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#### **ECONOMIC COMMISSION FOR EUROPE**

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

Working Group on Effects (Nineteenth session, Geneva, 23-25 August 2000) Item 8 of the provisional agenda

### FINANCING OF THE EFFECTS-ORIENTED ACTIVITIES

Note prepared by the Bureau of the Working Group on Effects in collaboration with the secretariat

## I. INTRODUCTION

- At its eighteenth session, the Working Group on Effects (EB.AIR/WG.1/1999/2, para. 68) approved the note on the financing of the effect-oriented activities (EB.AIR/WG.1/1999/13) and expressed its appreciation for the essential support provided by lead countries of task forces for the individual programmes, countries hosting coordinating centres, and countries funding the active participation of their national experts and National Focal Centres (NFCs).
- The Working Group noted that the voluntary contributions to the Trust Fund covered only a fraction of the essential coordination costs of different elements of the effect-oriented activities (estimated to be US\$ 1,488,000 in 2000) and reiterated its invitation to all Parties to contribute to

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the funding of these important activities under the Convention. The Working Group also requested the secretariat to provide some information on the use of the contributions to the Trust Fund at its nineteenth session in 2000.

- At its seventeenth session, the Executive Body for the Convention again stressed the need to establish a stable, long-term financial mechanism for the core activities under the Convention, including, besides EMEP, the effect-oriented activities and integrated assessment modelling, and requested its Bureau to prepare a specific proposal for consideration at its eighteenth session (ECE/EB.AIR/68, para. 74).
- At its meeting in February 2000, the Bureau of the Working Group on Effects agreed on the revised table of the essential coordination costs of different elements of the effect-oriented activities for 2001, estimated to be US\$ 1,525,000 (table 4).
- The Bureau noted that both earmarked and non-earmarked cash contributions to the Trust Fund were used productively to fund additional agreed activities at the programme centres. The Bureau of the Working Group on Effects also approved the priority tasks of international coordination of effect-oriented activities in 2000/2001, prepared in consultation with the Extended Bureau, which should be partially financed by voluntary contributions.
- II. PRIORITY TASKS FOR 2000/2001 (TO BE PARTIALLY FINANCED BY THE TRUST FUND)
- 6 <u>International Cooperative Programme (ICP) on Assessment and Monitoring of Air</u> Pollution Effects on Forests
  - (a) Finalization and publication of the 2000 Executive and Technical Reports on Forest Condition in Europe;
  - (b) Finalization of a Review Report and a Strategy Paper, based on the results of the internal and external reviews;
  - (c) Implementation of level III monitoring in close cooperation with ICP on Integrated Monitoring.
- 7 ICP on Assessment and Monitoring of Acidification of Rivers and Lakes
  - (a) Finalization and printing of the ICP Waters twelve-year report;
  - (b) Finalization of the report on trends in intercalibration results;
  - (c) Preparing a report on nitrogen including calculating critical loads at ICP sites using the first-order acidity balance (FAB) model;
  - (d) Collection and processing of 1999 data;
  - (e) Continued management of the ICP Waters database, with more emphasis on biological data;
  - (f) Chemical intercalibration (including heavy metals); biological intercalibration;
  - (g) Updating of the ICP Waters Internet home page.

## 8 ICP on Effects of Air Pollution on Materials, including Historic and Cultural Monuments

- (a) Finalization of a report/brochure summarizing main results from the 8-year exposure programme and from the trend exposures;
- (b) Preparation of a technical report summarizing data from the first year=s exposure in the multi-pollutant programme;
- (c) Preparation of a manuscript for proceedings from the Workshop on mapping air pollution effects on materials, including stock at risk (Stockholm, 14-16 June 2000).

## 9 ICP on Effects of Air Pollution on Natural Vegetation and Crops

- (a) Maintenance and further development of the programme of experiments on the effects of ambient ozone episodes on crops and natural vegetation;
- (b) Using the data from the ICP Vegetation experiments to initiate the development of a flux-effect model for clover, and to further develop flux-effect modelling for wheat;
- (c) Continued assessment of the extent of crop losses due to ozone in the ECE region, and initiation of an economic assessment of crop losses;
- (d) Analysis of samples of clover foliage from the 2000 experiment for heavy metal content and contribution to the validation of maps of heavy metal deposition in the ECE region;
- (e) Facilitation of the transfer of the heavy metals in the mosses programme to ICP Vegetation.

