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LESSONS LEARNED FROM DATA COLLECTION FOR THE KIEV REPORT[1/]

Prepared by the European Environment Agency in consultation with the UNECE secretariat

I. DATA COLLECTION FOR THE KIEV REPORT

1. At their last conference "Environment for Europe" in Aarhus in 1998, the European Ministers for the Environment requested the European Environment Agency (EEA) to prepare for its next meeting in Kiev an indicator-based report on progress in environmental management in Europe -the Kiev report-, in coordination with other international organizations. The report has been developed with the support of the UNECE Working Group on Environmental Monitoring (WGEM). It covers the European UNECE region (Europe, the whole of Russia, the Caucasian and Central Asian countries) and focuses on the implementation of international conventions and on progress in environmental management.

2. To make the data collection for the Kiev report as transparent and coherent as possible, a working document "Guidelines for the data collection of the Kiev report" was produced, which contained a description of the information required for the production of the indicators of the Kiev report.

3. The main principle for the data collection for the Kiev report was to avoid any

[1/] Approved by the UNECE Working Group on Environmental Monitoring with amendments made at its special session held on 28-29 November 2002 in Geneva.

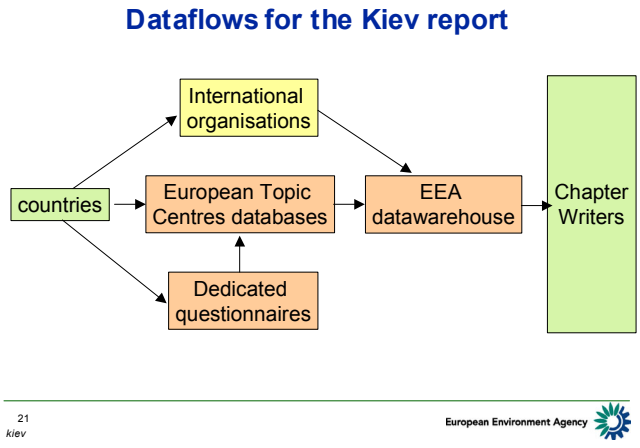
unnecessary burden on the countries. As much as possible the EEA used data from international databases. To collect data not available in international databases for non-EEA member countries, three questionnaires were developed on soil, waste and water topics, which covered the following key topics: land cover related to soil sealing, soil degradation, soil contamination, waste generation and treatment, waste treatment facilities, water resources and water quality including marine waters.

4. The water questionnaire was very extensive, because it was expected to fit into a wider project, namely to extend EUROWATERNET - EEA's system of data collection on water- to non-EEA member countries. This inland surface water monitoring project is now being implemented.

5. Countries that are not members of the EEA and the new Mediterranean EEA countries completed the questionnaires. It concerned 22 countries (2 non-EEA Western Europe countries, 3 new Mediterranean EEA countries, 5 Balkan countries and the 12 countries of Eastern Europe, Caucasus and Central Asia -EECCA-). The questionnaire process was officially launched in January 2002 in the English language and in March 2002 in Russian. The data collection for the Kiev report was completed in September 2002.

6. The role of the national focal points of the EEA (NFPs) and national contact points for the Kiev report (NCPs) was to distribute the questionnaires to those persons or institutions in the countries that were responsible for the national data collection in the area or who might be able to provide the data requested. The NFPs and NCPs motivated national participation in the Kiev reporting process, encouraged that national institutes also provided related information and gathered the completed questionnaires and eventual other material and, sent it in due time as indicated in the questionnaires.

Figure 1: Dataflows for the Kiev report



7. Support to the countries for the data collection was part of the European Union (EU)

CARDS funding for the Balkan countries (Albania and the Federal Republic of Yugoslavia not included) and the EU Tacis funding for EECCA. Consultants were contracted by the EEA in order to support the countries in the data collection (assistance in the completion of the questionnaires) and data processing (data validation, quality control). Kick-off meetings and country missions were organized to give guidance and reference in the data collection.

