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

Seventeenth session, Gothenburg (Sweden)
(29 November - 3 December 1999)
Item 9 of the provisional agenda

**DRAFT WORK-PLAN FOR THE IMPLEMENTATION OF THE CONVENTION
ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION**

Note by the secretariat

1. In preparing the draft work-plan, the secretariat has taken into consideration the current work-plan (ECE/EB.AIR/59, annex III), as well as decisions taken by the Working Group on Strategies at its twenty-eighth, twenty-ninth, thirtieth and thirty-first sessions (EB.AIR/WG.5/58, 60, 62 and 64), the Implementation Committee at its third and fourth meetings (EB.AIR/1999/4), the Working Group on Effects at its eighteenth session (EB.AIR/WG.1/1999/2), the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) at its twenty-third session (EB.AIR/GE.1/1999/2), and the Working Group on Abatement Techniques at its seventh session (EB.AIR/WG.6/1999/2).

2. The draft work-plan was drawn up taking into account the possible new structure of the Executive Body, as proposed by its Bureau (EB.AIR/1999/5).

Documents prepared under the auspices or at the request of the Executive Body for the Convention on Long-range Transboundary Air Pollution for GENERAL circulation should be considered provisional unless APPROVED by the Executive Body.

2000 WORK-PLAN FOR THE IMPLEMENTATION OF THE CONVENTION

1. STRATEGIES AND POLICIES

1.1 STRATEGIES AND REVIEW

Description/objective: Assessment of ongoing scientific and technical activities in view of the potential need to revise existing protocols or prepare new ones; negotiating revisions to protocols, including their annexes; promoting the exchange of technology; preparing proposals for any strategic developments under the Convention. The Working Group on Strategies and Review will assist the Executive Body in all policy-related issues.

Main activities and time schedules:

The Working Group on Strategies and Review will, in particular:

(a) Review the progress in implementing the 1991 VOC Protocol and identify the provisions of the Protocol that need specific action by its Parties, either individually or collectively. The secretariat will prepare a background report summarizing the relevant provisions for consideration by the Working Group on Strategies and Reviews at its thirty-second session;

(b) Review the progress in implementing the 1994 Sulphur Protocol and identify the provisions of the Protocol that need specific action by its Parties, either individually or collectively. The secretariat will prepare a background report summarizing the relevant provisions for consideration by the Working Group on Strategies and Reviews at its thirty-second session;

(c) Draft a work programme indicating the steps that should be taken to further the implementation of the Protocols on Heavy Metals and on Persistent Organic Pollutants (POPs) once they enter into force, based on a note by the secretariat highlighting the relevant provisions;

(d) Draft a work programme to further the implementation of the protocols' provisions related to the exchange of information and technology, based on workshops listed under item 4.1 below;

(e) Identify the main work elements to be carried out concerning particulate matter pollution in order to prepare a decision about possible international action to tackle it, taking into account the relevant activities under EMEP and the Working Group on Effects.

The thirty-second session of the Working Group on Strategies and Review will take place from 5 to 9 June 2000 and the thirty-third session tentatively from 4 to 6 September 2000.

1.2 COMPLIANCE REVIEW

Description/objectives: Review of compliance by the Parties with their obligations under the protocols to the Convention.

Main activities and time schedule: The Implementation Committee will evaluate the experience with the revised questionnaire for reporting strategies and policies, including the reporting on technology-related obligations. It will carry out an in-depth review of compliance by Parties with the 1985 Sulphur and the 1988 NOx Protocols, focusing on their national emission obligations. The Committee will continue its dialogue with appropriate subsidiary bodies and experts. It will also continue consideration of compliance issues related to obligations in the protocols that are not subject to specific reporting requirements, such as provisions dealing with research and monitoring. If a submission, referral or request for a report is made under paragraph 3 (b) or (d) of the Committee's functions, this will have to be dealt with as a priority and the Committee may have to adjust its work-plan and time schedule accordingly.

(a) Fifth meeting of the Implementation Committee in Berlin, 3-5 April 2000;

(b) Sixth meeting of the Implementation Committee in Geneva in September 2000;

(c) Report to the Executive Body at its eighteenth session.

1.3 REVIEWS OF STRATEGIES AND POLICIES FOR AIR POLLUTION ABATEMENT

Description/objectives: Overview of air pollution abatement in the ECE region, giving a comprehensive description of national and international strategies and policies, including legislation in force and emission levels. Provide, together with emission data, a basis for the Implementation Committee to review compliance by Parties, as a whole and individually, with their obligations under the protocols to the Convention on Long-range Transboundary Air Pollution. The reviews are carried out every two years.

