

**WORKING GROUP ON ENVIRONMENTAL MONITORING
AND ASSESSMENT**

**Tenth Session
Geneva, 3-4 September 2009**

Item 6(b) of the provisional agenda

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

Submitted by Montenegro¹

Introduction

As a result of close cooperation between UNECE and the Ministry of Tourism and Environmental Protection of the Republic of Montenegro of that period, the other set of EPR recommendations has been received. This set of recommendations contains 31 special recommendations for priority activities that have to be carried out in the field of environmental improvement and creation of preconditions for more effective integration of goals of sustainable development into sectorial policies.

Second EPR of Montenegro was adopted at the 14th meeting of the UNECE Committee on Environmental Policy held on May 29th 2007 in Geneva, and it was presented at the Sixth UNECE Ministerial conference “Environment for Europe”, which was organized in Belgrade from 10 October – 12 October that year.

Second EPR of Montenegro consists of three parts:

- environmental protection policies and implementation of international conventions
- system of funding and integration of the environment into sectors of economic growth
- promotion of sustainable development.

Recommendations involve priority activities that have to be carried out with a view to improving the environmental state and creating preconditions for more effective integration of sustainable development goals into sectorial policies. Implementation of recommendations aims to contribute to more effective coordination of activities of entities responsible for environmental protection at different levels, and successful promotion of priorities in the area of environmental protection in the process of the Montenegrin integration into the EU and promotion of international cooperation of Montenegro in the environmental area. In addition, bigger transparency and improvement of coordination between institutions responsible for implementation of recommendations have to ensure involvement of all interested parties in implementation of recommendations.

¹ Prepared by the Agency for Environmental Protection of Montenegro, the Ministry for Spatial Planning and Environment and the Montenegrin Official Statistical Office – MONSTAT.

The report that follows is based on monitoring of progress regarding implementation of recommendations from the second EPR that are connected with themes - modernization and upgrading of monitoring networks, improvement of data management and use of data in decision-making and publication of environmental indicators and indicator based assessments.

A. MODERNIZATION AND UPGRADING OF MONITORING NETWORKS

1. Legislative Framework Improvement

The Environmental Law („Official Gazette of Montenegro“no. 48/08 from 11.08.2008) entered into force on August 11th 2008. In Article 10 of the Law, it is stated that the Agency for Environmental Protection is responsible for performance of monitoring of the environmental state, for data analysis, reporting, communication with relevant local and international organizations, and communication with NGO and the public in general. Thus, a precondition for better organization and reformation of the system of environmental monitoring and improvement of programs pursuant to assumed international obligations has been created.

The Law also provides that the Agency is responsible for preparing the program of monitoring of the environmental state that is adopted, on its proposal, by the Government of Montenegro for the one year period. It is established by this law that funds for the program are provided in the budget of Montenegro.

Monitoring is, by the Law, implemented by the Agency for Environmental protection, indirectly, by choice of institutions which will perform implementation of environmental monitoring. Criteria and conditions for the choice of institutions that shall perform activities of monitoring are determined through tender which the Agency announces.

Contents and manner of performance of monitoring are prescribed by Article 33 of the Environmental Law (“Official Gazette of Montenegro” no. 48/08 from 11.08.2008). Monitoring is implemented by systematic measuring, analysis and assessment of indicators concerning the state and pollution of the environment which includes monitoring of natural factors, that is change of the environmental state and characteristics, including cross-border monitoring.

Monitoring , by law, includes monitoring of: imissions, that is quality of air, water, see, land, plant and animal world, use of mineral raw materials, environmental pollution, or emissions in the environment; environmental pollution impact on human health, influence of important sectors on the segments of the environment, natural phenomena, or monitoring and control of meteorological, hydrological, erosion, seismological, radiological and other geophysical phenomena, state of preservation of nature, state of noise and waste, early announcement of accidental pollution, and assumed obligations from international contracts and other phenomena that influence the state of the environment.