8. Data have been processed by the European topic centres (ETCs) of the EEA to support the writing of the assessment. All data collected have been stored in a data warehouse, a database at the EEA that is able to capture data from various sources and that has been used by the writers and all of those involved in the production of the Kiev report. They could download the data in the data warehouse for creating indicators and to support their assessments.

II. COUNTRY EXPERIENCES DURING THE DATA COLLECTION FOR THE KIEV REPORT

A. Networking

9. In comparison with the first pan-European state-of-the-environment reports (Europe's Environment - The Dobris Assessment and the Second Assessment), the strength of the Kiev report lies, in particular, in the more structured and systematic involvement of public authorities in countries which are not members of the EEA. It has now been possible to implement this with a longer-term vision in mind.

10. Most of the countries were fully aware of the "Environment for Europe" process and the preparation of the Kiev report for the next ministerial conference. The working relationships with the countries and other relevant national institutions were good. On incidental requests from the EEA, high-level officials were very supportive when there were procedural problems (e.g. clarification of competences, nomination of national institutions for the data collection). The framework for cooperation between countries as provided by the WGEM was very appropriate, for the EECCA in particular, in the way it provided NFPs and NCPs at a technical level, which are essential for good implementations and high quality.

11. In some cases the data collection process was hindered by unclear responsibilities especially at the national experts level (institutions that were responsible for the national data collection). Legal mandates were sometimes requested. Other countries were in an organizational restructuration phase (e.g. Armenia, Malta, FR of Yugoslavia), which did not facilitate the data collection.

12. For producing a proper analysis of the state of the environment, information on many factors influencing the environment is needed. This was reflected in the data request in the questionnaires, and data were to be retrieved from a number of different government entities. Some countries noted it as a problem that the scope of information requested was beyond the competence of Ministries in charge of the Environment. Communication with other Ministries was sometimes poor. Some country representatives did not have the authority to require such data as requested by the Kiev questionnaires. The most serious case was for the water questionnaire (e.g. Croatia, Russian Federation, the Former Yugoslav Republic of

Macedonia), which revealed that cooperation and data exchange between government entities dealing with water needs improvement in several countries.

B. Data availability

13. In the EECCA, due to economic difficulties, the number of stations measuring aspects of the quality of the environment has been severely reduced compared with the beginning of the 1990s.

14. In some countries very limited or no monitoring has been performed due to war situations, and in some cases all information regarding previous years has been lost.

15. In most of the countries, however, there is a substantial amount of data available. Unfortunately, as mentioned above, there is often little or no co-ordination between the organizations involved in environmental data collection. Some NFPs or NCPs do not have the complete overview of data available in their country. Work on a catalogue of data sources would be a first priority, which would also benefit national state of the environmental reporting.

16. The data collection process was further burdened by the lack of an appropriately organized reporting process on national level. Some of the countries still follow monitoring and calculation methods inherited from the past, which are not harmonized with evolving international methodologies and create problems of comparability.

17. Country representatives highlighted technical problems such as lack of the technical base for an effective operation (e.g. computer hardware, IT support, many data not digitally available or accessible on Internet). For those countries, the preparation for the pan-European process and efficient participation in the future depends on the building the national capacities and provision of minimum technical and financial assistance to the relevant institutions.

18. The biggest gaps in data availability as revealed by the Kiev reporting process are related to urban air pollution, soil contamination, soil remediation, waste management systems including hazardous waste, water quality, waste waster treatment and discharge to water and hazardous substances. However there is a good coverage of the following areas: soil erosion, soil sealing, and water quantity and use.

19. Urban air quality monitoring coverage and data availability is still poor in some countries due to lack of monitoring data. As air pollution in relation to human health is amongst the most serious environmental problems faced by EECCA cities, efforts should be made to improve urban air quality monitoring in the EECCA in the framework of the "Environment for Europe" process in general.

20. Air emissions are not properly inventoried in many countries of Caucasus and Central Asia and several countries of Central Europe. Actions are needed to improve emission inventories in those countries.