## 10 ICP on Integrated Monitoring of Air Pollution Effects on Ecosystems

- (a) Continuing maintenance of the programme-s database;
- (b) Preparation of a summary report on the assessment of trends and fluxes of sulphur and nitrogen compounds at ICP IM sites;
- (c) Preparation of a draft report on heavy metals at ICP IM sites;
- (d) Coordination of programme=s activities with other ICPs and external organizations (e.g. GTOS, IFEF project).

### 11 ICP on Mapping of Critical Levels and Loads

- (a) Development, testing and dissemination of (simple) dynamic modelling requirements to NFCs;
- (b) Initialization of collaboration with dynamic model owners and stakeholders;
- (c) Verification and comparison of dynamic modelling results using data from, and in collaboration with, other ICPs, starting with ICP Forests;
- (d) Development of interfaces between dynamic modelling inputs from NFCs with integrated models such as IIASA-RAINS;
- (e) Development of a framework to conduct uncertainty analysis;
- (f) Preparation of a call for data for the preliminary verification of critical loads reliability and dynamic modelling;

- (g) Preparation of the fifth Coordination Center for Effects (CCE) report (2001) including a call for contributions from NFCs and dynamic model stakeholders;
- (h) Preparation and organization of the eleventh CCE workshop 2001;
- (i) Preparation of publications on ICP Mapping results (e.g. contributions to the Acid Rain 2000 Conference).

# 12 Health Aspects

(a) Preparation of a report on the preliminary assessment of the health effects of selected heavy metals (from long-range transboundary air pollution).

#### III. VOLUNTARY CASH CONTRIBUTIONS IN 1999 AND 2000

- The voluntary cash contributions towards partially financing the necessary international coordination of the effect-oriented activities paid to the Trust Fund in 1999 and 2000 (as of 6 June 2000) are presented in tables 1 and 2, respectively. In addition to the cash contributions earmarked for individual programmes, the tables show in the column AEOA-GEN@ the non-earmarked cash contributions and in the column ATOT.CONTR.@ the total contributions from individual countries to the Trust Fund for the year.
- The European Commission agreed to contribute ECU 150,000 in 1999 towards the partial financing of the project on Trends in the Impacts of Long-range Transboundary Air Pollution carried out jointly by ICPs. The Government of France allocated FF 278,710 towards financing the project on Economic Assessment of Crops Losses Due to Ozone Pollution, carried out in 1999 and 2000 by the Programme Centre of ICP Vegetation.
- In addition to these voluntary cash contributions it should be noted that all lead countries of the programmes as well as countries hosting the main programme centres (i.e. Finland, Germany, Netherlands, Norway, Sweden and United Kingdom) continue to provide substantial funding for the activities of the task forces and the programme centres. The financial support provided by a number of countries to the activities of several sub-centres (e.g. within ICP Forests, ICP Materials and ICP Mapping) should also be noted.
- Hosting task force meetings and workshops is yet another form of important support to the effects-oriented activities. Since the eighteenth session of the Working Group on Effects in 1999, the following countries have provided this kind of support: Austria (task force), Belgium (task force), Denmark (conference), France (task force), Germany (Extended Bureau and workshop), Italy (task force), Lithuania (task force), Sweden (two workshops) and United Kingdom (task force). The European Commission hosted a workshop and the European Centre for Environment and Health of the World Health Organization hosted a task force meeting.

#### IV. USE OF VOLUNTARY CASH CONTRIBUTIONS IN 1999 AND 2000

17 The use of earmarked and non-earmarked cash contributions in 1999 and 2000 (as of 6 June 2000) is presented in table 3. The line ATRENDS@ represents funds provided to the

programmes from non-earmarked cash contributions for the preparation of the report on Trends in the Impacts of Long-range Transboundary Air Pollution through the Centre for Ecology and Hydrology (United Kingdom), which has coordinated the work.

