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#### ECONOMIC COMMISSION FOR EUROPE

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

Working Group on Effects

# REPORT OF THE WORKING GROUP ON EFFECTS ON ITS THE TWENTY-SIXTH SESSION HELD IN GENEVA FROM 29 TO 31 AUGUST 2007

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#### **Introduction**

- 1. The twenty-sixth session of the Working Group on Effects took place in Geneva from 29 to 31 August 2007.
- 2. It was attended by representatives of the following Parties to the Convention: Albania, Austria, Belarus, Canada; the Czech Republic, Denmark, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Moldova, the Netherlands, Norway, Poland, Slovenia, Spain, Sweden, Switzerland, Ukraine and the United Kingdom of Great Britain and Northern Ireland.
- 3. A representative of the World Health Organization's European Centre for Environment and Health (WHO/ECEH), Bonn Office, was present. The Union of the Electricity Industry (EURELECTRIC) was also represented.
- 4. Mr. T. Johannessen (Norway) chaired the meeting.

#### I. ADOPTION OF THE AGENDA

5. The agenda (ECE/EB.AIR/WG.1/2007/1) was adopted.

#### II. ADOPTION OF THE REPORT OF THE TWENTY-FIFTH SESSION

- 6. The Working Group adopted the report of its twenty-fifth session (EB.AIR/WG.1/2006/2).
- 7. The delegate of the Netherlands reminded the Working Group that the results of the International Cooperative Programme (ICP) Modelling and Mapping based on the voluntary 2006/2007 call for data on computed and empirical critical loads of acidification and eutrophication, including dynamic modelling parameters, were intended for scientific evaluation and not for use in integrated assessment modelling.

# III. MATTERS ARISING FROM RECENT MEETINGS OF THE EXECUTIVE BODY AND ITS SUBSIDIARY BODIES

- 8. Mr. R. Ballaman (Switzerland), Chair of the Working Group on Strategies and Review, provided information on the present status of the Convention's protocols, and drew special attention to the Convention's strategy on capacity-building in countries in Eastern Europe, Caucasus and Central Asia (EECCA) and the related revised action plan. He also highlighted the results of the workshop on the future activities of the Convention, with strengthened activities on links between air pollution effects and climate change and the hemispheric transport on pollutants.
- 9. The Working Group on Effects took note of the decisions made by the Executive Body and its Bureau, and the deliberations of other bodies under the Convention, and agreed to bear them in mind when discussing its future activities.

# IV. RECENT RESULTS AND UPDATING OF SCIENTIFIC AND TECHNICAL KNOWLEDGE

10. The Working Group on Effects took note of the co-opting of the Vice-Chair, Mr. T. Clair (Canada), to the Bureau.

# A. Recent activities of International Cooperative Programmes, the Task Force on Health and the Joint Expert Group on Dynamic Modelling

11. The Chair introduced the 2007 joint report by the ICPs and the Task Force on Health on progress in the effects-oriented activities (ECE/EB.AIR/WG.1/2007/3). He noted the annexes described the recent activities of the programmes and listed their recent relevant publications.

The Chair noted that substantive inputs for the review of the 1999 Gothenburg Protocol would be presented in detail under agenda item 5. The representative from the lead country of each programme reviewed the recent achievements and publications:

- (a) Mr. M. Lorenz (Germany), on behalf of Mr. M. Köhl, Chair of the Task Force of the ICP on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests);
- (b) Ms. B. Kvaeven (Norway), Chair of the Task Force of the ICP on Assessment and Monitoring of Acidification of Rivers and Lakes (ICP Waters);
- (c) Mr. J. Tidblad (Sweden), Co-Chair of the Task Force of the ICP on Effects of Air Pollution on Materials, including Historic and Cultural Monuments (ICP Materials) and Head of the Main Research Centre of the programme;
- (d) Mr. H. Harmens (United Kingdom), Chair of the Task Force of the ICP on Effects of Air Pollution on Natural Vegetation and Crops (ICP Vegetation);
- (e) Mr. L. Lundin (Sweden), Chair of the Task Force of the ICP on Integrated Monitoring of Air Pollution Effects on Ecosystems (ICP Integrated Monitoring);
- (f) Mr. T. Spranger (Germany), Chair of the Task Force of the ICP on Modelling and Mapping of Critical Levels and Loads and Air Pollution Effects, Risks and Trends (ICP Modelling and Mapping);
- (g) Mr. M. Krzyzanowski, representative of WHO/ECEH, and Chair of the Task Force on the Health Aspects of Air Pollution (Task Force on Health);
- (h) Mr. A. Jenkins (United Kingdom), Co-Chair of the Joint Expert Group on Dynamic Modelling.

