

Improvement of Ecological Monitoring of the Black Sea EMBLAS-I

Workshop
Sochi, Russian Federation
12-13 March 2015

Conclusions

The Workshop took place in Sochi 12-13 March 2015 within the framework of the First Stage of the Improvement of Ecological Monitoring of the Black Sea (EMBLAS, www.emblasproject.org).

The workshop was attended by 56 participants. They represent ministries and organisations responsible for monitoring of marine environment as well as scientific institutions and marine laboratories, including staff of Hydromet territorial divisions, Rosprirodnadzor, Federal State Institution "State Oceanographic Institute named after N.N. Zubov" (SOI, Moscow), Sevastopol branch of State Oceanographic Institute (SB SOI, Sevastopol), Institute of Oceanology of the Russian Academy of Sciences named after P.P. Shirshov (SIO RAS, Moscow), Southern Branch of the Institute of Oceanology (SB SIO RAS, Gelendzhik), Federal State Institution "Research and Production Association "Typhoon" (FSI "Typhoon", Obninsk), All-Russian Research Institute of Hydrometeorological Information (VNIIGMI-WDC, Obninsk), Institute of Biology of the Southern Seas named after A.O.Kovalevsky (IBSS, Sevastopol), Marine Hydrophysical Institute (MHI, Sevastopol), Federal State Institution "Information-Analytical Center on water use and monitoring of the Sea of Azov" (AzovInformCenter, Taganrog), Administration of Marine Port Sochi (AMP, Sochi), All-Russian Research Institute of Fisheries and Oceanography (VNIRO, Moscow), Southern Research Institute of Fisheries and Oceanography (YugNIRO, Kerch), Marine Hydrometeorological Station of Crimea Department of Roshydromet (Yalta), Rostov Center on Hydrometeorology and Monitoring (Rostov-on-Don), Kuban Estuarine Hydrometeorological Station (Temruk), Krasnodar Regional Center on Hydrometeorology (Krasnodar), Black and Azov Seas Direction on Technical Control (Novorossiysk), Southern Research Centre Russian Academy of Science (Rostov-on-Don), Institute of Arid Zones Southern Research Centre RAS (Rostov-on-Don), State Natural Protected Zone "Utrish" (Anapa), Hydrometeorological Bureau Tuapse (Tuapse), Federal State Institution "Specialized Center for Hydrometeorology and Environmental Monitoring of the Black and Azov Seas" (SCHM BAS), "Scientific Technological Centre OILTIM" (Sochi) and Institute of Natural Sciences and Technical systems RAS (Sochi) participated in the workshop. The representatives of 25 organisations, as well as the Heads of the EMBLAS I and EMBLAS II were took part in the workshop.

The objectives of the meeting were to assess the current conditions and capacity of organisations of the Russian Federation involved in implementation of the state mariner monitoring and other types of regular observations of the marine environment of the Black Sea. Additional objective was to identify opportunities for harmonization of nationally used monitoring system with accepted in the EU one according to the directives of the European Union (WFD-2000 and FMSD-2008). The following issues were **considered** during the workshop:

- current conditions of the observation network and monitoring programmes on the Black Sea;
- legal and regulatory guiding documents of the state agencies of the Russian Federation related to the arrangements of the monitoring of marine environment;
- EU regulations related to monitoring of environment;
- existing databases and options to improve them;
- capacity of regional and central chemical laboratories of Hydromet and other departments, including "Typhon";

- observations of hydrochemical and hydrobiological indicators collected by various organisations of RAS, Fishery Agency and other institutions.

Based on the presented results and discussions, participants of the workshop came to the following **conclusions** about the state of the monitoring system of the Black Sea in the Russian Federation:

- The current legislation of the Russian Federation makes provisions for the state monitoring on the Black Sea within the internal and territorial sea waters of the exclusive economic zone;
- The Government of the Russian Federation Decree envisages identification of local, territorial, and federal monitoring networks which are to be financed by owners of industries which impact on the mariner environment, as well as from budgets of subjects of the Federation and the Federal budget respectively;
- The current network is to monitor the marine environment nearby pollution sources (ports, waste water outlets, mouth of rivers, and etc.) and in the areas of water use (within 2 to 3 km distance from the shoreline), when some of monitoring stations located at 6 km distance from the shoreline;
- There are two vessels and some rented floating facility available for collecting samples by organisations involved in monitoring;
- The state monitoring executed by organisations subordinated to Roshydromet includes water sampling only. Sampling of bottom sediments and aquatic organisms is not performed. During 80-th and 90-th of the last century, Roshydromet monitored the quality of the marine waters using a number of hydro-biological indices. There were guiding documents developed for conducting of hydro-biological observations;
- Scientific and fishery related researches conducted by RAS and the Fishery Agency include observations of phytoplankton and zooplankton as well as organic pollutions with various spatio-temporal resolutions;
- Regional chemical laboratories adequately equipped to perform chemical analyses of water samples under the "First Day Programme" (standard hydrochemistry) and equipped to perform analysis of a number of chemical pollutants;
- SPA "Typhoon" (Obninsk) is able to perform much larger set of chemical analyses of water, sediments and biota samples. The latter has the possibility to determine approximately 2/3 of the of the priority substances of the EU Directives;
- Scientific organizations of the Russian Federation carry out observations of phytoplankton and zooplankton, benthic communities and a number of other aquatic organisms for many years. There were scientific and methodological materials prepared to determine qualitative and quantitative value of hydrobiological indicators that allow characterising the ecological status of the Black Sea marine environment.

