

WORKING GROUP ON ENVIRONMENTAL MONITORING AND ASSESSMENT

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

Submitted by the Ministry of Environment Protection and Natural Resources of Georgia

A. MODERNIZATION AND UPGRADING OF MONITORING NETWORKS

Environmental Monitoring has a long history in Georgia. First observations were made by the end of XVIII century. By the 70s of the XX century environmental monitoring network covered the entire territory of Georgia and all components of the environment (atmospheric air, surface and ground water, sea water, soil).

Since the nineties of the last century, due to the severe social-economic crisis in the country the environmental monitoring systems have appeared in the extremely grave situation. There was a quantitative and qualitative degradation of the monitoring networks. The number of observation points reduced 5 or even 10 times. The equipments for measurement of hydrometeorological, geological and qualitative parameters as well as measurement methods, methodologies and standards became outdated. Technical and technological means for collecting, processing and disseminating observation data had also become old.

The process of gradual recovery and modernization of the environmental monitoring system has started recently through the national and international assistance programmes.

At present environmental monitoring activities are mostly undertaken by the National Environmental Agency of the Ministry of Environment Protection and Natural Resources of Georgia. The Agency is established on the basis of the old Hydrometeorological Service.

Meteorological monitoring

In the last two years rehabilitation of the network of meteorological observing points has started.

At present there are 27 meteorological observing points. 15 of them are operating with full scale (atmospheric pressure, humidity, wind speed and direction, air and soil surface temperature, atmospheric precipitation, atmospheric events).

12 observing points are operating with reduced programme measuring only air

temperature, precipitation and atmospheric events.

By the end of 2009 it is planned opening of 17 additional meteorological observing points. 11 of them will be equipped with automatic precipitation measuring system.

Water Quantity Monitoring

In the last 2 years regular observations on water level and water discharge re-started on 21 observing points of the 13 main rivers of Georgia.

It is important to note that last year 11 of them were equipped with modern water level automatic measuring systems.

These installations were done under the Finnish and Canadian grants. Under these grants it was also purchased 2 automatic DOPLER water discharge measuring system.

Air, Surface Water, Sea Waters, Ground Water Quality Monitoring

AIR: There is not serious progress in the field of Air Monitoring. During last 2 years it was possible to rehabilitate only 4 posts in the big cities of Georgia - Tbilisi, Kutaisi, Batumi, Zestafoni. At these posts the following parameters are measured - dust, SO₂, NO₂, CO. In addition Dioxide of Manganese is measured in Zestafoni where potential pollutants exist.

Gamma radiation is measured in 16 cities of Georgia.

We have one station operating according to the EMEP Standards in Abastumani. It was opened in 2007 through the Norwegian assistance.

In general we can say that except the EMEP station in Abastumani air monitoring systems are equipped with old equipments and applied methods, and standards are also outdated.

WATER. There is a serious progress in the field of water quality monitoring during last year.

Currently, water quality monitoring is carried out at the 22 main rivers of Georgia on the 43 points. Monitoring is undertaken regularly once a month and 33-35 parameters are measured.

This year with the assistance of the Finnish government we started microbiological monitoring. It had never been carried out before.

Analytical equipment including portable equipment for the field monitoring was purchased under the EU transboundary river management project.

Gas and Mass-Spectrometry Chromatographs were purchased at the beginning of this year. This equipment enables to determine unknown organic pollutant that had never been done before.

Currently we are planning to start hydrobiological monitoring.

Black Sea: Up to 10 sampling points are observed during the recreational season. Physical-chemical parameters and also zoobenthos, zooplankton, phytoplankton are determined.

Groundwater: Ground water monitoring remains one of the most vulnerable issues for the Ministry of Environment. Monitoring of the ground water stopped in the 90s of the last century and has not been recovered.

Soil monitoring has episodic character. Last year monitoring of pesticides and mapping of pesticide contaminated soil were carried out.

B. IMPROVEMENT OF DATA MANAGEMENT AND USE OF DATA IN DECISION-MAKING

In 2009 the most important events in the field of data management were modernization of the system for collection and dissemination of the meteorological and hydrological data at the national as well as international levels; and modernization of the system for receiving and visualizing the synoptical product prepared by the world weather forecasting centres. It has become achievable by purchasing and installation of the modern French systems “*TRANSMET*” and “*SYNERGIE*”. This was done under State budget.

Activities towards digitalization and updating databases of the historical hydrometeorological and environmental pollution data were also carried out.

Information about expectable natural disasters and extreme pollution of the environment were instantly sent to decision makers and media. The information was available on the Ministry web page too.

C. PUBLICATION OF ENVIRONMENTAL INDICATORS AND INDICATOR-BASED ASSESSMENTS

Preparation of the State of the Environment Reports in Georgia started in 1999. National report is an official document where existing environmental situation is described, analyzed and assessed; the priorities are identified and recommendations are made for the improvement of the situation.

Preparation of the Report is regulated by the Presidential Decree “Rules for the development of the National Report on the State of Environment”. Decree is regulating the structure, content and periodicity of the Reports. Ministry is coordinating preparation of the Report annually and presenting the draft Report to the President for adoption. All these reports were only in Georgian language and have never been published.

With the latest legislative changes it was decided to prepare National Reports once in three years. Currently the Ministry is working on the elaboration of the new rules for the preparation of the Reports. The recommendation of the UNECE will be basis for the changes. Core Set of National Indicators will be part of the new rule.