# 12. The Working Group:

- (a) Took note of the recent activities of ICPs, Task Forces and the Joint Expert Group (ECE/EB.AIR/WG.1/2007/3, annexes I–VII);
- (b) Welcomed the preparation of a new strategy proposed by ICP Forests and invited it to present the strategy to its twenty-seventh session to enable it to forward the strategy to the Executive Body for approval;
- (c) Noted the work of ICP Waters on long-term trends in surface waters, chemistry including trends in nitrogen; took note of chemical and biological intercomparison activities led by ICP Waters; and welcomed the conclusions of the workshop "Confounding factors in long-term trends of acidification", conducted in collaboration with ICP Integrated Monitoring;
- (d) Welcomed the work of ICP Materials on the soiling of modern glass and Teflon filters and the draft revision of chapter 4 of the *Manual on Methodologies and Criteria for Modelling and Mapping Critical Loads and Levels and Air Pollution Effects, Risks and Trends*;
- (e) Took note of the results from the workshop "Atmospheric ammonia: detecting emission changes and environmental impacts" and adopted revised critical levels of ammonia for vegetation;
- (f) Welcomed the work by ICP Vegetation on updating chapter 3 of the *Modelling* and mapping manual relating to ozone (O<sub>3</sub>), including the revised critical levels of ammonia, in good cooperation with ICP Forests and ICP Modelling and Mapping; adopted the flux-based

parameterization for generic crop and tree species; and took note of the ICP Vegetation annual report for 2006/2007, "Air Pollution and Vegetation";

- (g) Noted the cooperation of ICP Integrated Monitoring with other ICPs, took note of its annual 2007 report, and urged that intense collaboration should be implemented between all programmes within countries;
- (h) Welcomed the work of ICP Modelling and Mapping on updating and evaluating critical loads for acidification and eutrophication and target load functions for acidification as well as developments in nitrogen assessment; and noted in particular that possible emission trading in Europe would conflict with the effects-based approach for pollutants, which have spatially dependent effects;
- (i) Took note of the results of the workshop "Effects of low-level nitrogen deposition", and welcomed the work to include updates of critical loads for nitrogen in the *Modelling and mapping manual*;
- (j) Approved the proposal of ICP Modelling and Mapping to request the Coordination Centre for Effects (CCE) to make a call for data for empirical and computed critical loads for nitrogen and dynamic modelling parameters, as preparation for use in a possible revision of the 1999 Gothenburg Protocol;
- (k) Stressed the importance of active participation of all Parties to the Convention in the modelling and mapping activities and urged Parties to be prepared to respond to calls for data;
- (l) Noted the work of the Task Force on Health and welcomed the conclusions from the WHO workshop "Health relevance of particulate matter from various sources", held prior to the Task Force meeting, and its summary report (ECE/EB.AIR/WG.1/2007/12); took note of the progress with the WHO reports "Health risks of ozone from long-range transboundary air pollution" and "Health risks of heavy metals from long-range transboundary air pollution"; and took note of the progress in involving EECCA countries in the health-oriented work;
- (m) Expressed appreciation to WHO/ECEH, Bonn Office, for its work and continuing leading role in the activities of the Task Force on Health and in having increased participation from Parties in EECCA;
- (n) Reiterated its invitation to Parties to nominate their experts and actively participate in the work of the Task Force on Health;
- (o) Expressed appreciation for the progress made by the Joint Expert Group on Dynamic Modelling in assessing the applicability of dynamic models and target loads in the review of the Gothenburg Protocol, and took note of the conclusions and recommendations from the seventh meeting of the Group (ECE/EB.AIR/WG.1/2007/13);
- (p) Noted the active participation of ICPs and national experts in the activities of the Joint Expert Group, expressed appreciation of the work carried out, and took note of the proposals from the Group to continue its activities following the Convention's workplan.

# B. <u>Common aspects of International Cooperative Programmes and</u> the Task Force on Health

13. The Chair drew attention to the growing participation of countries in the effects-oriented activities and noted the positive results of closer and more effective cooperation between ICPs, as well as with the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) and other bodies under the Convention.