Participants of the Workshop **agreed** on the following:

- unified scientific and methodical approach is the prerequisite to improve the monitoring of the Black Sea;
- coordinated activity of different organizations applying for best practices and technological innovations for monitoring will provide a synergistic effect on the assessment of the conditions of the Black Sea and the development of proposals to improve the state of the marine environment with the aim to achieve the sustainable development of the Region.

Participants of the Workshop **recognized** the importance to support:

- Further improvements of the legal basis for conducting monitoring of the Black Sea;
- The development of recommendations to minimise anthropogenic impact on the mariner environment;
- Improvement of the methods for assessing the impact on the environment and analysis of the results of such impacts;
- The development and implementation of adaptation measures to reduce the climate change impact on the marine environment;
- Formulation of the progressive improvement of the ecological state of the Black Sea and harmonisation of indicators to measure the progress in the achievements of the desired goals;
- Harmonization of the Black Sea countries efforts to improve the ecological conditions of the Black Sea;
- Increase knowledge about the state of the marine environment;
- Rational use of the natural resources of the Black Sea;
- Protection of human life and health as the part of the environment.

Participants of the Workshop **discussed** and:

- Confirmed the importance of the results achieved within the framework of the Phase I of the Improvement of Ecological Monitoring of the Black Sea project;
- Noted the volume and quality of the Second Diagnostic Report;
- Approved the proposals to improve the monitoring of the Black Sea, including Pilot Surveys under the Improvement of Ecological Monitoring of the Black Sea (EMBLAS II);
- Stressed the needs in the further improvement of the quality of information about the state of environment and enhance data sharing at the national and the regional levels;
- Expressed the confidence that the participation in joint expeditionary observations of stakeholders from various ministries and departments of the Russian Federation will allow to strengthen the partnership;
- Called for the enhancement of cooperation of all stakeholders within the framework of EMBLAS project and current regional mechanism under the auspices of the Black Sea Commission;
- Recommended to take into consideration the possibility of adapting the practice related to marine environmental monitoring to the provisions of the EU Framework Directive on Marine Strategy (2008) and the Framework Water Directive (2000);
- Expressed their firm belief in the possibility to harmonise the national approaches to monitoring with the applicable in the EU according to WFD and MSFD based on the understanding that the Russian Federation has sufficient potential for conducting marine monitoring according to the standards compatible with those of the European Union;
- Approved the proposal to improve the institutional framework, including securing it in the regulatory framework which allows to establish national Programme for integrated monitoring and assessment of the state of the Black Sea environment;
- Approved the developed proposals targeted to strengthening of scientific capacity and modernisation of equipment of the vessels involved in the monitoring of the Black Sea;
- Approved the implementation of agreed procedures for monitoring and assessment of the state of environment, taken into consideration the requirements for the management based on ecosystem approach;
- Stressed the need in improvement of the legislation of the Russian Federation giving special status to monitoring of the environment pollutions and the possibility of using the data obtained by the executive authorities of the Russian Federation while developing

and implementing activities targeted to the reduction of pollution of the marine environment.

Participants of the Workshop proposed:

- To take into consideration the recommendations of the Second Diagnostic Report (DR-II);
- To take into account proposals of the Chapter of the DR-II devoted to the implementation of monitoring, including proposals related to the development of legal, regulatory and methodological guidelines while developing national programmes targeted to the mariner environment;
- To take into consideration and use the capacity available at various organisations while optimising and improving the monitoring system, including the development of remote and operating methods of monitoring;
- Widen monitoring of biological communities at all trophic levels, including fish and mammals;
- Strive to harmonise methods for evaluation of the state of marine environment undertaken by various organisations regardless of the sampling equipment and analytical tools used;
- Regardless the affiliation of institutions and the level of equipment endowment of chemical and biological laboratories, increase requirements to the data quality control starting from expeditionary observations to databases establishment and the development of analytical materials and computed results;
- Send proposals for various types of hydrochemical and hydrobiological monitoring to SOI to be considered as options for their inclusion into the national segment of EMBLAS II;
- Evaluate the possibility of using the existing vessels with regard to their ability to receive experts from participating countries (Georgia, Russian, Ukraine) and clarify the legal regime of foreign specialists in their activities related to the monitoring within the framework of the project;
- Carry out standard hydrochemical analyses according to the “First Day Programme” at the regional and vessels laboratories and more complicated analysis at stationary laboratories and at SPA “Typhoon” (Obninsk). For the intercalibration reason and Data Quality Assessment according to QA/QC Methodology of the Black Sea Commission, explore possibilities of sending of the parallel samples to leading foreign chemical and biological laboratory.

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