

3rd JOINT MEETING OF THE BUREAUX OF THE WORKING GROUP ON EFFECTS AND THE EMEP STEERING BODY

Held at the Palais des Nations, Geneva,
on Thursday, 18 March 2004 at 10:30-12:30 in salle VIII.

MINUTES ON THE MEETING

Prepared by the secretariat in consultation with the Chairs

1. The meeting was attended by members of the Bureau of the WGE (Working Group on Effects), the Bureau of the EMEP (Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air pollutants in Europe) Steering Body, and the task force chairs, heads of international cooperative programmes and their centres operating under these bodies, as well as members of the secretariat. The meeting was co-chaired by Mr. H. GREGOR (Chair of the Working Group on Effects) and Mr. J. SCHNEIDER (Chair of the EMEP Steering Body).
2. The co-Chairs welcomed the representatives of the two bodies noting the success of the previous meeting in 2003, and the encouragement of the Executive Body to continue with the collaboration.
3. The meeting adopted its agenda (Annex I).

Some topical cooperative issues

4. Selected items were chosen for the information of the Joint Bureaux on current cooperation between WGE and EMEP. Each item was shortly introduced and comments were postponed till the discussion of the harmonised work-plan.
5. *Total base cation deposition map: progress and deliverables.* The secretariat briefly introduced the outcome of the joint EMEP and WGE workshop on "Emissions, transport, deposition and effects of base cations in relation to acidification", which was held in 26-28 November 2003 in Gothenburg, Sweden. The workshop proposed preparing *inter alia* an *ad hoc* total base cation deposition map for Europe. Such a map should be compiled by EMEP/MS-CW and EMEP/CCC, in cooperation with WGE, especially ICPs Modelling&Mapping and Forests. Ms. L. TARRASON, head of the EMEP/MS-CW, described the progress of this work. The aim of this work was to enable national experts and WGE/NFCs (National Focal Centers for Mapping Critical Loads) to compare their data against the estimates provided by EMEP. An updated map of base cation deposition should be available by the end of the 2004 at latest.
6. *Land cover data harmonization.* The secretariat introduced the results from an ad hoc meeting of experts on harmonisation of land cover information for applications under the Convention on LRTAP, which was held on 10 March 2004 in Laxenburg, Austria. The meeting was attended by representatives from ICP Modelling and Mapping, CCE (Coordination Center for Effects), EMEP/CIAM (Center for Integrated Assessment Modelling), EMEP/MS-CW, SEI (Stockholm Environment Institute) and the secretariat. Mr. J.-P. HETTELINGH, head of the CCE, informed, that the meeting identified, *inter alia*, a promising way to harmonise available land cover and ecosystem classification data and methods into a data set, which could provide a feasible basis for all activities under the Convention, and to allow necessary potential addition of details required by specific applications. All ICPs under WGE and EMEP were urged to make use of the harmonised data set.

7. *Ozone flux and effects modelling.* Ms. G. MILLS, former chair of WGE/ICP Vegetation, presented the status of the work on developing the ozone flux modelling to assess effects on vegetation (crops and trees). The close cooperation between experts of WGE/ICP Vegetation and EMEP/MSW has produced a sound basis for assessing effects of ozone on vegetation. The methods are well developed for assessing effects on wheat and potato and provisional for trees. However, more work is necessary to reduce uncertainties before applying the methods in integrated assessment.

8. *Critical loads of heavy metals.* The Chair of the expert panel on heavy metals under the ICP Modelling and Mapping, Ms. G. Schütze, informed on the outcome of the "Workshop on critical loads of heavy metals", which was held 4-5 March 2004 in Potsdam, Germany. The workshop had concluded that an effect-oriented approach was well developed and that therefore, appropriate data should be compiled to map critical loads for Cd, Pb and Hg.

