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

Working Group on Strategies and Review

REPORT OF THE THIRTY-THIRD SESSION

Introduction

1. The thirty-third session of the Working Group on Strategies and Review was held in Geneva from 24 to 27 September 2001.
2. The session was attended by representatives of the following Parties to the Convention: Armenia ; Austria; Belgium; Bulgaria; Canada; Czech Republic; Denmark; Finland; France; Germany; Hungary; Ireland; Italy; Netherlands; Norway; Poland; Portugal; Russian Federation; Slovenia; Spain; Sweden; Switzerland; Ukraine; United Kingdom; United States of America; and the European Community (EC).
3. Representatives of the following non-governmental organizations participated: the International Institute for Applied Systems Analysis (IIASA); the International Union of Producers and Distributors of Electrical Energy (UNIPEDE); the Oil Companies' European Organization for Environment, Health and Safety (CONCAWE); and the World Conservation Union (IUCN).
4. The meeting was chaired by Mr. R. BALLAMAN (Switzerland).

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I. ADOPTION OF THE AGENDA

5. The Working Group adopted the provisional agenda as contained in document EB.AIR/WG.5/67. It noted the proposal by the delegation of the Republic of Moldova to discuss the terms of Executive Body decision 1997/4 on the facilitation of participation of countries with economies in transition, and agreed to allow for an exchange of views under agenda item 9.

II. DRAFT LEGAL INSTRUMENT ON THE FINANCING OF CORE ACTIVITIES

6. Mr. K. BULL from the secretariat spoke on behalf of the Director of the UNECE Environment and Human Settlements Division. He stressed the importance of embarking on new negotiations for a possible funding mechanism for the core activities of the Convention other than those covered by the EMEP Protocol. He drew attention to the success of the EMEP Protocol and the vulnerability of those centres not covered by it. He recognized that some Parties had difficulties with a mandatory instrument, but urged delegates to explore all opportunities to arrive at a compromise position.

7. The Chairman reminded delegations of the discussions at the meeting of heads of delegation on 23-24 April 2001. The revised draft protocol text was annexed to that report to serve as a basis for negotiations during the session.

8. The Working Group adopted the report on the meeting of heads of delegation (EB.AIR/WG.5/68).

9. Mr. H. GREGOR (Germany), Chairman of the Working Group on Effects, explained the budget for the International Cooperative Programmes (ICPs) operating under the Working Group on Effects. He made reference to their 2001 joint report (EB.AIR/WG.1/2001/3) and to the draft work-plan (EB.AIR/WG.1/2001/5). The annual budget for effect-oriented activities (EB.AIR/WG.1/2001/14, table 1) and the work on integrated assessment modelling to be covered by the protocol amounted to some US\$ 1.7 million. This covered only the essential coordinating costs, while the total cost of the work was estimated at some US\$ 40 million annually. Mr. T. JOHANNESSEN (Norway), Vice-chairman of the Working Group on Effects, informed delegations that decision 2000/3 and the recommendation on the financing of core activities 2000-2003 by the Executive Body had so far not influenced the funding substantially. As in previous years, contributions of about US\$ 200 000 had been made by some 15 Parties.

10. Several delegations expressed their support for a protocol to secure the stable financing of all core activities. Some delegations informed the Working Group that, for the time being, they were not able to commit themselves to contributing on a mandatory basis, but they reiterated their support for the work to be financed and indicated that they would contribute voluntarily.

11. A sessional drafting group, chaired by Mr. P. SZÉLL (United Kingdom), Vice-Chairman of the Executive Body, revised, on the basis of the comments made by delegations, the draft protocol text. The group also drafted text for a decision by the Executive Body that could be adopted, possibly together with the budget, at the time of the adoption of the protocol.

12. One delegation noted that the Executive Body should aim at choosing a scale of contributions in this new protocol that was consistent with the scale in the EMEP Protocol.

13. The delegation of the Russian Federation expressed its doubt about the logic of excluding Canada and the United States from the list in annex II to the protocol. It wondered whether these two Parties could become party to the new protocol without having any obligation to make mandatory contributions to the core activities. If this was the case, it might be an appealing option for other Parties. Leaving Canada and the United States off the list raised the relative contributions for other Parties, including the Russian Federation. It therefore requested the percentage rate in annex II to the protocol and the calculated contributions in the draft decision texts for the Russian Federation to be put in square brackets.

14. The Chairman explained that the work of most ICPs and the Centre for Integrated Assessment Modelling (CIAM) was limited to Europe. Canada and the United States participated in the work, but they were not included in the databases and modelling to the same extent as the European Parties to the Convention. They funded most of their work nationally.

15. The delegation of the United Kingdom proposed amending the draft protocol to include a requirement for the secretariat to regularly present a list of all contributions towards core activities, in cash and kind, mandatory and voluntary, by parties and by non-parties to the protocol. This would provide for the recognition of payments in kind, which would otherwise not appear in the audited accounts, and it would provide Parties with information on levels and sources of funding at the designated centres. Delegations supporting this proposal suggested that in this context a requirement for a contributing Party to notify the secretariat should also be included and that the designated centre receiving a contribution should also notify the secretariat.

16. The Working Group agreed to submit to the Executive Body:

(a) The preliminary draft protocol text set out in annex I to this report; and

(b) The preliminary draft text to be included into an Executive Body decision to be adopted at the time of adoption of the protocol (annex II).

Delegations agreed that the text reflected the best compromise feasible to bring together the different positions of the Parties to the Convention. The Working Group noted, however, that several delegations were not in a position to commit themselves to formally agreeing to such a

draft protocol and would need to consult their Governments. The Working Group appealed to delegations to make every effort to mobilize support for the draft protocol and come with well-defined positions to the nineteenth session of the Executive Body.

III. PREPARING FOR THE REVIEW OF THE GOTHENBURG PROTOCOL

17. The Chairman reminded delegations that the Working Group on Strategies and Review was expected to assess work in preparation of a review of the 1999 Gothenburg Protocol, including progress in the work on particulate matter pollution.

