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Implementation of recommendations on monitoring and information management from country environmental performance reviews

The former Yugoslav Republic of Macedonia*

Note by the secretariat

Summary

The paper presents the recommendations on environmental monitoring and information management to the former Yugoslav Republic of Macedonia that the Committee on Environmental Policy approved at its annual session held in Geneva on 4-6 November 2002, and describes the situation in the country with environmental monitoring and information management as it was at that time. It is prepared on the basis of materials of the second Environmental Performance Review of the former Yugoslav Republic of Macedonia (E.03-II-E.21).

The Working Group is expected to review progress made by the former Yugoslav Republic of Macedonia in the implementation of these recommendations and to provide the country delegation with possible guidance on how to improve performance to this end.

* The present document is issued on the above date for technical reasons.

Contents

Recommendations of the second environmental performance review of the former Yugoslav Republic of Macedonia

Recommendation 4.1:

(a) A new law on access to environmental information in accordance with the Aarhus Convention should be prepared by the Ministry of Environment and Physical Planning and adopted by Parliament. It should include a clear description of the rights of the public to have access to environmental information.

(b) The Ministry of Environment and Physical Planning, in close cooperation with other public authorities, should prepare a strategy for the implementation of the Aarhus Convention. It should require certain legislative changes and strengthen the capacities of government officials at all levels and local non-governmental organisations to enable broad public access to information and public participation in decision-making processes.

Recommendation 4.2:

The Ministry of Environment and Physical Planning, in cooperation with relevant institutions, should develop a centralized, strategic monitoring programme capable of delivering the environmental information needed by all decision makers. Such a programme should harmonize the disparate methods, standards and indicators currently in use by various monitoring authorities and ensure a closer alignment of monitoring data and environmental policy objectives.

Recommendation 4.3:

The Ministry of Environment and Physical Planning should improve the flow of environmental information between the Ministry and other entities involved in environmental data and information by further developing a national environmental information system.

Recommendation 4.4:

The Environmental Information Centre should collaborate with the State Statistical Office on the collection of data on the discharges of pollutants, taking into account the ongoing negotiations on the PRTR protocol, under the Aarhus Convention. The State Statistical Office should incorporate relevant environmental indicators in the Statistical Year Book.

Recommendation 4.5:

The Public Relations Office of the Environmental Information Centre should be linked with the citizen information centres established in the municipalities. The Ministry of Environment and Physical Planning should focus on a strategy for the dissemination of environmental information. Within this strategy the Environmental Information Centre should consider publishing State-of-the-Environment Reports both in print and on the Internet, as well as executive environmental information i.e. headline indicators.

I. Data sources

A. Monitoring

1. The monitoring of environmental parameters such as air, water, soil and radioactivity falls under the jurisdiction of many institutions and is poorly coordinated. Monitoring is primarily conducted by the Hydrometeorological Institute, the Ministry of Environment and Physical Planning, the Ministry of Health through the State Institute for Health Protection, and the Ministry of Transport.

2. There was no comprehensive environmental monitoring programme in the country in 2002. All monitoring activities were established and conducted independently of each other, and were not always followed the same goals and objectives. Monitoring programmes, e.g. the air monitoring network in Bitola, the automatic monitoring stations on the River Vardar supported by the Phare Cross-Border Cooperation programme and the ongoing Lake Ohrid project, were project-based activities and driven by external funding. The result was monitoring activities that were dispersed rather than integrated on the basis of entire ecosystems. The former Yugoslav Republic of Macedonia was aware of this problem and was developing a monitoring programme for one ecosystem, i.e. waters.

3. In general, the number of monitoring stations decreased since the early 1980s. Monitoring was based on a comparatively small number of measurements points. The Ministry of Environment and Physical Planning, which monitored air quality, had four stations in Skopje and one mobile monitoring station. It measured 12 parameters: SO2, CO, NO, NO2, NOx, suspended particulate matter (SPM), wind direction and speed, temperature, O3, solar radiation, and humidity. There were two air-monitoring stations in Veles that belong to the “MHK Zletovo” Lead and Zinc Smelting Company. The State Institute for Health Protection conducted measurements of SO2 and smoke only in places where they might affect human health. Another air monitoring network was managed by the Hydrometeorological Institute, which operated 19 urban stations, 11 of which were in Skopje. They measured SO2 and “black smoke”.

4. The station in Lazaropole was established within the UNECE Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), and was managed by the Ministry of Agriculture, Forestry and Water Economy (Administration of Hydrometeorological Affairs). However, it was not functioning properly, due to a lack of appropriate equipment for the required measurements. The station was performing measurements of rainfall.

