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PROGRESS IN SPECIFIC ACTIVITIES

Note by the secretariat

1. The present note describes the activities implemented pursuant to the decisions taken by the Working Group at its previous sessions. These activities were funded by the European Community under the Tacis project on strengthening environmental information and observation capacity in 12 countries of Eastern Europe, the Caucasus and Central Asia (EECCA). With the exception of the project component on inland water monitoring, all other activities presented hereunder are supported through a UNECE/European Environment Agency (EEA) grant agreement "Support to the activities of the UNECE Working Group on Environmental Monitoring".

I. ENVIRONMENTAL NETWORKING AND INFORMATION SYSTEMS

2. The purpose of this activity is to strengthen environmental information capacity and networks in EECCA and to enhance cooperation between these networks and international ones; to create or support existing national reference institutions on environmental information in EECCA countries; to spread the knowledge of methodologies applied in the European Environment Information and Observation Network (EIONET); and to assist EECCA countries in creating or expanding national environmental meta-databases.

3. So far, five networks of experts and their institutions have been established, namely on waste classifications and inventories; air pollution monitoring and emission inventories; remote-sensing applications for environmental monitoring; tools and guidelines; indicators and reporting. A web site on the Working Group and project-supported activities has been developed to provide information to all interested stakeholders (<http://www.unece.org/env/europe/wg1.html>). The site is in English and Russian and is updated regularly.

4. The Task Force on Tools and Guidelines, with the Russian Federation as lead country, has continued its work aimed at developing practical tools, using modern information technologies, to improve the use and exchange of information in these countries, and to harmonize their approaches with those applied within EEA networks. The Scientific and Production Association "Typhoon", lead organization of the Task Force, organized in Obninsk, Russian Federation, on 9-11 December 2002 the 2nd Workshop on Information Technologies for Environmental Monitoring and Assessment with financial support from Denmark. It resulted in a set of recommendations to EECCA countries. The Workshop also enabled the International Centre for Scientific and Technical Information (ICSTI), which has a developed network of scientific and technical centres in the EECCA subregion, to be involved in the Task Force's activities.

5. A follow-up Workshop on Environmental Networking and Information Systems took place on 2-3 June 2003 in Obninsk. The Workshop discussed the current situation with environmental networking in EECCA countries and it identified major gaps and obstacles to reliable networking as well as good practices to fill in the gaps and overcome the obstacles. Guidelines on developing national meta-databases on sources of data and data sets, institutes, reports and other information products, and a strategy on tools and guidelines were presented and discussed during the Workshop. It resulted in a plan of actions and a time schedule for the activities to be implemented in EECCA countries by the end of 2003, including the setting-up of network of national reference points on priority data flows, national meta-databases and interaction with UNECE and EEA.

6. In the light of the workshops, guidelines on the development of environmental networks and information systems in EECCA countries were finalized. They cover the identification of major national information resources, priority data categories, software and other tools, networking with UNECE and EEA and recommended technical publications. Following these guidelines and with the technical and financial assistance from the project fund, designated EECCA country officials will:

- (a) Create or strengthen the reference centres on environmental monitoring and environmental information producers;
- (b) Promote coordination with specialized national environmental organizations;
- (c) Organize environmental data flows on priority areas (e.g. air quality and pollution, water resources and quality, waste management, nature conservation);
- (d) Develop or expand environmental databases using the Catalogue of Data Sources, the Multilingual Thesaurus and other software developed by EEA;
- (e) Upload environmental metadata, environmental reports and databases compiled for the Kiev Assessment on the Internet using the existent national environmental portals and/or the UNECE web site to be coordinated with the EEA portal.

7. The reports of both workshops (December 2002 and June 2003) and the strategy paper will be available to the Working Group.

II. AIR POLLUTION MONITORING AND EMISSION INVENTORIES

8. The Working Group, at its second session in 2002, discussed the participation of EECCA countries in international air pollution monitoring and assessment networks. As a follow-up and with the support of the Tacis funds, an activity was launched to assess the needs and develop recommendations for rationalizing and strengthening air pollution monitoring in the EECCA countries and to build their capacity to comply with data collection and reporting

obligations under the Convention on Long-range Transboundary Air Pollution. At its request, Kazakhstan was selected for a case study, and the results of this activity will be used to develop recommendations for EECCA countries that are new Parties to the Convention (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan and the Republic of Moldova) and other EECCA countries, as appropriate.

