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Executive Body for the Convention on Long-range  
Transboundary Air Pollution

**Steering Body to the Cooperative Programme for  
Monitoring and Evaluation of the Long-range  
Transmission of Air Pollutants in Europe**

**Working Group on Effects**

First joint session\*  
Geneva, 14–17 September 2015

## **Report of the first joint session of the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe and the Working Group on Effects**

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\* The Executive Body to the Convention agreed that, as of 2015, the Working Group on Effects and the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe should meet jointly, to achieve enhanced integration and cooperation between the Convention's two scientific subsidiary bodies (ECE/EB.AIR/122, para. 47 (b)).



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## **I. Introduction**

1. The Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) and the Working Group on Effects under the United Nations Economic Commission for Europe (ECE) Convention on Long-range Transboundary Air Pollution (Air Convention) held their first joint session from 14 to 17 September 2015 in Geneva, Switzerland.

### **A. Attendance**

2. The session was attended by representatives from the following Parties to the Convention: Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Union, Finland, France, Georgia, Germany, Hungary, Ireland, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Luxembourg, Montenegro, Netherlands, Norway, Poland, Republic of Moldova, Russian Federation, Serbia, Slovakia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, Ukraine, United Kingdom of Great Britain and Northern Ireland and United States of America. A delegate from Tajikistan also attended the meeting.

3. Also participating were representatives of the five EMEP Centres: the Centre for Integrated Assessment Modelling (CIAM); the Centre on Emission Inventories and Projections (CEIP); the Chemical Coordinating Centre (CCC); the Meteorological Synthesizing Centre-East (MSC-E); and the Meteorological Synthesizing Centre-West (MSC-W). Representatives from the following scientific centres and bodies under the Working Group on Effects participated: the Coordination Centre for Effects (CCE) and its International Cooperative Programme on Modelling and Mapping of Critical Levels and Loads and Air Pollution Effects, Risks and Trends (ICP Modelling and Mapping); the Programme Centre of the International Cooperative Programme on Assessment and Monitoring of the Effects of Air Pollution on Rivers and Lakes (ICP Waters); the Programme Centre of the International Cooperative Programme on Effects of Air Pollution on Materials, including Historic and Cultural Monuments (ICP Materials); the Programme Centre of the International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops (ICP Vegetation); the Programme Centre of the International Cooperative Programme on Integrated Monitoring of Air Pollution Effects on Ecosystems (ICP Integrated Monitoring); the Programme Coordinating Centre of the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests); and the Joint Task Force on the Health Aspects of Air Pollution. Also in attendance were the Chairs of the Executive Body for the Convention and the Working Group on Strategies and Review.

4. Representatives of international organizations — the Arctic Monitoring and Assessment Programme (AMAP), the United Nations Environment Programme (UNEP) and the World Health Organization (WHO) and its Regional Office for Europe — were also present.

## **B. Organizational matters**

5. Ms. Laurence Rouil (France) and Mr. Peringe Grennfelt (Sweden) chaired the joint session. The provisional agenda (ECE/EB.AIR/GE.1/2015/1–ECE/EB.AIR/WG.1/2015/1) was adopted, as amended.<sup>1</sup>

6. Members adopted the report of the thirty-eighth session of the Steering Body to EMEP (ECE/EB.AIR/GE.1/2014/2) and the report of the thirty-third session of the Working Group on Effects (ECE/EB.AIR/WG.1/2014/2).

7. Following elections, Mr. Grennfelt was re-elected as Chair of the Working Group on Effects for a one-year term of office.

## **II. Matters arising from recent meetings of the Executive Body and its subsidiary bodies and activities of the Bureaux of the Steering Body and the Working Group in Effects**

8. The Chair of the Executive Body presented the highlights of the recent meeting of the Executive Body Bureau (Geneva, 14 September 2015). The Bureau had discussed the agenda of the Executive Body's next sessions (18 December 2015 and 2–4 May 2016) in view of the new schedule of meetings for Convention bodies. The main topic for discussion would be the assessment report and its summary for policymakers. The Bureau had also contributed to the background document on air pollution for the Eighth Environment for Europe Ministerial Conference (Batumi, Georgia, 8–10 June 2016) and had elaborated the Batumi Action for Cleaner Air (2016–2021), which would be submitted to ministers in Batumi for adoption. The latter document provided a list of concrete actions to reduce air pollution that Governments and other actors could commit to on a voluntary basis. The actions included technical measures, like air pollution monitoring or emission inventories, as well as policy actions, such as the ratification of the three most recent protocols to the Convention. The Bureau had also discussed outreach efforts and collaboration with AMAP, the Climate and Clean Air Coalition, UNEP and WHO.

9. The secretariat drew attention to the main outcomes of the thirty-third session of the Executive Body for the Convention (Geneva, 8–11 December 2014) of relevance to the joint session. The Executive Body had discussed the content, layout and funding of the 2016 assessment report, which would be presented at the Ministerial Conference in Batumi. With respect to the adjustment procedure, the Executive Body had adopted additional guidance (decision 2014/1) and technical guidance for Parties making adjustment applications and for the expert review of adjustment applications (ECE/EB.AIR/130). Another important document adopted by the Executive Body was the revised United Nations Economic Commission for Europe Framework Code for Good Agricultural Practice for Reducing Ammonia Emissions (ECE/EB.AIR/129).

10. The Chair of the EMEP Steering Body then presented a brief summary of the work of the Bureaux of the Steering Body and the Working Group on Effects (see ECE/EB.AIR/GE.1/2015/9–ECE/EB.AIR/WG.1/2015/20), highlighting the recent work on long-term trends by the EMEP and effects communities that had provided valuable input to the 2016 assessment report. The two Bureaux had discussed the elements of the 2016–2017 workplan, activities carried out by centres and task forces, emerging issues, budgets and funding issues. Special attention had been given to the analysis of Parties' requests for

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<sup>1</sup> Information and documentation for the meeting, including informal documents and presentations, can be found on a dedicated web page for the meeting (<http://www.unece.org/index.php?id=39872#/>).

adjustments under the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol).

### **III. Adjustments under the Protocol to Abate Acidification, Eutrophication and Ground-level ozone**

11. The Chair of CEIP presented information on the analysis of Parties' requests for adjustments under the Gothenburg Protocol to inventories for the purposes of comparing total national emissions with them, focusing on procedural issues. Seven Parties had submitted requests: Belgium, Denmark, Finland, France, Germany, Luxembourg and Spain.

12. The adjustment review had been performed in parallel with the Stage 3 review. The adjustment review had been carried out by CEIP, which named a lead reviewer and eight sectoral experts (from seven Parties), selected from the roster of emission experts. Each reviewed sector had then been analysed by two independent reviewers, while the lead reviewer had coordinated the work to ensure that the same approach was used for all sectors, Parties and years. Once again, the review had proved difficult and time-consuming. The expert review team had also assessed data submitted in 2015 (Denmark and Germany) following the adjustments approved in 2014.

