



United Nations Economic Commission for Europe
Working Group on Environmental
Monitoring and Assessment

Reporting to the progress made in Environmental
Monitoring and Assessment at the national level

This questionnaire has been designed to collect information on the results of major actions taken by the countries in environmental monitoring and assessment since the previous meeting of the Working Group (27-28 June 2017). The objective is to evaluate to which extent and how your country progressed in environmental monitoring and assessment, including through using the Shared Environmental Information System (SEIS) and the regular production of quality environmental indicators at the national level. The Working Group could then identify the needs of your country to be addressed in the future to underpin regular reporting and assessments, in accordance with international monitoring and assessment requirements and obligations.

The main aims of the questionnaire are to:

- Determine if the countries regularly produce environmental reports, analyses and assessments, including through using environmental indicators and SEIS
- Ensure that monitoring networks are upgraded or modernized, and that data quality assurance and control mechanisms and data management are in place or improved where needed, in particular for water, air and soil monitoring and data management
- Follow improvements in national environmental policy reflecting all three SEIS pillars (content, infrastructure and cooperation)
- Capture the implementation status of relevant recommendations made in national environmental performance reviews (EPRs)
- Foresee the challenges to be addressed by the Working Group in the years to come regarding institutional, regulatory mechanisms and infrastructure at the national level

The secretariat will also provide a list of relevant recommendations contained in UNECE environmental performance reviews against which countries might report on progress.

If you wish to receive further information, or if you have any questions, please do not hesitate to contact us on WGEMASec@un.org.

Information on the person filling in the form

Ms. Mr.

First name: Katerina	Family name: Nikolovska
Function / Position: Head of Unit for Analysis and Reporting	
Organization: Ministry of Environment and Physical Planning	
Address: Bul. Goce Delcev br.18	
Country: Republic of Macedonia	Postal Code: 1000
Email: K.Nikolovska@moepp.gov.mk	Telephone: +389 23251 482

Has your country produced any environmental report, analysis or assessment on environmental information and indicators, including via the use of SEIS, within the last year?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please specify which environmental report, analysis or assessment has been produced and provide the link to the website if available.

Environmental report, analysis or assessment	
1	Envirnmental statistic 2017 http://www.stat.gov.mk/Publikacii/ZivotnaSredina2017.pdf Annual report: Quality of the environment in the Republic of Macedonia 2017
2	http://www.moepp.gov.mk/wp-content/uploads/2018/07/2017_Vkupen_godizen_izvestaj_za_kvalitetot_na_zivotnata_sredina.pdf
3	Environmental Indicators 2018 http://www.moepp.gov.mk/?page_id=746&lang=en
4	
5	

Please note the main changes that have been made to improve the work of national monitoring networks, in particular on air, water and soil.

Changes

Air

Latest upgrade of the State automatic air quality monitoring system was in 2017, when instruments were replaced in the following stations: Kumanovo (PM10/PM2.5, O3 and NO-NO2-NOx), Bitola 2 Strezevo (PM10/PM2.5, O3 and NO-NO2-NOx) and Tetovo (PM10/PM2.5, O3, NO-NO2-NOx, SO2 and CO). Furthermore a new mobile station was installed in Skopje. This supply is funded by the EU technical support project.

Hands-on training provided covering the following topics:

- Calibration of the air quality monitoring instruments;
- Testing of the instruments in accordance with EN standards for different measurement methods;
- Calculation and demonstration of equivalence of non-reference measurement methods;
- Maintenance of the analysers;
- Practical implementation on QA/QC procedures in the calibration laboratory as necessary preparatory step for the accreditation of the laboratory.
- Training on provision of maintenance and calibration services including the preparation of report for external clients;

Existing supporting documents for the accreditation of the calibration laboratory (quality manual, SOPs) were reviewed taking into account new requirements by the accreditation body;

Where necessary, MS and BC experts will jointly prepare the necessary updates with validation studies for the existing documentation taking into account the revised standards;

The remaining documents for the accreditation of the calibration laboratory were produced and finalized;

Plan for the accreditation of the calibration laboratory were updated;

Sampling campaign were performed to analyse the concentrations of PAHs, HM and Levoglucosan using the existing samplers of MEIC.

Training on inventory compilation, quality assurance and quality control, database administration and use was delivered;

Water

No significant progress

Soil

3 No significant progress. Permanent monitoring, i.e. systematized measurement, monitoring and control of the state, quality and changes in the soil as environmental media in the Republic of Macedonia does not exist. There has been no comprehensive strategy and national policy for contaminated sites management or specific legislation to regulate contaminated sites investigation and cleaning up.

4

5

What types of improvements have been made in your country to enhance data quality assurance, control and data management?

Improvements

Air

Participation on the Inter laboratory comparison Exercises for inorganic gases and for PM comparison at EC/JRC Ispra or WHO/Langen;

The results will demonstrate the capability of the reference Laboratory to measure the concentration of gaseous compounds and PM in ambient air;

It will improve the capability of the Reference Laboratory to continue the calibration service to customers and to the ongoing verification of the automated PM-analyzers against the reference method. The calibration service is provided to: Automated air quality network as well as to any customers that are seeking calibration service.

