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EXECUTIVE BODY FOR THE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) (Twenty-sixth session, Geneva, 2-4 September 2002) (Item 5(f) of the provisional agenda)

EMISSION INVENTORIES AND PROJECTIONS

Progress report by the Co-Chairmen of the Task Force,

prepared in consultation with the secretariat

Summary

The Task Force on Emission Inventories and Projections met on 6-8 May 2002 in Cordoba, Spain, to: consider the preliminary status of emission reporting to the Convention in 2002 (2000 data); finalize the revised guidelines for estimating and reporting emission data under the Convention; review software tools for reporting; discuss options for improving the review and assessment of Parties' emissions inventories; discuss the updating and future development of the EMEP/CORINAIR Atmospheric Emission Inventory Guidebook; review its work-plan and consider future priorities and working methods. The meeting was held jointly with a workshop organized by the European Environment Information and Observation Network (EIONET), maintained by the European Environment Agency (EEA). Expert panels addressed technical and reporting issues related to: agriculture/nature; transport; combustion and industrial emissions; and projections and verification. The Task Force addressed the scientific and strategic issues that had an impact on its work, some of which were highlighted in a poster session.

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Introduction

- 1. The eleventh meeting of the Task Force on Emission Inventories and Projections, the third to be held jointly with EIONET, took place in Cordoba from 6 to 8 May 2002. Ninety-one experts from 34 Parties to the Convention and representatives from the European Commission and cooperating bodies attended. The Parties represented were: Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, the United Kingdom and the United States of America.
- 2. The cooperating bodies represented included: the European Commission (DG Environment), the European Environment Agency (EEA) and its European Topic Centre on Air and Climate Change (ETC/ACC), the Statistical Office of the European Communities (EUROSTAT), the Joint Research Centre and the Organisation for Economic Co-operation and Development (OECD) (Pollution Release and Transfer Register (PRTR)). Representatives of the United Nations Framework Convention on Climate Change, the Meteorological Synthesizing Centres (MSC-E and MSC-W), the Chemical Coordinating Centre, the Centre for Integrated Assessment Modelling, the UNECE secretariat, the Technical Support Unit for the Intergovernmental Panel on Climate Change (IPCC) National Greenhouse Gas Inventories Programme, located at the Institute for Global Environmental Strategies (Japan), also attended. Industrial organizations also participated.
- 3. A full report of the meeting and of the EIONET part of the meeting, together with the list of participants, the reports by the moderators of the expert panels and copies of the presentations, are available on the web site of the Task Force: http://www.aeat.co.uk/netcen/airqual/TFEI/unece.htm.
- 4. Mr. M. WOODFIELD (United Kingdom) and Mr. C. EVERS (European Commission) cochaired the meeting. Both co-chairs announced that they would step down during the coming year. Parties were invited to express their interest in co-chairing the Task Force.
- 5. Mr. J. MARTINEZ SANCHEZ, Deputy General Director of the Ministry of Environment of Spain, welcomed the participants, underlining the importance of the work of the Task Force and EIONET to improve emissions inventories and within the context of the larger goal of achieving sustainable development.

I. CONCLUSIONS AND RECOMMENDATIONS TO THE STEERING BODY

6. The Task Force:

- (a) Agreed that, given the progress made in cooperation between all member States and nonmember States of ECE, it would continue to meet together with EIONET to strengthen the joint network of experts and avoid duplication;
- (b) Recognized that the revised guidelines for estimating and reporting emissions data currently offered the best solution for efficient and effective reporting to EMEP and, subject to the introduction of a mechanism for their amendment to meet evolving technical needs, and the resolution of their legal status, recommended the Steering Body to adopt them;
- (c) Decided it should refocus its resources on the exchange of scientific information and the review and assessment of emission inventories, in response to the needs of the Convention as reflected in its consolidated work-plan. The expert panels of the Task Force assessed their resources and activities with a view to better serving the long-term goals of EMEP. Since much progress had been made on the development of guidance and reporting mechanisms, activity in these areas should concentrate on completing and updating the Guidebook and the reporting guidelines;
- (d) Noted that much work of relevance to the Task Force was being conducted by cooperating bodies and that greater efforts could be made to align its working practices with those of other bodies. Consequently, the expert panels would define their future work in "project" areas that could be shared with other groups and managed accordingly;
- (e) Took note of the needs of the Convention, whilst discussing its mode of working and strategic directions. It agreed that a paper reflecting this discussion would be produced by the co-chairs and posted on the Task Force secretariat's web site to allow Parties to communicate their views. A formal proposal for a revised structure of the Task Force would be made after this consultation and before its next meeting;
- (f) Noted that the expert panels had discussed, inter alia, the importance of further work on uncertainties, peer review and scientific presentations. Details on the conclusions of each panel are reflected in paragraphs 19-23 below.