### 14. The Working Group:

- (a) Welcomed the efforts of ICPs and the Task Force on Health in addressing priority tasks that support effective implementation of the Convention, particularly the input to reviews of the three most recent protocols;
- (b) Stressed once more the importance of the work carried out by national focal centres and the support provided by the lead countries, coordinating centres, and their host countries and organizations;
- (c) Welcomed the increased level of participation in the session and noted the increasing trend of Parties participating in the activities of the programmes;
- (d) Stressed the importance of the active participation of all Parties to the Convention in the effects-oriented activities for providing the knowledge and high-quality data for effective implementation and review of the Convention and its protocols;
- (e) Invited the Executive Body to reiterate its invitation to Parties to nominate national focal centres for those effects-oriented activities and programmes in which they were not actively participating.

# C. Activities in selected countries

- 15. The Chair noted the Convention's emphasis on encouraging participation of EECCA Parties, with the aim of assisting them to implement the Convention and its more recent protocols.
- 16. Representatives of Albania, Belarus, Georgia, Moldova and Ukraine gave short presentations of air pollution effects-related activities in their countries, based on the material compiled into an informal document. The delegate of Turkmenistan, a country not yet Party to the Convention, thanked the Working Group for the possibility to be an observer for first time at the Working Group session, and noted that he would inform his Government about the meeting and its results. The Working Group noted that many of these countries participated in one or more of the effects-oriented programmes, but some had no ongoing effects-oriented activities.
- 17. The Working Group welcomed the information received. It urged the representatives of EECCA countries to contact the programme centres for details on participating in meetings and

activities and to exchange information on existing and potential contacts on effects-oriented activities.

18. Some delegates of EECCA countries asked for assistance, e.g. by holding seminars and workshops to identify key contacts on their countries and to provide resources to initiate effects-oriented activities. The Working Group invited the secretariat to initiate discussions with the Executive Body and its Bureau to prepare collaborative meetings.

#### D. Updating of scientific and technical knowledge

19. The Chair drew attention to the pollutant-specific topics for the presentations on recent results from the activities of the ICPs. The 2007 joint report had been compiled to support the programme presentations under seven topics. The presentations drew largely from the 2007 joint report and the technical reports of the ICPs.

#### 1. Acidification

- 20. Mr. Lorenz, Head of the Programme Coordinating Centre of ICP Forests, summarized sulphur throughfall deposition trends and presented calculation of critical loads and their exceedance using throughfall deposition at selected level II sites (ECE/EB.AIR/WG.1/2007/6).
- 21. Ms. B.-L. Skjelkvåle (Norway), ICP Waters, reported on trends in surface water chemistry and biota and on the importance of confounding factors (ECE/EB.AIR/WG.1/2007/7). She noted recovery of surface waters from acidification was continuing. There was evidence of a biological response to reduced surface water acidification, but responses were not uniform and hardly existed in the most acidified sites. Confounding factors, i.e. those other than acidifying deposition, delayed both chemical and biological recovery.
- 22. Mr. M. Forsius (Finland), Head of the Programme Centre of ICP Integrated Monitoring, reported that results from several ICPs and EMEP were used in an assessment report on acidifying pollutants, arctic haze and acidification in the Arctic region prepared for the Arctic Monitoring and Assessment Programme (AMAP, report available at www.amap.no). There was evidence for recovery of acidification in arctic ecosystems, but problems remained around large emission sources. Hemispheric transport and global change issues were found to be increasingly important in this region.
- 23. Mr. M. Posch (Netherlands), CCE, presented the results from the voluntary 2006/2007 call for data from national focal centres on critical loads for acidification and eutrophication and on dynamic models (ECE/EB.AIR/WG.1/2007/11 and Corr.1), which were intended for scientific evaluation and not for use in integrated assessment modelling. He drew special attention to the dynamic modelling procedure using a few selected deposition scenarios, which now allows faster additional scenario analysis compared to the target load approach.

- 24. Mr. Jenkins, Co-Chair of the Joint Expert Group on Dynamic Modelling, reported that the return to historical or reference conditions might not be achievable. He also noted that time to achieve biological recovery from acidification might be delayed or extended as a result of future climate change.
- 25. The Working Group noted with appreciation the range and quality of the work being done on acidification, and:
- (a) Took note of the ICP Forests report on trends of sulphur deposition trends and on dynamic modelling at monitoring sites (ECE/EB.AIR/WG.1/2007/6);
- (b) Took note of the ICP Waters report on the trends in surface water chemistry and biota and the importance of confounding factors (ECE/EB.AIR/WG.1/2007/7);
- (c) Took note of the ICP Integrated Monitoring report on acidification assessment in the Arctic region;
- (d) Approved the results of ICP Modelling and Mapping based on the voluntary 2006/2007 call for data on European critical loads of acidification, including dynamic modelling parameters for scientific evaluation (ECE/EB.AIR/WG.1/2007/11 and Corr.1);
- (e) Noted the support of several Parties for the important work bringing new results and insights for air pollution policies, and urged countries and their national focal centres to ICP Modelling and Mapping to actively and promptly respond to future calls for data on critical loads and levels;
- (f) Took note of the scenarios and uncertainties presented by the Joint Expert Group on Dynamic Modelling (ECE/EB.AIR/WG.1/2007/13).

