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

Working Group on Effects

REPORT ON THE TWENTY-FOURTH SESSION OF THE WORKING GROUP ON EFFECTS

Introduction

- 1. The twenty-fourth session of the Working Group on Effects took place in Geneva from 31 August to 2 September 2005.
- 2. It was attended by representatives of the following Parties to the Convention: Armenia; Austria; Azerbaijan; Belgium; Bulgaria; Canada; Czech Republic; Denmark; Estonia; Finland; France; Germany; Hungary; Italy; Netherlands; Norway; Poland; Republic of Moldova; Russian Federation; Slovenia; Spain; Sweden; Switzerland; Ukraine; United Kingdom; and the European Community (EC).
- 3. A representative of the World Health Organization's European Centre for Environment and Health (WHO/ECEH), Bonn Office, was present.
- 4. Mr. H.-D. Gregor (Germany) chaired the meeting.

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I. ADOPTION OF THE AGENDA

- 5. The agenda (EB.AIR/WG.1/2005/1) was adopted.
 - II. ADOPTION OF THE REPORT OF THE TWENTY-THIRD SESSION
- 7. The Working Group adopted the report of its twenty-third session (EB.AIR/WG.1/2004/2).
- III. MATTERS ARISING FROM THE TWENTY-SECOND SESSION OF THE EXECUTIVE BODY FOR THE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION, THE THIRTY-SIXTH SESSION OF THE WORKING GROUP ON STRATEGIES AND REVIEW AND THE TWENTY-EIGTH SESSION OF THE STEERING BODY OF THE COOPERATIVE PROGRAMME FOR MONITORING AND EVALUATION OF THE LONG-RANGE TRANSMISSION OF AIR POLLUTANTS IN EUROPE (EMEP)
- 8. Mr. K. Bull, Chief of the Air and Water Team of the Environment and Human Settlements Division, provided information on the present status of the Convention's protocols and on the outcome of the Convention's twenty-fifth anniversary. He drew special attention to the new bodies established under the Convention and the entering into force of the 1999 Gothenburg Protocol.
- 9. Mr. R. Ballaman (Switzerland), Chair of the Working Group on Strategies and Review, drew particular attention to the ongoing or forthcoming reviews of three most recent protocols to the Convention.
- 10. The Working Group 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 ACHIEVEMENTS OF THE EFFECTS-ORIENTED ACTIVITIES

- A. Recent activities of International Cooperative Programmes, the Task Force on
 Health and the Joint Expert Group on Dynamic Modelling
- 11. The Chairman introduced the 2005 Joint Report of the International Cooperative Programmes (ICPs) and the Task Force on Health on progress in the effects-oriented activities (EB.AIR/WG.1/2005/3), and noted the annexes (EB.AIR/WG.1/2005/3/Add.1) describing the

recent activities of the programmes and listing their relevant publications. The representative from the lead country of each programme reviewed the recent achievements and publications:

- (a) Mr. M. Köhl (Germany), the recently appointed Chairman of the Task Force of the ICP on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests);
- (b) Ms. B. Kvaeven (Norway), Chairperson of the Task Force of the ICP on Assessment and Monitoring of Acidification of Rivers and Lakes (ICP Waters);
- (c) Mr. V. Kucera (Sweden), Chairman of the Task Force of the ICP on Effects of Air Pollution on Materials, including Historic and Cultural Monuments (ICP Materials);
- (d) Mr. H. Harmens (United Kingdom), Chairman of the Task Force of the ICP on Effects of Air Pollution on Natural Vegetation and Crops (ICP Vegetation);
- (e) Mr. L. Lundin (Sweden), Chairman of the Task Force of the ICP on Integrated Monitoring of Air Pollution Effects on Ecosystems (ICP Integrated Monitoring);
- (f) Mr. T. Spranger (Germany), Chairman 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, Bonn Office, and Chairman 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 on Effects:

- (a) Took note of the recent activities of ICPs, Task Forces and the Joint Expert Group (EB.AIR/WG.1/2005/3/Add.1, annexes I-VII);
- (b) Took note of the appointment of Mr. Köhl as Chairman of ICP Forests and noted with appreciation the work done by the previous Chairman, Mr. T. Haußmann (Germany);
- (c) Welcomed the efforts of ICP Forests to set up the level I and II databases and make them fully operational, and took note of the 2005 executive report, "The condition of forests in Europe", and of the 2005 technical report, "Forest condition in Europe";
- (d) Noted the active joint reporting between ICP Waters and other programmes concerning the evaluation of sulphur and nitrogen trends in surface waters as well as biological recovery trends and their links to chemistry;
- (e) Welcomed the new programme on materials exposure and the increased focus on mapping areas and stocks at risk. It also approved the ICP Materials' plan for subdivision of activities between Sweden and Italy and took note of the "Report 50; Environmental data report, November 2002-December 2003" and the report on the workshop "Cultural heritage in the city of tomorrow";