18. Mr. M. WILLIAMS (United Kingdom), Chairman of the EMEP Steering Body, informed the Working Group about progress made by EMEP in preparing for the review of the Gothenburg Protocol. He drew attention to the published EMEP Strategy 2000-2009 (ECE/EB.AIR/73) and the medium-term work-plan of EMEP (EB.AIR/GE.1/2001/9) adopted at the recent session of the Steering Body. A major task of EMEP in 2002 was the work on an assessment report to review the trends in measured pollution loads over the past 20 years. Mr. Williams noted that work on particulate matter (PM), including integrated assessment modelling, was advancing well. A focus of this work was to link the regional to the urban scale. Similarly, EMEP had initiated work to examine the importance of hemispheric transport of air pollutants. Much of the work was conducted in close collaboration with the European Commission's Clean Air for Europe (CAFE) programme. For PM, but also for the pollutants already covered by the Gothenburg Protocol, there was a need for increased efforts by Parties to provide good measurement data to EMEP as a basis for its modelling work. Similarly, emission data from Parties were crucial. The Steering Body had adopted, in principle, new emission reporting guidelines and invited Parties that were able to do so to make good use of them already while they were being finalized for full adoption next year.

19. The Chairman and Vice-Chairman of the Working Group on Effects outlined plans for future work. Special mention was made of activities aimed at: (i) updating critical loads for acidity and nutrient nitrogen and their mapping; (ii) improving knowledge on cause-response relationships; (iii) deriving level II critical levels for ozone based on fluxes; (iv) deriving damage functions for multi-pollutant effects on materials; and (v) dynamic modelling of air pollution effects and recovery. The medium-term work-plan for the effect-oriented activities had a very tight timetable and advancing the delivery of planned results would need careful consideration, and setting of priorities, and often required additional funding. The Working Group had initiated work on the preparation of a report on the assessment of present air pollution effects and their recorded trends for presentation in 2004. The inputs required for the preparation of such an ambitious report, however, substantially surpassed the scope of effect-oriented activities planned by 2003-2004 and the additional resources required could be considerable.

20. The Chairmen of EMEP and the Working Group on Effects both emphasized the need to integrate medium-term planning of the two programmes and the need, for that purpose, for clear priority setting from the policy side. Timely preparation of the output from each programme depended on timely input from the other programme and the bureaux of the two bodies had decided to organize a joint meeting in early 2002 to plan the work.

21. Delegations commended the work carried out by the two programmes and welcomed their ambitious plans.

22. The Chairman of EMEP explained the importance of the work on the shift in the atmospheric modelling by EMEP from a Lagrangian to a Eulerian model. The Eulerian model was of higher resolution, both horizontally (using 50 km x 50 km grids) and vertically (distinguishing six different layers). The model change significantly affected the calculations of source-receptor relationships. While EMEP would investigate further the differences between the two models from a scientific perspective, there was also a need to take a policy perspective and consider the possible consequences for negotiations.

23. Mr. R. MAAS (Netherlands), Chairman of the Task Force on Integrated Assessment Modelling, reported on progress (EB.AIR/WG.5/2001/5), including the results of the twenty-sixth meeting of the Task Force, held in Brussels on 14-16 May 2001. He highlighted the work on linkages between global and regional air quality as illustrated by the fact that tropospheric ozone and black carbon from fossil-fuel burning had been identified by the Intergovernmental Panel on Climate Change (IPCC) as important greenhouse gases. Another focus of work would be striking a balance between the cost-effectiveness of European-wide emission reduction measures and local measures. The Centre for Integrated Assessment Modelling (CIAM) had started work on uncertainty analysis with the RAINS model. A workshop on uncertainty management would be held in Laxenburg (Austria) in January or February 2002. The methodology of CIAM could assess the propagation of errors, which would make it possible to process additional information from the Parties on the quality of their input data and to estimate the probability of meeting environmental targets. The work-plan of the Task Force was only feasible if the necessary inputs arrived on time. Possible bottlenecks related to the quality of emission data, the development of source-receptor matrices based on the new Eulerian model, the developments in the dynamic modelling of ecosystems, the remaining uncertainties in the fine particles that cause health effects, the development of scenarios for energy and agriculture, and the influence of transcontinental fluxes.

24. Mr. M. AMANN of CIAM presented progress in further developing integrated assessment modelling for the inclusion of particulate matter, including the results of the workshop held in Laxenburg on 23-24 November 2000 (EB.AIR/WG.5/2001/5, annex). Work focused on three PM

size classes: the fine fraction (diameter < 2.5 µm, i.e. PM_{2.5}), the coarse fraction (diameter between 2.5 and 10 µm) and particles with a diameter larger than 10 µm. Preliminary national cost curves for primary PM emissions were available on the web site of CIAM (www.iiasa.ac.at/~rains) for review by national experts. The data showed that important emission reductions had already been made for PM₁₀ (particles < 10 µm) but that reductions for smaller size fractions were less significant. The knowledge about the extent of implementation of such measures was crucial to the precision of the emission estimates.

25. Mr. D. PEARCE (United Kingdom), rapporteur of the Network of Experts on Benefits and Economic Instruments (NEBEI), presented the report on the workshop on the measurement and economic valuation of health effects associated with air pollution held on 19-20 February 2001 in London (EB.AIR/WG.5/2001/4). This had been the first workshop of NEBEI, which continued the work of the former Task Force on Economic Aspects of Abatement Strategies, and the format had proven successful in attracting the most eminent scientists in the field. The organizers were planning to publish the workshop proceedings. The next workshop of NEBEI, on the economic valuation of ecosystem effects, was scheduled for October 2002 in the Netherlands. Mr. Pearce invited delegations to suggest names of scientists who should be invited to this event or to initiate research in this important area of work. Subsequently, NEBEI planned to address economic instruments and damage to materials, especially cultural heritage.