21. Concerning soil, the biggest gap is related to soil contamination. Although gradually more data on the number of contaminated sites have become available, the analysis is hampered by lack of comparability and information on progress in and costs of remediation. Information on the extension of area affected by soil erosion, especially area of agricultural land affected by erosion is available (most of the countries have data for the last 10 years). Although data on amount of soil lost by erosion is available for 60% of the countries, units are not homogenous making comparisons difficult. The most complete data set concerns land use with time series covering the last 10 years.

22. Although data on the generation and management of waste categories and total waste generated were generally accessible, data quality was not good enough for analysis in all countries. In several countries, hazardous waste data are unreliable because of inaccurate inventories and different classification systems. Waste classifications need to be harmonized for improving the situation.

23. Water quantity and water use data were mostly available. There is a general lack of environmental monitoring and comparable data and information on the state of waters in the EECCA (rivers, lakes, groundwater and coastal waters). National surface-water monitoring systems are not coherent, as neither the data reporting systems nor methodologies are harmonized.

24. Long-term and systematic monitoring of concentrations of hazardous substances in ecosystems, food and human tissues is scarce in all European countries.

25. A large amount of scientific and inventory work has been done and is very developed for monitoring nature and biodiversity. Large parts of Europe are covered by inventories of sites, birds and mammals. However, much of this work lacks however a proper focus to make it relevant for the analysis of policies.

26. Significant gaps in country coverage also occur as revealed by the submission of data from international databases. A number of UNECE countries, although members of relevant international organizations and conventions, do not submit data or their submissions are either incomplete or do not cover the agreed time intervals.

C. Data processing

27. The main problem encountered was the different approaches, concepts and methodologies used by the countries (e.g. waste classifications, air quality measuring methods). What has been learned is that much work needs to be done to arrive at a common understanding of terminology and definitions. The multilingual environmental thesaurus developed by the EEA can support future collaborative activities.

III. RECOMMENDATIONS FOR IMPROVING THE ENVIRONMENTAL MONITORING CAPACITIES IN EUROPE

28. Knowledge on the developments in the whole UNECE region for supporting policy

processes with environmental information will increasingly be necessary. Providing the basis for a phase of "learning from lessons", the Kiev report marks the start of a new phase of cooperation in environmental monitoring and reporting in Europe. This new phase is characterized by more systematic approaches, a policy focus and a clearer organizational structure to support long-term partnerships. This should help better facilitate linking these countries to the necessary support funding, in particular that from the European Community Tacis programme. From the start of its activities, the WGEM was involved in articulating the contents of the Kiev report to make the report relevant to policies and to include the proper analyses. Immediately afterwards the WGEM involved itself in the necessary data flows and information processing. Such an activity is important to establish an effective bridge between a responsive monitoring system and a relevant reporting process in support of policy making. Recommendations to allow for a real pan-European monitoring and reporting process are listed below.

Recommendation 1: Maintain the framework for cooperation on environmental reporting and information management between countries at the pan-European level

29. At the regional level further development of the cooperation framework provided by the WGEM, will be required. This work should be adequately backed up by the political level and supported by the necessary funding.

Recommendation 2: Ensure an appropriate level of investment in basic environmental monitoring infrastructure

30. A higher level of investment, in particular in the EECCA will be required on the national level. Investments into raw data collection (networks), processing capacities (human resources) and equipment (computer hard and software) are needed in a number of UNECE countries in the areas of air quality, water quality, waste management, biodiversity, and chemicals in ecosystems and foodstuffs.

Recommendation 3: Establish mechanisms for provision of environmental information by countries, in particular in the EECCA

31. These mechanisms are defined as "integrated, coherent monitoring, collection, assessment and dissemination systems for providing environmental data and information". Substantial efforts are still needed in many countries of EECCA for developing proper national networks. The experience of the European Environment Information and Observation Network (EIONET) developed by the EEA should be taken fully into account for improving the capacity of the various national institutes in their task of providing environmental information.