- (f) Noted the derivation of the new flux-based ozone critical level exceedance maps and the preparation for the European moss survey, and took note of the ICP Vegetation annual report 2004/2005 "Air Pollution and Vegetation";
- (g) Noted the comprehensive work of ICP Integrated Monitoring on heavy metals and took note of its 2005 report;
- (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; the first results of large-scale dynamic modelling related to acidification and nutrient nitrogen, and the updating and evaluating of critical loads for heavy metals (lead (Pb), cadmium (Cd) and mercury (Hg)). It took note of the 2005 report, "Critical loads for heavy metals", and the draft status report 2005, "European critical loads and dynamic modelling", of the Coordination Center for Effects (CCE);
- (i) Stressed the importance of active participation of all Parties to the Convention in the modelling and mapping activities and urged Parties to continue their efforts to respond to calls for data;
- (j) Noted the fruitful collaboration of the Task Force on Health with the EMEP centres and took note of the draft report "Health risk of particulate matter from long-range transboundary air pollution";
- (k) Expressed appreciation to the WHO European Centre for Environment and Health, Bonn Office, for its work and continuing leading role in the activities of the Task Force on Health;
- (l) Reiterated its invitation to Parties to nominate their experts and actively participate in the work of the Task Force on Health;
- (m) Appreciated the progress made by the Joint Expert Group on Dynamic Modelling in facilitating the call for data on dynamic modelling parameters made by CCE. It also noted the conclusions and recommendations from the fifth meeting of the Group (EB.AIR/WG.1/2005/13) and decided to forward them to the Executive Body for information;
- (n) Noted the active participation of ICPs and national experts in the activities of the Joint Expert Group, and the proposals from the Group to continue its work with specifically identified elements in the workplan.

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

13. The Chairman drew attention to the growing participation of countries in the effects-oriented activities and noted the positive results of closer and more effective cooperation among ICPs, as well as with EMEP and other bodies under the Convention. He also noted the effective publicity achieved at the time of the twenty-fifth anniversary of the Convention in December 2004 and encouraged further publicizing of the work of the programmes.

14. The Working Group on Effects:

- (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 preparations for the ongoing or forthcoming reviews of the three most recent protocols;
- (b) Stressed once more the importance of the work carried out by national focal centres and of the support provided by the lead countries, coordinating centres and their host countries;
- (c) Welcomed the increased level of participation in the session and noted the continuing 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/programmes in which they had not yet actively participated.

C. <u>Activities in selected countries</u>

- 15. The Chairman noted the Convention's current emphasis on encouraging participation of Parties in Eastern Europe, the Caucasus and Central Asia (EECCA) with the aim of assisting them in the implementation of the Convention and its more recent protocols.
- 16. Representatives of Armenia, Azerbaijan, Bulgaria, the Republic of Moldova, Russian Federation and Ukraine gave short presentations of air pollution effects-related activities in their countries. Most noted that financial and structural problems often hindered air pollution research and effects-monitoring activities, although in some countries progress had been made through new legislation and acquisition of new equipment. Guidance material, especially in Russian, and training in monitoring and mapping would help build capacity to improve participation in Convention activities.
- 17. The Working Group welcomed the information received; urged the representatives to contact the programmes directly for details on participating in meetings and activities; suggested that the representatives provide information to delegates attending the seminar on EECCA countries, organized by the Working Group on Strategies and Review, and invited the Chairman to present relevant information at the seminar.

V. REVIEW OF RECENT RESULTS AND UPDATING OF SCIENTIFIC/TECHNICAL KNOWLEDGE

18. The Chairman drew attention to the revised structure for the presentations on recent results from the activities of the ICPs, noting that pollutant-oriented themes had been useful the previous year. The 2005 joint report had been compiled to support the programme presentations under seven themes. The presentations drew largely from the technical reports of the ICPs.