Types of emissions, imissions, natural and other phenomena which are subject to monitoring, number and arrangement of measurement sites, network of measurement sites, volume and frequency of measuring, indicators of environmental pollution, methodology of sampling and measuring, deadlines and a manner of information deliverance, way of informing the public, will be regulated by the regulation of the Government. Activities concerning adoption of a new by-

law regulation, by which the stated issues will be regulated, are taking place, while for the time being, by-law regulations, which were adopted in the previous period within the Environmental Law and other relevant regulations, are being applied.

Also, according to provisions of the same Law, local governments can organize monitoring of the environment on the territory of a municipality. The data obtained by monitoring are submitted to the Agency by local governments in order that they become part of a single information system. Monitoring programs at a local level have not been established so far, but activities in this direction are part of the plan on capacity improvement at this level of acting through promotion of cooperation between the Agency and local entities.

Pursuant to Article 35 of the Environmental Law, it is regulated that both a legal entity and an entrepreneur who are users of plants that pollute the environment are obliged to organize monitoring of emissions and other sources of pollution, in accordance with law.

The data established by monitoring is delivered by a pollutant to a competent body of a local governance unit on whose territory it is located and to the Agency as well. The pollutant plans and provides funds for performance of emission monitoring, as well as for other measurements and monitoring of impact of their activities on the environment.

By Article 36 of the same law, emergency measures are prescribed in specific cases of pollution beyond an allowed limit ascertained by monitoring. With this in regard, if, during implementation of control and monitoring of the environmental state, pollution beyond an allowed limit is ascertained, which could endanger life and human health or cause larger pollution of the environment, entities that implement monitoring are obliged to notify the Agency without delay.

After receiving the notification, the Agency is obliged to inform the public without delay and require a competent body or a pollutant to undertake emergency measures with a view to averting hazards.

2. Institutional Framework Reform

Pursuant to Article 10 of the Environmental Law („Official Gazette of Montenegro“ no. 48/08) and Article 3 of the Regulation on amendments to the Regulation on the organization and manner of work of the state administration („Official Gazette of Montenegro“ no. 68/08) from 12 November 2008, the **Agency for Environmental Protection** is established. This regulation came into force on November 20th 2008, i.e., 8 days after its publication in the Official Gazette. This regulation provides that employees, equipment and archive of the Ministry of Tourism and Environmental Protection are transferred for activities that are now within the competence of the Agency. Therefore, the Agency has with a full personnel capacity started its work on March 1st 2009. Thus, the Agency has assumed a leading role within national frameworks in terms of the recommendation 2.1 implementation, that is, termination of the reform of **integrated monitoring system and information system**. One of fundamental roles and competences of the Agency is reform and creation of the monitoring program, organization of the program implementation, obligation of drafting a proposal of environmental indicators, establishment and management of the single information system, informing of the public and cooperation with relevant international institutions, especially in the field of reporting and data exchange.

The Agency is organized through 5 sectors:

- Sector for monitoring, analysis and reporting
- Sector for licence issuance
- Sector for communication and information system management
- Department for inspection control
- Service for general affairs and finance.

Other institutions that are active in the field of monitoring are institutions that have been recognized as relevant in the second EPR of 2007.

The stated institutions are hired by the Agency for needs of implementation of certain subprograms within implementation of the Program of environmental state monitoring in compliance with implemented tender procedure of selection of entities by application of criteria and subcriteria defined in accordance with the Program.

With regard to provision of funds for implementation of environmental state monitoring, funds for the Agency are appropriated on this basis in the Budget of the Government in the amount of:

- in 2008-**582.000,00 €**
- in 2009-**582.500,00 €**.

3. Monitoring program

In the context of harmonization of the national monitoring with the EU standards, contents and the manner of monitoring performance is defined by Article 33 of the Environmental Law („Official Gazette of Montenegro“ no. 48/08 from August 11th 2008). It also establishes that monitoring is implemented by systematic measurement, analysis and assessment of indicators of the state and environmental pollution which involves monitoring of natural factors, or change of environmental state and characteristics, including cross-border monitoring.