13. The CEIP Chair underscored that in 2015 all of the Parties that had submitted adjustment applications had supported the review process in kind, by providing an expert, or with a cash contribution to CEIP, as recommended by the Executive Body at its thirty-second session. Such technical and financial support was appreciated and Parties should continue to provide similar support in future years. Otherwise, it might not be possible to carry out the adjustment review due to insufficient number of reviewers or insufficient financial resources.

14. The CEIP Chair presented information on the outcome of the review, as summarized in the CEIP report (ECE/EB.AIR/GE.1/2015/10–ECE/AB/AIR/WG.1/2015/13), as well as in the country review reports (seven informal documents under agenda item 4 (a)). In all cases, the additional guidance adopted in 2014 (ECE/EB.AIR/130) seemed to have helped countries prepare their applications, but additional information had still been needed to assess all the adjustment requests.

15. Several Parties, the CEIP Chair and a co-Chair of the Task Force on Emission Inventories and Projections, highlighted the need for an agreed procedure for the review of already approved adjustments. It was agreed that CEIP would check and compare the figures reported and only where there were significant differences would the expert review team be involved to prove methods and emission factors. Furthermore, there was a need for Parties to submit, along with the information requested in annex VII to the Guidelines for Reporting Emissions and Projections Data under the Convention (Reporting Guidelines) (ECE/EB.AIR/125), a short note declaring either that there had been no changes in the adjusted emissions, or providing justification for the difference between previously and currently reported adjustments. It was noted that the increasing number of adjustment applications would require the development of a database system at CEIP to enable the efficient management and assessment of previously approved adjustments in the coming years. Smooth import of country data in the database would require slight revisions of annex II to ECE/EB.AIR/130 and annex VII to the Reporting Guidelines.<sup>2</sup>

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<sup>2</sup> See [www.ceip.at/ms/ceip\\_home1/ceip\\_home/adjustments\\_gp/](http://www.ceip.at/ms/ceip_home1/ceip_home/adjustments_gp/) and [www.ceip.at/ms/ceip\\_home1/ceip\\_home/reporting\\_instructions/](http://www.ceip.at/ms/ceip_home1/ceip_home/reporting_instructions/).

16. As set out in the CEIP report on adjustment applications, the expert review team recommended that:

(a) The adjustment applications of Belgium (road transport: nitrogen oxides (NO<sub>x</sub>); manure management: NO<sub>x</sub> and non-methane volatile organic compounds (NMVOC)); agricultural soils: NO<sub>x</sub>; cultivated crops: NMVOC), Denmark (manure management: NMVOC), Finland (stationary combustion, road transport: ammonia (NH<sub>3</sub>)), France (road transport: NO<sub>x</sub>), Germany (manure management, cultivated crops: NMVOC), Luxembourg (road transport: NO<sub>x</sub>) and Spain (road transport: NO<sub>x</sub>) be accepted;

(b) The adjustment application of Finland (manure management: NH<sub>3</sub>) be rejected;

(c) The adjustment applications of Denmark and Germany approved in 2014 as reported in 2015 be accepted.

17. A representative of Finland expressed the country's disagreement with the expert review team recommendation to reject its adjustment application in relation to ammonia emissions in the manure management sector. Finland argued that the nitrogen excretion rate applied in its inventory was an integral part of an animal type specific emission factor and that scientific understanding and knowledge on the excretion rates had been poor in late 1990s when the emission ceilings were set.

18. A co-Chair of the Task Force on Emission Inventories and Projections, the adjustment lead reviewer, stated that the expert review team had unanimously agreed to recommend that the adjustment application of Finland for NH<sub>3</sub> from agriculture be rejected, considering that it did not fall in one of the categories described in decision 2012/12, as amended by decision 2014/1. After the official review had been completed, Finland had provided additional and detailed information on two separate occasions. On both occasions the expert review team had reviewed the additional information, and on both occasions it had considered that its original recommendation should stand. The expert review team had unanimously agreed to recommend that the application be rejected. Specifically, the team had noted that, for manure management using a tier 2 methodology, nitrogen excretion rates contributed to calculating the total ammoniacal nitrogen, which was considered activity data and not a component of the emission factor.

19. The EMEP Steering Body and the Working Group on Effects:

(a) Took note of the presentations concerning the expert review of the requests for adjustments to emission inventories and emission reduction commitments (adjustment applications) provided by CEIP, the Task Force and an expert from Finland;

(b) Warmly thanked the experts who had participated in the review, the Parties that had supported them and CEIP for the organization of the review process;

(c) Decided to approve all the recommendations put forward by the expert review team, following a discussion by the Parties;

(d) Requested further guidance from the Executive Body with respect to adjustment reviews, in particular, concerning the financial resources needed;

(d) Supported the procedure proposed by CEIP and the Task Force for the review of already approved adjustments, and invited CEIP to revise the respective reporting templates before the next session of the Executive Body;

(e) Invited the secretariat to inform Parties about upcoming changes in the reporting of approved adjustments.

#### **IV. Progress in the activities under the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe in 2015 and future work**

20. The Chair invited participants to separately discuss each area of work, considering progress made in 2015 with respect to the 2014–2015 workplan for the implementation of the Convention (ECE/EB.AIR/122/Add.2).

21. It was noted that all the status reports relevant for the evaluation of progress in implementation of the 2014–2015 workplan had been prepared by the EMEP Centres on time and were all available on the EMEP website.<sup>3</sup> The Steering Body and the Working Group approved the executive summaries of the status reports and decided to present the summaries to the Executive Body. They further acknowledged the work carried out by all EMEP Centres and task forces and supported the continuation of their work in the next biennium (2016–2017).

##### **A. Emissions**

22. The co-Chair of the Task Force on Emission Inventories and Projections reported on progress, including the results of the Task Force's twenty-seventh meeting (Milan, Italy, 11–12 May 2015) and a technical workshop on black carbon held on 13 and 14 May. All tasks planned for 2014–2015 had been completed, although there was scope for improving communication and joint work with other EMEP Centres and task forces. Future work (2016–2017) was expected to be dominated by the review and incorporation of updated chapters for the EMEP/EEA<sup>4</sup> air pollutant emission inventory guidebook (EMEP/EEA Guidebook).<sup>5</sup>

23. The co-Chair noted that substantial quality issues associated with reported emission inventories persisted, and suggested that improvements to completeness be specifically targeted over the next two years. In particular, efforts should be made to better inform Parties of CEIP activities to gap-fill incomplete data sets. The Task Force considered the current technical inventory review procedures to be inadequate regarding both the level of ambition and the resources allocated to that task.

24. The Task Force co-Chair reflected on the fact that funding for improving the content of the EMEP/EEA Guidebook had almost exclusively come from the European Union in recent years. There had been no EMEP funding for that objective, while funds were available for improvement work in the modelling and measurement technical areas. Existing priorities meant that there were no plans for improving the guidance on heavy metals or persistent organic pollutants (POPs) emissions methodologies.

25. The Steering Body and the Working Group:

(a) Acknowledged that there were significant issues associated with the quality of emission inventories that had been submitted, and encouraged Parties to make better efforts to provide data of sufficient quality, and in particular, to focus on delivering complete emission inventories in the short term;

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<sup>3</sup> See [www.emep.int](http://www.emep.int).

