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**COMMITTEE ON ENVIRONMENTAL POLICY**

**Ad Hoc Working Group on Environmental Monitoring**
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(Item 3 (c) of the provisional agenda)

**TOWARDS A WORK PLAN FOR TASK 3 "TOOLS AND GUIDELINES"**

Proposal by the delegation of the Russian Federation∗/

**INTRODUCTION**

1.      There is a need to strengthen existing networks of environmental monitoring in Europe, promote coordination between them, and build capacity in those countries where support is needed.  The Working Group will identify areas where there are no common standards and harmonization is needed. It will consider measures to: (a) outline common standards and formats in these areas; (b) improve the inter-operability of data to facilitate data transfer and use; (c) develop a harmonized meta-database on sources of data and data sets, institutes, reports and other products; (d) draw up a multilingual environmental thesaurus; (e) standardize on-line national state-of-the-environment reports; and (f) develop guidelines on linking relevant national

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∗/ Prepared in coordination with the European Environment Agency (EEA).

and international web sites. This work will draw on previous work carried out by the United Nations Division for Sustainable Development, the United Nations Statistical Commission, the Organisation for Economic Cooperation and Development (OECD), the United Nations Environment Programme (UNEP), the Economic Commission for Europe (ECE), EEA and others. The Working Group will develop recommendations on priority actions.

## I.    QUESTIONS TO BE DEALT WITH

### A.    What might be priority areas where standardization and harmonization are needed and where capacity in NIS should be built?

2.    Building on EEA experience, there are at least three types of practical tools that are relevant to standardization, in general, and to the generation and dissemination of environmental information and coordination among networks, in particular:

      (a)    Global Environmental Information Locator System (GELOS) and related meta-information approaches;

      (b)    General Multilingual Environmental Thesaurus (GEMET);

      (c)    new EEA activities on document sharing and web-portals.

3.    Since 1996, EEA has been promoting a way to describe general environmental information using the Global Environmental Information Locator System (GELOS). The use of this standard will at a later stage also enable access to distributed meta-databases if so desired. The European Topic Centre on Catalogue of Data Sources (ETC/CDS) has developed tools to collect and maintain such meta-information as well as tools for web-based retrieval and update. These tools are in use in various EEA member States, even though they are chiefly intended to be applied to monitoring, but rather to more general tasks.

4.    Together with the provision of meta-information, the use of a common, unified environmental terminology is an area where harmonization has been achieved on the European scale. The General Multilingual Environmental Thesaurus (GEMET) is the internationally recognized instrument for the indexing and retrieval of environmental sources in information systems as well as for general dictionary and translation purposes. It is currently available in 16 European languages[1] and the intention is to include additional languages in the yearly updates. Those countries whose languages are not yet covered by this freely available instrument are therefore invited to help expand GEMET by providing their translations of its terms.

5.	In both areas, thesaurus and cataloguing EEA co-operates with UNEP Infoterra. This provides a good opportunity to combine the work of both institutions. UNEP Infoterra also collects country profiles, which should show the availability of environmental information in the participating countries. This work can be combined with EEA efforts to build easily accessible national portals based on open-source technologies implemented also in the European Information and Observation Network (EIONET).

6.	EEA has also gained considerable experience in harmonized document- and, increasingly, data-sharing using the CIRCLE groupware (system for document and data exchange). Moreover, efforts are under way to build national portal web sites on environmental information.  These efforts partly extend beyond the current EEA network thanks to linkages with the Aarhus Convention's implementation process.

<u>B.	How to build the basis for practical recommendations to NIS Governments?</u>

7.	Concrete steps to prepare the foundation for the Working Group's recommendations in the above-mentioned context could be based on a practical four-level approach covering the following objectives in the newly independent States (NIS):

	(a)	Collection of initial meta-information on available sources of environmental information and activities;
	(b)	Description of data availability and data exchange;
	(c)	Provision and use of GEMET;
	(d)	Setting-up of environmental portals.

