

Summary of in-depth discussion of activities relevant to both the Working Group on Effects (WGE) and the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollution in Europe (EMEP)

Technical workshop, agenda item 5 thirty-fifth session of the Steering Body to EMEP
Palais des Nations, 5 September 2011, 11.30 am – 6 p.m.

Draft report from the Chair
(Harry Harmens, chair ICP Vegetation)

Introduction

The purpose of the technical workshop was to allow for an in-depth presentation and discussion of activities relevant to both the EMEP Steering body and the Working Group on Effects (WGE). Eight presentations were provided by representatives of the two subsidiary bodies, covering issues of common interest, such as generation and exchange of data and their application, current and future needs and ways to meet them. In addition to highlighting the extent of existing collaboration, challenges and gaps in the current collaboration were identified.

Presentations

The following presentations were given:

1. Impacts of air pollution on ecosystems, human health and materials under different Gothenburg Protocol scenarios: a LRTAP data flow (Chair ICP Modelling and Mapping).
2. An outlook to future air quality in Europe: Priorities for EMEP and WGE from an Integrated Assessment perspective (Head Centre for Integrated Assessment Modelling).
3. From the perspective of the Task Force on Integrated Assessment Modelling (Chair Task Force on Integrated Assessment Modelling).
4. Quantifying the threat from ozone pollution to food security: ICP Vegetation – EMEP collaboration (Head Programme Coordination Centre ICP Vegetation).
5. Use of EMEP results in ICP M&M assessments for the support of the GP-revision (Head Coordination Centre for Effects).
6. ICP waters: use of data from EMEP and some results (Head Programme Coordination Centre ICP Waters).
7. In an ideal world ... (a wish-list?) (Representative Coordination Centre for Effects).
8. Co-operation between EMEP/MSC-E and WGE (Representative EMEP/MSC-East).

Each presentation was followed by a discussion with a focus on common issues relevant to both WGE and EMEP, bearing in mind the relevance of effects based research (both monitoring and modelling) for the implementation of the long-term strategy of the LRTAP Convention.

Summary of points arising from the discussions and recommendations

The general points arising from discussions as noted at the end of the workshop (with minor edits for clarification) are presented in Annex I. Below the main points have been summarised (with some specific requests from WGE to EMEP included) and recommendation are provided.

Improved communication of the importance of effects-based research to policy:

- Further provide evidence on the impacts of air pollution on policy relevant indicators (i.e. express impacts in terms relevant to policy) and clearly demonstrate and communicate why added costs for improvement of air quality beyond the baseline scenario are justified (either in monetary terms if feasible or in terms of quality of the environment and human well being);
- Show historical trends, improvements since 1980 and project future improvements to assess the sufficiency and effectiveness of air pollution abatement policies;
- Raise public awareness of remaining national and transboundary air pollution problems in collaboration with other Convention bodies. Different air pollution problems, coupled with effects are important in different UNECE regions;
- Provide further evidence for the interactive effects of air pollution and climate change to highlight the need to integrate air pollution and climate change policies;
- Organise joint workshops and produce joint reports between Convention bodies on issues of common interest. Joint reports should be aimed at policy makers in and outside the Convention.

Links between WGE, EMEP and other LRTAP Convention bodies:

- Established informal links between WGE and EMEP Centres work well (considering staff and time constraints) and are often more efficient without the requirement for a formal request for data (can take up to one year or more). Flexibility is required depending on new priorities identified. Regular participation of chairpersons of EMEP and WGE in the Bureau meetings and annual sessions is important to ensure continuity, openness and responsiveness of both bodies to the needs and new ideas.
- Further encourage exchange of WGE monitoring data to test performances of EMEP model output. Investigate options for co-location of WGE & EMEP monitoring sites;
- Improve the links with the Task Force on Hemispheric Transport of Air Pollution (e.g. regarding their needs for effects-based data) and the Network of Experts on Benefits and Economic Instruments (NEBEI; e.g. valuation of ecosystem services). This could be achieved via joint workshops or joint reports.