Participation on AQUILA group of the National reference laboratories for air quality, at JRC Ispra.

In 2011 a new integrated Air Quality Management System - AIRVIRO was introduced. New web based AIRVIRO software enables data collection from the monitoring stations with GPRS modems, data presentation (graphs, analysis tools, statistical tools), administration tools (administration, control, configuration, data collection), reporting tools - time Series data reports, Tools for validating and editing data and linear correction, quality check of air quality data and Time series Import/Export From/To MS Excel.

1

For the purpose of timely information of the citizens on the quality of air, MEPP actively manages the web site <http://air.moep.gov.mk>, where information can be found on the air quality legislation, reports on air quality, strategic documents, as well as news in this area. It is especially important that alerts and recommendations with regard to air pollution, as well as information on the ways in which citizens can contribute to the protection of the air quality, are posted on the same site on daily basis.

Data on ambient air quality for 2015 obtained from the State automatic air quality monitoring system was submitted to the European Environmental Agency (EEA) in the newly defined format with the set deadline for submission, i.e. 1 October 2016. Reporting is in accordance with directives on air quality and national legislation. Active work was undertaken within the process of establishment of the system of electronic reporting to the European Environmental Agency (EEA) under Decision 2011/850/EC through development of databases and different software tools. Since September 2015, data from the State automatic air quality monitoring system is delivered to EEA in real time (<http://maps.eea.europa.eu/Hub/AirQuality/>). The implementation of this activity is supported by the mentioned Twining Project on air

2 **Water**
No significant progress

3 **Soil**
No significant progress

4

5

Which improvements in data policy, institutional and regulatory mechanisms and technical solutions have been applied in your country to facilitate and improve data exchange between the parties concerned (ministries of environment, environment agencies and ministries of agriculture, energy, health, industry, transport and water) and with other users, including the public?

Mechanisms and solutions

Currently, there is ongoing evaluation process for the service project “Development of Environmental Monitoring and Information System” which is expected to launch until the end of 2018, with project duration of 24 months. Related to all environmental topics the following outputs are expected:

- Establishment of the National Environmental Databases for all environmental topics in the MEPP, with appropriate application modules, that will enable automated and standardized data gathering and automated data validation.
- Establishment of environmental data and metadata standards and repositories;
- 1** – Legal and technical standards, to regulate methodologies and procedures in the creation, access, protection and uniformity of environmental information in the related institutions and the Country as a whole;
- Preparation of appropriate secondary legislation on different environmental areas related to the data acquisition and sharing between the MEPP and other stakeholders;
- Developed web interface that will allow data access via internet in real time that includes import of spatial data that enables GIS integration for all environmental topics.

2

3

4

5

Has your country made any changes in data policy within the last year?

Yes No

If yes, please specify which changes.

Changes

1

2

3

4

5

Please provide a list of activities undertaken by your country to implement the recommendations on environmental monitoring and assessment made in previous national environmental performance reviews (EPRs).

Recommendations	
1	2nd cycle, 2011 - Recommendation 3.1: This recommendation will be finalized in the frame of the project “Development of Environmental Monitoring and Information System”, and become part of the National Environmental Monitoring Strategy with Action Plan and the National Environmental Monitoring Programme.
2	2nd cycle, 2011 - Recommendation 3.2: This recommendation will be finalized in the frame of the project “Development of Environmental Monitoring and Information System”, and become part of the Detailed design of NEIS and developed fully functional NEIS.
3	2nd cycle, 2011 - Recommendation 3.3: (a) The Rulebook has been finalized and adopted in 2017. (b) The same Rulebook can be applied in the work of the local level, and it remains up to the local self-government, as an opportunity, to work and develop local assessment reports.
4	
5	

What do you think are the main challenges for your country with regard to institutional, regulatory mechanisms and infrastructure at the national level?

Challenges	
1	General - Need for human capacities and capacity building in relevant institutions
2	General - Lack of national sustainable funding
Air	
3	The main problems for regular service and maintenance of the monitoring system and accreditation of the calibration laboratory are lack of personal, secured sufficient budget and inflexible procedure for procurement of spare parts and gas bottles.
Water	
4	Although the Water Framework Directive (2000/60/EEC) is transposed in the national legislation (Law on Water, adopted in 2008) its practical implementation started in January 2011. For complete and successful implementation of water monitoring, according to the WFD requirements, further allocation of finances and the securing of up-to-date technical equipment are needed, as well as well trained staff and additional human resources.
Soil	
5	Main challenges in soil management are preparation of legislation on soil as environmental medium, identification of funding sources for reclamation of historical soil contaminations due to the operation of mines and industrial facilities, overcoming of pollution from local industrial and commercial sources and municipal landfills, as well as trans-boundary air pollution, prevention of uncontrolled land use change in urban areas and control of soil erosion.

Please indicate any other information you think may be relevant. Please also indicate how the Working Group could assist in facilitating environmental monitoring and assessment in your country and region.