#### 2. Nutrient nitrogen

- 26. Mr. Lorenz described the deposition of nitrogen compounds in Europe that had had a decreasing trend in the period 1999–2004, and the calculation of critical loads for eutrophication at selected level II sites (ECE/EB.AIR/WG.1/2007/6).
- 27. Mr. Harmens described the progress with the 2005/2006 survey on nitrogen concentrations in European mosses by ICP Vegetation, for which 13 countries had already submitted data.
- 28. Mr. Forsius summarized the results from the European Union (EU) project CNTER (Carbon-nitrogen interactions in forest ecosystems), a major effort to synthesize information on interactions between carbon and nitrogen. Data from ICP Integrated Monitoring and ICP Forests were key sources of information (ECE/EB.AIR/WG.1/2007/10). He emphasized that carbon sequestration, which might be lower in soils than previously estimated, was closely linked to the nitrogen cycle; thus nitrogen emission reductions were important also for climate policy.
- 29. Mr. J.-P. Hettelingh (Netherlands), Head of CCE, described the 2006/2007 critical loads data on eutrophication (ECE/EB.AIR/WG.1/2007/11 and Corr.1). He described the differences

between the computed and empirical critical loads for eutrophication. A preliminary version of CCE data instructions for the new proposed call for data had been made available for early review by the national focal centres.

- 30. Mr. F. Moldan (Sweden), Co-Chair of the Joint Expert Group on Dynamic Modelling, noted, based on model simulations, that some natural ecosystems might be irreversibly changed because of nitrogen deposition. Chemical and biological recovery would take many decades even with currently agreed legislation on emission reductions.
- 31. Ms. S. Honour (United Kingdom) reported on the results of the workshop "Atmospheric ammonia: detecting emission changes and environmental impacts" (ECE/EB.AIR/WG.5/2007/3), noting the need for an enhanced integrated approach on nitrogen and its effects.
- 32. The ensuing discussion reiterated the importance of the results of the workshop "Effects of low-level nitrogen deposition" (ECE/EB.AIR/WG.1/2007/15) that current empirical critical loads might be too high for ecosystems in areas with low-level nitrogen deposition. The workshop had suggested ranges for critical loads rather than single values. Its findings would be reflected in the new proposed 2007/2008 call for data.
- 33. The Working Group congratulated the programmes on their important work on nutrient nitrogen, and:
- (a) Took note of the results of ICP Forests on the trends of nitrogen deposition and critical loads at selected sites (ECE/EB.AIR/WG.1/2007/6);
- (b) Took note of the ICP Vegetation progress with the 2005/2006 survey on nitrogen concentrations in European mosses;
- (c) Took note of the ICP Integrated Monitoring report on carbon-nitrogen interactions and nitrogen effects (ECE/EB.AIR/WG.1/2007/10);
- (d) Took note of the results of ICP Modelling and Mapping on the voluntary 2006/2007 call for data on computed and empirical critical loads of eutrophication, relevant nitrogen dynamic modelling parameters and data on the EU Natura 2000 areas (ECE/EB.AIR/WG.1/2007/11 and Corr.1);
- (e) Approved the proposal of ICP Modelling and Mapping and CCE to make a new call for data related to critical loads and dynamic modelling in the end of 2007, and that the results would be made available for integrated assessment modelling in 2008;
- (f) Took note of the work of the Joint Expert Group on Dynamic Modelling on nitrogen dynamics (ECE/EB.AIR/WG.1/2007/13);
- (g) Took note of the results of the workshop "Effects of low-level nitrogen deposition" (ECE/EB.AIR/WG.1/2007/15) and encouraged countries to determine single critical load values based on the suggested ranges;
- (h) Took note of the report and results of the workshop "Atmospheric ammonia: detecting emission changes and environmental impacts" (ECE/EB.AIR/WG.5/2007/3).