32. The WGEM has prepared a set of Recommendations on Strengthening National Environmental Monitoring and Information Systems in EECCA (CEP/2003/11 - CEP/AC.11/2003/16) as well as Guidelines on the Development of State of the Environment Reports in these countries (CEP/2003/12 - CEP/AC.11/2003/17). These documents will support also the national implementation of the principles of the Aarhus Convention on

Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

Recommendation 4: Encourage international collaboration to enhance international comparability of environmental information

33. Priority areas are air emissions, urban air quality, transboundary inland water pollution, marine pollution, hazardous waste, waste management, and biodiversity.

Recommendation 5: Urge UNECE countries, that are not doing so, to ensure submission of environmental data to international organizations and governing bodies of conventions according to their international commitments

34. Specific efforts are required under relevant international organizations and conventions to cover existing data gaps. This would improve respective compliance and reporting systems and would facilitate data collection for the future pan-European environmental assessments.

Recommendation 6: Explore practical possibilities of using information from "remote sensing" for national and regional environmental assessments

35. Remote sensing is a unique instrument to complement existing ground-based monitoring systems. User-driven applications and indicators will need to be developed to optimally use of the technology available.

Annex

RESULTS OF THE DATA COLLECTION FOR THE KIEV REPORT

Criteria for scoring

Questionnaire	Scoring criteria based on questionnaire returned and completed (completeness of requested information on soil, waste and water and time series)
□□□	Questionnaire with complete time series made available
□□	Questionnaire with only minor gaps in time series made available
□	Questionnaire with some major gaps in time series made available and/or delay not more than 2 weeks
□	No/or empty questionnaire returned and/or delay more than 1 month

Country	Soil questionnaire	Water questionnaire	Waste questionnaire	Remarks
Albania	☺	😐	☺	No consultant support by CARDS funding
Armenia	☺	☺😐	😐	Due to the reorganization of the Ministry of Environment, little data available
Azerbaijan	☺☺	☺☺	☺	Questionnaires were returned with minor gaps (soil and water)
Belarus	☺	☺	☺☺	Strong network of national institutions collecting environmental data
Bosnia Herzegovina	☺	☺	☺	The war resulted in major information disruption. However, questionnaires contain the limited data available and were delivered on time
Croatia	☺☺	☺	☺	Significant environmental data available
Cyprus	☺	😐	☺	Late delivery of the water questionnaire
Georgia	☺	☺	☺	Delivery of additional information (e.g. UNSD Questionnaire 2001 on Environmental Statistics)
Kazakhstan	☺	☺	☺	Major gaps parameter-wise and time-wise, very poor waste statistics
Kyrgyzstan	☺☺	☺☺	☺	Partial mismatch of definitions, lack of comparable statistics (e.g. waste, soil loss, contaminated sites), no long-time series (waste)
Malta	😐	😐	😐	Very late delivery of the Kiev questionnaires; inclusion of data from Malta in the Kiev report uncertain
Monaco	n/a	☺	☺☺	Soil questionnaire not relevant for Monaco

Republic of Moldova	☺	☺	☺	Most of data submitted in a format that does not meet EEA requirements. Had to be supplemented by additional data
Russian Federation	☺/😐	☺	☺/😐	Very late delivery of data on waste and soil
Switzerland	☺	☺	☺☺	Delivery of additional information for water (OECD questionnaire 2002)
Tadjikistan	☺	☺	☺	No data on contaminated sites, limited time series, very limited water information, few waste variables are monitored
The Former Yugoslav Republic of Macedonia	☺	☺	☺	Questionnaires were submitted on time and with available data - the grading reflects problems of time series information
Turkey	☺	☺	☺	Limited waste and water information
Turkmenistan	☺	☺	☺	Little data on contaminated sites and soil loss, very scarce waste statistics, relatively complete water information given the overall data situation, delayed delivery due to the national focal point's reorganization
Ukraine	☺	☺	☺	Most of data submitted in a format that does not meet EEA requirements. Had to be supplemented by additional data
Uzbekistan	☺☺	☺☺	☺☺	No data on soil losses, different classification for hazardous waste
FR of Yugoslavia	😐	😐	😐	No consultant support by CARDS funding. Use of additional information (UNSD Questionnaire 2001 on Environmental Statistics)