<sup>4</sup> European Environment Agency (EEA).

<sup>5</sup> See [www.eea.europa.eu/publications/emep-eea-guidebook-2013](http://www.eea.europa.eu/publications/emep-eea-guidebook-2013).

(b) Noted the Task Force's views regarding the current technical review of emission inventories and asked the Task Force to assess existing procedures and provide proposals for their improvement ahead of the second joint session of EMEP Steering Body and the Working Group on Effects in 2016;

(c) Recognized that EMEP/EEA Guidebook improvement tasks were not currently funded by EMEP and that that was not consistent with the approach to modelling and measurement technical areas, and recognized that there was no secured funding for the updates to the Guidebook in the long term, and that, with current resource constraints, that situation was unlikely to change in the near future.

26. A representative of CEIP presented the Centre's key activities in 2015 and provided information on the status of reporting of emissions and gridded and large point source data as well as the completeness of reported data. Forty-four of the fifty-one Parties to the Convention had submitted data in 2015. No emission data had been reported by Albania, Bosnia and Herzegovina, Greece, Kazakhstan, Kyrgyzstan, Monaco and Montenegro. There had been improvements in emission reporting by some Parties in Eastern and South-Eastern Europe, the Caucasus and Central Asia; however, some Parties that had reported in previous years (e.g. Albania, Greece and Montenegro) had not reported recently. An up-to-date overview of the emission data submitted by Parties during the 2015 reporting round was available on the CEIP website.

27. Twenty-eight Parties, including all Member States of the Arctic Council, had submitted — for the first time — their national emission inventories for black carbon. Eleven Parties had reported complete time series (1990–2013), while twenty-one had reported their inventories from 2000 onwards. Fifteen Parties had reported a decrease of emissions and six an increase within the reported period.

28. All the emission inventories submitted by Parties had been tested using the CEIP RepDab tool<sup>6</sup> and imported into the central CEIP database. The review of inventories had been performed in three stages in line with the EMEP review guidelines (ECE/EB.AIR/GE.1/2007/16) and all the review results had been provided to Parties and presented in the CEIP Technical review report 1/2015. The CEIP representative also outlined an updated proposal for Stage 3 reviews for the period 2013–2018, the work to implement the new gridding system (spatial resolution 0.1° x 0.1° longitude/latitude), preparation of data for modellers (update of full time series 1990–2013), expert estimates for heavy metals and POPs on sectoral level aggregated Nomenclature for Reporting 14 source categories (GNFR14)<sup>7</sup>, the support provided to the Implementation Committee and the Centre's workplan for 2015. A more in-depth summary of the work accomplished by CEIP was provided in the 2015 status report (ECE/EB.AIR/GE.1/2015/7–ECE/EB.AIR/WG.1/2015/18).

29. The Steering Body and the Working Group:

(a) Welcomed the first national inventories of black carbon submitted by 28 Parties, and encouraged them to continue the further development and improvement of the black carbon inventories;

(b) Noted that, within the transition period (2016–2018) between the current (50 x 50 kilometre grid) and the new higher spatial resolution, there would be a need to develop gridded data in both resolutions to provide consistent time series for environmental analyses;

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<sup>6</sup> See [www.ceip.at/ms/ceip\\_home1/ceip\\_home/repdab\\_howtouse/](http://www.ceip.at/ms/ceip_home1/ceip_home/repdab_howtouse/).

<sup>7</sup> See [www.ceip.at/new\\_emep-grid](http://www.ceip.at/new_emep-grid).



(c) Also noted that the production and checks of gridded data in higher resolution implied a significant increase of annual work for CEIP, and stressed that that work needed to be done during the short period between data submission (by 15 March each year) and the deadline for production of gridded data (early May), and in that regard invited Parties to timely report the required information to reduce gap-filling work to the extent possible;

(d) Further noted that completeness and consistency of reported inventories was still not sufficient, and that between 27 per cent (main pollutants and particulate matter (PM)) to 69 per cent (heavy metals and POPs) of emissions had to be estimated to fill the gaps, and in that connection invited Parties that had still not reported their emission data in agreed formats to do so;

(e) Noted in addition that reporting of gridded and large point source data was not sufficient, and invited Parties to start with the development of the new gridding system as soon as possible;

(f) Requested Parties facing national challenges with respect to completeness and quality of emission reporting to present their experiences during the second joint session of the EMEP Steering Body and Working Group on Effects in September 2016;

(g) At the request of CEIP, approved the draft list of Parties scheduled for Stage 3 reviews in 2016, namely, Estonia, Georgia, Iceland, Luxembourg, the Russian Federation, Serbia, Switzerland, the former Yugoslav Republic of Macedonia, Turkey and the United Kingdom, noting that Finland had requested the postponement of its review until 2018, and that the list of Parties would be finalized considering the needs for integrated assessment modelling;

(h) Invited Parties scheduled for an in-depth review in 2016 to submit their Nomenclature for Reporting (NFR14) tables and Informative Inventory Reports within the deadlines, in order to enable the reviews to take place, and requested the secretariat to send letters to those Parties to remind them about that obligation;

(i) Further encouraged Parties to nominate experts to the roster of reviewers and lead reviewers, and to support their participation in the scheduled reviews.

## **B. Measurements and modelling**

30. The co-Chair of the Task Force on Measurements and Modelling reported on progress, including the results of the fifteenth meeting of the Task Force (Krakow, Poland, 5–8 May 2015) and a workshop on trends (Paris, France, 17–18 November 2014). The Task Force had discussed the implementation of the EMEP Monitoring Strategy (ECE/EB.AIR/GE.1/2009/15),<sup>8</sup> heavy metals pilot studies, modelling activities, including the EURODELTA III<sup>9</sup> project, as well as emission issues and trend analyses in measurements and modelling. National experts had contributed actively with several presentations on those items.

31. The Task Force had noted that level 1 monitoring was not improving and that 30 per cent of Parties had carried out less monitoring presently than in 2005. Also, less than one third of the Parties had an implementation index (qualifying level 1 network status) of the

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<sup>8</sup> Available from [www.unece.org/index.php?id=4907#](http://www.unece.org/index.php?id=4907#).

<sup>9</sup> B. Bessagnet and others, *The EURODELTA III exercise: Model evaluation with observations issued from the 2009 EMEP intensive period and standard measurements in Feb/Mar 2009*. MSC-W Technical Report 1/2014, available from [www.emep.int/mscw/mscw\\_publications.html](http://www.emep.int/mscw/mscw_publications.html).

EMEP Monitoring Strategy exceeding 50 per cent. The Task Force had discussed ways to improve the implementation of the Monitoring Strategy, taking into account technical and financial issues.

32. The Task Force had also discussed the issue of condensables and semi-volatile organic compounds in emission inventories and modelling. Those substances were major sources of anthropogenic secondary organic aerosols. A joint working group composed of modellers and emissions experts would be established in fall of 2015 to work on the issue. The group would report the outcome of its work at the two respective Task Force meetings on those issues in 2016.