A. Acidification

- 19. Mr. M. Lorenz (Germany), Head of the Programme Coordinating Centre of ICP Forests, summarized sulphur deposition distribution and trends (EB.AIR/WG.1/2005/5) and presented the first results of dynamic modelling carried out at selected level II sites.
- 20. Ms. B.-L. Skjelkvåle (Norway), ICP Waters, reported on the links between surface water chemistry and biology and drew attention to the lag time between improved chemistry and biological recovery.
- 21. Mr. J. Tidblad (Sweden), Head of the Main Research Centre of ICP Materials, summarized the statistical evaluation of the multi-pollutant exposure programme data of ICP Materials and the derivation of improved dose-response function (EB.AIR/WG.1/2005/7), noting the large effect of nitric acid (HNO₃) and the relatively small influence of particulate matter (PM) on the corrosion of several materials.
- 22. Mr. M. Forsius (Finland), Head of the Programme Centre of ICP Integrated Monitoring, described the modelled effects of climate change on recovery of acidified freshwaters. He noted that climate change scenarios and site-specific characteristics significantly affected the rate of recovery.
- 23. Mr. M. Posch (Netherlands), Coordination Center for Effects (CCE) of ICP Modelling and Mapping, showed the new 2005 data from national focal centres on critical loads for acidification and eutrophication and on dynamic models (EB.AIR/WG.1/2005/10), stressing the robustness of critical load input data over time and emphasizing their importance over the derivation methodologies with regard to the quality of critical load calculation results.
- 24. In the ensuing discussion a number of delegates stressed that robustness of critical load data reported did not address all possible uncertainties of critical loads and exceedances. They noted that different scales of deposition maps could alter calculated exceedances; large grids generally gave underestimates. They felt it was important to carry out validation studies using

available field data. In addition, the various ideas on methods to close the gap between current exceedances and critical loads were discussed.

- 25. The Working Group recognized with appreciation the range and quality of the work being done on acidification and:
- (a) Took note of the ICP Forests report on dynamic modelling at monitoring sites and on trends of sulphur and nitrogen in wet deposition (EB.AIR/WG.1/2005/5);
- (b) Took note of the ICP Waters report on the evaluation of sulphate and nitrogen trends in surface waters, including dynamic modelling of surface water chemistry and biology, and links of biological recovery trends to chemistry;
- (c) Took note of the ICP Materials report on the further development of dose-response functions of effects on materials (EB.AIR/WG.1/2005/7);
- (d) Took note of the ICP Integrated Monitoring report on the modelling of the effects of climate change on recovery of acidified freshwaters (EB.AIR/WG.1/2005/9);
- (e) Took note of the results of ICP Modelling and Mapping with regard to the 2004 call for data on European critical loads of acidification and eutrophication, including dynamic modelling parameters for use in integrated assessment modelling (EB.AIR/WG.1/2005/10);
- (f) Approved the results of the call for data on critical loads and target load functions for acidification and European scale dynamic modelling related to acidification (EB.AIR/WG.1/2005/10), and recommended that those results be used in work under the Convention;
- (g) Urged ICPs with field and modelled data to work with ICP Modelling and Mapping to validate, wherever possible, mapped critical loads of acidification and eutrophication and their exceedances. Such studies could consider the use of multiple criteria including links between receptors and chemistry;
- (h) Underlined the importance of having emission reduction strategies that were effects-based.

B. <u>Nutrient nitrogen</u>

- 26. Mr. Lorenz described the nitrate deposition trends at ICP Forests level II sites and highlighted the links observed between nitrogen throughfall, soil carbon-nitrogen (C/N) status and nitrogen leaching in forested ecosystems (EB.AIR/WG.1/2005/5). The work was carried out in cooperation with ICP Integrated Monitoring.
- 27. Mr. Harmens summarized temporal trends in the nitrogen concentration in European mosses found by ICP Vegetation, drawing attention to good correlations between nitrogen in mosses and annual nitrogen deposition in Norway.

- 28. Mr. Forsius reported on the cumulative nitrogen deposition and on the C/N interactions and nitrogen effects in forested ecosystems, drawing attention to the influence of nitrogen throughfall and ambient temperature on nitrogen leaching. The work was carried out in cooperation with ICP Forests.
- 29. Mr. J.-P. Hettelingh (Netherlands), Head of CCE, described the new 2005 critical loads data on eutrophication (EB.AIR/WG.1/2005/10). He stressed that the latest exceedance calculations had used the new emission baseline scenarios, only recently available, and had led to revised values of ecosystem areas at risk in Europe.
- 30. The Working Group congratulated the programmes on their important work on nutrient nitrogen and:
- (a) Noted the increased attention on nutrient nitrogen issues and urged that more work on this issue be done in future;
- (b) Took note of the results of ICP Forests on nitrate deposition and links between C/N ratio and nitrogen leaching in forest soils (EB.AIR/WG.1/2005/5);
- (c) Took note of the ICP Vegetation results on temporal trends in nitrogen concentrations in European mosses;
- (d) Took note of the ICP Integrated Monitoring findings on cumulative nitrogen deposition and C/N interaction;
- (e) Took note of the ICP Modelling and Mapping analyses of critical loads for eutrophication and the first findings of dynamic modelling related to eutrophication (EB.AIR/WG.1/2005/10), and recommended that the results be used in work under the Convention.

