

**4<sup>th</sup> 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, 24 February 2005 at 10:30-12:30 in salle H-3.

**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 meetings, and the encouragement of the Executive Body to continue with the collaboration.
3. The meeting adopted its agenda (Annex I).
4. L. Tarrason (MSC-W) informed the meeting of the draft base cation report which included total deposition maps for 2000, covering both anthropogenic contributions and some natural sources. EMEP was looking forward to receiving feedback from WGE on the base cation report, and from the national focal centres (NFCs) on how the new information would affect critical load calculations. M. Posch (CCE) thanked EMEP for the new information on base cations, noting the need to include also chloride in the assessment work. The data have been sent to NFCs to compare with existing data from national estimates or CCE estimates based on EMEP/CCC data. CCE had work underway to update element contents in soils for improved wind-blown dust contributions. Further cooperation on this issue was expected.
5. The harmonized land cover map, based on CORINE data, where they were available, and complemented by data from the Stockholm Environment Institute at York (SEI) was used by several Convention bodies, and was being further improved to address specific needs.
6. Attention was drawn to the striking difference between flux maps and concentration-based maps for the assessment of ozone effects on vegetation. Further work on these maps was ongoing.
7. It was stressed that there were uncertainties in heavy metal deposition and concentration maps and that these should be taken as preliminary.
8. Several participants highlighted positive results of cooperation. CCE/ICP Modelling and Mapping had collaborated with MSC-East on mapping the exceedances of critical loads of heavy metals (lead, cadmium and mercury). M. Kryzanowski (Task Force on Health) noted with satisfaction the cooperation between EMEP and the Task Force on Health, in particular on PM modelling. MSC-East expressed its gratitude for the use of the heavy metals in mosses database. V. Kucera (ICP Materials) expressed gratitude of ICP Materials to MSC-West for data needed on the effects on cultural heritage.
9. The two Bureaux discussed and agreed on the joint work-plans compiled by the secretariat (see annex II). During the discussion, attention was drawn, inter alia, to the following issues:
  - Hemispheric scale modelling was a new priority for EMEP, as reflected in the plans of the Task Force on Hemispheric Transport of Air Pollution (TFHTAP), co-chaired by the European Community and the United States.
  - The Joint Task Force on Health needed population-related modelled concentration data;

- For uncertainty analyses, it was important to identify the robustness of input data used for integrated assessment modelling. Any biases should be communicated to the Centre for Integrated Assessment Modelling. Guidance was sought on how to communicate the results to policy-makers. Greater information regarding uncertainties in ozone fluxes would also be useful;
- Review of relative toxicity of different PM components was of high priority in the health community and should be re-visited in the coming years;
- Regarding data on heavy metal emissions, the availability of projections for 2010 should be further explored;
- Deposition information on additional metals (Ni, As, etc.) was planned for 2006: there needed to be further direction on which of the additional metals might be a priority;
- None of the ICPs had measurement data on POPs; any relevant data should be made available to MSC-East;
- The Joint Task Force on Health was awaiting a concrete request from WGSR on new POPs for which a full exposure assessment was needed.

10. Cross-cutting issues not covered under other agenda items included: the extension to greenhouse gases and links to climate change, as well as the extension of scales (hemispheric scale not only covering the current ECE region, but an intermediate step toward a global scale), and downscaling, including the urban scale. The Chairman of WGE noted that the linkage to climate change issues was high up on the agenda of WGE. The Chairs of the new Task Force on Hemispheric Air Pollution pointed out that the initial focus of this group would be on atmospheric science, but eventually would also consider the question of effects.

11. Mr. P. Grennfelt (EMEP Steering Body Bureau) introduced the conclusions of the workshop on the review of the RAINS methodology (EB.AIR/GE.1/2005/6).

12. The Bureaux chairs considered the results of the Gothenburg workshop and expressed their gratitude to the organizers of the workshop. They acknowledged the role of the Nanjing Nitrogen Conference in recognizing the importance of the effects and transboundary pollution of nitrogen and confirming that eutrophication remained an important issue.

13. The Bureaux chairs commented on the extensive cooperation between the Convention and CAFE, reiterating that work under CAFE would continue after the publication of the thematic strategy in a five-year review cycle and would play an important role in air pollution policy in the coming years. Mr. A. Zuber recalled that the last meeting of the CAFE steering group considered a so-called "non-paper" that evoked the relationship between the Commission and the Convention and emphasized the importance of harmonizing work and avoiding duplication of efforts, including the cooperation in long-term monitoring activities.

14. The secretariat noted the importance of streamlining documentation in line with the guidelines on reports and discussed plans to streamline the work-plans of EMEP and WGE.

15. The secretariat informed the meeting that Portugal had been the 16<sup>th</sup> country to ratify the Gothenburg Protocol on 16 February 2005. The Protocol would enter into force on 17 May 2005.