9. Kazhydromet serves as lead organization of the project component. The Meteorological Synthesizing Centre – East (MSC-E), the Chemical Coordinating Centre (CCC) of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) under the Convention and an EMEP consultant (from Belarus) were invited to contribute to the report on air pollution monitoring and emission inventories in Kazakhstan and assist in preparing recommendations to EECCA countries.

10. Two national workshops took place on 26-28 May 2003 in Almaty with the participation of 45 national and international experts. Participants discussed an extensive outline of the report on air emission inventories and atmospheric air pollution monitoring and modelling in Kazakhstan. The outline was finalized after the workshops taking into account the discussions held. The workshops' reports will be made available to the Working Group.

11. Two international meetings on air emission inventories and on monitoring and modelling will be organized on 8-10 October 2003 in Almaty. Experts from EECCA countries – new Parties to the Convention, the three Central Asian States that are not Parties (Tajikistan, Turkmenistan and Uzbekistan) and international experts (Belarus, CCC, EEA and MSC-E) will attend. During the meetings, the draft report with recommendations on practical ways and means to develop or improve air pollution inventories, to establish monitoring stations and to apply measurement techniques and emission modelling for major pollutants will be discussed. The final report with recommendations to EECCA countries will be submitted to a joint UNECE/EEA workshop with participation of members of the Working Group from EECCA countries on 13-14 November 2003 in Geneva.

III. ASSESSMENT OF MONITORING OF INLAND SURFACE WATERS

12. The Working Group, at its first session in 2001, discussed and supported a proposal by the European Topic Centre on Water (ETC/Water) for the assessment of information and monitoring systems for inland waters in EECCA countries and the preparation of recommendations to their Governments for improving these systems. As a follow-up and with the support of EU/Tacis funds, an in-depth study of inland surface water monitoring in EECCA has been launched under the leadership of ETC/Water. The expected results will include, among others, an assessment of existing networks of inland surface water monitoring (EECCA national inventories validated by ETC/Water); a compilation of a full EECCA database on inland surface water monitoring; proposals for a basic EUROWATERNET network for each EECCA country; and recommendations for achieving a fully representative network of EUROWATERNET stations for EECCA.

13. To achieve the objectives, a consortium of EECCA national experts was established. Management and coordination of these national experts and ensuring the delivery of project outputs on schedule are the responsibility of three EECCA expert coordinators (Belarus, the Russian Federation and the Regional Environmental Centre for Central Asia). A planning workshop for national experts and coordinators was held in Obninsk, Russian Federation, on 19–21 February 2003. Its report will be made available to the Working Group. Missions by

the project management team and coordinators to each EECCA Ministry of the Environment are currently being organized.

IV. WASTE CLASSIFICATIONS AND INVENTORIES

14. The quantitative and qualitative data on the generation, use, disposal and environmental effects of waste are unreliable in many EECCA countries and do not meet priority demands. Some important waste streams are not properly monitored. Several countries lack inventories of potentially highly hazardous waste, which was and continues to be dumped on landfill sites, especially in rural areas. Data quality is often uncertain; the data collected are often incomplete; little work has been done to analyse or synthesize data for policy development and assessment through appropriate indicators.

15. The Working Group, at its second session in 2002, discussed sets of indicators developed by EEA to help countries to monitor progress in waste prevention, waste management and material flows, and to provide comparable information at the pan-European level. It recommended Governments of countries that were not covered by EEA networks to consider using these sets of indicators in their national practices.

16. The activity that has since been launched with support from Tacis funds aims to review the current situation in EECCA countries in terms of collecting and handling data on waste, and the effectiveness of existing regulations, and to help these countries to develop draft regulations to support routine data collection and reporting on waste and the use of indicators on waste and material flows that are compatible with those applied in EEA countries. The Georgian Ministry for Environment expressed its willingness to serve as lead organization for the activity. The work will be done on the basis of a case study of three Caucasian countries - Armenia, Azerbaijan and Georgia.