C. Ozone

- 31. Mr. Lorenz described the assessment of exposure to ozone at level II plots (EB.AIR/WG.1/2005/5) and ozone injuries to plants, and noted that the links between ozone exposure and injury had not been evaluated.
- 32. Mr. Tidblad summarized the effects of ozone on materials (EB.AIR/WG.1/2005/10) and noted the corrosive effects on copper and polymeric material and additional indirect impacts through the formation of nitric acid (HNO₃).
- 33. Mr. Harmens summarized recent results on the effects of ozone on vegetation, on combined effects of ozone and nitrogen, on ozone concentration and flux maps in Europe and the empirical dose-responses of ozone sensitive plants and semi-natural vegetation, where many dominant plants were found to be relatively sensitive to ozone.

- 34. Mr. Krzyzanowski outlined information on the health risks of ozone (EB.AIR/WG.1/2005/11) and noted that a methodology had been developed to include morbidity estimates in quantification of health impacts, concluding that strong evidence existed for short-term health effects of ozone concentration with no apparent threshold.
- 35. The Working Group on Effects welcomed the progress made and the new results obtained with regard to ozone effects and:
- (a) Took note of the ICP Forests assessment report on geographical distribution of ozone injuries to forests (EB.AIR/WG.1/2005/5);
- (b) Took note of the ICP Materials report on the direct and indirect ozone effects on materials (EB.AIR/WG.1/2005/7);
- (c) Took note of the ICP Vegetation maps of exceedances of critical levels of ozone and the technical report on the extent and trends of ozone damage to crops and (semi-) natural vegetation (EB.AIR/WG.1/2005/8);
- (d) Took note of the results of the Task Force on Health regarding the impacts of ozone on human health, including the exposure estimates produced by the RAINS model and the preparation of a comprehensive summary report (EB.AIR/WG.1/2005/11), as well as the development of a methodology to include morbidity estimates in quantifying health impacts of ozone.

D. Particulate matter

- 36. Mr. Tidblad gave an overview of the soiling effects of particulate matter (PM) on materials (EB.AIR/WG.1/2005/7), noting that a dose-response function, which included coarse PM concentration, had been developed. The function could be used to evaluate acceptable frequency and cost of cleaning soiled materials.
- 37. Mr. Krzyzanowski described the report on the health risks of PM (EB.AIR/WG.1/2005/11), noting that current emission reduction policies would reduce harmful effects but a significant health burden would remain.
- 38. The Working Group on Effects noted with appreciation the work on PM and:
- (a) Took note of the ICP Materials report on soiling effects of particulate matter on materials (EB.AIR/WG.1/2005/7);
- (b) Took note of the assessment of the health impacts of PM carried out by the Task Force on Health (EB.AIR/WG.1/2005/11); welcomed the final draft of a comprehensive

summary report and noted the development of a methodology to include morbidity estimates in quantifying health impacts of particulate matter.

E. <u>Heavy metals</u>

- 39. Mr. Harmens reported on monitoring of heavy metal deposition and potential contamination of food crops using (semi-) natural vegetation and mosses and described the good correlation between modelled total lead deposition and lead in mosses in 2000. He summarized the tolerable deposition loads of arsenic, cadmium, lead and mercury as related to potential crop contamination, noting that comparisons with actual depositions had not been made.
- 40. Mr. Lundin introduced the finalized scientific paper on heavy metal contents, pools and fluxes at ICP Integrated Monitoring sites, noting that critical loads were also calculated at these sites.
- 41. Mr. Hettelingh introduced the new 2005 data on critical loads of heavy metals (Pb, Cd and Hg) (EB.AIR/WG.1/2006/10/Add.1). Both health and ecosystem criteria and modelled deposition were used in the assessment. Lead showed areas of high risk and cadmium showed areas at low risk in Europe. He drew attention to the non-exceedance of concentration-based European Community air quality objectives for lead and cadmium at the EMEP grid-cell scale but emphasized the usefulness of deposition-based critical loads in the Convention's work.
- 42. Mr. Krzyzanowski described the need to update the risk assessment of heavy metals and announced the start of new work in this area.
- 43. The delegate of the Netherlands announced national work on mapping critical loads of copper, zinc and nickel. A tentative evaluation of arsenic, chromium and selenium would also be made.
- 44. The Working Group on Effects expressed its appreciation of the work on heavy metals and:
- (a) Took note of the ICP Vegetation report on heavy metal deposition and the potential contamination of food crops;
- (b) Took note of the ICP Integrated Monitoring scientific paper on heavy metal contents, pools and fluxes at its monitoring sites;
- (c) Took note of the inclusion of the critical load data from the Czech republic in the database. It noted that there were altogether 18 national focal centres (NFC) which had

submitted critical loads for heavy metals; of those NFCs, 17 had computed values for Cd, 17 had submitted values for Pb and 10 for Hg;

