

# TOWARDS A HEALTHIER BALTIC SEA

- IMPLEMENTATION OF THE BALTIC SEA ACTION PLAN IN RUSSIA

SELECTED RECOMMENDATIONS &

**INTRODUCTION**



## SELECTED RECOMMENDATIONS

TO BETTER IMPLEMENT THE BALTIC SEA ACTION PLAN IN RUSSIA

Please find the complete list on pages 58-71





### **IN ST. PETERSBURG & LENINGRAD REGION:**

- Support the survival of wild salmon in river Luga by establishing an effective management plan
- Continue to research the pharmaceuticals in urban waste water treatment – with current treatment practices, common pain killer residues end up in the Baltic Sea
- Investigate more the amount and types of microplastic litter in waste water of St. Petersburg
- Improve data collection concerning the actual nutrient load from point sources in Russian catchment, concerning river Neva and its tributaries

### **IN KALININGRAD & KALININGRAD REGION:**

- Use all animal & poultry manure as organic fertilizers in agriculture in Kaliningrad
- Establish the extension for marine protected zone in Curonian Spit
- Upgrade physical, chemical and biological waste water treatment processes in Kaliningrad port oil terminal
- Install new oil pumping wells along the pier in Kaliningrad port oil terminal

- Continue the critical efforts on the Vistula lagoon management plan by involving a wide range of authorities as well as research institutions

- Speed up the work among relevant Russian authorities across sectors for developing a plan to improve the environmental status of the Curonian lagoon

- Elaborate a monthly monitoring scheme on total nutrient concentrations of the water bodies in Kaliningrad region

### **CONCERNING BOTH REGIONS:**

- Establish guidelines on best available solutions and technologies for better waste water treatment of small settlements in Kaliningrad & Leningrad regions

- Submit application for removal of three Russian sites from the HELCOM Hot Spot list

- Secure the active participation of Russia in the operationalization of HELCOM core indicators

- Ensure that the awareness and involvement of the general public is maintained on the necessary actions to restore the good environmental status of the Baltic Sea

# BASE - IMPLEMENTATION OF THE BALTIC SEA ACTION PLAN IN RUSSIA

**HELCOM BASE** is a project funded by the EU with a budget of 2,5 M €. BASE supports carrying out activities set out in the **Baltic Sea Action Plan (BSAP)** in Russia. The project is managed by the HELCOM Secretariat and St. Petersburg Public Organization "Ecology and Business". A project steering group support the project team.

Several pilot projects related to eutrophication, hazardous substances and biodiversity and nature protection are implemented by experts from Russia with the support of other European experts.

## BASE



**Duration:** 2012-2014

**Budget:** 2,5 EUR million

**Funded by:** EU

**Managed by:** HELCOM Secretariat and St. Petersburg Public Organization "Ecology and Business"

## RUSSIAN PARTNER

The project is managed by a project team at the HELCOM Secretariat in close cooperation with the project's Russian Partner, St. Petersburg Public Organization "Ecology and Business".

The Russian Partner is responsible for strengthening of stakeholder dialogue in Russia, including capacity building and awareness-raising by means of workshops and events. As the link between Russia and the project team at the HELCOM Secretariat, the Russian Partner assists in ensuring that project activities are carried out in line with HELCOM and EU requirements and supports the work on harmonisation of environmental assessment and monitoring practices in Russia. A special working group is supporting BASE activities in Kaliningrad.



## HELCOM

HELCOM (Baltic Marine Environment Protection Commission - Helsinki Commission) is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, known as the Helsinki Convention. The Contracting Parties are Denmark, Estonia, the European Union, Fin-

land, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

HELCOM was established forty years ago to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental cooperation.

## HELCOM IS:

- (1) an environmental policy maker actively developing common environmental objectives and actions
- (2) providing information about the trends and the state of the marine environment, the efficiency of measures to protect it and common initiatives, which can form the basis for international decision-making
- (3) developing recommendations of its own and recommendations supplementary to measures imposed by other international organisations
- (4) a supervisory body ensuring that HELCOM environmental standards are fully implemented by all parties throughout the Baltic Sea and its catchment area
- (5) a coordinating body in case of major maritime incidents

## **BALTIC SEA ACTION PLAN – REACHING GOOD ENVIRONMENTAL STATUS FOR THE BALTIC SEA**

HELCOM Baltic Sea Action Plan (BSAP) is an ambitious programme to restore the good ecological status of the Baltic marine environment by 2021. The Plan, adopted by all the coastal states and the EU in 2007 at the HELCOM ministerial meeting in Krakow, is a crucial stepping stone for wider and more efficient actions to combat the continuing deterioration of the marine environment resulting from human activities. The Plan provides a concrete basis for HELCOM work.

