

WORKING GROUP ON ENVIRONMENTAL MONITORING AND ASSESSMENT

**Fifteenth session
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Item 4 (a) of the provisional agenda

Submitted by [Georgia]¹

Members of the Working Group, experts from national statistical agencies and other central and subnational authorities, as well as representatives of major groups, are invited to briefly report on improvements and changes in support of Shared Environmental Information System (SEIS) development related to recently accomplished or ongoing actions initiated in their countries, agencies and organizations, as follows:

A. Modernization and upgrading of national monitoring networks

1. Please report on your country's major modernization or upgrade actions of national monitoring networks since October 2013 for:

(a) Air:

- Expansion or upgrade of the monitoring network (e.g.: new automated monitoring stations added to the network, new software launched at the stations, etc.);
- *The implementation of the project funded by Japanese Government on upgrade of existing air monitoring stations in Tbilisi with automated equipment has been started. In 2015 3 stations will be fully automated.*
- *In the framework of the Project Adaptation Fund for Climate Change 5 automated meteorological stations (measuring atmospheric pressure, air temperature and humidity, intensity and amount of precipitation, speed and direction of wind) and 14 automated meteorological posts (measuring intensity and amount of precipitation) were purchased and installed. It is planned to purchase and install 6 more automatic meteorological posts this year.*
- *In the frame of the project Czech development Agency 5 automated meteorological stations and 3 automated meteorological posts were purchased, which will be installed by the end of 2014 in the several municipalities of Georgia.*
- New parameters added for measurement (e.g. PM_{2,5}, As, Cd, Ni, PAHs, etc.);
- *In 2014 was started analyzes of Pb in Rustavi (from March), Batumi and Kutaisi (from April).*

¹ Prepared by Ms. Maia Javakhishvili, Ministry of Environment and Natural Resources Protection of Georgia.

- Implementation of internationally recognized reference sampling and measurement methods, if not done before;
- Other relevant issues;

(b) Water:

- Introduction of advanced monitoring techniques (automatic gauging stations, automated stations for warning of accidental pollution, etc.);
- *It is in the process and by the end of 2014 10 automated meteorological posts purchased in the framework of the Project Adaptation Fund for Climate Change will be installed in the Rioni River basin.*
- New parameters added for measurement;
- *From the end of 2013 the National Environmental Agency (NEA) under the Ministry of Environment and Natural Resources Protection started measurement of the new parameter - total nitrogen concentration in the major water bodies. From January 2014 has started the measurement of the new parameter - total phosphorus concentration in the major water bodies.*
- *Measurements of Cyanides were added in three monitoring points and analyses of arsenic in seven monitoring points.*
- Implementation of internationally recognized reference sampling and measurement (chemical analysis) methods, if not done before;
- *In 2013 new equipment was installed for measuring of heavy metals concentrations (Agilent ICP-OES) and used method is ISO 11885:2007.*
- Other relevant issues;
- *In 2014 water monitoring network was expanded. The sampling is conducted in 69 points of 32 rivers and 8 lakes.*
- *It would be mentioned that was started routine monitoring of groundwater quality in four wells. In 2014, the National Environmental Agency with the support of Czech Republic Development Cooperation installed the modern hydrogeological equipment on groundwater boreholes (well) for the measuring of different parameters of water in Lagodekhi and Kvareli Municipalities, Kakheti region.*

Also, NEA with its own funds in parallel to geological monitoring activities carried out the assessment works on 411 boreholes and springs (mainly boreholes) within the country in order to renew the monitoring system of groundwater.