The Monitoring program for 2009 and 2010 year contains monitoring programs of certain segments of the environment, which are, so far:

- The program of air quality control
- The program of analysis of the content of dangerous and harmful substances in the soil
- The program of analysis of radionuclides content in the environment
- The program of monitoring the state of the coastal sea ecosystem
- The program of monitoring the state of biodiversity
- The program of measuring the noise in the environment
- The program of analysis of surface and groundwater pollution

In the program, there are precisely defined parameters, measurement sites and sampling period, for each of these areas individually. Contents of the Program, or separate programs, are defined in accordance with current national regulations, with the effort directed at integration of the EU standards contained in certain EU directives, unless they have been transposed into national regulations so far. Concurrently, efforts are made in direction of ensuring, to the maximum extent possible, the compatibility with requirements with particular multilateral agreements on the environment. Thus, the Subprogram of monitoring of the state of coastal sea ecosystem is

almost entirely based on MEDPOL Program implementation within implementation of the Barcelona Convention and ancillary protocols.

Through the monitoring program, obtained information is analyzed after the program implementation in the sector for monitoring, analysis and reporting and based on the analysis and conclusions, information on the environmental state is drafted that is adopted by the Government of Montenegro on the advice of the Agency for Environmental Protection. The information is available to the public via the website of the Agency for Environmental Protection.

(a) Program of Air Quality Control

To establish a network of measurement sites that satisfy minimum of EU standards, it is essential (according to the estimation of Italian experts for the monitoring of air quality) to install a minimum 7 cells on the territory of Montenegro. For now, there are 4 continuous cells in Montenegro, two in Podgorica, in Pljevlja, Nikšić and movable monitor vehicle which represents a mobile station. The procedure of procuring two other cells by the Center for ecotoxicological research is in progress.

The monitoring program does not contain major differences compared to the one that is prescribed in the second EPR from 2007. The Program is implemented for 2008 and 2009 by the PI „Center for Ecotoxicology Research of Montenegro“, while the data from Hydrometeorological Institute from Podgorica are included in a report on air quality. The program provides 24 hours of measuring parameters of air at 27 measurement sites in 17 cities. List of measured components includes: SO₂, NO_x, O₃, NH₃, phenols, H₂S, F, solid particles, heavy metals and their compounds, radionuclides, POP (persistent organic pollutants), PAH (polycyclic aromatic hydrocarbons) and several other parameters.

In cooperation with Italian experts and the office of Italian Ministry of the environment, land and sea within preparation of the first national communication, which arises from Kyoto protocol as obligation, the gas inventory was developed for the period 1996-2006. In the future, it is planned that gas inventory data are regularly updated by the personnel sector of monitoring, analysis and reporting on environmental protection.

(b) The program of analysis of the content of hazardous and harmful substances in the soil

In the field of waste monitoring, there is no improvement against the condition stated in the second EPR. The Waste Management Law has not been yet in application, more precisely, the application will begin on January 1st 2010.

When it comes to the land monitoring program, it is still created as part of the monitoring program on the annual level in the same way as it is specified in the EPR. Within the program, sampling is performed in 50 locations near landfills and other potential sources of pollution with heavy metals, pesticides, PCB (polychlorobiphenyls), PCDD (Polychlorinated dibenzo-para-dioxins), mineral oils and other organic pollutants.

There is a tendency for changing the location of measurement sites in the monitoring program for 2010 year and thus determine more reference locations for sampling.

(c) *The Program of Analysis of the Radionuclide Content in the Environment*

The Monitoring Program of the content of radionuclides is still being conducted in the way that is described in the second EPR. The network of measurement sites for monitoring of radioactivity in the environment throughout the territory is defined by the Regulation on systematic analysis of the radionuclide content in the environment (“Official Gazette of the FRY”, no.45/1997). In these sites, regular measuring of the absorption speed and contamination by radioactive pollutants of air, water (rivers, lakes and seas), soil, solid and liquid precipitation, drinking water, food and feed, flora and fauna, construction materials, other objects of general consumption, particularly at work, is carried out. There is an initiative designed to increase the number of locations in 2010, in which the measuring will be carried out. Also the new Law on Ionizing Radiation and Radiation Security, drafted under IAEA supervision from Vienna, is currently in the approval process.

