

WORKING GROUP ON ENVIRONMENTAL MONITORING AND ASSESSMENT

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Latest Developments in Environmental Monitoring and Assessment at the National, Subnational and Company Levels

Submitted by the former Yugoslav Republic of Macedonia¹

I. Major actions initiated since September 2010 in the areas of:

A. Modernization and upgrading of national monitoring networks, especially those on air, water and soil quality (in terms of number of stations, automated measurements and parameters measured)

Decree on establishing state monitoring network on environment, which is consisted of the state monitoring networks on individual media and areas such as air, waters and noise was adopted in September 2011, by the Government of the Republic of Macedonia.

(i) AIR QUALITY

In 2011 the European Union supports the strengthening of the air quality sector in the country by procurement of equipment and software for air quality monitoring, meteorological measurements and air quality data management.

New stations have analysers for monitoring of sulphur dioxide (SO₂), nitrogen oxides (NO_x, NO₂), carbon monoxide (CO), ozone (O₃), particles (PM_{2.5} and PM₁₀) and benzene and other volatile organic compounds. The new stations complement the existing state air quality monitoring network. The stations are located in Skopje in the municipalities of Karposh and Centar. The station in Karposh monitors the air quality in so called urban background aiming at providing information of the average air pollution levels and exposure in urban area. The air quality monitoring station in Centar measures the air quality in an area with heavy traffic. With the new equipment the fine particle (PM_{2.5}) monitoring was started in the country.

A one-year measurement campaign of volatile organic compounds (VOCs), financed by the Twinning project, has started with passive sampling in two locations in Skopje. VOC compounds are monitored at two stations located at traffic environment Skopje city centre and in Miladinovci in Ilinden in the vicinity of the oil refinery of OKTA. The monitoring method is passive sampling with two weeks sampling period. With this method concentrations of ten aromatic hydrocarbons can be analyzed. Duration of the campaign will extend from February 2011 to February 2012. Sampling will last one year in order to compare the concentrations to the annual limit value for benzene. The samples will be analyzed in Finnish Meteorological Institute.

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(ii) WATER

Little progress can be reported in the area of water quality. Some implementing legislation was adopted. Very little progress is being made in addressing the important gaps in the water monitoring system.

(iii) SOIL

No significant progress.

B. Development of inventories of air emissions, wastewater discharges and waste

AIR EMISSIONS, WASTEWATER DISCHARGES AND WASTE

Identification of polluters and pollution with regard to air, waste production and wastewater discharges in the country through development and upgrade of Cadaster of polluters and pollutants at national level have been finished with the information and data for 2008 and 2009.

C. Expanding monitoring of biodiversity

No significant progress on monitoring of biodiversity. Some progress was made in the development and implementation of some management plans for protected areas.

D. Improvement of data handling, including data quality assurance and control, and database management

(i) AIR

An air quality management system was obtained with the funding from the EU. This software called Airviro was developed by the Swedish Meteorological and Hydrological Institute and Apertum IT AB and will be the used in the country for building a national environmental information system concerning air quality. Airviro includes modules for air quality monitoring data management, dispersion modeling and an emission database. The system collects and stores the data from automatic air quality monitoring stations and has tools for data validation and quality control of this data. With the system the user can calculate statistics and create different kinds of graphs of the pollutant concentration data to be used in analysing the air quality situation and reporting of the data. The supply of the data management system will significantly improve the validation and quality control of the monitoring data and possibilities of reporting and publishing air quality information. Currently the Airviro system is being installed in MEPP and will be fully functional in autumn 2011. The existing and new air quality monitoring stations will be connected to the system and the historical air quality as well as emission data will be built up in the databases. After the system is fully functional, the Twinning project experts will continue with customising the national air quality information system and developing a web portal for publishing real time information on air quality.

(ii) WASTE

Through the IPA project “Strengthening of central and local level administrative capacities for implementation and enforcement of waste management legislation” Waste Management Information System has been developing compliant with the acquis requirements for data collection and reporting.

E. Enhancement of institutional mechanisms for data sharing and data exchange between environment ministries; environmental information institutions; institutes of ecology; hydrometeorological services; statistical offices; and ministries of health, water, agriculture, industry, transport and energy

In the frames of UNDP/GEF and MEPP Project “Strengthening Environmental, Institutional and Financial Sustainability of the System of Protected Areas in Macedonia” within MEPP a National Information System for Biodiversity with Web Application was developed and established.

Within the IPA programme “Strengthening the central and local level administrative capacities for implementation and enforcement of waste management legislation”, regular activities and consultations concerning templates for Regional and Local Waste Management Plans were conducted, as well as preparation for setting up a waste management information system.

F. Publication of environmental assessments at the subregional, national, subnational and project-based levels and the indicators used therein

For the first time in the five years State of the Environment Report of EEA - SOER2010, the country was fully included in the preparation of Part C, where the state of the environment on national level was presented. Final material for this aim was submitted to EEA and was published in the Macedonian version on the Ministry’s web site. Also, SOER2010 Synthesis Report was printed by EEA in Macedonian and was published on the Ministry’s web site.

In the previous period, MEPP produced the Annual Report – Quality of Environment in the Republic of Macedonia, 2010 and has published the Environmental Indicators 2010 report, as well as numerous thematic brochures.

The publication “Environmental statistics 2011” is in the final phase of preparation.

II. Areas and types of activities that the Working Group could undertake to strengthen capacities in countries on subjects I(a) to I(f) above