Main activities and time schedule:

(a) The secretariat will prepare a draft review based on the information provided by Parties, and by Signatories, and from other official

sources, to be reviewed by the Implementation Committee and then submitted to the Executive Body for consideration. National responses should be based on the questionnaire approved by the Executive Body (EB.AIR/1999/3, annex II as amended). The review process is in a transition phase. Both the outline and the questionnaire were revised to reflect more directly the obligations of Parties under the Convention and its protocols. Reporting on current and projected emission data will be detailed under item 2;

(b) A review based on the responses to the new questionnaire will be prepared in 2000. It will be published after additions and corrections have been incorporated. The next review is scheduled for 2002.

1.4 INTEGRATED ASSESSMENT MODELLING

Description/objectives: Analysis of scenarios on cost-effective reduction of acidification, eutrophication, tropospheric ozone and related phenomena, especially particulate matter pollution. Modelling will cover: (i) abatement options for reducing sulphur, nitrogen oxides, ammonia, volatile organic pollutants and primary particulate matter, including structural measures in energy, transport and agriculture, and their costs; (ii) projections of emissions, including the consequences of implementing current legislation; (iii) assessments of the atmospheric transport of substances; and (iv) analyses of the environmental and health effects and the economic benefits of emission reductions. Where available, modelling will be based on the results of work done by other subsidiary bodies and direct contacts will be established. The Task Force on Integrated Assessment Modelling, led by the Netherlands, will guide the work. A centre for integrated assessment modelling will be set up, using as a basis the work carried out at the International Institute for Applied Systems Analysis (IIASA). Specialized workshops will be organized to develop model elements that are not sufficiently covered by other bodies under the Convention. All activities will be conducted in close collaboration with related work led by the European Commission.

Main activities and time schedule:

(a) A Workshop to examine the scientific need for future revisions to the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, organized by the Nordic Council of Ministers and the Swedish ASTA Programme, will be held in Sweden on 10-11 April 2000;

(b) The Task Force on Integrated Assessment Modelling will meet in Sweden on 12-14 April 2000. In the light of the Workshop and based on the discussions during its twenty-fourth meeting (EB.AIR/WG.5/1999/14, chapter IV), the Task Force will develop a long-term programme to prepare for

modelling for the purpose of reviewing the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone. IIASA will present the first results of work initiated to integrate particulate matter into the model, including work conducted for the German Environment Agency (UBA) and the United Kingdom Ministry for the Environment, Transport and the Regions.

2. COOPERATIVE PROGRAMME FOR MONITORING AND EVALUATION OF THE LONG-RANGE TRANSMISSION OF AIR POLLUTANTS IN EUROPE (EMEP)

(To be issued later as document EB.AIR/1999/7/Add.1.)

3. EFFECTS OF MAJOR AIR POLLUTANTS ON HUMAN HEALTH AND THE ENVIRONMENT

3.1 REVIEW OF EFFECTS OF MAJOR AIR POLLUTANTS

3.1.1 Annual reports on progress in effects-oriented activities

Description/objectives: Annual review of activities and results of the International Cooperative Programmes and the Task Force on the Health Aspects of Air Pollution. Preparation of a draft annual joint report based on the information provided by the lead countries and the programme coordinating centres, for consideration by the Working Group on Effects.

Main activities and time schedule:

(a) Submission of relevant information on the International Cooperative Programmes and the Task Force on the Health Aspects of Air Pollution to the secretariat (20 May 2000);

(b) Submission of the draft 2000 joint report of the International Cooperative Programmes and the Task Force on the Health Aspects of Air Pollution prepared by the secretariat, to the Working Group on Effects in 2000.

3.1.2 Major review of effects of air pollutants

Description/objectives: Review of knowledge on the effects of selected air pollutants based on the results of the International Cooperative Programmes and the Task Force on the Health Aspects of Air Pollution as well as other relevant data and information.

Main activities and time schedule:

(a) The Extended Bureau of the Working Group on Effects at its meeting in February 2000 will prepare a draft outline of the major review;

(b) The Working Group on Effects at its nineteenth session will decide on the structure of the report and on the organization of work in preparing it for submission to the Working Group in 2001.