33. Representatives of MSC-E presented an overview of the activities on heavy metal and POPs assessments, focusing on the quality of the assessment results, recent research developments and dissemination of output information. They gave an overview of progress made with respect to work at CCC, MSC-E, discussions within the Task Force on Measurements and Modelling and proposals for a workplan for 2016–2017. They also presented recent developments of the EMEP Multi-media Modelling System (GLEMOS) with respect to heavy metals and POPs on regional and global scales. A particular attention had been paid to cooperative work on a country-scale assessment of heavy metal pollution and scientific cooperation with other international bodies including the Stockholm Convention on POPs (Stockholm Convention) and the Minamata Convention on Mercury (Minamata Convention). The necessity of collecting additional regional and global emission and measurement data on POPs and heavy metals from different national and international programmes was also stressed.

34. A representative of MSC-W gave an overview of the activities on modelling of acidification, eutrophication and photo-oxidants, focusing on improved EMEP model performance in the new EMEP grid with higher resolution (2013 and preliminary 2014 runs). She presented the results of EMEP model calculations with the use of the black carbon inventories (termed as “elemental carbon” in atmospheric modelling) submitted by 28 Parties in 2015. There was reasonable agreement with observations, but the inventories for some countries were inconsistent and incomplete. Lack of “condensables” in emission inventories might lead to underestimation of fine particulate matter (PM<sub>2.5</sub>) concentrations (depending on season and location). More work was needed on elemental/black carbon emission inventories and the treatment of condensables and semi-volatile organic compounds in inventories and models. The emission and modelling communities had to work together to resolve the issues. She also presented examples of improved modelling of aerosols.

35. A representative of CCC outlined the status of the PM levels in rural Europe in 2013 and presented the key issues regarding the EMEP measurement programme. There was a need to continue the focus on implementation of the EMEP Monitoring Strategy to increase the spatial coverage and completeness. It was a challenge to maintain a high quality of measured data on traditional EMEP compounds (EMEP level 1 sites) and a workshop was planned in the fall 2016 with a special focus on monitoring. There had also been several positive developments in EMEP, e.g., the monitoring was gradually becoming more complex and the use of the monitoring data was increasing.

36. The Steering Body and the Working Group:

(a) Stressed the need for further cooperative work between the emissions and modelling communities on defining appropriate and consistent methodologies on the treatment of condensables and semi-volatile organic compounds in inventories and in the EMEP modelling;

(b) Reiterated the need to maintain a high quality network for measuring air pollutants to support the EMEP Monitoring Strategy;

(c) Stressed the need for the continuous expansion of cooperation between the centres, task forces and Parties;

(d) Welcomed the progress of the EURODELTA project based on the close cooperation between EMEP Centres and national experts, and took note of EURODELTA achievements in 2015;

(e) Recognized the need to enhance long-term cooperation between EMEP and other subsidiary bodies under the Convention, as well as with AMAP, the Stockholm and Minamata Conventions, to enhance the transfer of scientific knowledge and for strengthening capacity on the regional and global scales.

### C. Integrated assessment modelling

37. The Chair of the Task Force on Integrated Assessment Modelling reported on the findings of the Task Force's forty-fourth session (Edinburgh, United Kingdom 6–8 May 2015) and the progress in modelling and scenario development (see ECE/EB.AIR/GE.1/2015/5–ECE/EB.AIR/WG.1/2015/16), in particular:

(a) A scenario for 2030 based on the climate and energy strategy of the European Union, which had shown a shift in the cost-curve for air pollutants, indicating that for PM<sub>2.5</sub> health impacts an optimal gap-closure would be more than 75 per cent compared with the 67 per cent proposed by the European Commission;

(b) A cost-effective approach to reduce PM<sub>2.5</sub> health impacts should include ammonia abatement — which would affect only 3 per cent of largest farms in Europe — and such a cost-effective, health driven policy strategy would also lead to a reduction of excess nitrogen deposition on nature protection areas;

(c) Most European Union member States expected an increase in ammonia emissions in the coming decades due to increased export of dairy products after the abolishment of the milk quota in the European Union, but it remained uncertain whether global demand for dairy products would indeed increase according to those expectations;

38. The Head of CIAM presented the results of a hypothetical alternative development over recent decades, in which no abatement measures would have been taken. It showed, inter alia, that timely measures avoided a world where in 2010:

(a) The average acidifying deposition in Europe would have been 30 times higher than actually realized, and would have reached the same level as the deposition in Central Europe in the 1980s;

(b) The average PM-related health impacts in Europe would have been three times higher than the actual situation;

(c) Ozone damage to health would have been 70 per cent higher and ozone damage to forests would have been 30 per cent higher;

(d) Excess nitrogen deposition would have been three times higher.

39. The Steering Body and the Working Group:

(a) Welcomed the progress in integrated assessment modelling, and stressed the continued need for updating models and the development of scenarios with a focus on the analysis of the cost-effectiveness of local versus European-wide actions and the cost-effectiveness of European versus Northern Hemispheric actions;

(b) Supported the idea for a workshop on the potential contributions of air pollution policies to the long-term sustainable development targets.

## **V. Proposed call for data by the International Cooperative Programme on Effects of Air Pollution on Materials, including Historic and Cultural Monuments**

40. The Chair of ICP Materials reported on the thirty-first meeting of the ICP Materials Task Force (Kjeller, Norway, 22–24 April 2015) and the results of the latest report drafted in the framework of the pilot project on the inventory and condition of stock of materials at risk at United Nations Educational, Scientific and Cultural Organization (UNESCO) cultural heritage sites.

41. The Chair also presented a proposal for a 2015–2016 Call for Data to be launched in late 2015, as agreed by the ICP Materials Task Force at its thirty-first meeting. The purpose of the Call was to offer interested Parties the opportunity to retrieve any available documented information on the UNESCO cultural heritage sites for the assessment of the stock of materials at risk and for the analysis of the impacts of air pollutant concentrations for various pollution and environmental scenarios.

42. The EMEP Steering Body and the Working Group on Effects welcomed and supported the proposed Call for Data, and requested ICP Materials to consider the postponement of the deadline for data submission beyond the proposed date in mid-March 2016 in response to concerns raised by several Parties that the time for data collection might be too short.

## **VI. Progress in activities in 2015 and further development of effects-oriented activities**

43. The Steering Body and the Working Group noted that all the reports relevant for the evaluation of progress in implementation of the workplan for 2014–2015 had been prepared by the Centres under the Working Group on Effects on time and were all available on their respective websites as well as on the Convention website. The two bodies acknowledged the work carried out by all the centres and Task Forces, as well as the Joint Expert Group on Dynamic Modelling, and supported the continuation of their work in the next biennium (2016–2017).

### **A. Air pollution effects on health**

44. The Chair of the Joint Task Force on the Health Aspects of Air Pollution presented the recently launched joint publication from WHO and the Organization for Economic Cooperation and Development, *Economic cost of the health impact of air pollution in Europe: Clean air, health and wealth*.<sup>10</sup> According to the publication, the economic cost of the approximately 600,000 premature deaths and of the diseases caused by air pollution in the WHO European Region in 2010 was estimated at US\$ 1.6 trillion.