26. The delegations of Canada and the United States made available to delegations, in English and French and in an informal Russian translation, copies of the Protocol between them amending the bilateral air quality agreement of 1991, signed in Washington D.C. on 7 December 2000. The ozone annex introduced through this Protocol was an effect-based agreement to reduce NO_x and VOC emissions that contribute to transboundary air pollution, thereby helping both Parties to attain their air quality goals. The commitments of the annex apply to an area in the eastern part of each country associated with transboundary pollution flow, and they relate to the control and reduction of emissions from major sources. For the United States, it was estimated that annual average NO_x emissions in the transboundary area would decrease by 36%. The figure would be 43% for the high ozone season. For Canada, it was estimated that NO_x emissions in the transboundary area would be cut by 44% by 2010. The annex included requirements for detailed monitoring and reporting and for public access to information. Both Parties reported on the status of implementation of the measures foreseen. Canada provided a summary of the domestic initiatives currently under way in order to take the formal steps necessary to ratify the Gothenburg Protocol so that its obligatory measures could be brought into effect at the earliest possible date. The United States noted that it expected to ratify this Protocol in 2002.

27. Several delegations informed the Working Group about the state of their ratification procedures for the Gothenburg Protocol. Luxembourg had been the first Party to ratify. Ten

Parties indicated that they would finalize ratifications by the end of the year or in 2002. Others stated that it would take them into 2003. The representative of the European Community announced that its directive on national emission ceilings was close to adoption. This would make way for EC to accede to the Gothenburg Protocol.

28. The delegation of the United States also informed the Working Group about the EMEP workshop on photo-oxidants, particles, and haze across the Arctic and the North Atlantic: Transport observations and models, held in Palisade, New York (United States), on 12-15 June 2001 (EB.AIR/GE.1/2001/11). Much of the focus of the workshop had been on hemispheric scale processes. It followed a previous workshop organized in the United States on trans-Pacific air pollution. A web site had been set up (<http://www.ciesin.columbia.edu/pph>) giving access to the presentations. The United States was interested in organizing a follow-up workshop that would deal with hemispheric pollution transport and was deciding the most appropriate timing. This new area of work might produce important input for the Gothenburg Protocol's review.

29. The Chairman of the EMEP Steering Body informed the Working Group that EMEP had welcomed this initiative by the United States and requested its centres to examine the feasibility of extending part of their work to the hemispheric scale. It intended to extend the work by inviting scientists from Asia. The workshop had clearly shown the importance of such intercontinental transport of air pollution and the growing hemispheric background pollution.

30. The Working Group:

(a) Took note of the progress made by EMEP and the Working Group on Effects in work in preparation for the Gothenburg Protocol's review, including their plans for assessment reports to provide a basis for the review;

(b) Called upon Parties to do their utmost to support both programmes by providing the necessary data (emissions, monitoring, critical loads, activity data, etc.) and, wherever possible, resources for the work to progress without any undue delay;

(c) Took note of the report on integrated assessment modelling (EB.AIR/WG.5/2001/5), including the conclusions of the workshop on the potential and costs for controlling fine particulate matter emissions in Europe;

(d) Agreed that, early in the preparations for the review, agreement should be reached on the ambition level of further emission reductions with a time horizon of 2015 and/or 2020; there was a need to develop robust scenarios, including those on the developments in transport, energy and agriculture; and

(e) Took note of the report on the workshop on the measurement and economic

valuation of health effects associated with air pollution (EB.AIR/WG.5/2001/4), expressing its gratitude to the United Kingdom for its support;

31. Furthermore, the Working Group agreed to recommend to the Executive Body:

(a) To schedule the review of the Gothenburg Protocol, in view of its expected entry into force in 2003, to commence in 2004;

(b) That this review should encompass particulate matter and its health impacts;

(c) That this review should take account of available knowledge on the hemispheric transport of air pollutants;

(d) To support the coordination of work by EMEP and the Working Group on Effects and authorize the technical bodies and centres to share information and data informally as soon as they become available to speed up the process.

IV. PREPARING FOR THE REVIEW OF THE PROTOCOL ON HEAVY METALS

32. The Chairman reminded delegations that the Working Group on Strategies and Review was expected to assess work in preparation of a review of the Protocol on Heavy Metals, including a possible effect-based approach.

33. The Chairman of the EMEP Steering Body informed the Working Group about progress made by EMEP in preparing for the review of the Protocol. He emphasized the good progress made at the Meteorological Synthesizing Centre East (MSC-E) of EMEP as recently reviewed by the Task Force on Measurements and Modelling (EB.AIR/GE.1/2001/4). The atmospheric modelling of cadmium and lead was well advanced and there was reasonable agreement between measurements and modelling data. Results, including country-specific data, were available on the Internet at www.msceast.org. Work for the modelling of mercury was under way, but this was more complex, *inter alia*, because mercury had to be modelled also on the hemispheric scale. A serious problem remaining was the quality and availability of measurement and emission data, although progress was being made. The monitoring network of EMEP had serious gaps in southern and eastern Europe.

34. The Chairman and Vice-Chairman of the Working Group on Effects presented progress made by the Working Group in preparing for the review of the Protocol. They referred to the report on the occurrence, movement and effects of selected heavy metals presented to the Working Group on Effects at its twentieth session (EB.AIR/WG.1/2001/10) that summarizes the results of the ICPs and the Task Force on the Health Aspects of Air Pollution. The work on mapping of critical loads had advanced significantly, although some Parties still had serious doubts about the

methodology. Mapping would now commence on a voluntary basis to test the methodology and re-evaluate it in 2002. Preliminary maps for cadmium and lead could be expected in 2003 and for mercury in 2004.

35. Several Parties commended the two programmes for their work. One Party suggested that the effect-related work should be redirected to better link the available monitoring data to well-defined effects.

36. Mr. L. LINDAU (Sweden), Vice-Chairman of the Executive Body, presented a note with an analysis of information with a view to determining the possible content and timetable for the review of the Protocol on Heavy Metals. It included information on action under way in other international forums. He stressed that mercury still posed a significant environmental problem, for instance, in the Arctic and in Nordic countries. Emissions to the air continued from coal combustion, refuse burning, chlor-alkali production, non-ferrous smelters and products. When chlor-alkali plant closed in Europe, hundreds of tons of mercury needed disposal, causing a particular problem. Intake of cadmium through food grown on contaminated soils was a serious health hazard. The cadmium load in agricultural soils often originated from atmospheric deposition. The ban on lead in petrol had brought about a substantial decrease in lead emissions and a fall in urban concentrations. However, large amounts still remained in forest soils and were only slowly leached out. Mr. Lindau recommended that the work on critical loads should continue. While it might not be feasible to apply the critical load approach fully to heavy metals with complete integrated assessment modelling, the mapping of exceedances could provide a strong driving force for an approach based on best available abatement techniques.