3.2 INTERNATIONAL COOPERATIVE PROGRAMME ON EFFECTS OF AIR POLLUTION ON MATERIALS, INCLUDING HISTORIC AND CULTURAL MONUMENTS

Description/objectives: Quantification of the multi-pollutant effects in the changing pollution situation; further analysis of the trends in corrosion effects; further development of dose/response functions quantifying the corrosion effects of nitrogen oxides and ozone, on their own and in combination with sulphur dioxide, under different environmental conditions, inter alia, as a basis for the economic evaluation of air pollution damage. A Programme Task Force led by Sweden, in cooperation with the Programme's main research centre (Swedish Corrosion Institute, Stockholm), is responsible for the detailed planning and coordination of the Programme.

Main activities and time schedule:

- (a) Preparation and publication in 2000 of a summary report, for the general public, of the most significant results obtained during the original part of the programme (1987-1996);
- (b) Progress report on the evaluation of 1997 results of the trend exposure to the Working Group on Effects in 2000;
- (c) Draft report on the evaluation of corrosion effects after 1 year of exposure in the multi-pollutant programme to the Working Group in 2000;
- (d) Progress report on the development of a database of environmental data for the multi-pollutant exposure programme to the Working Group in 2000;
- (e) Sixteenth meeting of the Programme Task Force, 11-13 May 2000, Paris;
- (f) Preparation and organization of the Workshop on mapping air pollution effects on materials, including stock at risk, 14-16 June 2000, Stockholm.

3.3 INTERNATIONAL COOPERATIVE PROGRAMME ON ASSESSMENT AND MONITORING OF ACIDIFICATION OF RIVERS AND LAKES

Description/objectives: Identification of the long-term trends and variations in the chemistry and biota of aquatic ecosystems owing to atmospheric pollutants, in order to provide, inter alia, information on the degree and

geographical extent of acidification of surface waters; to yield more complete information on dose/response relationships under different geographical conditions and to correlate changes in depositions with the physical, chemical and biological status of lakes and streams. A Programme Task Force led by Norway, which also provides the Programme's centre (Norwegian Institute for Water Research, Oslo), is responsible for the detailed planning and coordination of the Programme.

Main activities and time schedule:

(a) Preparation and publication of the twelve-year report of ICP Waters; a summary of the report to the Working Group on Effects in 2000;

(b) Organization of the year 2000 biological and chemical intercalibrations; presentation of the 1999 results to the Working Group in 2000;

(c) Progress report on the further development of the monitoring network and the regional lake and river database to the Working Group in 2000;

(d) Report on the assessment of prospects for further development in monitoring of heavy metals in surface waters to the Working Group in 2000;

(e) Sixteenth meeting of the Programme Task Force, autumn 2000.

3.4 INTERNATIONAL COOPERATIVE PROGRAMME ON ASSESSMENT AND MONITORING OF AIR POLLUTION EFFECTS ON FORESTS

Description/objectives: Collection of comprehensive and comparable data on changes in forests under actual environmental conditions (in particular air pollution, including acidifying deposition, as well as other stresses) and determination of cause-effect relationships. A Programme Task Force led by Germany, in cooperation with the Programme's main coordinating centre (Federal Research Centre for Forestry and Forest Products, Hamburg, Germany), is responsible for the detailed planning and coordination of the Programme. Intensive monitoring of forest ecosystems on the permanent sample plots (level II), extensive large-scale monitoring (level I) and integrated evaluation of results are carried out in cooperation with the European Commission.

Main activities and time schedule:

(a) Progress report on the further development of the evaluation strategy for level I and level II monitoring data, including assessment of possible links between levels I and II, to the Working Group on Effects in 2000;

(b) Preparation and publication of the 2000 technical report on Forest Condition in Europe (levels I and II), autumn 2000;

(c) Summary report on the 1999 monitoring results (including assessment of trends) to the Working Group in 2000;

(d) Progress report on the further development of level III monitoring activities (in cooperation with ICP Integrated Monitoring) to the Working Group in 2000;

(e) Cooperation in preparation of the European Union Workshop on the future of the forest condition monitoring programme, to be held in 2000, Brussels;

(f) Sixteenth meeting of the Programme Task Force, 20-24 May 2000, Belgium.

3.5 INTERNATIONAL COOPERATIVE PROGRAMME ON EFFECTS OF AIR POLLUTION ON NATURAL VEGETATION AND CROPS

Description/objectives: Evaluation of the effects of air pollutants and other stresses on natural vegetation and crops; identification of realistic dose/response functions for a range of economically important crops, and for the range of crops at risk from air pollution; validation and substantiation of ozone critical levels for natural vegetation and crops; and evaluation of natural vegetation and crops as effective indicators of the potential for damage to natural ecosystems. A Programme Task Force, led by the United Kingdom, with the cooperation of the Programme's coordination centre (Institute of Terrestrial Ecology, Bangor Research Unit, Bangor, United Kingdom), is responsible for the detailed planning and coordination of the Programme.