- (d) Took note of ICP Modelling and Mapping analyses of critical loads for heavy metals (EB.AIR/WG.1/2005/10/Add.1) and recommended that the results be used in work under the Convention;
 - (e) Welcomed work by the Netherlands to evaluate further elements;
- (f) Welcomed the initiative of the Task Force on Health to evaluate the health effects of heavy metals and encouraged all Parties to actively participate in this work.

F. Persistent organic pollutants

- 45. Ms. Skjelkvåle outlined the report on persistent organic pollutants (POPs) in the freshwater environment (EB.AIR/WG.1/2005/6), noting that levels of some POPs were decreasing while others had increased. She called for coordinated efforts in future to survey and analyse the levels and effects of POPs in freshwater ecosystems. She also noted multimedia models could be used for screening organic substances.
- 46. The Working Group on Effects noted the important work on POPs and:
- (a) Took note with appreciation of the ICP Waters document on POPs in the freshwater environment and effects of long-range transboundary air pollution (EB.AIR/WG.1/2005/6);
- (b) Noted that the Working Group on Strategies and Review had not yet requested a health risk assessment of POPs by the Task Force on Health.

G. <u>Cross-cutting items</u>

- 47. Mr. Lorenz provided information on the large-scale crown condition assessment (level I) (EB.AIR/WG.1/2005/5) and the 2005 technical report "Forest condition in Europe", and noted plans to prepare a new draft strategy for ICP Forests that will include management of programme data.
- 48. Mr. S. Doytchinov (Italy), Co-Chair of ICP Materials, described the maps for limestone and sandstone corrosion due to sulphur concentrations at United Nations Educational, Scientific and Cultural Organization's (UNESCO) World Heritage sites in Europe and drew attention to local pollutant effects not detectable at the EMEP grid scale.
- 49. Mr. Kucera reported on the plan for dividing tasks between the lead countries of ICP Materials, Sweden and Italy, noting that some responsibilities would be shared. Sweden would analyse trends, manage the main database and report to the Convention, while Italy would be

charged with mapping and evaluating stock at risk, with assessing economic impacts, and with organizing Task Force meetings.

- 50. Mr. Hettelingh reported on the collaboration between CCE and the Centre for Integrated Assessment Modelling (CIAM) noting that the 2004 data were used by CIAM in the work of the Convention and the European Commission. Marginal impact coefficients were being derived through this collaboration that would help the optimization of model results.
- Mr. Posch described the use of critical loads in integrated assessment modelling and a new methodology using linearized relationships between average accumulated exceedance (AAE) and emissions to facilitate optimization. He noted that information from individual grid cells was not used in the impact calculations. The link was from country emissions to country effects, however, individual grid cells could be included in calculations when necessary.
- The Chairman outlined the results of the workshop "Future convention priorities: summary report and conclusions of the workshop on review and assessment of European air pollution policies" (EB.AIR/WG.1/2005/14), noting that the conclusions and recommendations were considered by the Bureau in the preparation of the draft long-term strategy. The Working Group noted the support of the organizers: the Programme on International and National Abatement Strategies for Transboundary Air Pollution (ASTA), in Sweden; the Nordic Council of Ministers; and the European Commission's Clean Air for Europe (CAFE) programme. It considered the workshop outcome successful and recommended similar future workshops.
- 53. The Working Group on Effects acknowledged the importance of the collaborative work on cross-cutting issues and:
- (a) Appreciated the financial support of the European Commission to carry out several projects and activities of the effects-oriented programmes;
- (b) Noted the results of the large-scale crown condition assessment (level I) of ICP Forests (EB.AIR/WG.1/2005/5) and its future plans;
- (c) Noted with appreciation the work carried out by ICP Materials on the mapping of UNESCO's World Heritage sites for corrosion of limestone and sandstone due to sulphur concentrations;
- (d) Took note of the plan for dividing tasks between Italy and Sweden in order to develop the activities of ICP Materials' sub-centre on cultural heritage and stock at risk;
- (e) Welcomed the collaboration between CCE and CIAM in making available updated methods and data on critical and target loads to CIAM and noted the new methodologies that would facilitate optimization;
- (f) Took note of the report on the workshop "Future convention priorities: summary report and conclusions of the workshop on review and assessment of European air

pollution policies" (EB.AIR/WG.1/2005/14), noting that the results and recommendations were taken into account in the preparation of its draft long-term strategy (EB.AIR/WG.1/2005/15).