(d) *The Program of Monitoring of the State of Coastal Sea Ecosystem*

The Program of monitoring of the state of coastal sea ecosystem was created for the first time in Montenegro in 2008. Regarding requirements of the EEA, Barcelona Convention and LBS Protocol, the comprehensive Program of monitoring of the state of coastal sea ecosystem is based on the assessment of the maritime biodiversity state, starting from the analysis of biological and chemical indicators of a suspended substance, O₂, percentage of saturation, BPK₅, HPK, NO₂, NO₃, NH₄, o-PO₄, Si, chlorophyll, MPAS, phenols, microbiology etc. The Program comprises the following components:

NO.	TYPE OF MONITORING	FREQUENCY OF SAMPLING
I	Program of general quality of coastal sea water	8 times a year
II	Monitoring of water quality of port aquatoriums	2 times a year
III	Monitoring of eutrophication	6 times a year
IV	Monitoring of the trend of pollution	2 times a year
V	Bio-monitoring	2 times a year
VI	Monitoring of bio-markers	3 times a year
VII	Monitoring of river inflow	2 times a year
VIII	Monitoring of effluent inflow	2 times a year
IX	Monitoring of inflow through atmosphere	365 times a year
X	Monitoring of water for mariculture	18 times a year, c) 2 times a year
XI	Monitoring of bathing water	Weekly, during tourism season (June-September)

(e) *Program of Monitoring of the Biodiversity State*

Program of monitoring of biodiversity state is still being conducted as described in the second EPR. The Institute for Protection of Nature keeps the records of protected areas, plant and animal world and provides services of research in the area of nature protection. Forest Management Directorate within the Ministry of Agriculture, Forestry and Water Management and its 15 local

units of management maintains cadastres of forests. Recently, the new Nature Protection Law has been adopted.

(g) Program of Measuring Noise in the Environment

The Program of measuring noise in the environment has been drafted in accordance with the Law on Protection from Noise in the Environment (“Official Gazette of the RMNE”, no.45/06) and the Rulebook on limit values of levels of noise in the environment (“Official Gazette of the RMNE”, no.75/06) with a view to ascertaining the level of exposure to noise in the environment. The program comprises: ascertaining of the level of noise in urban areas and settlements (primarily in the tourism region of Montenegro in summer and winter), resulting from motor vehicles, air traffic, railway traffic, various acoustic devices and other machines, ascertaining of the level of noise in the area of facilities of public interest (schools, nurseries, public institutions, hospitals, sports halls, hotels, etc) and ascertaining of the level of noise in national parks and other protected natural resources, where disruption of present animal world is prohibited, and in areas for relaxation and recreation.

(h) Program of Analysis of Surface and Underground Water Pollution

The Ministry of Agriculture, Forestry and Water Management, that is Water Directorate, is responsible, according to Article 58 of the Water Law (“Official Gazette of the RMNE”, no.27/07), for implementation of the Program of systematic analysis of quantity and quality of surface and underground water. The program is implemented by Hydro-meteorological Institute for its needs in the way described in the second EPR, whereas the Ministry for Spatial Planning and Environment does not participate in drafting of the monitoring program.

In accordance with recommendations 2.1 from the second EPR regarding the need for harmonization of the program of monitoring of the environmental state and the reporting system with standards of European Environmental Agency, it cannot still be stated that the Program of environmental monitoring and the reporting system meet the standards of the European Environmental Agency. This is the priority due to the fact that the reformed and integrated network of measurement sites has not been established in accordance with the new Environmental Law and with a certain number of new regulations that would replace the existing cumbersome and incoherent network of measurement sites for collection of data on the state of particular segments of the environment. Along with the stated, a major shortfall relates to lack of the established list of indicators for the environmental area, with individual defined indicators.

Stated shortfalls will be subject to implementation of planned activities of the Agency for Environmental Protection in the following period. Concurrently, efforts are made with regard to improvement of technical capacities for implementation of monitoring of particular segments of the environment, e.g., air quality monitoring.

Among particularly significant issues in relation to implementation of environmental state monitoring, the problem of overlapping of competences in certain segments still exists, especially when this concerns implementation of surface and underground water monitoring, by the Water Law (“Official Gazette of the RMNE”, no.27/07. In accordance with the new Environmental Law (“Official Gazette of MNE”, no.48/08 from 11/08/2008), the Agency for

Environmental Protection is competent for entire monitoring of the environmental state from which monitoring of surface and underground water should not certainly be excluded. According to the Regulation on the organization and manner of the work of state administration, both the Ministry for Spatial Planning and Environmental Protection and the Ministry of Agriculture, Forestry and Water Management are competent for protection of water from pollution.