17. A first workshop will take place on 7-8 July 2003 in Tbilisi. It will discuss the situation regarding waste classifications and inventories in the three Caucasian countries. It will identify gaps in data collection on the most important waste streams, weaknesses in the regulatory and institutional frameworks, and the need for building national capacities. The participants will be informed about approaches applied in EEA member countries to improve waste classification systems, data collection and the use of indicators. National experts will develop a plan and a time schedule for the preparation of recommendations. The workshop's report will be made available to the Working Group.

18. The first workshop will be followed by the preparation of an analytical report on the current situation in Azerbaijan, Armenia and Georgia regarding data collection and reporting on waste, including relevant technical, organizational and institutional problems, and the use of indicators. It will serve a basis for developing recommendations (possibly in the form of model regulations).

19. A second workshop will be organized on 2-3 October 2003 in Tbilisi to discuss and finalize recommendations to the Governments of the three Caucasian countries and other EECCA countries for improving national waste classification systems, routine waste data collection as well as reporting through the use of indicators on waste and material flows that are compatible with those applied in EEA countries. In addition to the Caucasian experts, experts from the five Central Asian countries (Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan and Uzbekistan) will participate. The recommendations will be submitted to a joint UNECE/EEA workshop on 13-14 November 2003 in Geneva.

V. ENVIRONMENTAL INDICATORS AND REPORTING

20. The Working Group, at its special session in 2002, reviewed the environmental reporting situation in 12 EECCA countries. At its special session in November 2002, it developed Guidelines for the Preparation of Governmental Reports on the State and Protection of the Environment (ECE/CEP/113), which were endorsed by Environment Ministers in Kiev in May 2003.
21. The activity that has since been launched aims at reviewing the overall monitoring and reporting situation in EECCA countries; assessing their use of indicators for national state-of-the-environment reporting; assisting EECCA countries in selecting a core set of environmental indicators compatible with those used by EEA countries and testing these indicators through the preparation of an indicator-based report; and carrying out a country case study on the use of the UNECE Guidelines.
22. A publication on Environmental Monitoring and Reporting in Eastern Europe, the Caucasus and Central Asia (ECE/CEP/118) has been prepared. It summarizes the challenges for environmental monitoring and information systems in the EECCA countries, describing areas of progress, current gaps and needs, and major themes for development. The report is aimed at a broad audience of environment officials and decision-makers, interested officials from other sectors, as well as researchers and NGO representatives. It will be published in both English and Russian.
23. A joint EEA/UNECE Workshop on Environmental Indicators and Networking was organized in Geneva on 24-25 February 2003. It allowed, inter alia, to brief the national focal points from EECCA countries in the Working Group on the use of indicators in state-of-the-environment reporting to improve reporting at both the national and pan-European levels as well as to share the experiences of international organizations working with the EECCA countries with the use of environmental indicators. On the basis of country contributions to the workshop and available literature, a review of environmental indicators in Eastern Europe, the Caucasus and Central Asia has been prepared (CEP/AC.10/2003/6).
24. The Workshop on Environmental Indicators for EECCA will take place on 27-28 June 2003 near Saint Petersburg, Russian Federation. Experts from all 12 EECCA countries and international experts will attend. A set of environmental indicators compiled by EEA for use in its member countries will be presented at the event. Criteria for selecting indicators will be considered and a core set of indicators will be identified for use in EECCA countries to improve reporting at the national level and to facilitate international comparisons and the preparation of assessment reports for ministerial conferences "Environment for Europe". The Workshop should also develop a plan and schedule for the EECCA countries to submit data on an agreed set of indicators for a trial report on environmental indicators in EECCA for consideration by a joint UNECE/EEA Workshop in November 2003.
25. The reports of the workshops (February and June 2003) will be made available to the Working Group.
26. At the request of the Environment Ministry of Armenia, a case study on indicator-based reporting is being carried out there. A state-of-the-environment report of Armenia following the Guidelines for the Preparation of Governmental Reports on the State and Protection of the Environment will be prepared and published. To this end, the Information and Analytical Centre in Erevan was designated as lead organization. A kick-off meeting will take place