H. <u>Information on forthcoming workshops/technical meetings</u>

- 54. Organizers and/or representatives of the host countries provided information on proposed forthcoming workshops and technical meetings. The Working Group:
- (a) Welcomed the arrangement of the workshop on economic impacts of air pollution on cultural heritage by ICP Materials in cooperation with the Network of Experts on Benefits and Economic Instruments. This workshop, originally planned for 2005, is to be held in Syracusa, Italy, from 6 to 7 April 2006;
- (b) Welcomed the collaboration between Austria, ICP Vegetation and ICP Forests in organizing the workshop "Critical levels of ozone: further applying and developing the flux-based concept", to be held in Obergurgl, Austria, from 15 to 19 November 2005;
- (c) Noted the workshop on the causal relations of nitrogen in the cascade, to be held in Braunschweig, Germany, from 21 to 23 November 2005, arranged by the Regional Centre of the International Nitrogen Initiative (INI);
- (d) Welcomed the preparations of ICP Waters for the workshop on confounding factors in long-term trends of acidification, to be held in Bergen, Norway, in October 2006;
- (e) Agreed to add these workshops to its workplan and the provisional list of meetings for 2005/2006.

VI. FURTHER DEVELOPMENT OF THE EFFECTS-ORIENTED ACTIVITIES AND THEIR CONTRIBUTION TO THE FUTURE REVIEW OF PROTOCOLS

A. <u>Draft long-term strategy</u>

- 55. The Chairman introduced the draft long-term strategy (EB.AIR/WG.1/2005/15) prepared by the Bureau in collaboration with the secretariat.
- 56. Several delegations made comments on the strategy to ensure that outreach activities efficiently cover countries and regions outside the current remit. Several small amendments to the document were agreed.
- 57. The Working Group approved the draft long-term strategy (EB.AIR/WG.1/2005/15) as amended and decided to submit it, as a revised document, to the Executive Body at its twenty-third session.

B. Draft 2006 workplan

- 58. In introducing the draft 2006 workplan for the further development of the effects-oriented activities (EB.AIR/WG.1/2005/4), the Chairman noted its preparation had followed the Executive Body's invitation to harmonize as much as possible the workplans of the Working Group and the EMEP Steering Body. A medium-term workplan for 2005–2008 was made available as an informal document.
- 59. The delegate from Denmark pointed out that the workplan did not seem to reflect the increasing emphasis on important items identified in the draft long-term strategy, such as the nitrogen issues. The delegate of EC emphasized the need for protocol reviews, which would require more intensive harvesting of existing knowledge. The delegate of Switzerland stressed the importance of monitoring activities to ensure that the effectiveness of the protocols could be detected. The delegate from Canada also emphasized the importance of work supporting protocol reviews, particularly for reviewing effectiveness and sufficiency. It was noted that all ongoing monitoring and modelling activities were not always in the workplan, as they are mostly covered by the programme objectives. Workplan items should focus on the most important work with concrete and verifiable outcomes, as they are also used for setting up contracts under the Trust Fund.

60. The Working Group on Effects:

- (a) Took note of the results of the joint meeting of its Extended Bureau and the Bureau of the EMEP Steering Body held in February 2005;
- (b) 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;
- (c) Approved the 2006 workplan for the further development of the effects-oriented activities (EB.AIR/WG.1/2005/4), as amended, and agreed to submit it as a revised document to the Executive Body;
- (d) Welcomed the preparation of a new strategy of ICP Forests and invited it to present the strategy to its twenty-fifth session to enable it to forward the strategy to the Executive Body for approval.

VII. FUNDING OF EFFECTS-ORIENTED ACTIVITIES

61. 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 (EB.AIR/WG.1/2005/12), in line with decision 2002/1 of the Executive Body. The secretariat presented updated information in tables 2 and 3 of the document showing the recent

development in the Trust Fund. It announced updates for table 4 with additional recent contributions in kind: in 2004, the United Kingdom contributed the equivalent of US\$ 227,148 to ICP Vegetation, in 2005, the Netherlands contributed the equivalent of US\$ 86,915 to CCE, and Switzerland the equivalent of US\$ 20,833 and US\$ 29,167 to the Task Force on Health and CIAM, respectively. It drew attention to the informal document on the effectiveness of funding over the past six years.