37. The delegation of the United States informed the Working Group that its work on mercury was currently focusing on developing technology to reduce emissions from coal-fired power plants. It would still take some years before the necessary experience was gained so it was considered premature to embark on a review of abatement techniques at this stage. In response to a question, the delegation offered to prepare a note on this work and disseminate it to delegations via the secretariat.

38. One delegation, supported by others, suggested that it would be useful to set up an ad hoc group of experts to prepare the review of the Protocol.

39. Seven delegations indicated that they were in the process of preparing their ratifications of the Protocol on Heavy Metals. With the ten instruments of ratification already deposited, this would achieve the number required for entry into force. The delegation of Canada urged Parties to speed up their ratification procedures so that entry into force could precede the Johannesburg Summit on sustainable development in September 2002.

40. The Working Group:

- (a) Took note of the progress in the work of EMEP and the Working Group on Effects;
- (b) Agreed that priority should be given to cadmium and mercury in preparing the review, while this did not exclude the need for action on other heavy metals, including substances not yet included in the Protocol;
- (c) Called upon Parties to intensify their efforts to improve the monitoring and emission inventories of heavy metals in anticipation of the entry into force of the Protocol;
- (d) Further agreed that it was necessary to review the technical annexes to the Protocol and continue to follow the work on the development of an effect-based approach;
- (e) Decided that it would be premature to set up an expert group this year, but agreed to revert to this possibility next year, noting that the review could be scheduled for 2005; and
- (f) Expressed its appreciation to the delegation of the United States for its offer to prepare a note on the control of mercury emissions from coal-fired power plants.

V. PREPARING FOR THE REVIEW OF THE PROTOCOL ON PERSISTENT ORGANIC POLLUTANTS

41. Mr. D. STONE (Canada), Co-Chairman of the ad hoc expert group on the further assessment of POPs, reported on progress in the work of the group, including the results of its first meeting held in The Hague (Netherlands) on 6-8 November 2000 (EB.AIR/WG.5/2001/1). He informed the Working Group that the second meeting would be co-hosted by Canada and Poland and held on 24-26 October 2001 in Torun (Poland). He presented an overview of the work conducted since the first meeting and requested guidance from the Working Group on the scope of the further work of the group, in particular until the Protocol on Persistent Organic Pollutants (POPs) entered into force.

42. The delegation of Poland provide more information on the arrangements for the expert group meeting in Poland, urging Parties that wished to participate to ask their experts to register very quickly to facilitate preparations.

43. Several delegations expressed their appreciation for the work of the expert group, thanking Mr. Stone for his able chairmanship. Delegations also emphasized the importance of the work with regard to the influence that it was expected to have on the work under the 2001 Stockholm Convention on POPs.

44. The delegation of the Netherlands presented a proposal to categorize substances that were

potential candidates for addition to the Protocol. The first category would consist of substances that were still in production and/or use. For these, a full risk assessment would be required before a decision could be taken on their inclusion into the Protocol. The second category would include substances that were produced and used in very small quantities at present; for these there was no need to draw up information on socio-economic factors regarding the substance and its alternatives.

45. The Chairman of the EMEP Steering Body informed the Working Group about work by EMEP on POPs. He emphasized the good progress made at MSC-E. The atmospheric modelling had concentrated on dioxins/furans, HCB, PCBs and PAHs (B[a]P). Results, including pollutant concentrations in different environmental media, country-specific transboundary deposition and emission fluxes, long-term emission and deposition trends, evaluation of pollution clearance rates, for instance from polluted soils, were available on the Internet at www.msceast.org. The work of the Chemical Coordinating Centre of EMEP had focused on measurements of PCB and benzo[a]pyrene. It had also contributed to a project on sources and environmental cycling of POPs in the Baltic Sea region with a case study for α - and γ -HCH. A serious problem in all work remained the quality and availability of measurements and emission data. The EMEP Steering Body had recommended MSC-E to intensify cooperation with the expert group on POPs.

46. The Chairman and Vice-Chairman of the Working Group on Effects noted that none of the ICPs was currently monitoring POPs, but ICP Waters was planning an assessment of POPs in 2004. The Task Force on the Health Aspects of Air Pollution, led by the World Health Organization (WHO), was conducting an assessment that would be ready in 2002.

47. The Working Group:

- (a) Took note of the report on further assessment of POPs (EB.AIR/WG.5/2001/1);
- (b) Endorsed the work programme proposed by the expert group (EB.AIR/WG.5/2001/1, para. 9);
- (c) Requested the expert group to prepare:
 - (i) A compendium of the information on substances included in the Protocol in preparation for the review of the Protocol, together with expert judgement on this information;
 - (ii) A compendium of information provided by national experts on substances not included in the Protocol after technical evaluation of this material; and
 - (iii) A summary of available information on risk management of POPs;

(d) Noted that a third meeting of the expert group was provisionally scheduled for 24-26 June 2002 in Geneva to be held in conjunction with a meeting for the Stockholm Convention on POPs.

VI. EXCHANGE OF INFORMATION AND TECHNOLOGY

A. By-products/Residues Containing Heavy Metals and POPs

48. Mr. A. HACKL (Austria), Chairman of the Task Force on the Management and Use of By-products/Residues Containing Heavy Metals or POPs, presented the executive summary of the status report prepared by the Task Force (EB.AIR/WG.5/2001/9), and the final status report prepared at an editorial meeting on 7-9 March 2001 (Rome/Frascati). The two reports presented the conclusions and draft recommendations of the Task Force, including proposals to modify or to extend technical annexes to the Protocols on Heavy Metals and POPs. He noted that general principles to avoid the generation of wastes included: best available techniques (BAT) which prevent and minimize pollution; a combination of goal-setting, performance feedback, and rewards for plant production employees to reduce the reject rate of final products; feedstock that contain lower levels of impurities; appropriately sized and designed flue-gas cleaning systems; and processes that have lower energy requirements.