Additional points affecting future work and workplans:

- EMEP is currently reviewing the gridding of model outputs. Changes to the grid size will affect the work of WGE bodies, so collaboration and coordinated plans are required for the future. EMEP has to consider requirements for high-resolution modelling (e.g. particulate matter in cities and deposition of air pollution to Natura2000 sites) on the one hand and low-resolution modelling (e.g. hemispheric transport) on the other;
- Outreach activities and extension of the EMEP domain – extra workload for both EMEP and WGE needs to be taken into account.
- The Coordination Centre for Effects (CCE) highlighted the need for calculation of sulphate concentrations originated from sea salts, update on base cation and Cl deposition and historic depositions of S and N for dynamic modelling. CCE also highlighted the need for calculation of new source-receptor relationships for the most-up-to-date EMEP model version.

- The ICP Vegetation expressed the wish for further upgrading of the EMEP model to reflect new developments in ozone flux modelling.
- It has been recognised that some of the above requests are more straightforward and relatively easy to respond to (calculations of sea-sulphate concentrations, calculation of source-receptor matrices or ozone flux modelling developments), while others depend on more substantial work that requires time, scientific developments or more human resources. Therefore, keeping in mind that new developments and extensive work load is connected to these tasks, there is a need also to look at other external resources that might facilitate and speed-up the process (EU projects, national funds, in-kind contributions, etc.).

Recommendations

- Improve communication on the benefits of air pollution abatement policies beyond current legislation for the environment and human wellbeing and enhance public awareness of remaining air pollution problems in the current and future climate
- Organise joint workshops and produce joint reports between Convention bodies on issues of common interest
- Ensure regular participation of chairpersons of EMEP and WGE in Bureau meetings and annual sessions to enhance coordination of both ongoing work and flexibility to respond to changes in the priorities of the needs of the LRTAP Convention

Annex 1. General point arising from the discussions

(as noted at the end of the workshop with edits for clarification)

Communication

- **WGE need to show that changes in policy are working to justify costs of abatement** (i.e. are added costs of improvement beyond the baseline worthwhile?)
- Improved communication of impacts in terms that are important to policy makers (e.g. new indicators for improvements in quality of environment that cannot currently be quantified in monetary terms; different air pollution problems and effects are important in different regions)
- Show historical improvements since 1980 as well as projected future improvements
- Are transboundary aspects of work hampering communication of impacts that happen at the national or local scale?
- Remember full geographic extent of CLRTAP region

Impact of political and economic changes

- Due to the extension of the EU, outreach activities beyond the current geographical scope of the Convention become increasingly more important - extra work-load needs to be taken into account
- Ambitions may need to be scaled down or timescales lengthened due to economic crisis

Policy alignments

- Further integration of policy on air quality and climate change
- Align policy on nature protection (NATURA2000 sites) with air pollution policies

Links within the Convention

- Can the data flow between the various bodies of the Convention be made less complicated (for example via reorganisation of its bodies)?
- Links between groups are often informal (i.e. at the person level) and speedy; formal data requests can result in delays (1+ years)
- Should future structure of the Convention reflect areas of common interest (e.g. bring all of those working on particulate matter together?)
- How can connections with TF-HTAP be improved?
- Improve links with NEBEI – joint workshops and/or reports? (e.g. valuation of ecosystem services effects)
- Joint report of groups, directed at policy makers (in and outside Convention)

EMEP-WGE Workplan

- Extension of existing collaboration is possible
- Needs flexibility to allow for new developments? (e.g. new work may need to start within the two-year timescale?)

Scaling issues and monitoring sites

- If EMEP moves to 10 x 10km (or smaller) grid size, are reliable effects and emission data available on this scale to make the change worthwhile (i.e. are the additional cost of data gathering justified by an increased reliability of results?) (varies by effect receptor)
- Can more be made of co- or nearby- location of EMEP and WGE monitoring sites?