45. The Joint Task Force Chair also provided information on the start of the update of the WHO Ambient Air Quality Guidelines. WHO would first consult experts during a meeting in September 2015 to discuss new health evidence on various air pollutants and methodological issues in order to identify main priorities for guideline development.

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<sup>10</sup> Copenhagen: WHO Regional Office for Europe, 2015.

46. The Steering Body and the Working Group:

(a) Took note of the progress in recent research on the health impacts of air pollution, the importance of the burden of disease from air pollution, and its economic costs;

(b) Identified new opportunities for enhanced collaboration between WHO and the Convention.

## **B. Critical loads and other issues related to modelling and mapping**

47. The Chair of the ICP Modelling and Mapping Task Force informed participants about the Call for Data issued by CCE for 2015. It was an opportunity to upgrade national and European acidification and eutrophication critical loads databases and to adapt them to the 0.5° x 0.25° longitude–latitude EMEP grid. ICP Modelling and Mapping had proposed that the updated critical load database be used for integrated assessment modelling and policy support within the Convention.

48. ICP Modelling and Mapping was developing biodiversity-based critical loads so that adverse effects of air pollution abatement scenarios on plant species and ecosystem services could be assessed with new critical thresholds. The robustness of the assessment of air pollution effects on ecosystems could be evaluated using modelled, empirical and biodiversity-based critical loads. Biodiversity-based critical loads were developed using the Habitat Suitability Index of typical or desired species. Preliminary results suggested that critical loads for biodiversity were generally higher than empirical critical loads and (modelled) critical loads for eutrophication. Knowledge on actual impacts on “typical or desired habitat species” needed to be further investigated and validated in collaboration between monitoring and modelling ICPs.

49. In order to continue the collaborative development of biodiversity-based critical loads, ICP Modelling and Mapping had proposed that a new call for data be issued to its National Focal Centres. The call would be over the period 2015–2017, with an interim report in 2016, to allow sufficient time for research and for National Focal Centres to develop collaboration with other National Focal Centres.

50. The Chair also reported on progress in updating the *Manual on Methodologies and Criteria for Modelling and Mapping Critical Loads and Levels and Air Pollution Effects, Risks and Trends*<sup>11</sup> (Mapping Manual). She proposed that the EMEP Steering Body and the Working Group on Effects adopt the Manual chapters as currently updated, except for chapter 5 for which discussions on technical points between National Focal Centres were still ongoing. Those technical points were expected to be resolved at the next Task Force meeting of ICP Modelling and Mapping. Chapter 5 could then be adopted at the second joint session of the Steering Body and the Working Group. Once approved, the entire updated Mapping Manual could be translated into Russian as a post session document.

51. The Steering Body and the Working Group:

(a) Adopted the European critical loads database, as revised following the Call for Data 2014–2015, for use in integrated assessment modelling within the Convention and for inclusion in the Greenhouse Gas and Air Pollution Interactions and Synergies (GAINS)<sup>12</sup> model;

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<sup>11</sup> Task Force on Modelling and Mapping (Berlin: Federal Environmental Agency (Umweltbundesamt), 2004). Available from [www.icpmapping.org/Mapping\\_Manual](http://www.icpmapping.org/Mapping_Manual).

<sup>12</sup> See <http://gains.iiasa.ac.at/models/>.

(b) Welcomed and supported the planned new Call for Data by CCE directed to National Focal Centres of ICP Modelling and Mapping to be issued in the fall of 2015;

(c) Approved chapters 1–4 and 6–8 of the updated Mapping Manual, with chapter 5 to be presented for approval at the second joint session of the Steering Body and the Working Group in September 2016;

(d) Took note of the announced cuts to CCE funding and that ICP Modelling and Mapping work might be significantly affected if CCE could not carry out its coordination tasks for Europe due to financial constraints (see paras 88–89 below).

### **C. Air pollution effects on environment and crops**

52. A representative of the ICP Forests Programme Coordinating Centre summarized the results presented at the thirty-first meeting of the ICP Forests Task Force (Ljubljana, 20–22 May 2015) and the fourth scientific conference of ICP Forests (19 May 2015) (see ECE/EB.AIR/GE.1/2015/12–ECE/EB.AIR/WG.1/2015/5). The conference focused on the long-term effects of air pollution on forest ecosystems, their services and sustainability. Data management, data quality control and assurance at different levels as well as dissemination of scientific results continued to be a high priority for ICP Forests. ICP Forests members had published 29 scientific papers between June 2014 and May 2015 that at least partly included data from the ICP Forests database or data from ICP Forests monitoring plots. Ten of the papers reflected activities implemented in accordance with the Convention's 2014–2015 workplan.

53. The Head of the ICP Waters Programme Centre reported that changes in biodiversity had been assessed with a large database compiled from national monitoring databases on invertebrates in acidified rivers and lakes. It had been shown that biodiversity was increasing. The work had continued with a focus on testing effects of climate and reduced acid deposition on biological recovery. First results indicated that reduced acid deposition was still the primary driver of increasing biodiversity. However, interannual variation in biological communities was related to temperature. The significant increase in temperature had not been found to have an effect on biodiversity, but the change in temperature was small in comparison with what was expected in the future. The ICP Waters 2016 thematic report would focus on mercury. In Scandinavia, mercury in fish was often above levels advised for human consumption, which was at present not reflected in the exceedance of critical load map for Europe for mercury. Some trends suggested that mercury in fish might be increasing, but there was also evidence for the opposite conclusion.

54. The Chair of ICP Integrated Monitoring reported on the results presented at the twenty-third meeting of the Task Force (Minsk, Belarus, 6–8 May 2015), in particular with reference to recent work on sulphur and nitrogen input-output budgets, which indicated the release of previously accumulated sulphur in catchment soils. Nitrogen, on the other hand, still accumulated in the catchments and deposition exceeded leaching. Results of the work on heavy metal budgets had indicated a continued accumulation and exceedance of critical loads, particularly for mercury. Results based on long-term data also indicated that there were biodiversity effects on ground vegetation from nitrogen deposition exceedance of critical loads for eutrophication. Higher exceedances correlated with a larger decrease in oligotrophic plant species. However, biodiversity as species richness did not show changes.

55. The Chair of ICP Vegetation summarized the decisions and recommendations from the twenty-eighth meeting of the Task Force (Rome, Italy, 3–5 February 2015). He also reported on the following workplan items delivered in 2015:

- (a) A brochure on the implications of changing ozone profiles for vegetation in Europe, also reported on in the Trends report;
- (b) A brochure on nitrogen and climate change as modifiers of ozone impacts on vegetation;
- (c) An update of chapter 3 (Mapping critical levels for vegetation) of the Mapping Manual;
- (d) Further field-based evidence on ozone impacts on vegetation, including data from the new smartphone app for recording incidences of ozone injury on vegetation;
- (e) Contributions to the effects Trends report and the 2016 assessment report.

