

CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

INPUTS TO THE REVIEW OF THE GOTHENBURG PROTOCOL

Under the Protocol, reviews shall take into account the best available scientific information on the effects of acidification, eutrophication and photochemical pollution, including assessments of all relevant health effects, critical levels and loads, the development and refinement of integrated assessment models, technological developments, changing economic conditions, progress made on the databases on emissions and abatement techniques, especially related to ammonia and volatile organic compounds, and the fulfilment of the obligations on emission levels.

The table below indicates the various inputs that may be required for the review of the Gothenburg Protocol. It shows the Convention body responsible for delivery and the time for completion. Under comments it also aims to identify the scope of the deliverables and possible limitations or shortfalls.

Input required	Body responsible	End date	Comments
1. Monitored effects on human health, ecosystems and materials	Working Group on Effects	From December 2004	Substantive report on status and trends completed in 2004. Can be updated by ICPs and the Task Force on Health.
2. Critical loads (acidity and eutrophication)	Working Group on Effects	Latest updates of data to be approved by the Working Group in 2005.	Further updates could be accomplished quickly and data made available for integrated assessment modelling.
3. Dynamic modelling of ecosystems recovery	Working Group on Effects	Latest call for data to be approved by the Working Group in 2005	Data reports received from 13 Parties. Workshops on nitrogen in 2005-6.
4. Critical levels (ozone) (also see item 6)	Working Group on Effects	Latest conclusions to Working Group in 2006	Concentration-based results available for vegetation. Flux-based results only available for a few crops.
5. Land use maps	Working Group on Effects / EMEP SB	Harmonized maps available	Further refinement needed/possible in 2005-6?

Input required	Body responsible	End date	Comments
6. Human health effects (see also item 4)	Working Group on Effects	Ozone and PM effects already reported	Further updates expected from Task Force on Health in 2005-6.
7. Effects on materials, historic and cultural heritage and related economic impacts	Working Group on Effects	2006	Report on effects (evaluation and trends 1984-2003). Economic assessment workshop in 2006.
8. Emissions data	EMEP Steering Body	Annual updates.	Data reported annually. PM data currently reported by a subset of Parties. EMEP/CORINAIR guidebook needs updating for PM and NH ₃ (PM needs in-depth review).
9. Unified Eulerian EMEP model	EMEP Steering Body	Model already reviewed. Continuous improvement based on review recommendations.	The model is fully operational, but further work is needed in particular for secondary organic aerosols, and non-anthropogenic PM.
10. Source-receptor matrices	EMEP Steering Body	Annual updates provided by MSC-W.	Data available.
11. RAINS model framework	EMEP Steering Body	Model development basically completed and reviewed.	Further improvements in the EMEP model will be incorporated, when available. Further work on model needed for population exposure (City Delta).
12. Development of baseline scenario (2010 / 2020)	EMEP Steering Body / Working Group on Strategies and Review	2007?	Baseline scenarios development and in-depth country consultations for EU28 Switzerland and Norway - mid-2005. Further work needed for other countries.

Input required	Body responsible	End date	Comments
13. Abatement costs	Working Group on Strategies and Review	2007?	Data available in RAINS model for EU countries. Further discussions needed with other countries.
14. Annexes review with binding [emission] limit values	Working Group on Strategies and Review	2007	Work on some annexes started for EU countries. Further work needed to indicate requirements for revision.
15. Review of annex II on national emission ceilings	Working Group on Strategies and Review	Review information by 2007?	Work started for EU countries in connection with review/revision of NEC directive; should be extended to other countries.
16. Scheduled evaluation of ELVs (article 3, para. 4), with a view to amending annexes IV, V and VIII.	Working Group on Strategies and Review	No later than May 2007	Technical work is necessary to evaluate ELVs for new and existing boilers and process heaters with a rated thermal input exceeding 50 MWth and new heavy-duty vehicles.
17. Guidance documents /emerging technologies	Working Group on Strategies and Review	2006/ 2007	Ammonia document to be finalized 2006. Other documents to be reviewed on SO ₂ , NO _x , VOC control techniques for stationary and mobile sources and economic instruments
18. Particulate matter	Working Group on Strategies and Review	Review information by 2006	Review of the need for including PM in a future instrument
19. Hemispheric transport of air pollution	EMEP Steering Body	Assessment report on relevance of hemispheric transport - 2007.	Will focus on scientific input to review