9. *Status of dynamic [acidification] modelling.* The Chair of WGE, Mr. H. GREGOR, informed, that in its last meeting EB has agreed on a separate work-plan item for the JEG DM (Joint Expert Group on Dynamic Modelling), led by Mr. A. JENKINS, UK. Mr. J.-P. HETTELINGH, head of the CCE, reported on the status of the planned regional application of a very simple dynamic model (VSD), for which the current call for data would provide input data. The aim is to develop target load functions, which could also be used in integrated assessment modelling.

Planned activities related to elements of the harmonized work-plans

10. Based on the notes of last Joint Bureaux meeting (February 2003) an in-depth review was made of the relevant activities of the WGE and EMEP. The discussions were focused on the deliverables; however, it was noted that there were other elements of collaboration that would not be well reflected well by a table of deliverables. The meeting discussed: (i) the main elements of the work-plan relevant for the other group, including the dates of required inputs; and (ii) harmonizing the timetables of deliverables needed for the review of the protocols. The WGE presented a detailed list of deliverables requested from EMEP at the meeting, as a basis for the discussions. EMEP had not updated its requests from the WGE in advance. Both WGE and EMEP expressed their preparedness to assess the requests from the other group and to take these requests into account in establishing their work-plans.

11. The deliverables were presented in tabular form for discussion in the meeting, and they were intended to inform on the needs and anticipated main results of relevance for the cooperation. After the Joint Bureaux meeting, the WGE Extended Bureau added information as footnotes to better explain the reasons for needing certain information. The EMEP Bureau sent suggestions to amend the table to take into account their discussion after the Joint Bureaux meeting. These amendments are marked as text in ~~striketrough~~ or in *italics*, for deletion and addition, respectively. The updated tables are in Annex II. The discussion on each main item is briefly described in the following paragraphs.

12. *Acidification and eutrophication.* Historic emission and deposition (in 150km x 150km grid) data for sulfur and nitrogen are available from a study by EMEP/CIAM and CCE. However, improved emission data were identified as necessary. Such data for NO_x are anticipated from a project being finalised in the near future (CARBOSOL). Ecosystem specific deposition data from new Eulerian model in 50 km x 50 km grid have been made available by EMEP/MSW. The timetable of EMEP/MSW and EMEP/CCC to prepare total base cation deposition maps for Europe were presented. The importance of harmonised land cover and ecosystem classification data, to be provided by CCE, was stressed several times.

13. *Ozone.* MSW of EMEP noted that they had plans to extend their modelling domain to a hemispheric scale. This should be supplemented by corresponding monitoring. The

representatives of WGE/ICP Vegetation indicated that flux-based methodologies for crops were developed, and mapping activities should be scheduled. The effects community had also developed concentration-response functions for some health endpoints related to ozone exposure. Therefore, there was a need to obtain concentration data relevant for exposure to assess health impacts. This issues would be discussed at the coming meeting of the TF on Health.

14. *Particulate matter*. Representatives from the WGE highlighted the importance of PM data for assessing effects on health and on materials. However, the EMEP unified Eulerian model still underpredicts total PM mass. The improvement of the model performance e.g. by including all relevant processes contributing to PM mass is a priority item for MCS-W.

15. *Heavy metals*. The EMEP/MSC-E announced its preparedness to provide data on precipitation concentrations and deposition of selected heavy metals. However, there are still some uncertainties, e.g., linked to the quality of officially submitted emission data. The EMEP/MSC-E model will be reviewed in 2005. Mapping of critical loads for Cd, Pb and Hg was expected for 2005. These issues would be elements of cooperation with the WGSR Expert Group on Heavy Metals. The work on using mosses as bioindicators is continuing.

16. *POPs*. The EMEP/MSC-E model will be reviewed in 2005. There is an ongoing cooperation between EMEP and WGE in the assessment of trends and health risks. EMEP/MSC-E highlighted the need for measurement data of POPs in other environmental compartments than ambient air and invited ICPs to provide such data, if available. An assessment of the health risks linked to POPs from long-range transport has underlined their importance. Both EMEP and WGE underlined their willingness to support the new WGSR/Task Force on POPs, as appropriate.