8.	First, initial meta-information would be collected on the available sources of environmental information and on environmental monitoring activities in NIS. This would form an address database of institutions and programmes/projects. In a second step, issues of data availability and exchange should be addressed. In particular when it comes to describing monitoring sources and data in more detail, the use of accurate terminology in the native language and/or in English gains increasing importance. In order to easily provide information over the Web, the establishment of national portal web sites could round off the activities.

## II.	PROPOSAL

9.	In many NIS, the use of up-to-date information technologies by environmental

monitoring authorities needs to be expanded. These technologies may substantially improve the handling, exchange and supply of environmental data to public authorities and the public.

10.     It is proposed that a task force should be established with the Russian Federation as lead country and active involvement of EEA and the European Commission's Environment Institute. In the Russian Federation the task force's activities would be implemented by the Scientific and Production Association "Typhoon" (SPA Typhoon), which is part of the Federal Service for Hydrometeorology and Environment Monitoring. It is doing research and development work in meteorology and atmospheric physics and conducts studies on environmental pollution and its impact. SPA Typhoon also serves as the Federal Environmental Emergency Response Centre and has much experience in international cooperation on radiological monitoring promoted by the World Meteorological Organization (WMO) and other international forums.

11.     The task force would develop practical tools, using modern information technologies, to improve the use and exchange of information in NIS, and to harmonize NIS approaches with those applied within EEA networks so that these countries can be integrated into the pan-European system of state-of-the-environment information exchange. It would collect initial information on available sources of environmental information and activities, describe data availability and data exchange and propose methods for using in the NIS the practical results obtained in the framework of EEA, in particular through applying various information exchange tools from the EEA network like the meta-information collection following the GELOS element set and GEMET. The task force would take into account existing recommendations of international organizations, as well as information exchange procedures available or under development within the existing European and other international systems.

12.     The activities would include the following:

        (a)     Preparing a review of the status of reporting of environmental monitoring data in the NIS, including a description of the availability of environmental information in these countries, sources of information, activities of national institutes and organizations in this field, and data exchange procedures. The results of the review will be compared with and linked to the available NIS information in the current State of the Environment Reporting Information System (SERIS) at EEA.

<u>Deadline: November 2001;</u>

        (b)     Providing the above-identified meta-information in a database, using as a description model the GELOS element set, and collection tools supplied by EEA. The GEMET terminology – which is already available in Russian – should be used for indexing these

resources to ensure compatibility with other European resources. This initial collection shall form the basis for a distributed architecture, to be introduced and used in NIS.

<div align="right">Deadline: January 2002;</div>

(c)     Working out proposals for the creation of unified formats for environmental monitoring data exchange (measurements of a variety of pollutants, environmental quality indicators, analysis and forecast of the state of the environment, etc.) and for the organization of a permanent data exchange. The best practices from EIONET dataflow work will be used for that purpose as will e-EIONET applying the CIRCLE groupware and further developments.

<div align="right">Deadline: March 2002;</div>

(d)     Preparing proposals for a distributed database for the storage and presentation of environmental monitoring data with client-server technology using public networks (Internet) and specialized networks (e-EIONET, WMO Global Telecommunication System (GTS)). Creating an experimental fragment (prototype) of a distributed database at SPA Typhoon and EEA.

(e)     Preparing proposals  to create a unified web server (portal site) for the presentation of different types of analytical information from NIS (environmental assessments) in text form (annual reports, regulations, reviews, etc.) on the Internet; trial implementation of the proposals and demonstrations using the capabilities of EEA and SPA Typhoon.

<div align="right">Deadline: October 2002;</div>

(f)     Presenting the project's results, in the form of a report and draft recommendations to NIS Governments, to the Working Group for consideration at its fourth session.

<div align="right">Deadline: January 2003.</div>

13.     The Working Group is expected to discuss and approve this proposal and to designate experts to participate in the task force. Prospective donors will be invited to provide funds to support the above-mentioned activities.

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<div align="center">Note</div>

[1] Basque, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Portuguese, Russian, Slovak, Spanish, Swedish and American English.