Main activities and time schedule:

(a) The 2000 annual status report on the achievements of the Programme to the Working Group on Effects in 2000;

(b) Progress report on modelling level II critical levels of ozone for agricultural crops to the Working Group in 2000;

(c) Progress report on the development of methods for the investigation of ozone sensitivity in natural vegetation to the Working Group in 2000;

(d) Report on the investigation of heavy metal deposition to vegetation, including results of analysis of clover clones, to the Working Group in 2000;

(e) Thirteenth meeting of the Programme Task Force, 18-21 January 2000, Semmering, Austria.

3.6 INTERNATIONAL COOPERATIVE PROGRAMME ON INTEGRATED MONITORING OF AIR POLLUTION EFFECTS ON ECOSYSTEMS

Description/objectives: Determination and prediction of the state of ecosystems (or catchments) and their long-term changes, with respect to the regional variation and impact of air pollutants, especially nitrogen, sulphur and ozone, and including effects on biota. A Programme Task Force led by Sweden is responsible for planning, coordinating and evaluating the Programme. The Programme's centre (Finnish Environment Institute, Helsinki) is entrusted with collecting, storing, processing and analysing data from countries taking part in the Programme.

Main activities and time schedule:

(a) Presentation of the Ninth Annual Report to the Working Group on Effects in 2000;

(b) Continued assessment of the long-term effects of S and N compounds in support of the implementation of emission reduction protocols, including: (i) assessment of trends; (ii) calculation of ecosystem budgets; and (iii) dynamic modelling and scenario assessment; information to the Working Group in 2000;

(c) Participation in the European Union project on Networking of Long-term Integrated Monitoring in Terrestrial Systems (NoLIMITS); information to the Working Group in 2000;

(d) Progress report on the development of activities to: (i) calculate pools and fluxes of heavy metals at selected sites; and (ii) assess cause-effect relationships for biological data, particularly vegetation, to the Working Group in 2000;

(e) Continuing cooperation with ICP Forests on the further development of level III monitoring activities;

(f) Eighth meeting of the Programme Task Force, spring 2000, Lithuania.

3.7 INTERNATIONAL COOPERATIVE PROGRAMME ON MAPPING OF CRITICAL LEVELS AND LOADS

Description/objectives: Determination of critical levels and loads for forests, crops, natural vegetation, soil/groundwater and materials, with particular attention to the direct effects of air concentrations of SO₂, NO₂ and O₃ and the indirect effects of the long-term deposition of sulphur and nitrogen compounds, mapping of geographical areas experiencing higher than critical levels and loads and establishment of appropriate methods for assessing potential damage. A Programme Task Force led by Germany is responsible for the detailed planning and coordination of activities. The Task Force uses and integrates available and accepted data, drawing, in particular, on the current work of other task forces, International Cooperative Programmes and EMEP. The Coordination Center for Effects (CCE at the National Institute of Public Health and the Environment, Bilthoven, Netherlands) provides scientific and technical support to the Task Force, in particular by developing methodology and producing maps of critical loads and levels and their exceedances, as well as other risk parameters related to potential damage and recovery.

Main activities and time schedule:

(a) Progress report on maintaining databases of critical loads of sulphur and nitrogen, as well as quantities derived from them, based on the EMEP 50 km x 50 km grid, to the Working Group on Effects in 2000;

(b) Progress report on the investigation of uncertainties and possible systematic biases in critical load and exceedance calculations to the Working Group in 2000;

(c) Further development of the critical loads/levels methodology (level II critical levels, exceedance formulations, dynamic modelling), including possible proposals for a revision/update of the Mapping Manual; information to the Working Group in 2000;

(d) Further development of critical limits for heavy metals using, inter alia, the outcome of the Workshop on effects-based approaches for heavy metals (October 1999, Schwerin, Germany); information to the Working Group in 2000;

(e) Sixteenth meeting of the Task Force on Mapping, April 2000, United Kingdom;

(f) Cooperation (with ICP Materials) in organizing the Workshop on mapping air pollution effects on materials, including stock at risk, 14-16 June 2000, Stockholm.

3.8 EFFECTS OF AIR POLLUTANTS ON HUMAN HEALTH

Description/objectives: Preparation of state-of-the-art reports on the direct and indirect effects of air pollutants on human health.