**WGE Substantive Report and EMEP Assessment Report:
consideration of possible cooperation, exchange of information and data**

17. The Chair of WGE, Mr. H. GREGOR, explained that the 2004 Substantive Report of the Working Group on Effects was being finalised. The full report and its executive summary would be presented to the twenty-third session of the Working Group on Effects in September 2004. A consultant, Mr. G. FENECH, had been engaged to edit the report. Mr. Gregor noted that he had requested for some contributions from EMEP to the report, and that they already had mostly been made available.

18. The Chair of EMEP Steering Body, Mr. J. SCHNEIDER, described the EMEP assessment report, which consists of two parts: part I of the report contains a European assessment in a pollutant specific manner and was prepared by the EMEP centres in close collaboration with invited experts. Part II of the report is based on contributions from national experts, which provide country specific assessments of their relevant data.

19. It was noted that the two reports should be consistent and complementary, especially the conclusions and the executive summaries. The draft texts would be made available mutually for comments.

RAINS review

20. Mr. M. AMANN, head of EMEP/CIAM, informed the meeting on the RAINS model review. The review is funded by the European Commission and has already started with anticipated finalisation during this year. A team of nine scientific experts, led by Prof. P. GRENNFELT, evaluates how the model utilises the data for the different parts of the integrated assessment

modelling. The material prepared for the review team is also available at EMEP/CIAM web site (<http://www.iiasa.ac.at/rains/review/index.html>).

Cooperation with CAFE

21. The secretariat provided a brief overview on the cooperation between LRTAP and CAFE, in particular of the activities of the High Level Coordinating Group (of the Bureau of the Executive Body and the CAFE secretariat). The next meeting will be held in May 2004, and the members of the joint Bureaux were invited to raise important issues to be addressed at this meeting.

Other business, including next joint meeting

22. In view of its usefulness, the meeting agreed to aim at continuing the model of joint meetings in the future. The chairs of the WGE and the EMEP SB, respectively, were invited to explore effective ways to facilitate the discussions at the coming joint Bureaux meeting, e.g., by preparing relevant documents well in advance of the meeting.

Annex I**JOINT MEETING OF THE EXTENDED BUREAUX
OF THE WORKING GROUP ON EFFECTS AND THE EMEP STEERING BODY**

The meeting was held on Thursday, 18 March 2004, 10:00-12:30, salle VIII

AGENDA

- 1. Opening of the meeting (by the Chairs of the Bureaux)**
- 2. Organisation of the meeting**
 - a) Attendance and apologies
 - b) Adoption of the agenda
 - c) Minutes from the last meeting
- 3. Some topical cooperative issues**
 - a) Total base cation deposition map: progress and deliverables.
 - b) Land cover data harmonization: recommendation from expert meeting 10 March.
 - c) Ozone flux modelling: status of the work.
 - d) Specific requirements from the outcome of the workshop on critical loads of heavy metals in Potsdam 4-5 March.
 - e) Status of dynamic [acidification] modelling.
- 4. In-depth consideration of the planned activities related to the following elements of the harmonised work plans**
 - a) Acidification and eutrophication;
 - b) Ozone;
 - c) Particulate matter;
 - d) Heavy metals;
 - e) POPs.

Based on the minutes of last meeting (February 2003, see:
http://www.unece.org/env/emep/joint_emep_wge_bureau_meeting_feb03_report.pdf):

 - i) review of expected EMEP and WGE deliverables/results,
 - ii) their timetable, and
 - iii) needed external inputs (data, information, resources);
 - iv) discussion of realistic possibilities for
 - the timely mutual provision of required inputs, and
 - harmonizing the timetables of deliverables needed for the review of the protocols until 200x (2006?)
- 5. WGE Substantive Report and EMEP Assessment Report**
- 6. RAINS model review**
- 7. Cooperation with CAFE**
- 8. Other business, including next joint meeting**