II. PROGRESS REPORT

A. Status of submissions for 2002 reporting (2000 data)

- 7. The Task Force considered the preliminary status of emission reporting under the Convention for 2002 reporting (2000 data) as presented by Ms. V. VESTRENG of MSC-W. Since Parties had the option this year of reporting according to either the revised draft guidelines (EB.AIR/GE.1/2001/6 and Add.1) or the previous guidelines (EB.AIR/GE.1/1997/5), it was commendable that, despite the considerable amount of work required by the revised reporting framework, the response rate this year was the same as last year. Thirty-one per cent of Parties had submitted data within the deadline, 31 January 2002. By the final deadline for data to be included in the annual assessment report by MSC-W, 36 Parties (75%) had submitted data, the highest submission rate thus far. Moreover, for the first time, all submissions were in electronic format. The Task Force reflected that these results demonstrated broadbased support for the revised guidelines.
- 8. Eleven Parties (23%) had submitted data on particulate matter (PM), which was included in the emissions reporting programme for the first time, although reporting on PM2.5 was lower (17%). However, further work was needed to strengthen reporting of: gridded data, data on emissions from large-point sources, persistent organic pollutants (POPs) and heavy metals (HMs), the latter two especially once the Protocols on POPs and HMs entered into force.

B. Liaison with other international organizations

9. The representatives of ETC/ACC, led by the National Institute of Public Health and the Environment of the Netherlands, the European Commission, EUROSTAT, IPCC, and OECD (PRTR) reported on their activities. Copies of the presentations are available on the web site of the Task Force.

C. Finalization of the revised guidelines for estimating and reporting emissions

10. The UNECE secretariat introduced the revised draft guidelines for estimating and reporting emissions data under the Convention, noting that an intensive revision process had taken place since the previous meeting of the Task Force. At the request of the Steering Body at its twenty-fifth session, the Task Force had convened an editorial meeting from 25 to 26 February 2002 in Geneva to assess comments received from Parties and produce a revised version of the guidelines. The revised guidelines, dated 7 April 2002, were submitted to the Task Force for consideration.

- 11. The secretariat had received additional comments from the following Parties (after the 7 April 2002 version was distributed, and too late to be analysed and circulated to the Task Force for prior consideration): Austria, Canada, Luxembourg, Netherlands, Norway, Sweden, and the United States of America. The comments were of two types: proposals for editorial changes; and questions related to technical, legal and other aspects.
- 12. After considering the most recent comments in plenary, the Task Force agreed on the following procedure to finalize the guidelines in order to be able to submit them to the EMEP Steering Body and recommend them for adoption at its twenty-sixth session:
- (a) The editorial group would be reconvened to consider and respond where possible to the comments cited above;
 - (b) Comments on legal aspects would be handled according to paragraph 15 below;
- (c) The views of the editorial group would be communicated by electronic mail and a final "comments document" would be prepared, reflecting the decisions of the editorial group;
- (d) A final version of the guidelines would be submitted to the EMEP Steering Body at its twenty-sixth session in September 2002, with a recommendation for their adoption.
- 13. It was agreed that, following the adoption of the guidelines by the Steering Body, the editorial group might continue to consider proposed adjustments to the reporting guidelines from Parties and report to the Task Force at its next annual meeting. The Task Force would recommend revisions to the guidelines, in accordance with revised paragraph 43¹ of the guidelines, to the EMEP Steering Body.
- 14. Experts from the following Parties offered to participate in the editorial group: Canada, Luxembourg, the Netherlands, Norway, Sweden, the United Kingdom, and the United States of America. MSC-W also agreed to work with the group.

Proposed new paragraph 43 of the revised guidelines for estimating and reporting emission data, as approved by the Task Force: "These guidelines are subject to review and revision by 2007, at the latest. The Task Force on Emissions Inventories and Projections may, if necessary, adjust the guidelines to meet evolving needs and ensure efficient reporting to the EMEP Steering Body. Such modifications should be minor and technical in nature."

- 15. As the Task Force was unclear about the legal status of the guidelines, it agreed to ask the Implementation Committee for clarification. This might enable text to be incorporated into the guidelines to indicate that they are not legally binding, but may be considered as an ancillary, supporting document, intended to provide guidance to Parties in fulfilling their reporting requirements under the Convention and its protocols. The EMEP Steering Body and the Executive Body may, however, decide to use the authority delegated to them by the Convention and the protocols and render certain provisions of the guidelines legally binding. In this connection, the secretariat has prepared a draft decision for the consideration of the Steering Body (EB.AIR/GE.1/2002/13).
- 16. The representatives of the United States and Canada stated their reservations about endorsing the guidelines until the legal status was clarified. They nevertheless confirmed their intention of using the revised guidelines for the forthcoming reporting rounds.