49. The delegation of Sweden cited an error in paragraph 43 of the executive summary. Annex III to the Protocol on Heavy Metals merely makes reference to decision 90/3 of 14 June 1990 of the Commission for the Prevention of Marine Pollution from Land-based Sources (PARCOM), which recommends that existing mercury cell chlor-alkali plants should be phased out as soon as practicable with the objective of phasing them out completely by 2010.

50. The delegation of Canada pointed out that the Basel Convention's Technical Working Group had been charged with providing assistance to the Stockholm Convention to develop guidelines on the environmentally sound management of wastes of POPs, and had initiated this work. Any consideration of guidelines under the protocols should await the conclusion of this work, and any proposals for adding guidelines to the protocols should be left until these were in force. If appropriate, the Working Group may wish to cooperate with the Basel Convention's secretariat to achieve consistency and avoid duplication of efforts.

B. Ammonia abatement

51. Mr. I. DAVIDSON (United Kingdom), Chairman of the expert group on ammonia abatement, presented a summary report of the group's first meeting (18-20 September 2000, Berne). The meeting was hosted by the Swiss Agency for the Environment, Forests and Landscape in cooperation with the Swiss College of Agriculture (EB.AIR/WG.5/2001/6). Experts from 17

countries attended, as well as participants from the UNECE secretariat, EMEP and the Agricultural Panel of the Task Force on Emission Inventories and Projections. Mr. Davidson presented a draft framework code for good agricultural practice for reducing ammonia, prepared by the expert group (EB.AIR/WG.5/2001/7). The framework advisory code was intended to assist future Parties to the Gothenburg Protocol in meeting their obligations under annex IX to the Protocol by encouraging them to adopt a suitable code at the national level. Annex IX requires each Party, within one year from the date of entry into force of the Protocol for it, to establish, publish and disseminate an advisory code of good agricultural practice to control ammonia emissions.

52. The next meeting of the expert group would be hosted by Italy in Bologna from 26 to 28 November 2001. Its further work would focus on: reviewing the guidance document on ammonia abatement techniques (EB.AIR/1999/2); continuing links with the work under way on emissions inventories and projections of ammonia, as well as deposition measurements; further exploring the non-agricultural ammonia emissions not sufficiently accounted for in the data; developing work on the quality of reporting of ammonia emissions and measurements.

53. The delegation of Germany made some technical comments and provided a note to the secretariat to be taken into account when revising the framework code.

54. The representative of EC noted that there was a BAT reference document on animal husbandry under the Integrated Pollution Prevention and Control (IPPC) Directive.

C. VOC abatement techniques

55. The delegation of Italy presented the report of the workshop on the implementation of VOC abatement techniques in the surface-coating, dry-cleaning and surface-degreasing sectors (EB.AIR/WG.5/2001/2) held in Bologna (Italy) on 19-21 February 2001. The aim of the workshop was to identify the best products and techniques and to consider the state of the art in this field and the advantages and disadvantages of promising new technologies. He drew attention to the draft recommendations annexed to the report and noted that the proceedings of the workshop were available on CD-ROM.

D. Techno-economic issues

56. The delegation of France presented a proposal to establish an ad hoc expert group on techno-economic issues, prepared on the basis of informal consultations on the further work on air pollution abatement options and their costs held in Paris on 21 May 2001, and a follow-up meeting held also in Paris on 7 June 2001 (EB.AIR/WG.5/2001/8). Prior to this, an international workshop on cost curves and related techno-economic databases had taken place in Angers,

France (October 1999). The delegation stressed that, in contrast to what could be concluded from the cover page of the document, the proposal had been initiated by the Ministry for the Environment and the Agence de l'Environnement et de la Maîtrise de l'Energie (ADEME), in collaboration with the Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique (CITEPA) and the Institut Franco-Allemand de Recherche sur l'Environnement (IFARE). It indicated that the work required close links in particular with the work of the European Integrated Pollution Prevention and Control Bureau in Seville (Spain) and work under the European Commission's CAFE programme.

57. The two main tasks of the group would be to (a) update existing techno-economic databases on emission reduction technologies; and (b) draw up draft revisions of texts on techno-economic issues included in, or annexed to, existing protocols. The expected outputs of the group in the short term (2002) would be to develop software on emission control options, costs and uncertainties, to validate this software and to disseminate it to selected countries. The work could also cover heavy metals.

58. Several delegations supported the proposal. The delegation of Germany stated that it hoped to provide resources to support the work of the expert group. One delegation suggested including work on the implications of not only technological measures but also structural changes, such as changes in transport demand, etc.

59. The representative of CIAM expressed his support for the proposal. He looked forward to cooperating with the group to help Parties use more detailed data and to have a standard method of aggregation for the cost curves of the RAINS model. He stressed the importance of the work on uncertainties. However, in case of non-delivery of data by Parties, CIAM would have to revert to the use of expert assessments.

E. Control technologies for emissions from stationary sources

60. The secretariat informed the Working Group about the preparations for the workshop on control technologies for emissions from stationary sources. The workshop, originally planned as a seminar, was now being hosted by Poland's Ministry of the Environment and was scheduled to be held in Warsaw for three days during the week of 3-7 December 2001. The aims of the workshop were to review the techniques of Parties in controlling emissions of pollutants covered by the Gothenburg Protocol and emitted from stationary sources and products and to identify emerging technologies and related investments and costs. Information on the workshop preparations was made available by the secretariat.