56. Participation in the 2015/16 moss survey had been extended greatly to include participation of at least seven countries from Eastern Europe, the Caucasus and Central Asia, seven countries from South-Eastern Europe and seven Asian countries, with a total of some 40 countries participating. ICP Vegetation had also contributed to the “Tropospheric Ozone Assessment Report (TOAR): Global metrics for climate change, human health and crop/ecosystem research”.<sup>13</sup>

57. The Chair of the Joint Expert Group on Dynamic Modelling summarized the Group’s work presented at its fifteenth meeting (Sitges, Spain, 29–31 October 2014), organized jointly with the Swedish Clean Air and Climate Research Program. Participants at the meeting had assessed progress in dynamic modelling of ecosystems effects by acidification, heavy metals and nutrient nitrogen, including the interactions between climate change and air pollution, biological responses and terrestrial carbon sequestration. Other highlights included work on dynamic modelling of ecosystem effects for policy purposes. The Joint Expert Group continued to provide a forum for interactions, discussion and cooperation between ICPs, other Convention bodies and external partners.

58. The Steering Body and the Working Group:

- (a) Took note of the recent results of ICP Forests, as presented in several technical reports and numerous scientific papers, and welcomed ICP Forests continued efforts to ensure high data quality and to maintain data control at different levels;
- (b) Noted and appreciated ICP Waters continued work on biological and chemical recovery and on recovery of fish in Norway, and welcomed the thematic report on mercury in the environment planned for 2016;
- (c) Took note of the recent results of ICP Integrated Monitoring, in particular, its work on priority work items, and noted the identified increasing risk of heavy metals for biological systems and the negative impacts of nitrogen on biodiversity as well as that the intensive data collected at the ICP Integrated Monitoring sites allowed testing and verification of the critical load mapping and dynamic modelling methodologies used for large-scale policy assessment;
- (e) Took note of the recent results of ICP Vegetation presented in its annual report, and noted with appreciation the extended participation in the 2015/16 moss survey, particularly from countries in Eastern Europe and Asia;
- (f) Acknowledged the work of the Joint Expert Group on Dynamic Modelling and its operation across several ICPs and other bodies under the Convention as well as various external partners.

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<sup>13</sup> See [www.igaproject.org/TOAR](http://www.igaproject.org/TOAR).

## **D. Follow-up on the review of the International Cooperative Programmes**

59. The Chair of the Working Group on Effects reported on the implementation of the recommendations from the ICP review. Some of the ICPs had noted increased participation of national experts, but not all of them. In order to increase the credibility of the scientific work, efforts needed to be made to increase the participation in ICP activities also by scientists from outside of the community. ICP Integrated Monitoring and ICP Waters planned to hold a joint workshop in 2016; other ICPs should also explore possibilities for joint workshops and joint activities.

60. A small ad hoc group of experts — Mr. Phillip Moldan (Sweden), Mr. Jesper Bak (Denmark) and Mr. Walter Seidling (ICP Forests) — had explored options for setting up a common Working Group on Effects web page, similar to the one for EMEP, to improve the visibility of the effects work and share in one place the data and knowledge collected by all the effects centres. Currently, the amount of material available on the various websites varied strongly; it was possible to download reports, but not data; and there were relatively weak connections to other ICPs. The group presented low, intermediate and high ambition levels for a possible Working Group portal. The primary need was to discuss and agree on common services that the Working Group portal should provide. Other issues to be discussed included the information technology to be applied, the mandate, organization of work, timeline and funding for the new portal.

61. The Steering Body and the Working Group acknowledged the work of the ad hoc group and requested that the issue be further investigated and discussed at the next meeting of the Bureaux of the Steering Body and the Working Group in March 2016.

## **VII. Trends analyses and 2016 assessment report**

### **A. Trends analyses**

62. Both the EMEP and the effects communities presented their ongoing work on the trends reports. The EMEP trends report was coordinated by the Task Force on Measurements and Modelling, while ICP Waters took the lead on the trends report by the effects community. All EMEP and effects centres, task forces and expert groups contributed to the reports. The preliminary results and conclusions of the two trends reports were presented. The further work on the reports was included in the draft 2016–2017 workplan, and both reports were expected to be completed in 2016. The key elements of the two trends reports contributed to the 2016 assessment report.

63. The Steering Body and the Working Group considered the information provided on the trends analyses and:

(a) Acknowledged the lead and coordinating roles of the Task Force on Measurements and Modelling and ICP Waters in preparation of the EMEP and effects trends reports, respectively;

(b) Appreciated all the contributions to the trends analyses provided by the Convention scientific centres, task forces, expert groups and national experts;

(c) Welcomed the inclusion of the further work on both trends reports into the 2016–2017 workplan with the objective of finalizing the reports in 2016.



## **B. 2016 assessment report**

64. The Chair of the Task Force on Integrated Assessment Modelling, one of the key editors of the 2016 assessment report, presented the highlights of the draft report and plans for its finalization. The content of the report was based on reviewed scientific papers and reports elaborated by the Convention centres, task forces and other groups. The report would be addressed to policymakers beyond the delegates to the Executive Body and would focus on remaining policy challenges. It would encourage further progress on air pollution abatement in all Parties to the Convention.

65. Key findings of the draft report included:

(a) Further international coordination remained necessary to reduce background levels of PM and ground-level ozone;

(b) Ozone reduction required Northern Hemispheric cooperation that included methane abatement;

(c) Ammonia emission reduction would have transboundary impacts, namely reduced urban PM exposure and biodiversity protection;

(d) Climate and energy measures together with additional end-of-pipe measures and cost-effective local actions on transport and domestic heating would enable meeting WHO air quality guideline values for PM in most parts of Europe.

66. Further work on the report was still needed to shorten it and decrease overlaps with the effects Trends report and the background paper elaborated by the secretariat for the Batumi Ministerial Conference, and text and data needed to be added on a number of issues, including the “world avoided” and long-term perspectives and sustainable development. CEIP and CIAM also needed to prepare an annex with country emission data 1990–2030. A draft Summary for Policymakers would be presented at the sessions of the Working Group on Strategies and Review and the Executive Body in December 2015, and it was planned to submit the final report to the Executive Body at its thirty-five in May 2016.

67. The Steering Body and the Working Group:

(a) Welcomed all the contributions to the assessment report, including the excellent work done by the editors;

(b) Discussed various elements of the report, including the key remaining challenges for the Convention;

(c) Discussed the key messages for policymakers — that air pollution was transboundary (and transcontinental), and that the Convention had developed successful cost-effective solutions to mitigate air pollution;

(d) Welcomed the funding for the 2016 assessment report provided by France, Germany, the Netherlands, Norway, Sweden and Switzerland.

## **VIII. Information sharing by Parties**

68. A representative of the Netherlands reported on a National Institute for Public Health and the Environment study regarding the elaboration of long-term air quality targets in the Netherlands. The study had demonstrated that — based on EMEP/CIAM scenarios — it seemed feasible to meet the WHO air quality guideline levels for PM<sub>2.5</sub> and nitrogen dioxide by around 2030 everywhere in the Netherlands, including most road traffic sites. Local measures alone were not sufficient to meet such targets. For that, it was crucial

that European standards for vehicles worked in reality. Furthermore, international coordination on ammonia reduction was needed to meet WHO air quality guideline levels for PM<sub>2.5</sub>.