62. The secretariat introduced an informal document detailing financial information from the past six years as background information for discussion on the effectiveness of funding of effects-oriented activities. The delegate from the Netherlands appreciated the useful tables presented in the document and suggested adding a column on budget deficit (in percentage) to tables 2a–c of the informal document. The delegate of EC noted it supported many activities under the Convention through various funding mechanisms but a complete in-kind contribution amount could not be declared.

63. The Working Group on Effects:

- (a) Approved the note on funding of the effects-oriented activities (EB.AIR/WG.1/2005/12) and decided to submit it to the Executive Body;
- (b) Approved the table showing the 2006 essential coordination costs of US\$ 2,152,700 for different elements of the effects-oriented activities and the provisional cost estimate of US\$ 2,152,700 for 2007 and 2008, for submission to the Executive Body;
- (c) 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 and active participation of their national experts in the work under the Convention;
- (d) Noted with appreciation the voluntary cash contributions made in 2005 but reiterated its invitation to all Parties which have not yet done so, to consider providing voluntary contributions to the Trust Fund for financing the effects-oriented activities without undue delay;
- (e) Noted with satisfaction the continuing effective work of the Programme Centres for all ICPs:
- (f) Took note with satisfaction of the work accomplished by ICPs and the Task Force on Health partially funded by the Trust Fund (see document EB.AIR/WG.1/2005/12);
- (g) Concluded that the information provided by the secretariat clearly demonstrated that decision 2002/1 had had no significant effect on the overall cash contributions to the Trust Fund and urged the Executive Body to seek further measures to improve the long-term funding of the effects-oriented activities:
- (h) Requested the secretariat, in collaboration with the Bureau, to prepare a short document on the effectiveness of decision 2002/1, on the financing of core activities not

covered by the EMEP Protocol, that included the conclusions of its discussion on financing and information presented by the secretariat.

64. The secretariat informed the Working Group that voluntary contributions could be made as indicated in annex I to this report.

VIII. ELECTION OF OFFICERS

65. Mr. H.-D. Gregor (Germany) was re-elected Chairman. Mr. B. Achermann (Switzerland), Mr. T. Johannessen (Norway), Mr. W. Mill (Poland), Mr. F. Conway (Canada) and Ms. A.-C. Le Gall (France) were re-elected Vice-Chairpersons. The Working Group appreciated the considerable contribution of its Bureau to the recent important results and expressed its gratitude.

IX. OTHER BUSINESS

- 66. The secretariat presented a provisional list of meetings for 2005/2006 and invited all Parties and programmes to communicate to it any amendments or new information.
- 67. The Working Group decided to annex the provisional list of meetings for 2005/2006 to its report (Annex II) and to make the medium-term workplan available for the Executive Body as an informal document.
- 68. The Chairman informed the Working Group on draft data rules that its Bureau had prepared. The results would be reported to the Executive Body and he proposed that the data rules be discussed at the joint meeting of its Extended Bureau and the Bureau of the EMEP Steering Body in February 2006. His aim was that draft rules would be brought to the twenty-fifth session of the Working Group for its consideration and possible submission to the Executive Body for approval.
- 69. The Chairman informed the Working Group that its twenty-fifth session was tentatively scheduled to be held from 30 August to 1 September 2006, starting on Wednesday, 30 August 2006, at 10 a.m.

Annex I

BANKING INFORMATION ON THE CONVENTION "LUA" TRUST FUND

- 1. Contributions should be made by bank transfer. Four currency accounts are available (US dollar, Swiss franc, euro and pound sterling). The contributions should be addressed to the United Nations Economic Commission for Europe (UNECE).
- 2. Each contribution must be clearly referenced **indicating the year for which the contribution is made** and stating "**LUA-ECE/EOA**" (earmark specific **programme** or coordinating centre, if applicable) for the Trust Fund, for core activities not covered by the EMEP Protocol.
- 3. To ensure that all contributions are allocated to the correct fund, each time payment is made it is important to send details specifying the amount contributed, the date and purpose of the payment to the secretariat (Mr. Matti Johansson, UNECE, Office 350, Palais des Nations, CH-1211 Geneva 10, Switzerland, or e-mail: matti.johansson@unece.org).
- 4. The four currency accounts are:
 - a) US dollar deposit:

Account number: 485-001802

Account currency: USD

Account title: UN Geneva General Fund

Bank name: JP Morgan Chase Bank, New York

Bank address: International Agencies Banking

1166, Avenue of the Americas, 17th Floor

New York, N.Y. 10036-2708, USA

ABA (US Bank Code): 021000021 (Specific for US use)