D. Improvement of the EMEP/CORINAIR Emissions Inventory Guidebook

- 17. Mr. N. HILL, the co-secretariat of the Task Force, outlined the Task Force's secretariat and EEA proposals for improving and updating the Guidebook. The Task Force broadly embraced the solutions proposed and identified several additional issues that would need to be addressed in considering the further development of the Guidebook.
- 18. The Task Force, the UNECE secretariat and EEA agreed to collaborate with the OECD/PRTR group and the intergovernmental Release and Estimation Techniques (RET) Task Force to establish links between their web sites and that of the Guidebook.

E. Reports from expert panels

19. The expert panel on inventory verification and projections reported that the Guidebook's chapter on "Good Practice Guidance for CLRTAP Inventories" was complete. The panel noted that the concept of "verification" of data was gradually being replaced by a renewed focus on "validation" and "good practice," as defined by IPCC, and by the Parties themselves. It also stressed the importance of the quantification of uncertainty, and proposed that it should realign its activities and resources toward establishing procedures for external review and assessment of inventories. This could include a system of initial checking, a centralized type of review and, possibly, in-country reviews. Such an approach would require an expert group/project group and any practical work would be contingent on the expressed needs of the Parties and available resources. The Task Force agreed it should consider the preparation of transparent procedures to be used by MSC-W for filling statistical gaps and solving inconsistencies in data.

- 20. The representative of Sweden announced the organization of a workshop on validation/evaluation of emission inventories (14-16 October 2002, Gothenburg, Sweden). Further information could be found on the web site: www.validationworkshop.ivl.se.
- 21. The expert panel on combustion and industry reported that it had made considerable progress, using workshops to target specific Guidebook issues. In particular, the Moscow workshop organized by MSC-E and the Task Force had brought together emissions and modelling experts to successfully address key Guidebook data gaps and to define a model for the further development of priority chapters. However, the panel noted that significant work remained to fill further gaps for particulate matter, heavy metal and persistent organic pollutant data, particularly with respect to large point sources. It also identified a need for developing ammonia emissions data and procedures to review submitted data. The panel had identified a number of tasks and allocated its available resources accordingly. Additional resources were identified from within the Task Force and related groups, including industry, academic institutions, the United Nations Environmental Programme, etc.
- 22. The expert panel on transport noted that, while much progress had been made on the Guidebook's development for road vehicles, shipping and air transport, there were still areas that needed further work. Discussions focused on five priorities: Nomenclature for Reporting (NFR) and reporting issues; particulate matter from vehicle tyre and brake wear and road abrasion; ammonia (NH₃) and nitrous oxide (N₂O) emissions; uncertainty; and updating the Guidebook. Groups were set up to clarify the allocation of national and international shipping emissions and PM from road transport. The relatively high uncertainty of ammonia emissions from vehicles was noted. Since this was also a problem in non-mobile sources, it was recommended that it should be dealt with within the Task Force. Since N₂O was a related problem, it was proposed to organize a joint NH₃/N₂O workshop with IPCC. According to the panel, the major source of uncertainty might be due to missing emission sources and it proposed that the Task Force should develop checklists of known emission sources to assist Parties in ensuring complete inventories. It was noted that the existing chapter on road transport was out of date. The panel would make an initial revision to incorporate COPERT 3 and a complete revision would incorporate the findings of the Artemis project.
- 23. The expert panel on agriculture and nature reported that progress had been made over the past year, but that its resources were limited. A working group had revised a number of chapters, which would be finalized now that the NFR had been agreed. An introductory chapter would contain an overview of all sources and species emitted and information about the state of related chapters. The panel agreed that the NFR should be reviewed to ensure that all known emissions

were being reported. One priority where progress had been slow was particulate matter, mainly due to a lack of data. A meeting would be held in Braunschweig (Germany) on 3-4 June 2002 to consider this issue. In addition, a mid-term meeting would be held in Vienna, in November 2002, together with a meeting of the Ad Hoc Expert Group on Ammonia Abatement. It was reported that external funding was being sought for priority projects where the Guidebook needed further work.

III. OTHER ITEMS

- 24. A poster session was held to exchange scientific information. Brief technical presentations were made in the expert panel sessions to provide an opportunity for sharing practical experience. The contribution in kind from Belarus entitled "Preparation of, and addition and refinements to, the Guidebook regarding POPs in view of peculiarities of CIS country technologies" was presented. The Task Force welcomed this as a valuable contribution to the further improvement of the Guidebook.
- 25. MSC-W reported on the progress made in developing a web-based information system containing the EMEP database for all Parties. The web site was being developed at the request of the EMEP Steering Body and would be operational in June 2002. The Task Force stressed the need for consistency between the emission data in the database and the national data sets, and for including contextual information on the web site, including the delivery date for official reporting.
- 26. The Task Force gratefully accepted the offer of the Government of Poland to host the twelfth meeting of the Task Force and an associated EIONET workshop scheduled to be held from 22 to 24 September 2003 in Warsaw. The co-chairmen thanked the Government of Spain for its generous support of the Task Force's meeting in Cordoba and expressed its appreciation for its excellent organization.