

Forum: Baltic Forum

Issue: Additional measures to protect the Baltic Sea marine environment

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Introduction

The Baltic Sea is heavily polluted as a result of the vigorous activity of people living on its shores. The environmental problems of the Baltic Sea are associated with many aspects of modern life, such as production and consumption of energy, industry, forestry, agriculture, fisheries, tourism, transport, waste water treatment. Water exchange with the oceans, carried out only through the narrow and shallow straits called Skagerrak and Kattegat (leading into the North Sea), is slowed down: the complete renewal of water can occur in an average of 30-50 years. This semi-enclosed state of Baltic Sea accounts for its extreme sensitivity to human impacts.

Definition of key terms

The Baltic sea

The sea of the Atlantic Ocean, enclosed by Scandinavia, Finland, the Baltic countries, and the North European Plain. It includes the Gulf of Bothnia, the Bay of Bothnia, the Gulf of Finland, the Gulf of Riga, and the Bay of Gdansk.

UXO

Unexploded ordnance: explosive weapons (bombs, shells, grenades, land mines, naval mines, cluster munitions, etc.) that did not explode when they were employed and still pose a potential risk of detonation, many decades after they were used or discarded.

Heavy metal

Any metal with a specific gravity of 5.0 or greater, especially one that is toxic to organisms, as lead, mercury, copper, and cadmium.

HELCOM

The Baltic Marine Environment Protection Commission, (also known as Helsinki Commission), is an intergovernmental organization regulating the implementation of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention).

Background information

There are 3 major issues concerning the Baltic sea marine environment. Firstly, excessive income of nitrogen and phosphorus to the water area as a result of washout from manured fields, with municipal drains of the cities and a wastage of some enterprises. As water exchange of Baltic is not active, concentration of nitrogen, phosphorus and other wastage in water becomes very intense. Because of biogenic elements, organic matters are not completely processed into the sea, and because of a lack of oxygen they begin to decay, emitting hydrogen sulfide, pernicious for sea inhabitants. Second significant problem of the Baltic sea region– water pollution by oil spills. With various drains thousands of tons of oil annually get to the water area. Oil slick which covers a surface of a water mirror does not allow oxygen to pass deep into the water. Also the toxic substances harmful to live organisms are collecting on a water surface. The emergency of oil spills in most cases happen in coastal and shelf zones, the most productive and at the same time vulnerable areas of the sea. The last but not the least - the problem of accumulation of heavy metals. Mercury, lead, copper, zinc, cobalt, nickel generally get to waters of Baltic with an atmospheric precipitation, the rest gets with direct dumping into the water area or with a river drain of the household and industrial wastes. The amount of the copper coming to the water area makes about 4 thousand tons annually, lead – 3 thousand tons, cadmium – about 50 tons, and mercury – 33 tons, on 21 thousand cubic kilometers of water volume of the water area.

Major countries and organizations involved

All countries of Baltic sea region are responsible for the current state of the sea environment. Such organizations as HELCOM, Baltic 21 and CCB (Coalition Clean Baltic) are entitled to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation.

Relevant treaties and UN resolutions

- HELCOM Manual on Co-operation in Response to Marine Pollution within the framework of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, (Helsinki Convention) - Volume 1,2,3.
- Convention on the Protection of the Marine Environment of the Baltic Sea Area. Concluded at Helsinki on 22 March 1974 (UN treaty).

Previous attempts to solve the issue

HELCOM undertook several projects, concerning the issue, such as:

- Control of Hazardous Substances in the Baltic Sea Region (2009-2012);
- Environmental Monitoring of the Black Sea with Focus on Nutrient Pollution (2011-2013);
- Baltic Hazardous and Agricultural Releases Reduction (2009-2012).

Possible solutions

Ecological education and increase in awareness of the population on environmental problems are extremely crucial. According to the principles of 10th Declaration, adopted in Rio, and to the principles of the Orkhusky convention citizens are bound to have a right of access to ecological information, as well as participation in decision making and appealing to justice in connection with environmental problems. Active cooperation of all countries of Baltic region and adoption of the legislative projects, protecting the Baltic Sea, are necessary.