16. The next joint meeting of the Bureaux would be held around the same time next year (end-February 2006).

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, 24 February 2005, 10:00-13:00, Salle H-3

**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. Streamlining work-plans**
- 4. Achievements on some topical cooperative issues**
  - a) Total base cation deposition map (base cations, chloride, sea-salt);
  - b) Land cover data harmonization;
  - c) Ozone flux mapping.
- 5. 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.
- 6. RAINS model review: results of the workshop on methodologies held at IIASA, 20-21 January 2005**
- 7. Consideration of the results of the Gothenburg workshop and the Nitrogen Conference, as requested by the EB**
- 8. Cooperation with CAFE and EECCA countries**
- 9. Streamlining documentation**
- 10. Other business, including next joint meeting**

Annex II

**Table Planned cooperative activities between EMEP SB and WGE**

**1. ACIDIFICATION AND EUTROPHICATION**

Year	EMEP SB		WGE	
	Work plan item	Input from WGE	Work plan item	Input from EMEP
<b>2005</b>	Updated Eulerian modelling results on ecosystem-specific depositions	Updated and harmonized data for land use map (M&M, V)		
	Validation of European total base cation deposition maps	Monitoring results and data (, IM, F) Updated soil element contents data (M&M) Validation of European total base cation deposition maps M&M) Evaluation of the effect of the base cation deposition in CL calculations and dynamic modelling (M&M)	Material stock at risk (MAT)	
	Uncertainty analysis	Identification of uncertainties of CL, esp. biases (M&M) *)		
	<i>Historic S+NOx+PM+NH3+VOC depositions (see 2006)</i>		Dynamic modelling, comparison with measurements (trends) (M&M, W, IM, JEG DM)	Historic S+N+BC+Cl depositions available from MSC-W
<b>2006</b>	- Hemispheric scale modelling results	Provision of soil database to hemispheric/global scale		Modelled meteorological and pollution data (air concentration: SO <sub>2</sub> , NO <sub>2</sub> , PM; precipitation: pH) data for several years (e.g. 1980, 1990, 2000) for mapping, incl. modelled local scale; if financing allows. Data from City Delta
	<i>European total chloride deposition maps: according to priorities and if financing allows</i>	Evaluate the relevance of total chloride deposition maps in relation to other pollution effects (CCE)*		
	Historic BC deposition			
			Critical loads (M&M), corrosion (MAT)	European total chloride deposition maps
<b>2007</b>				

\* according to CCE priorities and if funding allows

## 2. OZONE

Year	EMEP SB		WGE	
	Work plan item	Input from WGE	Work plan item	Input from EMEP
2005	Eulerian modelling results	Updated and harmonized data for land use map (M&M, V)	Report on exposure assessment and health risk t (H)	Population relevant modelled concentration data
	Model validation	Cooperation in model validation using ICP forests and EMEP monitoring data	Approved methodology for IAM, and comparison of concentration and flux-based approaches (V)	Final maps for exceedance of revised critical levels of ozone
	Uncertainty analysis	Identification of uncertainties of CLevels, health impacts esp. biases (H, V)		
2006	Modelling on hemispheric scale	Extended Database for land cover and forest information (F)		
2007				

## 3. PARTICULATE MATTER

Year	EMEP SB		WGE	
	Work plan item	Necessary input from WGE	Work plan item	Necessary input from EMEP
2005	Eulerian model results on chemical composition	Database for soil-contents of organic matter, (IM, F)		
	Hemispheric modelling results	extended soil database (IM,F)	Health impact assessment (H)	Improved assessment of PM
	Uncertainty analysis	Identification of uncertainties of health impacts esp. biases		
2006	Eulerian model results on chemical composition	Updated Review of relative toxicity of different PM components (H)	Health impact assessment (H)	Improved assessment of PM
2007			Health impact assessment (H)	Improved assessment of PM

## 4. HEAVY METALS

Year	EMEP SB		WGE	
	Work plan item	Necessary input from WGE	Work plan item	Necessary input from EMEP
2005	- Material for Protocol review (emissions, transfer)	- Maps of CL	Exceedance maps for Cd, Pb and Hg; Health risk assessment of HM; HM in mosses  (M&M, W, F, V, IM, H)	Deposition maps (Cd, Pb and Hg) and rainfall concentrations (Hg only) for most current and protocol target years (1990,2000, 2010)
	explore possibilities for IAM scenarios linking to Cd, Pb and Hg effects			
2006			Comparison with trends of heavy metals in mosses (V)	Deposition trends (Cd, Pb and Hg)
	<i>Deposition for other As, Ni</i>			<i>Deposition for other As, Ni</i>
2007			Update of risk assessment for forests (F, IM)	Maps of <i>accumulated</i> deposition of HM ( <i>for agreed period</i> )

## 5. PERSISTENT ORGANIC POLLUTANTS

Year	EMEP SB		WGE	
	Work plan item	Necessary input from WGE	Work plan item	Necessary input from EMEP
2005	Material for Protocol review (existing and new substances)	<i>Measurement data on concentration levels in different environmental compartments (all programmes investigate)</i>		
2006			- Material for Protocol review (new substances) (H)	- Population related exposure to selected POPs from long-range transport (H)
2007				