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**COMMITTEE ON ENVIRONMENTAL POLICY**

**Ad Hoc Working Group on Environmental Monitoring**

(Second session, 28 February-1 March 2002)

(Item 5 of the provisional agenda)

**WORKSHOP ON INFORMATION TECHNOLOGIES FOR ENVIRONMENTAL  
MONITORING AND ASSESSMENT**

Report by the Chairman of the Task Force on Tools and Guidelines<sup>1</sup>

1. The Workshop on Information Technologies for Environmental Monitoring and Assessment was held on 7-8 February 2002 in Obninsk near Moscow (Russian Federation) at the invitation of the Scientific and Production Association "Typhoon" (Obninsk), lead organization in the Task Force. Its aim was:

- (a) To brief experts from the newly independent States (NIS) on international environmental information networks within the UNECE region;
- (b) To exchange information on the current situation with environmental monitoring data flows and information networks in NIS;
- (c) To discuss practicalities of establishing Internet-based inter-connected environmental information systems in NIS using tools and guidelines applied within the European Environment Agency (EEA);
- (d) To provide guidance for further Task Force activities.

2. The Workshop was attended by Members of the UNECE Working Group on Environmental Monitoring and members of the Task Force from: Armenia, Belarus, Denmark, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan,

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<sup>1</sup> This document was not formally edited.

Turkmenistan, Ukraine, Uzbekistan, UNECE secretariat, European Environment Agency (EEA) and the United Nations Environment Programme (UNEP).

3. The Vice-Mayor of the City of Obninsk, the Director General of the Scientific and Production Association “Typhoon” and representatives of EEA and the UNECE made opening statements.

4. Representatives of EEA made a presentation on the current status with and development of information tools and technologies within EEA including: the Global Environmental Information Locator System (GELOS) to describe environmental data; tools to collect and maintain meta-information as well as tools for web-based retrieval and update; the General Multilingual Environmental Thesaurus (GEMET) to index and retrieve environmental sources in information systems and to use for general dictionary and translation purposes; the CIRCLE groupware to exchange documents and data; and approaches to build easily accessible national portals based on open-source technologies implemented in the European Information and Observation Network (EIONET). A representative of UNEP introduced information instruments developed within this organization.

5. Participants from Armenia, Belarus, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan made presentations on the situation in their countries with environmental monitoring, preparation and publication of the state of the environment reports and monitoring bulletins, development of environmental portals in Internet and placing monitoring data and environmental information on web sites.

6. The presentations demonstrated that the situation in individual NIS differs substantially. In few countries, the scope of monitoring activities has been maintained or decreased to some extent over the past 10 years. In other countries, there has been a sharp decline in both the number of monitoring stations and environmental media coverage. Pollution data are currently reported by large enterprises only. In few countries regulations have been recently adopted defining responsibilities of public authorities, standards and procedures for monitoring activities. In these cases, institutional arrangements have been made for inter-departmental coordination of monitoring activities and data exchange. In other NIS, departmental responsibilities are loosely defined, and there is duplication and lack of coordination and cooperation. In one country, data exchange between public authorities is based on payments.

7. In most NIS, state-of-the-environment reports and monitoring bulletins are produced periodically but in a limited number of paper copies only. These reports and bulletins are not available via Internet in a single country. The structure of most national reports remains rigid and is not adapted to new challenges or policy requirements. In most NIS, the demand for environmental information has decreased from both the high political level and the general public. Nevertheless, some countries are in the process of using new information technologies (often with donor support) for creating digital environmental databases, inventories of natural resources and ecosystem maps.

8. Discussions continued through two parallel round tables, one on organizational aspects of unification and harmonization of environmental monitoring data flows between NIS and

countries participating in EIONET, and the other on programming and technical aspects of adapting national environmental monitoring information systems in NIS to EIONET requirements.

9. Participants of the first round table focused on policy and institutional problems in developing and streamlining information flows from environmental monitoring, the role of international environmental agreements with their reporting requirements in pressing governments to improve monitoring and data collection and handling at the national level, the role of state-of-the-environment reports as powerful driving force for inter-departmental cooperation on data and information exchange, and the opportunities for developing an international strategy on general requirements for environmental data and information systems at the national level.

10. The issues addressed at the second round table included, in particular, the following: possibilities of the application in NIS of standards of describing, collecting, updating, searching for and ensuring access to, environmental data that are used within the EIONET; practicalities of the application in NIS of the Catalogue of Data Sources and the Multilingual Environmental Thesaurus; ways and means of creating in NIS easily accessible and interlinked national environmental portals in Internet; advantages of uploading national metadata to the Reportnet (<http://rn2.eionet.eu.int>) repository, hosted by the EEA and developed together with the Danish National representative, as well as of creating national focal points and reference centres in NIS to supplement the existing EEA network.

11. The Workshop considered the outcomes of the round tables and agreed that:

(a) NIS should:

- Further evaluate and test the tools and instruments discussed at the workshop;
- Provide the lead organization of the Task Force with completed questionnaires (circulated prior to the Workshop) on the organization of environmental data flows and on institutions involved in information support for monitoring data. This information will help to create a Task Force web site interlinked with web sites of environmental monitoring institutions in NIS, and to prepare an assessment report for discussion at a Task Force meeting to be held in autumn 2002;

(b) The UNECE Working Group on Environmental Monitoring could be invited to consider an opportunity of developing recommendations to Governments (in the form of guidelines) on streamlining and improving environmental monitoring and reporting activities in the light of new environmental challenges and tasks. As a first step, EEA could be invited to prepare, in cooperation with the UNECE secretariat, a review of best practices in the UNECE region with the preparation of national state-of-the-environment reports, including the use of indicator sets and modern information technologies, and with the use of these reports for environmental policy and decision making;

(c) The Working Group could be invited also to consider developing guidelines on the use of environmental and natural resource mapping and of environmental indicators to measure country

environmental performance, on improving quality and compatibility of transboundary data, as well as guidelines on international exchange of primary environmental data and on information systems for environmental protection and sustainable management of natural resources.