### **BALTIC SEA ACTION PLAN KEY AIMS AND FEATURES:**

- safeguards the sea's natural ecosystems while allowing the sustainable use of its goods and services
- improves the quality of life and prosperity in the entire region
- sets specific ecological objectives and measurable targets in line with the ecosystem approach
- is implemented through national programmes and regional actions

# VISION

*A healthy Baltic Sea  
environment in terms of a  
good ecological status and  
a wide range of sustainable  
economic and social activities*





# OUR PROJECT

## EUTROPHICATION

### AGRICULTURE

Agriculture is a major source of nutrient inputs to the Baltic Sea. BASE project experts have prepared a Long-Term Manure Management Plan for Kaliningrad Region to address the issue of nutrient management. All the processed animal and poultry manure in Russia's Kaliningrad Region could be used as an organic fertilizer, according to the calculations made in the project. Implementation of a manure handling plan for Kaliningrad Region will reduce the entry of nutrients into the environment from animal/poultry manure as follows: nitrogen by 20-30% and phosphorus by 15%.

*Read more on p. 14*

### SCATTERED SETTLEMENTS

Our project has assessed the nutrient input of the small scattered settlements in the Kaliningrad and Leningrad regions. According to the assessment,

the nutrient load coming to the Baltic Sea from scattered settlements of the Kaliningrad region is app. 377 t/a for total nitrogen (N<sub>tot</sub>) and app. 87 t/a for total phosphorus (P<sub>tot</sub>) and the nutrient load coming to the Gulf of Finland from scattered settlements of the Leningrad region is app. 4585 t/a for N<sub>tot</sub> and app. 837 t/a for P<sub>tot</sub>.

*Read more on p. 16*

## BIODIVERSITY

### MARINE PROTECTED ZONE

To increase the number of HELCOM Marine Protected Areas and to preserve the natural diversity of the Curonian Spit, an application to create a marine protected zone is ready to be submitted to the Ministry of Natural Resources and Environment of the Russian Federation. The proposed area entails 12 nautical miles of internal sea waters and territorial sea of the Russian Federation adjacent to the western coast of the Curonian Spit. The total area of the protected zone will be 15,517 ha.

*Read more on p. 22*

### LUGA SALMON

The Luga River is one of the few rivers in the Baltic Sea region that holds an

original salmon population and is free of migration barriers for ascending salmon. However, the number of salmon is significantly reduced as a result of unreported fishing. Elimination of unreported fishing and development of a management plan can significantly increase the wild salmon population in the Baltic Sea.

*Read more on p. 24*

## HAZARDOUS SUBSTANCES

### PHARMACEUTICALS

There is a growing concern about the harmful effects of pharmaceuticals on plants and animals in our waterways. Baltic Sea is an especially sensitive marine environment since it is the final sink of the pharmaceuticals residues consumed by more than 80 million people. Two hormones and an anti-inflammatory drug diclofenac were studied in our project where their concentration in waste water in St. Petersburg was determined. The preliminary results show that the anti-inflammatory pharmaceutical diclofenac can be measured in influents and effluents of the studied wastewater treatment plants. Concentrations of hormones seem to be very low in waste water.

*Read more on p. 34*

## MICROPLASTICS

Public and scientific interest in micro-sized plastic waste in marine environment has increased considerably in recent years, but relatively little is known about its sources. Also standardized sampling and analyzing methods are lacking. In this pilot study, the amount of microplastic litter arriving at the Central Wastewater Treatment Plant (WWTP) of St. Petersburg and the effect of the purification process were studied. The results of this study show that the WWTPs may operate as a point source of microplastic litter into the aquatic environment. However, the reduction of the microplastic load is also remarkable in scale.

*Read more on p. 30*

## OIL TERMINAL

A pilot activity to minimise oil pollution to the Pregolya River from the Kaliningrad Port Oil Terminal was realized within our project. The work was conducted in order to develop an environmental management plan for the Oil Terminal, the implementation of which will help remove the fuelling and cargo handling facilities from HELCOM's hot spot list.