- Institutional contracts for specified tasks (defined by the Bureau of the Working Group on Effects) within a given time period, concluded between UN/ECE and the institutes nominated as the programme (coordinating) centres, provide the formal basis for the use of voluntary cash contributions to the Trust Fund. Paragraphs 19-26 below describe the tasks carried out under these contracts.
- 19 Programme Coordinating Centre for ICP Forests at the Federal Research Centre for Forestry and Forest Products, Hamburg, Germany:
- Finalization, publication and distribution of the 1999 executive and technical report on forest condition in Europe;
- Preparations for the joint workshop (with the European Commission) on the forests monitoring strategy beyond the year 2001;
- Elaboration of proposals for the restructuring of the large-scale forest condition monitoring and for the integrated evaluation of level I data;
- Further development of the database and evaluation of the latest data on forest condition in Europe:
- Preparation of draft outlines of the 2000 executive and technical reports on forest conditions in Europe;
- Preparation of a final report on the internal review process of ICP Forests;
- Implementation of joint level III activities with ICP on Integrated Monitoring;
- Quality control of the 1999 forest condition data at level I;
- Evaluation of the 1999 level I data with emphasis on spatial and temporal variation of forest condition;
- Finalization of a draft technical report on forest condition;
- Finalization of a draft executive summary of the latest results of ICP Forests;
- Preparation of contributions to the 2000 joint report and the substantive report on heavy metals;
- Preparation of the 16<sup>th</sup> Task Force meeting.
- 20 Programme Centre for ICP Waters at the Norwegian Institute for Water Research, Oslo:
- Elaboration of the draft ICP Waters twelve-year report;
- Preparation of the report on trends in intercalibration results;
- Collection and processing of 1999 data;
- Continuing management of ICP Waters database, with more stress on biological data.
- 21 Main Research Centre for ICP Materials at the Swedish Corrosion Institute, Stockholm:
- Preparation of the final draft of a brochure summarizing the results of the eight-year exposure programme, including the trend analysis;
- Preparation for the extension of the multi-pollutant programme with measurements of particulates and nitric acid.

- Coordinating Centre for ICP Vegetation at the Centre for Ecology and Hydrology, Bangor Research Unit, Bangor, United Kingdom:
- Analysing recent experimental data to determine the relative importance of level II factors, and to incorporate their influence into the dose-response function for ozone;
- Initiating an economic evaluation of crop losses due to ozone pollution.
- 23 Programme Centre for ICP Integrated Monitoring at the Finnish Environment Institute, Helsinki:
- Preparation of a draft report on the strategy for the further assessment of biological effects;
- Continuing database maintenance.
- Coordinating Center for Effects at the National Institute of Public Health and the Environment, Bilthoven, Netherlands:
- Preparation of instructions for and initiation of the collection of dynamic modelling data;
- Investigation of the most appropriate database options; initiation of a database structure tailored to dynamic modelling;
- Further development of the critical loads/levels methodology (level II critical levels of ozone, exceedance formulation);
- Preparation of CCE presentations for the sixteenth meeting of the Task Force on Mapping on modelling requirements and data;
- Further development of dynamic modelling (simple dynamic model) and collection of required data.
- Task Force on the Health Aspects of Air Pollution at the National Institute of Public Health and the Environment, Bilthoven:
- Finalization, publication and distribution of the report on the health risk from particulate matter.
- Coordinating institute for the project on Trends in the Impacts of Long-range Transboundary Air Pollution at the Centre for Ecology and Hydrology, Monks Wood, Abbots Ripton, Huntingdon, United Kingdom:
- In cooperation with all programmes, finalization, publication and distribution of the report on Trends in the Impacts of Long-range Transboundary Air Pollution.

