may be a major holdback to fulfil the environmental goals of the Baltic Sea Action Plan, if the demand for humans' animal protein consumption increases as projected.

### WHO NEEDS THE INFORMATION

The AMBER results should be of major interest to people involved in administration or legislation. The Baltic Sea Action Plan should be a subject to regular review and update with respect to new scientific knowledge. AMBER results may be used for setting quantitative targets for eleven qualitative descriptors of good environmental status as defined by Marine strategy framework directive.

### PROJECT PARTNERS

#### Germany

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(Coordinating partner)

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