F. Decisions

61. The Working Group:

(a) Expressed its appreciation to the experts for the excellent work carried out in the workshops, expert groups and task forces noting that these results would assist Parties in implementing their obligations under the protocols and would be taken into account in the review of the protocols;

(b) Took note of the executive summary (EB.AIR/WG.5/2001/9) and the final status report prepared by the Task Force on the Management and Use of By-products/Residues Containing Heavy Metals or POPs, endorsed its recommendations, and agreed to take them into account in the reviews of the Protocols on Heavy Metals and on POPs;

(c) Took note of the report of the expert group on ammonia abatement (EB.AIR/WG.5/2001/6);

(d) Endorsed the draft framework advisory code of good agricultural practice for reducing ammonia emissions (EB.AIR/WG.5/2001/7) and recommended it to the Executive Body for its adoption to assist future Parties to the Gothenburg Protocol in meeting their obligations under annex IX to the Protocol;

(e) Invited Parties to participate in the next meeting of the expert group on ammonia abatement (26-28 November 2001, Bologna) and encouraged cooperation with the EMEP work on emissions and measurements;

(f) Took note of the conclusions and recommendations from the workshop on the implementation of VOC abatement techniques in the surface coating, dry-cleaning and surface-degreasing sectors (EB.AIR/WG.5/2001/2) and thanked Italy for hosting the workshop;

(g) Endorsed the proposal by the delegation of France, recommended the Executive Body to establish an expert group on techno-economic issues, and expressed its appreciation to France for its offer to lead the expert group (EB.AIR/WG.5/2001/8);

(h) Took note of the plans for the workshop on control technologies for emissions from stationary sources to be held during the week of 3-7 December 2001 in Warsaw.

VII. COMMUNICATION STRATEGY FOR THE CONVENTION

62. Mr. R. GUARDANS (Spain), Chairman of the expert group on communication strategy, presented a note on elements for a communications strategy prepared, with the assistance of the secretariat, at a meeting in Geneva on 25 April 2001 (EB.AIR/WG.5/2001/3). He highlighted the

goals and recommendations developed by the group. These included convening a workshop bringing together communications experts and the Convention's specialists to devise innovative solutions including, inter alia, the updating of the brochure on the Gothenburg Protocol and the development of a pocket-sized booklet on emission trends with information on each Party.

63. The delegation of the Netherlands expressed its support for the revision of the strategies and policies questionnaire (goal 1), whilst noting that streamlining questions might invite more explicit answers and facilitate the handling of replies. He supported the idea of convening a workshop on the questionnaire and its design to improve communications. The Netherlands was prepared to contribute to the workshop by providing both expertise and financing for software development, if needed. He also suggested possible improvements to the Convention's web page, including separating the information regarding meetings and documents from other information about the Convention, and including a news page with items in the news related to the Convention and its activities.

64. Several delegations expressed support for the communication strategy as presented, while one delegation suggested the elements for a communication strategy should include reference to the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. Others identified specific publications that might provide the means for disseminating information and the usefulness of a short summary of a session of the Executive Body made available at the end of the session. One delegation suggested adding to goal 5 a reference to the ancillary benefits through greenhouse gas mitigation.

65. The delegation of the United States stressed that it was important to present information on the Convention in a manner appealing to the general public to build political support for the work of the Convention. To target the general public, the expertise may be different from that generally needed in work under the Convention.

66. The delegation of Canada expressed support especially for goal 5 (to improve communication with the general public) and offered to examine the possibility of reprinting the brochure prepared for the Gothenburg Protocol. The Chairman suggested that the Executive Body should consider having the reprints in all six official languages of the United Nations to better publicize the work of the Convention worldwide.

67. The Working Group:

(a) Took note of the results of the expert group expressing its appreciation to Mr. Guardans and to Mr. S. HART (Canada), who had served as rapporteur to the meeting;

(b) Endorsed the goals and recommendations (EB.AIR/WG.5/2001/3, paras. 4-12) and

decided to present the note to the Executive Body as a basis for the development of a communication strategy for the Convention;

(c) Invited the Executive Body to clearly delegate the responsibilities implied under each goal and recommendation to Parties that have expressed their willingness to contribute to this effort, as well as to decide whether the open-ended group of experts should hold a follow-up meeting.

VIII. ELECTION OF OFFICERS

68. The Working Group re-elect Messrs. D. JOST (Germany), J. ZUREK (Poland) and V. SOKOLOVSKY (Russian Federation) as Vice-Chairmen and elected Ms. K. SCAVO (United States) as a new Vice-Chairperson. It expressed its great appreciation to Mr. W. HARNETT (United States), who was leaving the Bureau, for his work.

69. The next session of the Working Group on Strategies and Review was scheduled for 16-20 September 2002. The dates of 22-26 April have been reserved, should an additional meeting become necessary.

IX. OTHER BUSINESS

70. The delegation of the Republic of Moldova had presented in writing to the secretariat a proposal concerning the facilitation of participation of countries with economies in transition, which was made available to delegations as an informal document. The Working Group was informed that the Bureau of the Executive Body was preparing a draft decision for the Executive Body to replace decision 1997/4 on the facilitation of participation of countries with economies in transition. If the eligibility of Parties, the meetings to be funded or the degree of funding were extended, more funds would be required to cover the planned meetings for 2002.

71. The secretariat informed the Working Group that it had communicated to Parties on 5 September 2001 a proposal for adjustment of the 1994 Oslo Protocol on Further Reduction of Sulphur Emissions in accordance with article 11 of that Protocol. Monaco proposed to adjust annex II to the Protocol to add its name, together with emission levels, sulphur emission ceilings and percentage emission reductions. The following figures were presented:

Year	Sulphur emission ceiling	Percentage emission reduction (base year 1980)
1980	0.08 kt SO ₂	
1990	0.07 kt SO ₂	
2000	0.07 kt SO ₂	13%
2005	0.05 kt SO ₂	38%
2010	0.04 kt SO ₂	50%

X. ADOPTION OF THE REPORT

72. The Working Group adopted the report of its thirty-third session on 27 September 2001.

Annex I

[PRELIMINARY DRAFT PROTOCOL TO THE 1979 CONVENTION ON LONG-RANGE
TRANSBOUNDARY AIR POLLUTION ON LONG-TERM FINANCING OF CORE
ACTIVITIES UNDER THE CONVENTION

The Parties,

Noting that the 1979 Convention on Long-range Transboundary Air Pollution and, with one exception, its Protocols do not contain any provision for the long-term financing of core activities,

Recalling that in 1984 the Parties adopted a Protocol to the 1979 Convention to provide for long-term financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP),

Considering that the 1999 Gothenburg Ministerial Declaration noted that the efficient operation of the Convention and its Protocols required there to be stable, long-term funding arrangements for their core activities,

Convinced, therefore, that it is necessary to make appropriate arrangements regarding this matter,

Have agreed as follows:

Article 1Definitions

For the purposes of the present Protocol,

1. “Convention” means the Convention on Long-range Transboundary Air Pollution, which was adopted on 13 November 1979 and entered into force on 16 March 1983;
2. “Executive Body” means the Executive Body for the Convention, constituted under article 10, paragraph 1, of the Convention;
3. “EMEP” means the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe;
4. “Parties” means, unless the context otherwise requires, the Parties to the present Protocol;

5. "Financial year" means the financial year of the United Nations, and "annual basis" and "annual costs" shall be construed accordingly;
6. "General Trust Fund" means the General Trust Fund for the Financing of the Implementation of the Convention, which has been established by the Secretary-General of the United Nations;
7. "Designated international centres" means the international centres for the coordination of effect-related activities and integrated assessment modelling under the Convention that are specified in annex I to the present Protocol;
8. "Costs of core activities" means the costs of the international coordination of health, materials and ecosystem effect-related activities and integrated assessment modelling at the designated international centres that are covered by the work-plan adopted by the Executive Body, but excluding costs covered by the EMEP Protocol;
9. "Contributions in kind" means contributions made by a Party directly to a designated international centre in respect of its work on core activities, as well as any other contributions recognized in decisions of the Parties, meeting within the framework of the Executive Body, as contributions in kind for the purpose of the present Protocol.

Article 2

Annual budget

An annual budget for the costs of core activities is to be adopted by the Executive Body by consensus in advance of the beginning of the financial year to which it applies and, at the same time, provisional budget totals drawn up for each of the two succeeding financial years.

Article 3

Contributions

1. The costs of core activities specified in the annual budget shall be met from:
 - (a) Mandatory contributions made in cash and/or in kind on an annual basis by all Parties;and
 - (b) Voluntary contributions made in cash and /or in kind by any Party or Signatory to the Convention, as well as, subject to approval by the Executive Body on the recommendation of the Working Group on Effects or the EMEP Steering Body, by any other country, organization or

individual wishing to contribute to the costs of core activities.

2. All contributions in cash shall be deposited in the General Trust Fund account.

Article 4

Sharing of costs

1. Each Party shall make mandatory contributions, as referred to in article 3, paragraph 1 (a), in accordance with the scale of contributions set out in annex II to the present Protocol.
2. The voluntary contributions referred to in article 3, paragraph 1 (b) should, as far as possible, be made in accordance with the scale of contributions set out in annex II to the present Protocol.
3. The Parties, meeting within the framework of the Executive Body, shall consider the need to amend annex II:

(a) If the annual budget for the costs of core activities adopted by the Executive Body increases to a level two and a half times that of the annual budget adopted for the year of entry into force of the present Protocol or for the year of the last amendment of annex II, whichever is later;

(b) If the United Nations scale of assessment is modified significantly for any Party to the Convention;

(c) If the membership of the Convention changes; or

(d) Six years after the entry into force of the present Protocol, or six years after the last amendment to annex II, whichever is later.

Article 5

Annexes

The annexes to the present Protocol shall form an integral part of the Protocol.

Article 6

Amendments

1. Any Party may propose an amendment to the present Protocol.

2. The text of a proposed amendment shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe, who shall communicate it to all Parties. The Parties, meeting within the framework of the Executive Body, shall discuss the proposed amendment at the next annual meeting of the Executive Body, provided that such proposal has been circulated by the Executive Secretary of the Economic Commission for Europe to the Parties at least ninety days in advance.

3. An amendment to the present Protocol, other than an amendment to its annexes, shall be adopted by consensus of the Parties, meeting within the framework of the Executive Body, and shall enter into force for the Parties which have accepted it on the ninetieth day after the date on which two thirds of those Parties have deposited with the depositary their instruments of acceptance of the amendment. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of acceptance of the amendment.

4. An amendment to the annexes to the present Protocol shall be adopted by consensus of the Parties, meeting within the framework of the Executive Body, and shall become effective for all such Parties on the ninetieth day after the date on which the Executive Secretary of the Economic Commission for Europe notifies those Parties in writing of the adoption of the amendment.

Article 7

Compliance

Compliance by each Party with its obligations under the present Protocol shall be reviewed regularly. The Implementation Committee established by decision 1997/2 of the Executive Body at its fifteenth session shall carry out such reviews and report to the Parties, meeting within the framework of the Executive Body, in accordance with the terms of the annex to that decision, including any amendments thereto.

Article 8

Settlement of disputes

In the event of a dispute between any two or more Parties concerning the interpretation or application of the present Protocol, the Parties concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice. The parties to the dispute shall inform the Parties, meeting within the framework of the Executive Body, of their dispute.

Article 9

Signature

The present Protocol shall be open for signature at the United Nations Office at Geneva from [...] until [...] inclusive, then at the Headquarters of the United Nations in New York until [...], by Parties to the Convention.

Article 10

Ratification, acceptance, approval and accession

1. The present Protocol shall be subject to ratification, acceptance or approval by Signatories.
2. The present Protocol shall be open for accession as from [...] by the Parties to the Convention.
3. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who will perform the functions of the depositary.

Article 11

Entry into force

1. The present Protocol shall enter into force on the ninetieth day following the date on which the sixteenth instrument of ratification, acceptance, approval or accession has been deposited.
2. For each Party to the Convention which ratifies, accepts or approves the present Protocol or accedes thereto after the requirement for entry into force laid down in paragraph 1 above has been met, the Protocol shall enter into force on the ninetieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

Article 12

Withdrawal

1. At any time after five years from the date on which the present Protocol has come into force with respect to a Party, that Party may withdraw from it by giving written notification to the depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the depositary.
2. Withdrawal shall not affect the financial obligations of the withdrawing Party until the date on which the withdrawal takes effect.

Article 13

Authentic texts

The original of the present Protocol, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

In witness whereof the undersigned, being duly authorized thereto, have signed the present Protocol.

Done at Geneva, this [...] day of [...] two thousand and [...]

Annex I (to the Protocol)

DESIGNATED INTERNATIONAL CENTRES

Programme Coordination Centre for the International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops:

at the Centre for Ecology and Hydrology, Bangor, United Kingdom.