5. The Hydrometeorological Institute monitored surface water quality from 60 measurement points throughout the country. For financial reasons, the Institute stopped monitoring groundwater and soil quality in 1981. Four basic parameters – dissolved oxygen, biological oxygen demand, pH, and chemical oxygen demand – were measured in leaches from the Skopje waste site once a month. The State Institute for Health Protection monitored drinking and bathing water quality. The Institute had 10 centres throughout the country located in Skopje, Bitola, Kochani, Kumanovo, Ohrid, Prilep, Strumica, Tetovo, Veles and Shtip.

6. In general, monitoring standards like maximum allowable concentration dated back to the 1970s and 1980s, and some of the measurements, e.g. noise pollution, did not apply to pollution limits at all. However, it should be noted that harmonization of the country’s legislation with the EU was under way. Only a few of the current standards were in line with EU legislation, such as drinking water quality standards, which were also consistent with WHO standards. Air monitoring data from the four monitoring stations in Skopje were comparable with the limit values prescribed by the relevant EU directives. Monitoring often

did not include such important parameters as heavy metals and persistent organic pollutants, and was inadequately linked to public health monitoring.

7. There were differences between the laboratories in the capital and those in the countryside. The State Institute for Health Protection in Skopje, for instance, operated adequately with modern equipment, which was regularly calibrated and maintained, but the equipment in country laboratories did not permit continuous monitoring.

8. Poorly maintained and calibrated monitoring equipment resulted in inadequate and poor-quality data. For example, SO2 and NOx concentration measurements in Skopje sometimes appeared negative, which clearly showed an equipment error. In such cases, the monitoring equipment required urgent maintenance. However, few organizations such as the State Institute for Health Protection participated in inter-calibration programmes.

B. Statistical data

9. There were data gaps on air and water discharges resulting from a lack of systematic data collection. Basically the State Environmental Inspectorate and the Environmental Information Centre collected measurements of discharges from the industrial waste-water treatment plants and air polluters. The Environmental Information Centre received air emission data from only 18 to 22 major polluters. The Inspectorate focused on the country's approximately 100 heavily polluting companies.

10. The State Statistical Office collected social and economic data directly from entities through surveys and gathered data from different ministries. It also collected limited environmental information like geographical data on lakes, rivers, mountains, natural sites of importance, and hydro-meteorological parameters. The statisticians paid special attention to improvements in the services offered to users. One good example was the Statistical Year Book 2001, which was designed on the basis of user feedback surveys. The surveys showed that there was a high demand for business-related information and that users wanted better visual presentation including graphics.

11. According to the State Statistical Office, researchers and students were the most likely to request environment-related information. Although the demand for environmental statistics was high, the environmental indicators presented in the Statistical Year Book published annually were limited. The Ministry of Environment and Physical Planning had made several attempts to establish a mechanism for the dissemination of environmental information through statistical year books, but without success. An informal working group was established with experts from both the Ministry and the State Statistical Office to discuss air and water statistics.

C. Data processing

12. According to the Law on the Environment and Nature Protection and Promotion, public administration bodies, scientific organizations and institutions that monitor the environment and nature were obliged to submit their environmental data to the Ministry of Environment and Physical Planning. Within the Ministry, the Environmental Information Centre, established in 1998, managed environmental data. The vision of the Centre was to become the main environmental databank in the country through the establishment of a comprehensive base of relevant, accurate and publicly accessible information on the quality of the environment.

13. The Environmental Information Centre was adequately equipped to process environmental data. Within the framework of the Country Operational Programme 1997

(COP97), the PHARE project, the European Environment Agency's EIONET project and others, the Centre received computer equipment. The Centre had also not established the dial-up services envisaged in the COP97 project for experts in the Ministry, field researchers and other data providers. However, this project completed by the end of 2002, and other projects were expected to continue developing the technical capacities of the Centre.

14. With the exception of the air monitoring data, the Centre's data compilations could hardly be defined as databases since the data were stored in Excel format and couldn't be retrieved quickly and efficiently.

15. In spite of its adequate equipment and very competent staff, the Centre operated inefficiently and in a time-consuming manner. For instance, most of the environmental data from the State Institute for Health Protection and the Hydrometeorological Institute were received on paper and manually keyed into Excel files. Some data were received in Excel and Word format.