#### 3. Ozone

- 34. Mr. Lorenz described the trends in ozone (O<sub>3</sub>) concentrations in Europe based on selected level II sites (ECE/EB.AIR/WG.1/2007/6).
- 35. Mr. Harmens summarized recent results on collation of evidence of  $O_3$  damage to vegetation, quantifying links between field observations and  $O_3$  critical level exceedance, with large effects being observed over a wide range of crops and species of (semi-)natural vegetation, but with no clear temporal trends evident.
- 36. Mr. Krzyzanowski outlined information on the health risks of  $O_3$ , noting that recent epidemiological studies have confirmed that  $O_3$  is associated with acute adverse health effects and new information on the increase in the total daily number of deaths in days during a heatwave in regions with high  $O_3$  concentration levels.
- 37. The Working Group on Effects welcomed the progress made and the new results obtained regarding  $O_3$  effects, and:
- (a) Took note of the ICP Forests results of  $O_3$  measurements (ECE/EB.AIR/WG.1/2007/6);
- (b) Took note of the ICP Vegetation results from implementing the  $O_3$  flux method for mapping, in collaboration with EMEP Meteorological Synthesizing Centre-West (MSC-West) and the report on the Ellenberg modelling approach to identify (semi-)natural vegetation at risk from  $O_3$  (ECE/EB.AIR/WG.1/2007/9);
- (c) Adopted the revised, ozone-related, chapter 3 of the *Modelling and mapping manual*, prepared in cooperation by ICP Modelling and Mapping, ICP Vegetation and ICP Forests:
- (d) Took note of the recent results of the Task Force on Health regarding the impacts of  $O_3$  on human health.

#### 4. Particulate matter

- 38. Mr. Krzyzanowski described the results of a recent WHO workshop "Health relevance of particulate matter (PM) from various sources". He noted that despite the fact that the different chemical characteristics of PM seemed to have different relative risks based on the particle mass, the attribution of health effects to specific characteristics remained limited.
- 39. The Working Group on Effects noted with appreciation the work on PM and took note of the Task Force's report on the health relevance of PM from various sources (ECE/EB.AIR/WG.1/2007/12).

# 5. Heavy metals

- 40. Mr. Harmens reported on trends in the period 1990–2000 in heavy metal concentrations in mosses, noting that trends varied depending on the metal and country, and noted progress with the 2005/2006 survey.
- 41. Mr. Lundin introduced the updated calculations from catchment budgets at ICP Integrated Monitoring sites, which showed that mercury concentrations in the soil humus layer were higher than pre-industrial values.
- 42. Mr. M. van het Bolscher (Netherlands) and Mr. Hettelingh introduced the results of a collaborative study on heavy metal emissions, depositions, critical loads and exceedance in Europe. They noted that there was no significant widespread exceedance in Europe of the critical loads of several heavy metals (chromium, nickel, copper, zinc, arsenic and selenium) other than the three currently listed in annex I to the Protocol on Heavy Metals (cadmium, lead and mercury).
- 43. The Working Group on Effects expressed its appreciation of the work on heavy metals and:
- (a) Took note of the ICP Vegetation results on trends of heavy metal concentrations in mosses and its progress with the 2005/6 survey;
- (b) Took note of the ICP Integrated Monitoring results on the updated catchment budgets of heavy metals at ICP Integrated Monitoring sites;
- (c) Welcomed the report "Heavy metal emissions, depositions, critical loads and exceedances" by the Netherlands and took note of its results, suggesting that the focus on the selected three priority heavy metals (cadmium, lead, mercury) was justified from an effects-based perspective.

# 6. Persistent organic pollutants

- 44. The Task Force on Health received no requests from the Working Group on Strategies and Review for revising the health risk assessment of persistent organic pollutants (POPs). Therefore, no further work on health hazard evaluation was initiated.
- 45. The Working Group on Effects noted the overall importance of further work on POPs and that the Working Group on Strategies and Review had not yet requested a health risk assessment of POPs by the Task Force on Health.

#### 7. Cross-cutting items

46. Mr. Lorenz reported that three international cross-comparison courses for defoliation assessment were carried out under ICP Forests in 2006.