Swift Code: CHAS US 33
Reference: "LUA-ECE/EOA"

b) Swiss franc deposit:

Account number: 240-C0590160.0

Account currency: CHF

Account title: UN Geneva General Fund

Bank name: UBS AG

Bank address: Rue de Rhone 8

CH-1211 Geneva 2

Bank clearing code: 240

Swift Code: UBSW CH ZH 12A

IBAN Number: CH92 0024 0240 C059 0160 0

Reference: "LUA-ECE/EOA"

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c) Euro deposit:

Account number: 23961901

Account currency: EUR

Account title: UN Office at Geneva
Bank name: JP Morgan Chase Bank
Bank address: 125 London Wall, London

EC2Y 5AJ,

United Kingdom

Swift Code: CHAS GB 2L Sorting Code: 60-92-42

IBAN Number: GB25 CHAS 6092 4223 9619 01

Reference: "LUA-ECE/EOA"

d) Pound sterling deposit:

Account number: 23961903

Account currency: GBP

Account title: UN Office at Geneva
Bank name: J.P. Morgan Chase Bank
Bank address 125 London Wall, London

EC2Y 5AJ

United Kingdom

Swift Code: CHASGB2L Sorting Code: 60-92-42

IBAN Number: GB68 CHAS 6092 4223 9619 03

Reference: "LUA-ECE/EOA"

Annex II

PROVISIONAL LIST OF EFFECTS-RELATED MEETINGS FOR 2005/2006

12–16 December 2005	Executive Body for the Convention
Geneva	(twenty-third session)
30 August–1 September 2006	Working Group on Effects
Geneva	(twenty-fifth session)
4–6 September 2006	EMEP Steering Body
Geneva	(thirtieth session)
18–22 September 2006	Working Group on Strategies and Review
Geneva	(thirty-eighth session)
11–15 December 2006	Executive Body for the Convention
Geneva	(twenty-fourth session)

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17–19 October 2005	Programme Task Force, ICP on Assessment and Monitoring of
Tallinn	Acidification of Rivers and Lakes (twenty-first meeting)
26–27 October 2005	Workshop on dynamic nitrogen processes (Joint Expert Group on
Brighton (United Kingdom)	Dynamic Modelling)
28 October 2005	Joint Expert Group on Dynamic Modelling (sixth meeting)
Brighton (United Kingdom)	
7–8 November 2005	Expert Group on Particulate Matter (second meeting)
London	
15–19 November 2005	Workshop on critical levels of ozone: further applying and
Obergurgl (Austria)	developing the flux-based concept
21–23 November 2005	Workshop on the causal relations of nitrogen in the cascade
Braunschweig (Germany)	(Regional Centre of the International Nitrogen Initiative (INI))
30 January–2 February 2006	Programme Task Force, ICP on Effects of Air Pollution on Natural
Caernarfon (United Kingdom)	Vegetation and Crops (nineteenth meeting)
5 April 2006	Programme Task Force, ICP on Effects of Air Pollution on
Syracusa (Italy)	Materials, Including Historic and Cultural Monuments (twenty-
	second meeting)
6–7 April 2006	Workshop on economic impacts of air pollution on cultural heritage
Syracusa (Italy)	(ICP Materials in cooperation with the Network of Experts on
	Benefits and Economic Instruments)
April 2006	Coordination Center for Effects (CCE) workshop (sixteenth
Slovenia	meeting)
April 2006	Programme Task Force, ICP on Modelling and Mapping of
Slovenia	Critical Levels and Loads and Air Pollution Effects, Risks and
	Trends (twenty-second meeting)
April/May 2006	Joint Task Force on the Health Aspects of Air Pollution (ninth
Bonn (Germany)	meeting)
27–29 April 2006	Programme Task Force, ICP on Integrated Monitoring of Air
Riga	Pollution Effects on Ecosystems (fourteenth meeting)

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22–24 May 2006	Programme Task Force, ICP on Assessment and Monitoring of
Tallinn	Air Pollution Effects on Forests (twenty-second meeting)
October 2006 (tentative)	Workshop on confounding factors (ICP Waters) (in connection
Bergen (Norway)	with the ICP Waters Task Force meeting)
October 2006 (tentative)	Programme Task Force, ICP on Assessment and Monitoring of
Bergen (Norway)	Acidification of Rivers and Lakes (twenty-second meeting)
Autumn 2006	Joint Expert Group on Dynamic Modelling (seventh meeting)