When the need for harmonization of the program of environmental monitoring and the reporting system with the EEA standards is in question due to lack of a clearly defined network of measurement sites as one of preconditions for acquiring relevant data, and absence of the list of indicators for the environmental area, we still cannot state that the program of environmental monitoring and the reporting system can meet the EEA standards.

Since establishment of the Agency for Environmental Protection, great efforts have been made in order that the environmental monitoring program and the reporting system are harmonized with the EEA standards as soon as possible. Clearly defined networks of measurement sites have been absent so far due to lack of means for procurement of adequate measuring equipment. Big efforts have been made in order that the mentioned equipment is procured particularly for needs of the area of air quality monitoring, so we hope that more reference data will be obtained this year. It is also planned that drafting of the list of environmental indicators begins in the third quarter of this year.

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

In relation to the recommendation 2.1 which refers to clarifications of the procedures and standards for providing, processing, disseminating information; and Revision of current reporting policies and procedures in order to disclose to the public, on a regular basis, environmental information produced by monitoring actors and competent government organizations, including through the Internet according to the new Environmental Law (“Official Gazette of Montenegro”, no.48/08 from 11/08/2008), establishment of the single information system is provided, which will be managed and organized by the Agency for Environmental Protection. All entities in the environmental area in Montenegro are obliged to submit data on the request of the Agency for needs of Information system management.

The Agency for Environmental Protection is obliged by this law to inform the public and all interested entities about both the data which are relevant for the environmental state and other processes and aspects of work provided by competences.

Along with the process of establishing the single data base and information system, the work of the Agency for Environmental Protection has started. The Data Base has been created comprising issued licenses for import, export and transit of radioactive substances; licenses for import, export and transit of ionizing radiation sources; licenses for import and export of substances that deplete the ozone layer; licenses for cross-border waste movement; licenses for collection, use, breeding, keeping and traffic in species of wild flora and fauna; licenses for protected plant and animal species (CITES); approvals to ecological studies on environmental impact assessment. This data base is daily updated and follows the work of the sector for license issuance.

The data base, in which data on performed inspection controls and plans are regularly updated, has already been created.

In addition, establishment of data base which will comprise data obtained through implementation of the environmental monitoring program is in process and it will be regularly updated on a monthly and annual level.

Establishment of data base comprising information on waste (waste categorization, waste quantity, etc) and waste management, based on reports obtained from the Centre for Ecotoxicological Research in Montenegro is planned.

Local governments provide Reports on the environmental state in their municipalities that will be useful in establishing the Information system for the environmental state in Montenegro. Records are kept concerning industrial and ecological accidents, and Cadastre of pollutants is being drafted which will, through GIS, provide clearer picture of spots most polluted in Montenegro. Implementation of EIONET program is planned which will connect all national and international institutions that are responsible for collection and exchange of data on the environmental state. The principle by which the Agency for Environmental Protection is governed is transparency of work, also required by the Aarhus Convention. The website of the Agency has been created (www.epa.org.me) which primarily serves for fulfillment of this principle. The public is also informed via the press and electronic media.

In recommendations 2.1 from the second EPR the need for clarification of the procedure and standards for provision, processing and dissemination of information and revision of the existing policy and reporting procedure is highlighted in order that the public is regularly informed about the environment by entities in the area of monitoring and competent governmental organizations, including the Internet. With respect to the abovementioned, it can be concluded that activities have started in compliance with recommendations, and the single and functional data base will be established soon.

In the context of improvement of management and use of the environmental state data in terms of implementation of the recommendation 2.2 under b) and c) which refer to complete preparatory procedures to accede to the Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters (Aarhus Convention) and improvement of regulations on public access to environmental information and participation in environmental decision-making, in particular in EIA and permitting procedures, and the development of environmental policies, plans and programs, it is significant to mention that the Parliament of Montenegro adopted the Law on Confirmation of the Convention on information availability and participation of the public in making decisions and rights to the legal protection in environmental issues, on July 15th 2009, which was published in the Official Gazette of Montenegro ("Official Gazette of Montenegro-International Agreements", no.03/09).