- 47. Mr. S. Doytchinov (Italy), Co-Chair of ICP Materials, described recent corrosion maps in high spatial resolution in Central Europe for selected pollutants, and noted the detailed work on the stock at risk along the banks of River Seine in Paris.
- 48. Mr. Tidblad described recent results on corrosion trends (ECE/EB.AIR/WG.1/2007/8) and the report from the workshop "Protection of cultural heritage from air pollution the need for effective local policy, maintenance and conservation strategies" (ECE/EB.AIR/WG.1/2007/8, annex).
- 49. The Working Group on Effects expressed its appreciation of the work on cross-cutting issues, and:
- (a) Took note of ICP Forests international cross-comparison courses for defoliation assessment;
- (b) Took note of the ICP Materials mapping activities and analysis of corrosion trends (ECE/EB.AIR/WG.1/2007/8);
- (c) Took note of the report of the workshop "Protection of cultural heritage from air pollution: the need for effective local policy, maintenance and conservation strategies" (ECE/EB.AIR/WG.1/2007/8, annex).
- 50. The results of workplan items common to all programmes were presented by the programmes based on the information laid out in the 2007 joint report, including:
  - (a) Current information on dose-response functions and stock at risk;
- (b) Current information on links between observations and critical thresholds, loads and levels;
  - (c) Review of the robustness of monitored and modelled air pollution impacts;
- (d) Observed parameters, methodologies, spatial and temporal extent of effects-oriented monitoring;
  - (e) Effects-oriented activities in EECCA.
- 51. The Working Group acknowledged the importance of the collaborative work on the workplan items common to all programmes, and:
- (a) Took note of the results presented by all programmes from the workplan items common to all programmes, which have helped to synthesize the work and findings of the programmes;
- (b) Noted in particular the initiative of CCE to improve the robustness for concluding that a critical load is not exceeded by using different methods, data and indicators ("ensemble assessment of impacts") including a practice developed under the Intergovernmental Panel on Climate Change;

- (c) Asked the Bureau, with the assistance of the secretariat, to ensure that all aspects of the common items on dose-response functions, stock at risk, and links between observations and critical thresholds, loads and levels would be evaluated and jointly documented in detail for the twenty-seventh session of the Working Group.
- 52. The delegate of Sweden and the secretariat presented the main conclusions from the workshop "Gothenburg workshop on air pollution and its relations to climate change and sustainable development" (ECE/EB.AIR/WG.1/2007/16). The Working Group took note of the workshop results and agreed to bear them in mind when planning its future work.
- 53. Mr. M. Mirtl (Austria) presented the activities under the long-term ecosystems research (LTER) network, with a view to establishing collaboration with the Convention bodies. The Working Group took note of the presentation and asked the programmes to provide information on their discussions with LTER and, in collaboration with the Bureau, and make information available for the next session of the Working Group.

# E. <u>Information on forthcoming workshops and technical meetings</u>

- 54. Organizers and/or representatives of the host countries provided information on proposed forthcoming workshops and technical meetings. The Working Group welcomed the preparations for the:
- (a) Eighth meeting of the Joint Expert Group on Dynamic Modelling (24–26 October 2007, Sitges, Spain);
- (b) Workshop on critical loads for heavy metals (21–22 November 2007, Windermere, United Kingdom);
- (c) Workshop on integrated assessment modelling of nitrogen (28–30 November 2007, Laxenburg, Austria);
- (d) Expert meeting on evidence of impacts of O<sub>3</sub> at low concentrations to vegetation in the Nordic countries, tentatively to be held in connection with ICP Vegetation Task Force meeting during the last week of February in 2008.
- 55. The Working Group agreed to recommend including these workshops in the workplan and the provisional list of meetings for 2007/2008.

#### V. REVIEW OF THE 1999 GOTHENBURG PROTOCOL

- 56. Mr. Gregor presented the results from the review report of the 1999 Gothenburg Protocol by the Working Group on Effects (ECE/EB.AIR/WG.1/2007/14), coordinated by the Bureau.
- 57. The Chair introduced the main review report of the 1999 Gothenburg Protocol prepared by the Working Group on Strategies and Review (ECE/EB.AIR/WG.1/2007/17), in which the secretariat and the Bureau had coordinated the input for the effects-oriented activities.

58. Mr. Hettelingh introduced the draft report of the Task Force on Integrated Assessment Modelling, where CCE had collaborated intensively, and drew attention to its references to results of the Working Group on Effects.

### 59. The Working Group:

- (a) Approved its review report (ECE/EB.AIR/WG.1/2007/14), as amended, and decided to submit it to the Executive Body at its twenty-fifth session;
- (b) Approved the effects-related text in the main review document (ECE/EB.AIR/WG.1/2007/17) as amended, and agreed the amendments be brought to the attention of the Working Group on Strategies and Review in order for the revision to be submitted to the Executive Body;
- (c) Took note of the draft report of the Task Force on Integrated Assessment Modelling on the review of the 1999 Gothenburg Protocol.

# VI. FURTHER DEVELOPMENT OF THE EFFECTS-ORIENTED ACTIVITIES

# A. <u>Draft 2008 workplan</u>

60. In introducing the draft 2008 workplan for the further development of the effects-oriented activities (ECE/EB.AIR/WG.1/2007/4), the Chair noted its preparation had followed the Executive Body's invitation to harmonize as much as possible the workplans of the Working Group on Effects and the EMEP Steering Body. He noted that in the past year, on the request of the Bureau of the EMEP Steering Body, no joint Bureaux meeting was held but necessary requests for data were collected from the programmes and forwarded to the EMEP Bureau. A medium-term workplan for the period 2007–2010 was made available as an informal document.