II. Dissemination of environmental information

16. The Ministry of Environment and Physical Planning was responsible for the dissemination of environmental information, e.g. state of the environment reporting. All other institutions that monitored the environment and nature were obliged to submit environmental data to it. The weakness in the legislation lied in specifying how the information should be disseminated and how the public should be informed about the potential risk or danger to human health or the environment. There were also no provisions on the frequency of reporting.

17. Up-to-date information and press releases concerning the Ministry's activities were available on its web site, http://www.moe.gov.mk/. State-of-the-Environment (SoE) reports were produced in 1998 and 2000, but these were available only in electronic format. In 2001 only 4.9 per cent of the population in the country was connected to the Internet. The work plan of the Environmental Information Centre for 2002 indicated that electronic SoE reporting would continue in the future.

18. The Environmental Information Centre established a Public Relations Office in 2001 in the city of Skopje to secure physical accessibility and active communication. This Office was a good example of the dissemination of environmental information that should be shared with other environmental information providers internationally. There were, however, still significant constraints to optimal operation. For example, there was no efficient technical communication between the two units of the Centre. The lack of Internet and Intranet communication did not allow the release of such publicly available "hot" environmental information as daily air quality measurements. If maximum allowable concentrations of SO2 and NOx were exceeded, information was released through other channels.

19. In addition, while the Public Relations Office operated a library that provides easy access to a number of books, magazines and digital materials, qualitative and target-oriented printed environmental information remained poor at national level. Within the PHARE COP97 project the library was expected to expand its collection of foreign printed materials on environmental issues. Both governmental and non-governmental organizations were actively involved in disseminating information through the printed media.

20. With support from the Environment Fund and external donors, many municipalities took significant steps towards improving environmental information management. For example, within the activities of the Local Environmental Action Plans, eight municipalities

created citizen information centres, and another two centres were planned. The Association of Municipalities was also established to serve as a municipal lobby group and forum for sharing experiences and information on good practices.

21. Environmental information was also disseminated by other means. For instance, hourly air quality data taken directly from measurement sources were publicly displayed in graphical and numerical formats in the automatic air monitoring centre in the city of Skopje. The Ministry of Environment and Physical Planning actively distributed information of vital importance to the public through the mass media, press conferences, events promoting publications, and other public presentations. The Ministry also actively ran advertisements on television and campaigns such as the protection of the UNESCO natural and cultural heritage sites "Save Lake Ohrid", and in Skopje the "In Town Without My Car" campaign.

III. Policies, strategies, institutions

22. The management of environmental data was governed by the Law on the Environment and Nature Protection and Promotion and the National Environmental Action Plan, which should be the basis of Local Environmental Action Plans. These laws supported the most important steps in environmental data management, namely, environmental data collection and processing, and the dissemination of environmental information. Other relevant legislation for environmental data management included the Law on Health Protection, the Law on Statistics, and the Law on the Organization and Work of the State Administration.

23. Among the many public institutions that were involved in the gathering and analysis of environmental data were the Ministry of Environment and Physical Planning, the Hydrometeorological Institute, the State Institute for Health Protection, the Ministry of Transport and Communications, and the Ministry of Agriculture, Forestry and Water Economy.

24. The coordination, systematization and standardization of all relevant environmental information and its delivery to the end-users were included in the tasks of the Environmental Information Centre, but execution was not possible under the existing set-up. The exchange of information among the different institutions was critical, but there was very little of it in 2002. One exception was the exchange of data between the State Institute for Health Protection and the Hydrometeorological Institute and the Ministry of Environment and Physical Planning.

25. Monitoring environmental parameters was highly fragmented among the Hydrometeorological Institute, the Ministry of Environment and Physical Planning, the State Institute for Health Protection and the Ministry of Transport. The lack of a monitoring programme caused gaps in important measurements. Additionally, the legal mandate for monitoring was rather weak. For instance, the monitoring of groundwaters and surface waters was not explicitly required by the Law on Waters. There were four different laws covering noise issues in general, but there was no legislation that specifically covered sound levels and the exhaust systems of motor vehicles.

26. By signing the Stabilisation and Association Agreement with the EU, the former Yugoslav Republic of Macedonia was obliged to harmonize its legislation with EU legislation. Implementation of the new legislation required more information to be collected and analysed, made accessible and disseminated broadly. The country is also a Party to a number of relevant international conventions, e.g. the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), the Convention on Biological Diversity and

the United Nations Framework Convention on Climate Change, where information dissemination is one of the components of compliance. Among these, the Aarhus Convention is the most relevant to information management.