69. A representative of Spain presented the outcomes of a study on ozone, nitrogen and climate interactions on Mediterranean pastures. The interaction of the three elements had been clearly identified. Ozone reduced fertilization effect on nitrogen, while nitrogen could compensate for ozone effects. Ozone and nitrogen affected Mediterranean pasture structure and diversity through changes in plant-to-plant relationships. Soil moisture was critical in EMEP ozone modelling based on phytotoxic ozone dose. More arid climate would result in reduced pasture productivity and quality and more important nitrogen and ozone effects compared with current conditions.

70. A representative of Sweden presented information on Swedish monitoring data in the Arctic. The environment in the Arctic was subject to both global threats and activities in the Arctic. The contaminated air was changing the Arctic climate and it seemed that ground level ozone was becoming a growing problem. Also, mercury transport to the Arctic and other air pollutants posed a threat to human health and the environment.

71. Three representatives of Switzerland reported on national activities and research under the Working Group on Effects, including modelling and measurements of nitrogen deposition and acidification in Swiss forest soils at plots of the Inter-cantonal Forest Monitoring Programme, evaluation of data from the Swiss biodiversity monitoring and modelling programme and a recent study in the context of the Swiss Cohort Study on Air Pollution and Lung Diseases in Adults (SAPALDIA).<sup>14</sup> In addition, a publicly accessible literature database on air pollution and health, LUDOK,<sup>15</sup> compiled a synthesis of new literature about the health effects of nitrogen dioxide based on the WHO Review of evidence on health aspects of air pollution (REVIHAAP)<sup>16</sup> project.

72. A representative of the United States provided information on the status of the reviews of their National Ambient Air Quality Standards,<sup>17</sup> the Clean Power Plan to reduce carbon pollution from power plants<sup>18</sup> finalized in August 2015 and the proposed standards to reduce methane from the oil and gas industry.<sup>19</sup>

73. The Steering Body and the Working Group welcomed the information presented on the implementation of EMEP and effects-oriented activities in the Netherlands, Spain, Sweden, Switzerland and the United States. The Steering Body called for further harmonization of the EMEP monitoring activities with background measurements under the European Union Air Quality Directive.<sup>20</sup>

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<sup>14</sup> See [www.sapaldia.ch/en/](http://www.sapaldia.ch/en/).

<sup>15</sup> See [www.swisstph.ch/resources/literature-databases-ludok-and-elmar.html](http://www.swisstph.ch/resources/literature-databases-ludok-and-elmar.html)

<sup>16</sup> See [www.euro.who.int/en/health-topics/environment-and-health/air-quality/publications/2013/review-of-evidence-on-health-aspects-of-air-pollution-revihaap-project-final-technical-report](http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/publications/2013/review-of-evidence-on-health-aspects-of-air-pollution-revihaap-project-final-technical-report)

<sup>17</sup> See [www.epa.gov/ttn/naaqs/](http://www.epa.gov/ttn/naaqs/).

<sup>18</sup> See [www.epa.gov/cleanpowerplan](http://www.epa.gov/cleanpowerplan).

<sup>19</sup> See [www.epa.gov/airquality/oilandgas/actions.html](http://www.epa.gov/airquality/oilandgas/actions.html).

<sup>20</sup> Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

## **IX. Outreach efforts, information sharing and cooperation with other organizations and programmes**

### **A. Hemispheric transport of air pollution**

74. A co-Chair of the Task Force on Hemispheric Transport of Air Pollution reported on progress in implementing the Task Force's multi-year (2012–2016) workplan, focusing on 2008 and 2010 Global Emissions Mosaics, 2010–2030–2050 Benchmark scenarios and global and regional source-receptor modelling. Other results presented included the outcomes of the February 2015 joint workshop organized with the Task Force on Integrated Assessment Modelling on global air pollution emissions scenarios and the May 2015 workshop on modelling air quality from global to regional scales and the Task Force's contribution to the Milan World Expo, in particular, to the event "Sustainable Agriculture and Air Pollution" in June 2015. The Task Force workplan for 2016–2017, including planned publications and reports, was also briefly outlined.

75. The Steering Body and the Working Group:

(a) Acknowledged and supported the outreach efforts of the Task Force on Hemispheric Transport of Air Pollution towards other regions, in particular, Asia and North America;

(b) Took note of the progress in developing 2008 and 2010 global emissions mosaics and 2010–2030–2050 emissions scenarios, and the efforts to coordinate global and regional modelling experiments for 2008–2010 with significant number of partners beyond the ECE region;

(c) Acknowledged the important contributions of EMEP centres and task forces to the implementation of the workplan for the Task Force, and the opportunities for greater cooperation with the Working Group on Effects;

(d) Supported the proposed plan for next steps regarding the hemispheric transport of air pollution, as described in the draft Task Force's 2016–2017 workplan.

### **B. Information sharing and cooperation with international organizations and programmes**

76. A representative of AMAP informed participants about recent activities concerning black carbon in the Arctic and the opportunities for an enhanced cooperation between AMAP and EMEP on the further development of the inventories with respect to their completeness, consistency and quality. The cooperation opportunities between the two programmes would be discussed in detail during a planned workshop in Potsdam, Germany, in mid-February 2016.

77. A representative of WHO presented World Health Assembly (WHA) resolution 68.8, "Health and the Environment: addressing the health impact of air pollution", adopted in May 2015. Among others, the resolution tasked the WHO secretariat with preparing a road map for an enhanced global response to address the adverse effects of air pollution for submission to and discussion at the next session of the World Health Assembly in May 2016. In 2014, WHO had established a Global Platform on Air Quality and Health. ECE and the Task Force on Hemispheric Transport of Air Pollution had contributed to the development of the Global Platform by sharing relevant information and providing emission and modelling data. The implementation of WHA resolution 68.8 and the

development of the Global Platform had provided a unique opportunity for enhanced cooperation between WHO, ECE and the Convention.

78. A representative of the interim secretariat of the Minamata Convention provided a brief overview of the provisions of the Convention, with particular emphasis on the provisions relating to emissions of mercury into the air. There was a need for Minamata Parties to develop and maintain inventories of emissions and to demonstrate reasonable progress in reducing emissions over time. In that regard, she welcomed the opportunities for collaborative work with the ECE Air Convention in the future, which would result in more robust data as well as provide efficiencies in the gathering of information.

79. A representative of the joint secretariat for the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention provided an update on the Global Monitoring Plan Data Warehouse<sup>21</sup> — an online tool to store and visualize global POPs data. The POPs data were monitored in core media: ambient air, human milk and blood and in surface waters. Substances monitored were listed in annexes of the Stockholm Convention. Data were collected from various international (e.g., AMAP and EMEP) and national programmes. All data were publically available. Air emission data as reported by Parties could be retrieved with the help of the three Conventions' joint secretariat.

80. The Steering Body and the Working Group:

(a) Expressed their gratitude for the contributions made by AMAP, the Minamata and Stockholm Conventions and WHO, and stressed the benefits and importance of continued cooperation, including exchange of relevant emission and other data;

(b) Recognized the need to enhance long-term cooperation between the Convention's scientific bodies and the relevant international processes and organizations, in particular with AMAP and WHO, and to reflect that cooperation in the 2016–2017 workplan.