#### 61. The Working Group:

- (a) Approved the 2008 workplan for the further development of the effects-oriented activities (ECE/EB.AIR/WG.1/2007/4) as amended, and agreed to submit it as a revised document to the Executive Body;
- (b) Agreed that the 2008 workplan items might be used as a basis for the partial financing of the programmes by the Trust Fund;
- (c) Took note of the results of the collaboration between its Chair and the Chair of the EMEP Steering Body during 2007;
- (d) Agreed on the importance of continued collaboration with the EMEP Steering Body, in particular with its Bureau and programme centres, to ensure that the Convention's priorities were addressed effectively; agreed to bear it in mind when considering plans for its future activities; and invited all programmes to do the same.

### B. Collaboration in monitoring

- 62. The Chair informed the Working Group of suggestions by the European Commission to plan for the monitoring of effects under a revised EU national emission ceilings directive. Mr. Hettelingh (the Netherlands) proposed that the Working Group inform the European Commission that Convention monitoring systems and data were well established and provided a useful and practical basis for possible collaboration.
- 63. Following discussion, the Working Group took note of the European Commission's proposals. The Working Group stated its willingness to help put in place appropriate obligations in the EU national emission ceilings directive, currently under revision; and to monitor and assess the effects of the air pollutant emission reductions on health and environment. The Working Group further stressed it had a long tradition of gathering knowledge on air pollution impacts in Europe on health, nature and materials, and would support initiatives to enhance European collaboration further in these areas. The work already conducted by Parties under the Convention and by EU Member States should be fully utilized. The Working Group urged the European Commission to coordinate its proposed monitoring requirements with all monitoring, measuring and assessment programmes under the Working Group. It further invited the Executive Body and its Bureau to look further into this matter.

# C. Proposal for a Task Force on Reactive Nitrogen

- 64. The Chair presented an informal document on a proposal from the Netherlands and the United Kingdom to establish a task force on reactive nitrogen under the Convention. In the ensuing discussion, several delegates supported the proposal as a useful way to tackle nitrogen on a wide basis, provided that the existing expertise on ammonia was kept within the Convention and that all subsidiary bodies be kept informed on the activities.
- 65. The Working Group took note of the proposal and supported its submission with an amendment stipulating that the Task Force would also provide its reports to the Working Group and the EMEP Steering Body.

#### VII. FINANCING OF EFFECTS-ORIENTED ACTIVITIES

- 66. The secretariat introduced a note on the financing of effects-oriented activities prepared by the Bureau of the Working Group in collaboration with the secretariat (ECE/EB.AIR/WG.1/2007/5), in line with decision 2002/1 of the Executive Body. The secretariat presented updated information for Tables 2 and 3 of the document showing the recent developments in the Trust Fund.
- 67. The delegate of the United Kingdom informed the meeting of that country's in-kind contribution to ICP Vegetation. The delegate of Hungary noted that the proposed new United

Nations scale of assessment would significantly increase the burden of some Parties, while reducing the amounts for many.

68. The Chair informed the meeting that a document on devising alternatives for distributing non-earmarked funds among the eight centres supported by the Trust Fund for core activities not covered by the EMEP Protocol was being drafted for discussion at the twenty-fifth session of the Executive Body. It was being prepared by a small ad hoc group comprising experts from Finland, Germany, the Netherlands and the United Kingdom as well as the Chair and the secretariat, while also remaining open to other interested Parties.

### 69. The Working Group:

- (a) Approved the note on the financing of the effects-oriented activities (ECE/EB.AIR/WG.1/2007/5) as amended, and decided to submit the information to the Executive Body;
- (b) Noted with appreciation the amount of voluntary cash contributions available in 2007:
- (c) Approved the table showing the 2008 international coordination costs of US\$ 2,152,700 for different elements of the effects-oriented activities and the provisional cost estimate of \$2,152,700 for 2009 and 2010, for submission to the Executive Body;
- (d) Took note of the 2007 United Nations scale of assessments, and requested the Executive Body to adopt it at its twenty-fifth session for use in calculating the recommended contributions;
- (e) Noted with appreciation the essential support provided to the Working Group and its effects-oriented activities by lead countries, countries hosting coordinating centres and organizing meetings, and countries funding activities of their national focal centres as well as active participation of national experts in the work under the Convention;
- (f) Noted with appreciation the cash contributions made in 2007, but reiterated its invitation to all Parties which have not yet done so to provide without undue delay the contributions decided by the Executive Body in its decision 2002/1 to the Trust Fund for financing the effects-oriented activities;
- (g) Noted that contributions can be made as instructed in the letters for financial support to be sent out by the secretariat in early 2008.