Programme Centre for the International Cooperative Programme on Integrated Monitoring of Air Pollution Effects on Ecosystems:

at the Finnish Environment Institute, Helsinki, Finland.

Programme Main Coordinating Centre for the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests:

at the Federal Research Centre for Forestry and Forest Products, Hamburg, Germany.

Programme Centre for the International Cooperative Programme on Assessment and Monitoring of Acidification of Rivers and Lakes:

at the Norwegian Institute for Water Research, Oslo, Norway.

Main Research Centre for the International Cooperative Programme on Effects of Air Pollution on Materials, including Historic and Cultural Monuments:

at the Swedish Corrosion Institute, Stockholm, Sweden.

Coordination Center for Effects for the International Cooperative Programme on Modelling and Mapping:

at the National Institute of Public Health and the Environment, Bilthoven, Netherlands.

Centre for Integrated Assessment Modelling for the Task Force on Integrated Assessment Modelling:

at the International Institute for Applied Systems Analysis, Laxenburg, Austria.

[Centre for Work on the Health Effects of Air Pollution

at the World Health Organization's European Centre for Environmental Health, Bonn, Germany.]

Annex II (to the Protocol)

SCALE OF CONTRIBUTIONS

The following is the scale of contributions referred to in article 4:

Parties to the Convention <u>a/</u>	Per cent
Armenia	0.005
Belarus	0.044
Bosnia and Herzegovina	0.009
Bulgaria	0.030
Croatia	0.090
Cyprus	0.088
Czech Republic	0.437
Estonia	0.023
Georgia	0.012
Hungary	0.280
Iceland	0.076
Kazakhstan	0.067
Kyrgyzstan	0.002
Latvia	0.023
Liechtenstein	0.014
Lithuania	0.039
Malta	0.035
Monaco	0.009
Norway	1.503
Poland	0.817
Republic of Moldova	0.005
Romania	0.136
Russian Federation	[2.776]
Slovakia	0.099
Slovenia	0.187
Switzerland	2.947
The FYR of Macedonia	0.014
Turkey	1.025
Ukraine	0.123
Yugoslavia	0.046
Austria	2.202
Belgium	2.628
Denmark	1.742
Finland	1.214
France	15.042
Germany	22.726
Greece	1.254
Ireland	0.685
Italy	11.783
Luxembourg	0.185
Netherlands	4.043
Portugal	1.076
Spain	5.861
Sweden	2.389
United Kingdom	12.879
European Community	3.33

a/ Canada and United States: voluntary contributions.]

Annex II

PRELIMINARY DRAFT TEXT WITH ILLUSTRATIVE FIGURES TO BE INCLUDED INTO AN
EXECUTIVE BODY DECISION TO BE ADOPTED AT THE TIME OF ADOPTION OF THE
PROTOCOL

1. In decision 2000/3 and its recommendation on financing core activities, the Executive Body decided that the essential coordination costs, other than those covered by the EMEP Protocol, were \$1,705,000 for 2001, and that the provisional figures for 2002 and 2003 were \$1,765,000 (see ECE/EB.AIR/71, para. 42 (b)). For 2004, the Working Group on Effects recommended to provisionally keep the budgets at the same level (EB.AIR/WG.1/2001/2, para. 78 (a) and EB.AIR/WG.1/2001/14, para. 5).

2. Applying the scale of contributions set out in annex II to the [draft] Protocol on Long-term Financing of Core Activities to the above annual budget totals, produces the following contributions for the individual Parties to the Convention:

Contributions for 2002-2004

Parties to the Convention <u>a/</u>	Per cent	2002 (in US\$)	2003 (in US\$)	2004 (in US\$)
Armenia	0.005	88	88	88
Belarus	0.044	777	777	777
Bosnia and Herzegovina	0.009	159	159	159
Bulgaria	0.030	530	530	530
Croatia	0.090	1,589	1,589	1,589
Cyprus	0.088	1,553	1,553	1,553
Czech Republic	0.437	7,713	7,713	7,713
Estonia	0.023	406	406	406
Georgia	0.012	212	212	212
Hungary	0.280	4,942	4,942	4,942
Iceland	0.076	1,341	1,341	1,341
Kazakhstan	0.067	1,183	1,183	1,183
Kyrgyzstan	0.002	35	35	35
Latvia	0.023	406	406	406
Liechtenstein	0.014	247	247	247
Lithuania	0.039	688	688	688
Malta	0.035	618	618	618
Monaco	0.009	159	159	159
Norway	1.503	26,528	26,528	26,528
Poland	0.817	14,420	14,420	14,420
Republic of Moldova	0.005	88	88	88
Romania	0.136	2,400	2,400	2,400

Parties to the Convention <u>a/</u>	Per cent	2002 (in US\$)	2003 (in US\$)	2004 (in US\$)
Russian Federation	[2.776]	[48,996]	[48,996]	[48,996]
Slovakia	0.099	1,747	1,747	1,747
Slovenia	0.187	3,301	3,301	3,301
Switzerland	2.947	52,015	52,015	52,015
The FYR of Macedonia	0.014	247	247	247
Turkey	1.025	18,091	18,091	18,091
Ukraine	0.123	2,171	2,171	2,171
Yugoslavia	0.046	812	812	812
Austria	2.202	38,865	38,865	38,865
Belgium	2.628	46,384	46,384	46,384
Denmark	1.742	30,746	30,746	30,746
Finland	1.214	21,427	21,427	21,427
France	15.042	265,491	265,491	265,491
Germany	22.726	401,114	401,114	401,114
Greece	1.254	22,133	22,133	22,133
Ireland	0.685	12,090	12,090	12,090
Italy	11.783	207,970	207,970	207,970
Luxembourg	0.185	3,265	3,265	3,265
Netherlands	4.043	71,359	71,359	71,359
Portugal	1.076	18,991	18,991	18,991
Spain	5.861	103,447	103,447	103,447
Sweden	2.389	42,166	42,166	42,166
United Kingdom	12.879	227,314	227,314	227,314
European Community	3.33	58,775	58,775	58,775
Total	100	1,765,000	1,765,000	1,765,000

a/ Canada and United States: voluntary contributions.