Table 1. 1999 voluntary cash contributions towards financing the essential international coordination of the effect-oriented activities (in US\$)

	ICP F	ICP W	ICP M	ICP V	ICP IM	ICP M&M	HEALTH	EOA-GEN	TOT.CONT
Austria									-
Belarus									
Belgium-Flanders									-
Belgium-Brussels									
Belgium-Wallonia									-
Bosnia and Herzegovina									-
Bulgaria									-
Canada									-
Croatia									-
Cyprus									
Czech Republic									
Denmark	2,070								2,070
Estonia	262								262
Finland	1,605								1,605
France	19,135								19,135
Germany	27,705								27,705
Greece	,								,
Hungary	675							4,283	4,958
Iceland								,	,
Ireland								6,803	6,803
Italy								0,000	0,000
Latvia	525								525
Liechtenstein	020								
Lithuania									-
Luxembourg	150								150
Netherlands	100					63,626			63,626
Norway	1,695	16,900				02,020			
Poland	2,130	10,700							18,595 2,130
Portugal	450								450
Republic of Moldova									
Romania									-
Russian Federation									-
Slovakia	1,620								1,620
Slovenia	1,020								1,020
Spain									-
Sweden	3,990								3,390
Switzerland	3,390							54,354	57,744
Turkey	3,370				<del>                                     </del>			34,334	21,177
Ukraine					<del>                                     </del>				-
United Kingdom									-
United States					-				-
European Community	4,995				-			100,217	105,212
TOTAL 1999 CONTR.	70,397	16 000				62 626			
101AL 1999 CONTR.	70,397	16,900	-	-	-	63,626	-	179,357	330,280

Table 2. 2000 voluntary cash contributions towards financing the essential international coordination of the effect-oriented activities (in US\$) as recorded on 6 June 2000

	ICP F	ICP W	ICP M	ICP V	ICP IM	ICP M&M	HEALTH	EOA-GEN	TOT.CONT R.
Austria									***
Belarus									
Belgium-Flanders									
Belgium-Brussels									
Belgium-Wallonia									
Bosnia and Herzegovina									
Bulgaria									
Canada									
Croatia									
Cyprus									
Czech Republic									
Denmark									
Estonia									
Finland									
France									
Germany									
Greece									
Hungary									
Iceland									
Ireland									
Italy									
Latvia									
Liechtenstein									
Lithuania									
Luxembourg									
Netherlands						51,038			51,038
Norway		16,609							16,909
Poland									
Portugal									
Republic of Moldova									
Romania									
Russian Federation									
Slovakia									
Slovenia	1	†							
Spain	1	†							
Sweden	1	†							
Switzerland									
Turkey									
Ukraine									
United Kingdom									
United States									
European Community									
TOTAL 2000 CONTR.		16,909			_	51,038	_		67,947

Table 3. Use of voluntary cash contributions to partially fund the effect-oriented activities in 1999 and 2000 (as of 6 June 2000) (in US\$)

CONTRIBUTIONS	EARM	ARKED	NON-EARMARKED		
YEAR	1999	2000	1999	2000	
ICP FORESTS	64,000	50,000	10,000		
ICP WATERS	17,000		10,000		
ICP MATERIALS			10,000		
ICP VEGETATION			10,000		
ICP INTEGR.MONIT.			10,000		
MAPPING	19,000	40,000	10,000		
HEALTH			10,000		
TRENDS			96,439		
TOTAL	100,000	90,000	166,439		

the coordinating centres (in thousands of United States dollars) Estimated 2001 essential coordination costs of different elements of the effect-oriented activities as currently provided by

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Total	Database management	Dynamic modelling	Critical loads and levels	Dose- response	Monitoring & assessment	Activities
270	80		30		160	TF ICP Forests PCC
230	65	25	25	60	55	TF ICP Waters PCC
275	70	25	60	50	70	TF ICP Materials PCC
220	60	20	45	80	15	TF ICP Vegetation PCC
260	65	70	20	35	70	TF ICP Integrated Monitoring PCC
270	25	130	115			TF ICP Modelling & Mapping CCE
						TF Health Aspects*/
1525	265	270	295	225	370	Subtotal Activities

<sup>\*/</sup> Essential coordination costs borne by the WHO European Centre for Environment and Health.