In addition, basic legislative resolutions of significance for issues concerning information access are contained in laws by which the work of state administration bodies is regulated: State Administration Law („Official Gazette of the MNE“, no.38-03, Of.Gazette of MNE, no.22/08) and the Law on Free Information Access („Official Gazette of MNE“, no.68/05). Also, information access from the environmental area and participation of the public in decision-making processes are contained in the following laws: the Environmental Law („Official

Gazette“, no.48/08), the Law on Environmental Impact Assessment („Official Gazette of the RMNE“, no.80/05), the Law on Integrated Prevention and Control of Environmental Pollution („Official Gazette of the RMNE“, no.80/05), the Law on Strategic Environmental Assessment („Official Gazette of the RMNE“, no.80/05), the Nature Protection Law („Official Gazette of MNE“, no.51/08), the Law on Genetically Modified Organisms („Of.Gazette of MNE“, no.22/08 from 22/04/2008), the Waste Management Law („Of.Gazette of the RMNE“, no.80/05 and „Of.Gazette of MNE“, no.73/08), the Air Quality Law („Of.Gazette of RMNE“, no.48/07), the Law on Chemicals („Of.Gazette of MNE“, no.11/07).

The role of NGO sector – Cooperation with NGO sector

The Ministry of Tourism and Environmental Protection open a competition on 20 March, 2008, for allocating funds to NGOs, to which more than 150 NGO applied more than 160 projects.

Within the established procedure the commission has analyzed and assessed the proposals and made a decision on allocating funds of financial support for the realization of 89 projects, where the allocated funds amounted to €125 915.

With the aim of finding and establishing the best cooperation model, the Agreement on Cooperation was signed at the end of July (23 July) with 21 NGOs dealing with the environmental issues.

The Agreement signatories have agreed to encourage a close cooperation, as well as the exchange of information as regards the environmental protection and improvement, based on the principles of partnership, transparency, responsibility, information exchange and NGOs independence.

The areas of cooperation foreseen with this Agreement are drafting and implementing integration and strategic documents, plans and programs in the environmental protection area, waste and waste water management, as well as carrying out the tasks regarding Montenegro's process of European Union integration.

The document proposal “*Criteria and procedures for the selection of the representative of NGOs dealing with the environmental protection and bodies established by the state agencies of Montenegro*“ was adopted in September. The proposal includes the general criteria for NGOs which want to participate in the process of selecting their representatives in the bodies established by the state agencies of Montenegro.

With the aim of a more successful implementation of the pilot project „Selective waste collection“, the representatives of the Ministries and the NGOs dealing with the issues of environmental protection have drafted the proposal of the Action Plan fro 2009, which refers, first of all, to the education and better information level of the population and school children.

The Ministry of Tourism and Environmental protection open a competition in December, for the selection of two representatives from NGOs dealing with the issues of environmental protection in the Council of Environmental Protection Agency. Two agents of NGO are chosen to become a part of Council of Environmental Protection Agency and they are active participants in advisory work.

According to data from CRNVO (Center for NGO development), there are around 4.000 NGOs registered, out of which 150 have mandates which include the issues regarding environmental protection.

In cooperation with the NGO Cooperation Office, the proposal of the Strategy on Cooperation between the Government of Montenegro and NGOs was given, and the Strategy was expected to be adopted during the third quarter, but the Strategy will be adopted during 2009. The Strategy includes, besides the normative and legislative framework for NGO establishment and cooperation, the institutional framework for the cooperation between the Government of Montenegro and NGOs, general and specific goals, as well as the realization of the Action Plan itself, within the Strategy.

C. PUBLICATION OF ENVIRONMENTAL INDICATORS AND INDICATOR-BASED ASSESSMENTS

According to the new Environmental Law („Official Gazette of Montenegro“, no.48/08 from 11/08/2008), the Agency for Environmental Protection is obliged to make a proposal of the list of environmental indicators and propose them to the Government for adoption. Drafting of a proposal of the list of indicators is planned for the third quarter of this year.