## **X. Draft 2016–2017 workplan for the implementation of the Convention**

81. The Chair noted that the EMEP Steering Body and the Working Group on Effects had updated the “Science” part of the draft 2016–2017 workplan for the implementation of the Convention (ECE/EB.AIR/GE.1/2015/11–ECE/EB.AIR/WG.1/2015/14). The updated version put emphasis on improving tools to assess air pollution and its effects in the ECE region, cooperation with Parties and cooperation with other projects, bodies and organizations (outreach). It included activities to be completed during the next biennium. The mandatory yearly activities carried out by the centres and task forces to support Parties in the implementation of the Convention and its protocols had been transferred from the workplan to a separate file to be posted on the Convention website. A short description of those activities should be reviewed and included in the updated mandates of the centres, task forces and ICPs. Activities related to those tasks should be reported in annual reports and during annual joint sessions of EMEP Steering Body and Working Group on Effects and also during meetings of task forces and ICPs. The activities and tasks should be revised within the coming year. The updated draft 2016–2017 workplan would be finalized in the

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<sup>21</sup> See [chm.pops.int](http://chm.pops.int) and [www.brsmeas.org](http://www.brsmeas.org).

following weeks and would be posted on the websites of the December 2015 sessions of the Working Group on Strategies and Review and the Executive Body.

## **XI. Financial and budgetary matters**

### **A. Funding of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe**

82. The secretariat introduced the note on financial and budgetary matters (ECE/EB.AIR/GE.1/2015/20–ECE/EB.AIR/WG.1/2015/4), providing details of the status of contributions in 2015. The schedule of mandatory contributions from Parties for 2016 was set out in the last column of table 3 in the note. The secretariat also reported on the status of the open-ended Memorandums of Understanding between ECE and the EMEP Centres.

83. The secretariat also drew attention to the upcoming implementation of UMOJA at ECE. UMOJA was an integrated administrative and financial system that was being gradually introduced at the United Nations. During the UMOJA introductory phase some of the financial operations might take longer to complete compared with current procedures and arrangements.

84. The Steering Body and the Working Group:

(a) Took note of the status of contributions to the financing of EMEP in 2015 set out in table 1 of the note on financial and budgetary matters, and the additional information provided by the secretariat during the session;

(b) Approved the use of resources by the EMEP Centres in 2014, as presented in table 2 of the note;

(c) Elaborated a proposal for the EMEP budget for 2016 for consideration and approval by the Executive Body at its thirty-fourth session on 18 December 2015. The total budget for 2016 was the same as for 2015, i.e., for CIAM \$155,000, for CCC \$820,000, for MSC-W \$570,000, for MSC-E \$455,000 and for CEIP \$290,000. In the case of CEIP, the proposed budget — in addition to funding for the Centre's mandatory activities — included funds to cover the following emerging issues:

(i) Completion of the gridding emissions tools;

(ii) Updating of the EMEP/EEA Guidebook, with a new chapter on treatment of condensables and semi-volatile organic compounds;

(iii) Support to Parties in gridding emissions in the new, finer resolution EMEP grid with a focus on emissions of elemental/black carbon;

(d) Recommended that the Executive Body adopt the 2016 schedule of contributions as presented in table 3 of the secretariat's note on financial and budgetary matters;

(e) Called upon the Parties to the Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP Protocol) to consider making voluntary contributions (in kind or in cash through the trust fund) to ensure that the work could be accomplished as foreseen in the draft 2016–2017 workplan;

(f) Invited all Parties that had not yet paid their contributions for 2015 to do so as soon as possible;

(g) Invited the Bureau of the EMEP Steering Body to discuss the 2017 budget for the EMEP Centres at its next meeting, scheduled for March 2016, taking into account the workplan for 2016–2017 for the implementation of the Convention to be adopted by the Executive Body at its thirty-fourth session.

## **B. Funding of core activities not covered by the Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe**

85. In line with revised decision 2002/1 of the Executive Body, the secretariat introduced the elements of the note on financial and budgetary matters relevant to the funding of core activities not covered by the EMEP Protocol, presenting updated information on cash contributions to the trust fund in 2014 and 2015.

86. The secretariat also presented information on the implementation (including payments) of contracts (Memorandums of Understanding) for 2015, and the preparation of contracts for 2015 and beyond. The current contracts would expire in 30 June 2016. Therefore, extensions of the current contracts or new ones would need to be elaborated by July 2016.

87. The Steering Body and the Working Group:

(a) Took note of the relevant elements of the note on financial and budgetary matters, and decided to submit the information to the Executive Body;

(b) Invited the secretariat to provide information on the status of contributions to the trust fund for the effects-oriented activities as of 30 November 2015, and to make it available to the Executive Body at its thirty-fourth session;

(c) Recommended that the status of contributions be used as a basis for the budget to co-fund the effects-oriented activities in 2016;

(d) Requested the Executive Body to encourage Parties to make contributions to the trust fund before 30 November each year;

(e) Noted with appreciation the essential support provided to the Working Group on Effects and its effects-oriented activities by lead countries, countries and organizations hosting coordinating centres, organizing meetings and funding activities of their National Focal Centres, as well as the active participation of national experts in the work under the Convention;

(f) Also noted with appreciation the amount of voluntary cash contributions available in 2014 and 2015, but reiterated the invitation to all Parties that had not yet done so to provide to the trust fund for financing of the effects-oriented activities, without undue delay, the contributions decided by the Executive Body in its revised decision 2002/1.

## **C. Information from the Netherlands on cuts in national funding for the Coordination Centre for Effects**

88. A representative of the Netherlands acknowledged that, over the years, the work of CCE had successfully contributed to the objectives of the Convention. The Netherlands highly valued the work carried out by CCE, and had therefore provided to a liberal extent the financial means needed. However, also taking into account the general need for budget cutbacks, the Government regretted that the national contribution for CCE for the years

2016 and 2017 would be significantly less than in previous years, and that no contribution was foreseen for 2018 and the years thereafter.<sup>22</sup>

89. The Steering Body and the Working Group:

(a) Took note of the declaration by the Netherlands, expressed its concern about the functioning of CCE in 2016 and beyond in view of the expected cuts in funding and noted that implementation of several important items of the 2016–2017 workplan significantly depended on the CCE work;

(b) Called upon Parties to look for ways to secure adequate funding for CCE in the next biennium and beyond;

(c) Decided to refer this issue for consideration by the Executive Body at its thirty-fourth session.

## **XII. Closing of the first joint session**

90. The EMEP Steering Body and the Working Group on Effects agreed on the main decisions taken during the joint session.

91. It was agreed to hold the second joint session of the EMEP Steering Body and the Working Group on Effects from 12 (afternoon) to 16 (morning) September 2016 in Geneva. The meeting of the joint Extended Bureaux of the EMEP Steering Body and the Working Group on Effects was tentatively scheduled to be held in Geneva from 15 (afternoon) to 18 March 2016.

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<sup>22</sup> The full text of the declaration and a related comment by CCE is available in an informal document for the joint session.