(c) Soil:

- Introduction of a policy-determined definition of ‘contaminated sites’ that present unacceptable risks under local soil contamination monitoring, if not done before;

- New sites under monitoring of local soil contamination in accordance with the applied policy-determined definition;
- *In 2014 Soil pollution monitoring were conducted in 12 cities and settlements. In the samples are determined heavy metals concentrations.*
- New parameters added for measurement under diffuse soil contamination monitoring;
- Implementation of internationally recognized reference sampling and measurement methods for diffuse soil contamination monitoring, if not done before;
- Other relevant issues;
- *Annual booklet of soil contamination on the territory of Georgia was published in 2013.*

B. Development of monitoring of biodiversity

2. Please report on new developments in your country system for monitoring of biodiversity since October 2013:

- New biodiversity targets and related indicators (based on sound science and methodological best practice) for measuring the progress on achieving the targets added to the system;
- *After testing methodologies and publishing results for series of indicators in 2013, the need for the revision of the list and the methodologies has been identified. Currently the National Biodiversity Monitoring System (NBMS) is undergoing refinement process, including the aspects of better institutional embodiment. The process is supposed to be finalized by the end of 2014.*
 - *Besides, In 2014:*
- *Under indicator “S3: Selected Species”, Mid-winter counts were conducted in January, with the support of GIZ and data were submitted to the Biodiversity Protection Service of the Ministry. Data are being processed currently and the results will be published on the NBMS web site by the end of October, 2014;*
- *Under indicator “R9: Public Awareness on Biodiversity”, the baseline survey has been conducted, data are being processed currently and the results will be published on the NBMS web site by the end of October, 2014;*
- *The monitoring results were updated and re-published on the NBMS web site for two indicators: “P4: Intensity of Marine Fishery” and “R1: Total area of Protected Areas”;*
- *Monitoring summaries have been published on the NBMS web site for 4 additional indicators: “P11: Forest diseases and forest fires”, “R5: Reforestation within the*

State Forest Fund of Georgia”, “R6: Area under organic farming”, “R7: Financial resources for nature conservation”.

- Other relevant issues;

C. Development or improvement of inventories

3. Please report on new, major developments or improvements in your country's national inventories since October 2013:

- Developments in collection and computerized storage of data (application of new software);
- *In 2014 USAID project “Integrated Natural Resources Management in Watersheds (INRMW) – Program for Georgia” (2010-2014) provided technical assistance on improvement of water accounting system for the Ministry of Environment and Natural Resources Protection of Georgia including: Modernized Water Use State Accounting System; User-friendly simplified statistic forms for water users; New software for summarization of information; visualization on GIS system. The implementation of the system is supposed to be finalized in 2015.*
- *In the frame of the Czech development Agency project with the help of the modern software purchased and introduced for meteorological and hydrological data processing there is successfully carried out the digitalization and improvement of data base of historical hydrological and meteorological data.*
- *Draft Code on waste management was prepared which includes establishment of a legal system of waste data reporting and its format; development of the control mechanism ensuring reliability, quality and compatibility of waste data; installation of server for the Waste Database.*
- Development of on-line databases for public access to processed data, especially through interactive map-based visualizations;
- *The selected Indicators are available on the websites of the Ministry of Environment and Natural Resources Protection of Georgia (MoENRP) and the National Statistics Office of Georgia:*
http://moe.gov.ge/index.php?lang_id=ENG&sec_id=242&info_id=2864
http://91.208.144.188/Menu.aspx?rxid=c8ca81e9-2824-4c5b-a46a-c80202913531&px_db=Database&px_type=PX&px_language=en&AspxAutoDetectCookieSupport=1
- Other relevant issues;
- *Till 2014 emissions in ambient air from agriculture sector were calculated based on national methodology. In 2014 from the National Statistics Office of Georgia was obtained much more detailed activity data for this sector. Based on this emissions from agriculture sector were recalculated using EMEP/EEA Guidebook (for 2008-2012).*

D. Improvements to data quality assurance and control, as well as databases management

(a) Developments in data quality assurance and control:

4. Please report on major developments in in the field of data quality assurance and control since October 2013:

- Introduction of new procedures, if any, for collection of data that were assessed as insufficient;
- Introduction of new procedures, if any, for using data sets if more than one data set exists or for identifying inconsistencies for considerable changes in time series data;
- Application of software for logical control of data;
- Changes, if any, in procedures for data validation;

E. Improvements in institutional and regulatory mechanisms and technical solutions for data exchange and on-line sharing

5. Please report on changes since October 2013 to legal and regulatory basis, (elaboration of new laws, by-laws, other regulations) for improving data collection, processing and sharing mechanisms

- *A new Law on Water Resource Management has been drafted. The law will address all types of water bodies including groundwater and both water quality and quantity. It will provide management for water at a river-basin level and incorporate all aspects of integrated water resources management, including a water classification system, water quality objectives and standards, water use, water resources planning, pollution prevention, monitoring and enforcement, flood risk management and public participation. It is planned to submit the draft Law to the Parliament of Georgia in the beginning of 2015.*
- *The draft Waste Management Code has been already developed which has to be approved by the Government of Georgia and will be submitted to the Parliament of Georgia in 2014. The Code is in compliance with the obligations of the Association Agreement and EU directives as well as the requirements of international conventions. The Code regulates data reporting of all parties that have waste management obligations, including regular reporting obligations and formats & procedures not only for the companies that transport and treat waste, but for the waste generators as well.*

Draft by-law on Data reporting and management is being developed, which will include:

- *Establishment of a legal system of waste data reporting;*
- *Standardized waste reporting formats;*
- *Introduction and development of the control mechanism ensuring reliability, quality and compatibility of waste data.*

The National Waste Management Strategy (15 years) and the Waste Management Action plan (5 years) are being developed.

- *The National Biodiversity Strategy and Action Plan of Georgia, 2014-2020 (NBSAP) has been developed and approved by the Government of Georgia in May, 2014.*
- *A monthly bulletin is regularly published by the National Environmental Agency on the pollution of the environment of Georgia (<http://meteo.gov.ge/index.php?l=2&pg=rd&ct=1&cm>).*

6. Please report on changes since October 2013 to institutional arrangements adopted in your country for data exchange and sharing, indicating the designated institutions for coordination of the different monitoring networks, data collection, processing and sharing. Please inform how these changes contributed to establishing a more integrated system of monitoring and to establishing a regular data flow.

- *In January 2014 (<http://geostat.ge/index.php?action=news&npid=689&lang=eng>) the Ministry of Environment and Natural Resources Protection of Georgia and the National Statistics Office of Georgia signed a Memorandum of Understanding (MoU) for better inter-institutional cooperation within the country. In particular, this document intends to optimize the work around the collection and dissemination of the environmental data, a process that is still weak in the country. The Memorandum of Understanding aims to improve the statistical information in the field of environmental protection, improve the quality and accessibility of environmental data that will facilitate information exchange and dissemination of environmental statistics at the national and international level, and on the other hand, to improve the process of preparation of the national accounts and other aggregate indicators.*
- *Georgian environmental authorities continue to improve cooperation with the European Environment Agency. In March 2014 the Ministry of Environment and Natural Resources Protection of Georgia signed the Letter of Intent with European Environmental Agency (EEA) which includes the obligations of all parties in the framework of the ENPI-SEIS project implementation.*
- *In 2013 the Environmental Information and Education Centre (EIEC) was established having for objective to facilitate access to the environmental information; collect and share the environmental information; administer shared environmental information system; promote environmental awareness raising of general public and support capacity building activities. The Center carries out the work for the formation of unified electronic data base.*
- *In 2014, Georgia became a member of the Global Observation System of Systems (GEOSS), underlining its willingness to adhere to global activities for improving access and sharing of environmental information.*

Please provide concise answers to the questions; submit in English and, if possible, Russian, using font 12, Times New Roman, single line-spacing.

Please submit to the UNECE secretariat (WGEMASec@unece.org) by 6 October 2014 at the latest.