(a) The World Health Organization (WHO) is invited to present relevant progress/technical reports to the Working Group on Effects, so that acquired knowledge of WHO can be applied in the further implementation of the Convention. Additional information/reports should be provided, when appropriate, by other international organizations, interested Governments, and/or other subsidiary bodies under the Convention;

(b) To support the Working Group on Effects and the Executive Body in preparing/substantiating new and/or updating existing protocols, the joint Task Force of WHO/European Centre for Environment and Health (ECEH) and the Executive Body, led by WHO/ECEH, evaluates and assesses the health effects of long-range transboundary air pollution and reports on the subject.

Main activities and time schedule:

(a) Finalization and publication of the technical report on the health risk from particulate matter from long-range transboundary air pollution: a preliminary assessment;

(b) Progress report on the continuous assessment of population exposure to particulates from long-range transport and of its health effects to the Working Group on Effects in 2000;

(c) Preliminary assessment of information on population exposure to heavy metals and, in particular, the contribution from long-range transport, and collation of information on long-term health effects of Cd, Hg and Pb; information to the Working Group in 2000;

(d) Preliminary selection of "priority" POPs based on potential health effects of the compounds and potential contribution of long-range transport to exposure; information to the Working Group in 2000;

(e) Third meeting of the Task Force on the Health Aspects of Air Pollution, winter 1999/2000.

4. TECHNOLOGIES FOR EMISSION CONTROL

4.1 EXCHANGE OF TECHNOLOGY FOR AIR POLLUTION CONTROL

Description/objectives: The creation of favourable conditions for implementing technology-related obligations of the Convention and its protocols in order to facilitate the implementation of existing protocols and accelerate the accession of non-Parties, particularly countries with economies in transition, via seminars and target-oriented workshops and report to the Working Group on Strategies and Review.

Main activities and time schedule:

(a) Workshop on control options/techniques to abate heavy metals and persistent organic pollutant emissions from stationary sources in May 2000 in Prague and report on the outcome to the Working Group on Strategies and Review;

(b) Workshop in Bologna (Italy) in 2000 on the implementation of VOC abatement techniques in the surface coating and dry-cleaning sectors and report on its outcome to the Working Group on Strategies and Review;

(c) Collection of information by the secretariat from Parties and international institutions on successful schemes for the exchange of technology and report on the outcome to the Working Group on Strategies and Review;

(d) Seminars, workshops and reports to be decided by Parties ready to lead the activity chosen (in contact with the secretariat and the Bureau of the Working Group on Strategies and Review).

4.2 AMMONIA ABATEMENT

Description/objectives: A framework code of good agricultural practice identifying the best available control options and techniques to reduce ammonia emissions from agriculture will be prepared as a basis for Parties to draw up national codes and to better quantify relationships between recommended control options/techniques and resulting ammonia emissions undertaken by the ammonia expert group led by the United Kingdom.

Main activities and time schedule:

(a) Drafting of guiding part of the framework code of good agricultural practice for submission to the Executive Body at its eighteenth session;

(b) Collection of information necessary to improve relationships between the measures applied, ammonia emissions and their reduction by the expert group by the end of March 2000;

(c) Meeting of expert group to review new information on control techniques and to agree on the elements for the framework code of good agricultural practice by the end of March 2000;

(d) Results of the work for the first review of the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone.

4.3 CONTROL OPTIONS AND TECHNIQUES FOR EMISSIONS FROM STATIONARY SOURCES AND PRODUCTS

Description/objectives: Updating and preparing technical annexes and guiding documents to existing and future protocols and developing annexes on emission limit values for air pollution abatement, including data for emission inventorying/forecasting, and for the elaboration of cost functions within integrated assessment modelling by task forces and groups of governmentally designated experts. Databases on emission reduction options/BAT and product management will be further organized and updated.

Main activities and time schedule:

(a) Collection of information by the secretariat from Parties and international institutions on control technology and product management practices for pollutants covered by the protocols and establishment of collaboration with other international bodies, e.g. Integrated Pollution Prevention and Control (IPPC) Bureau in Seville (Spain); report to the Executive Body at its eighteenth session.

4.4 MANAGEMENT OF BY-PRODUCTS/RESIDUES CONTAINING HEAVY METALS (HMs) OR PERSISTENT ORGANIC POLLUTANTS (POPs)

Description/objectives: Preparation of a state-of-the-art report on the management and use of by-products/residues containing primarily heavy metals or persistent organic pollutants generated by different sectors, including conclusions and draft recommendations and, where appropriate, proposals to modify or to extend control techniques under the existing protocols by the Task Force under the leadership of Austria.

Main activities/time schedule:

(a) Two meetings of the Task Force in 2000;

(b) Final draft state-of-the-art report for consideration by the Working Group on Strategies and Review and the Executive Body in 2001.