*Read more on p. 32*

## HOT SPOTS

### HOT SPOTS INVENTORY IN RUSSIA

Out of the twelve remaining Russian sites identified in the Baltic Sea catchment as 'hot spots', one third could be removed from the original list as the necessary measures to meet the requirements have been introduced. Owners of six hot spots are either implementing or planning improvements, the study concludes, while two sites remain with lower levels of mitigation efforts. Since the report was written, further progress has been made. Russia submitted a proposal to HELCOM to delete Sub-Hot Spot No. 18.1 "Construction of new sewer connections" (St. Petersburg).

*Read more on p. 38*

### VISTULA LAGOON AND CURONIAN LAGOON - HOW TO APPROACH TRANSBOUNDARY MARITIME SPATIAL PLANNING

Our project initiated a platform for discussion between relevant stakeholders pertaining to the management of the two lagoons bordering Russia's Kaliningrad. Cooperation regarding cross-border management of the Vistula Lagoon between Poland and Russia has a

long tradition and partial management plans exist (territorial and sectoral). A joint management plan is still missing. With Curonian Lagoon, different authorities from Lithuania and Russia were able to present their views in order to engage in more formal inter-institutional discussions.

*Read more on p. 39*

## MONITORING AND INDICATORS

### MONITORING OF NUTRIENTS AND HAZARDOUS SUBSTANCES

The incompleteness of nutrient load data from the Russian part of the Gulf of Finland catchment prevents measuring Russian progress in achieving the nutrient reduction targets in the HELCOM Baltic Sea Action Plan. In our project, nutrient loads (nitrogen and phosphorus) entering the Baltic Sea from Kaliningrad and Leningrad Regions were assessed and quantified. Particular attention was paid to previously unmonitored tributaries of Rivers Pregolya and Neva. A screening of certain hazardous substances was also carried out in River Pregolya and in Kaliningrad Bay. The results of the screening are available as a separate report.

According to the monitoring activities



and assessments implemented in our project, the Russian contribution to the nutrient load to the Gulf of Finland in 2013 was 3 700 t/a for total phosphorus (P<sub>tot</sub>) and 87,000 t/a for total nitrogen (N<sub>tot</sub>). The total load through the River Neva to the Gulf of Finland is 2 700 t/a for P<sub>tot</sub> and 63 000 t/a for N<sub>tot</sub>, of which app. 75% originated from the Lake Ladoga outlet.

The approximate total nutrient input coming through the main rivers researched in the BASE Project in 2013-2014 from the Kaliningrad Region to the Baltic Sea constitutes 10 667 t/a for total nitrogen and 927 t/a for total phosphorus. The nutrient load to the Vistula Lagoon is 5,384 tonnes nitrogen and 529 tonnes phosphorus, to the Curonian Lagoon 9,459 tonnes total nitrogen and 332 tonnes total phosphorus.

*Read more on p. 42*

## INDICATORS

The main objective in our project was to enhance the participation of Russian partners in the development of the core set of HELCOM biodiversity and hazardous substances indicators. Furthermore, we set out to improve the provision of data from Russia to HELCOM and to improve Russian ca-

capacity to participate in the operationalization of those indicators, including pressure indicators. In particular it supported the HELCOM CORESET and HELCOM CORESET II projects.

*Read more on p. 52*

## PUBLIC AWARENESS

The results of various activities implemented under our project and its predecessors were presented to students from St. Petersburg and Kaliningrad universities. A group of ca. 30 students had an opportunity to take part in a study tour and visit the sites where pilot technologies were introduced. An open-air 3D -show for the general public took place in Kaliningrad presenting the nature and ecosystem assets of the Curonian Spit National Park and the plan to extend the park into the Baltic Sea through the establishment of a marine protected zone. The event was supported by a series of articles in local newspapers and by video spots presented in local TV and cinemas.

*Read more on p. 56*

**All full reports are available at**  
[www.helcom.fi](http://www.helcom.fi)

*“Owners of six  
hot spots are either  
implementing or  
planning  
improvements”*



[www.helcom.fi](http://www.helcom.fi)

This report does not necessarily represent the views of HELCOM.  
HELCOM does not assume responsibility for the content of the report.

Information included in this publication or extracts thereof are free for citation on the condition that the complete reference of the publication is given as stated above.

Copyright 2014 Baltic Marine Environment Protection Commission HELCOM