on 30 June – 4 July in Erevan to discuss the report's structure, data collection arrangements, work-sharing among members of the national working group to prepare the report, time schedule, etc. National and international experts (Russian Federation, UNECE and United Nations Environment Programme (UNEP)/GRID-Arendal) will attend. An extended outline of the state-of-the-environment report will be presented to the Working Group, at its fourth session, by the delegation of Armenia. The report will be available in hard copy in Armenian and Russian and electronic only by the end of November 2003.

VI. REMOTE SENSING

27. The Working Group discussed the role and contribution of remotely sensed information to monitoring and reporting on environmental problems across Europe. It considered a proposal by the Joint Research Centre of the European Commission (JRC) and established a Task Force on Remote Sensing. The purpose was to assess the current use of remote sensing for environmental assessment and monitoring and to identify opportunities for broadening its use.

28. The first Workshop on Remote Sensing Application for Environmental Monitoring took place on 19-20 May 2003 at JRC, Ispra, Italy. Representatives from nine EECCA countries together with the Institute for Environment and Sustainability of JRC, UNECE, UNEP, EEA and the regional Environmental Center for Central and Eastern Europe participated. The Workshop reviewed the potential of current remote-sensing application potential for environmental assessments at the national, subregional and regional levels as well as current country requirements and capabilities in this field. It agreed to prepare a comprehensive project proposal, possibly to be submitted through the Working Group to the European Union's Global Monitoring for Environment and Security (GMES) framework. The Workshop's report will be made available to the Working Group.

29. A project proposal for environmental assessments of the Eurasian region using a key set of indicators derived from remote sensing data is under preparation. The project proposal will include: the development of a methodology for integrating remote sensing data into environmental reporting to fill information gaps critical to the decision-making process; the disbursement of equipment and the hosting of training courses on data handling, processing, and integrated environmental reporting across the Eurasian continent and in particular in the EECCA countries as a means to build capacity, exchange experience, identify obstacles and foster networking; publishing guidelines and a handbook describing the methodology and approach used to integrate remote sensing data into environmental reporting, including costs and benefits, and containing relevant indicators for standardized European environmental reporting.

30. The second Workshop on Remote Sensing Application for Environmental Monitoring will be held on 25-26 September 2003 in Baku, at the invitation of the Ministry of Ecology and Natural Resources of Azerbaijan. The results will be submitted to the joint UNECE/EEA Workshop in November 2003.

VIII. CONCLUSIONS

31. The activities of the Working Group on Environmental Monitoring supported by the Tacis funds helped to improve the visibility of environmental monitoring and observation units in the Environment Ministries in EECCA countries. Networks of monitoring experts are being established in individual EECCA countries following the requests from UNECE to designate experts for participation in specific project components. Moreover, in view of the data collection

and other preparations for the *Kiev Assessment* report within the Working Group, non-EECCA countries have been recognizing the need to support efforts to strengthen EECCA monitoring and observation capacities and to integrate them into major international networks, in particular those that are developed by EEA.

32. The Environment Ministers in Kiev supported the Working Group in its activities, particularly on strengthening environmental information and observation capacity in the 12 countries of Eastern Europe, the Caucasus and Central Asia. They recognized that, at the regional level, further development of the cooperation framework provided by the Working Group was required, and they invited donors to support the Working Group.

33. The momentum should be kept to develop proposals for prospective donors to support the Working Group's activities in 2004 and beyond. Voluntary contributions would be needed to support the active involvement of EECCA countries in the preparations of the fourth assessment report and to continue strengthening monitoring and reporting capacities in the region focusing on the areas emphasized by Ministers in the Kiev Declaration. Electronic equipment, tools and guidelines for better environmental networking and information management; environmental indicators and state-of-the-environment reporting; monitoring of air emissions and urban air quality; remote sensing application for environmental monitoring would be the priorities.