#### VIII. ELECTION OF OFFICERS

70. Mr. T. Johannessen (Norway) was re-elected as Chair. Ms. I. Skorepova (the Czech republic), Mr. J. Bak (Denmark) and Mr. C. Nagl (Austria) were elected as Vice-Chairs. Ms. A. C. Le Gall (France) and Mr. T. Clair (Canada) were re-elected as Vice-Chairs. The Working Group noted with appreciation the considerable contribution of its Chair and the Bureau to the recent important results, and expressed its gratitude.

# IX. OTHER BUSINESS

- 71. The secretariat presented a provisional list of meetings for 2007/2008, which is updated on the Convention's website, and invited all Parties and programmes to communicate to it any amendments or new information.
- 72. The Chair informed the Working Group that its twenty-seventh session was tentatively scheduled to be held from 3 to 5 September 2008, starting on Wednesday, 3 September 2008, at 10 a.m. (see annex for proposed revision).

# **Annex**

# PROVISIONAL CALENDAR OF EFFECTS-RELATED MEETINGS FOR 2007/2008

10–13 December 2007	Executive Body for the Convention
Geneva	(Twenty-fifth session)
14–18 April 2008	Working Group on Strategies and Review
Geneva	(Forty-first session)
1–5 September 2008	Working Group on Strategies and Review *
Geneva	(Forty-second session)
8–10 September 2008	EMEP Steering Body
Geneva	(Thirty-second session)
24–26 September 2008	Working Group on Effects *
Geneva	(Twenty-seventh session)
15–19 December 2008	Executive Body for the Convention
Geneva	(Twenty-sixth session)

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8–10 October 2007	Programme Task Force, International Cooperative Programme (ICP)			
Nancy, France	on Assessment and Monitoring of Acidification of Rivers and Lakes			
	(twenty-third meeting)			
24–26 October 2007	Joint Expert Group on Dynamic Modelling (eighth meeting)			
Sitges, Spain				
21–22 November 2007	Workshop on critical loads for heavy metals (Working Group on			
Windermere, United Kingdom	Effects)			
28–30 November 2007	Workshop on integrated assessment modelling on nitrogen (in			
Laxenburg, Austria	collaboration with the Task Force on Integrated Assessment Modelling			
	and the Centre for Integrated Assessment Modelling)			
25–29 Feb 2008 (tentative)	Programme Task Force, ICP on Effects of Air Pollution on Natural			
Oulu, Finland	Vegetation and Crops (twenty-first meeting)			
March/April 2008 (tentative)	Joint Task Force on the Health Aspects of Air Pollution (eleventh			
Bonn, Germany	meeting)			
2–4 April 2008 (tentative)	Programme Task Force, ICP on Effects of Air Pollution on Materials,			
Tallinn	Including Historic and Cultural Monuments (twenty-fourth meeting)			
21–25 April 2008	Coordination Centre for Effects (CCE) workshop (eighteenth meeting);			
Berne	Programme Task Force, ICP on Modelling and Mapping of Critical			
	Levels and Loads and Air Pollution Effects, Risks and Trends (twenty-			
	fourth meeting)			
7–9 May 2008 (tentative)	Task Force on Integrated Assessment Modelling (thirty-fourth meeting)			
Madrid				
14–16 May 2008	Programme Task Force, ICP on Integrated Monitoring of Air Pollution			
Pamplona, Spain	Effects on Ecosystems (sixteenth meeting)			
24–28 May 2008	Programme Task Force, ICP on Assessment and Monitoring of Air			
Larnaca, Cyprus	Pollution Effects on Forests (twenty-fourth meeting)			
October 2008	Programme Task Force, ICP on Assessment and Monitoring of			
(tentative)	Acidification of Rivers and Lakes (twenty-forth meeting)			
Autumn 2008	Joint Expert Group on Dynamic Modelling (ninth meeting)			
(tentative)				
November 2008	Workshop on integrated assessment modelling (Centre for Integrated			
(tentative)	Assessment Modelling); Task Force on Integrated Assessment			
	Modelling (thirty-fifth meeting)			

<sup>\*</sup> Change of dates proposed by the fortieth session of the Working Group on Strategies and Review and pending decision of the twenty-fifth session of the Executive Body.