

5 July 2023

Original: English

---

## **Economic Commission for Europe**

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**

**Ninth joint session**

Geneva, 11–15 September 2023

Item 5 (a) (ii) of the provisional agenda

**Progress in activities of the Cooperative Programme for Monitoring and Evaluation of the Long-range  
Transmission of Air Pollutants in Europe and its workplan for 2024–2025:**

**Improvement and reporting of emission data and adjustments under the Protocol to Abate Acidification,  
Eutrophication and Ground-level Ozone:**

**improvement and reporting of emission data**

## **Emission inventories and projections**

### **Report by the Co-Chairs of the Task Force on Emission Inventories and Projections**

#### *Summary*

The Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) is mandated to provide sound scientific support to the Convention on Long-range Transboundary Air Pollution, among other things, in emission inventories and projections.<sup>a</sup> To help ensure the fulfilment of that mandate, the Task Force on Emission Inventories and Projections reports annually to the EMEP Steering Body on progress in the area, providing policy-relevant messages and recommendations.

The present report contains a summary of the discussions at and outcomes of the Task Force's thirty-sixth meeting (online, 18-20 April 2023), where participants considered work completed in the 2022–2023 workplan for the implementation of the Convention (ECE/EB.AIR/148/Add.1), future work to support the implementation of the Convention, in particular, the priorities for future updates to the *EMEP/European Environment Agency air pollutant emission inventory guidebook*, and contributions to the review of the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, as amended in 2012 (ECE/EB.AIR/144/Add.1, decision 2019/4).

<sup>a</sup> See ECE/EB.AIR/68, annex III, appendix III, para. 1.

## I. Introduction

1. The Task Force on Emission Inventories and Projections under the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) assists EMEP in providing sound scientific support for the Convention on Long-range Transboundary Air Pollution in the area of emissions inventories and projections. The work of the Task Force is organized and led by the Co-Chairs: Mr. Chris Dore (United Kingdom of Great Britain and Northern Ireland); Mr. Martin Adams (European Environment Agency); and Ms. Kristina Saarinen (Finland). In addition, Expert Panel leaders coordinate work relating to specific areas as presented in Sections D - I below.
2. The goal of this work is to support the Convention's Parties in reporting air pollutant emissions and projections data to inform air quality assessment activities of the Convention and to capture relevant information for maintenance and improvement of the *EMEP/European Environment Agency air pollutant emission inventory guidebook* (the EMEP/EEA Guidebook).
3. The outcome of the annual meeting constitutes the Task Force's main annual output.

## II. Task Force's 2023 annual meeting

### A. Organization and planning

4. The thirty-sixth meeting of the Task Force on Emission Inventories and Projections, a subsidiary body of the United Nations Economic Commission for Europe (ECE) Convention on Long-range Transboundary Air Pollution (the Convention), was held in Oxford, United Kingdom, from 18 to 20 April 2023.<sup>1</sup>
5. The Co-Chairs jointly chaired the meeting, with the exception of the expert panel sessions which were chaired by the corresponding Expert Panel Leaders.
6. The meeting sessions were held sequentially, except for the Combustion and Industry, Agriculture and Transport expert panels, which were held in parallel. Nearly 80 participants attended the meeting in person, and just under 200 participants joined online across the three days, representing approximately 40 countries and over 100 international organizations, including the EMEP Centre on Emission Inventories and Projections and the European Environment Agency (EEA). Several industry representatives also attended.

### B. Opening address

7. Mr Bill Parish (UK Government) delivered the opening address from the hosts and welcomed the participants. He reflected on past successes of the LRTAP Convention, but also noted the challenges that the future work of the LRTAP Convention needs to address.
8. The Co-Chairs also welcomed participants and explained that the key priority for the meeting was to present and discuss proposed amendments to the EMEP/EEA Guidebook.

### C. International news and related work under the Convention

9. Ms. Laurence Rouil (EMEP Steering Body Chair) provided an update on recent activities in the Convention, and in particular the review of the Gothenburg Protocol.
10. Ms. Carolin Sanz Noriega (LRTAP Convention Secretariat) presented the recently launched e-learning course on reporting emissions in the CLRTAP.

---

<sup>1</sup> Presentations and documents from the Task Force on Emission Inventories and Projections meeting are available at <https://www.tfeip-secretariat.org/oxford-2023>.

11. Ms. Alison Davies (United Kingdom) presented the latest news on the newly formed Forum for International Co-operation on Air Pollution within the LRTAP Convention. The forum will engage with other regional organisations to understand the needs and interests of regions as well as what further collaboration and cooperation can be prioritised and achieved.

12. Ms. Sabine Schindlbacher (Centre on Emissions Inventories and Projections) gave an update on emissions inventory reporting and review in the LRTAP Convention. The focus of the 2023 in depth inventory review will be emissions from agriculture.

#### **D. Expert Panel on Combustion and Industry**

13. Presentations were given on topics including: proposed updates to the EMEP/EEA Guidebook; an update on changes to the European Solvents Inventory Group volatile organic compound inventories; and a domestic combustion emissions factor measurement programme and model improvements.

14. The Task Force agreed on the updates proposed to selected EMEP/EEA Guidebook chapters, subject to minor amendments. Some of the key issues discussed included new guidance on emissions from the use of hydrogen fuel which is to be added to the EMEP/EEA Guidebook, and a new annex that will provide detailed information on emissions from residential combustion. Participants also agreed an updated way of presenting emission factors derived from measurements at the limit of detection.

#### **E. Expert Panel on Transport**

15. Presentations were given on topics including: proposed updates to the EMEP/EEA Guidebook; new knowledge on high-emitters and on-road emissions from the City Air Remote Sensing (CARES) project; a project which investigates the use of remote sensing data for emissions inventories and nitrogen dioxide emissions; the upcoming EURO 7 regulations; a new tool for calculating maritime and aviation emission; the compliance of shipping vessels with emissions regulations, and project that enables a Tier 3 approach to be used for determining rail emission factors.

16. The Task Force formally approved changes to the road transport chapters of the EMEP/EEA Guidebook, which included revisions to brake emission factors, revisions to diesel and diesel hybrid bus emission factors, updated heavy duty vehicle classifications based of REG EU 2017/2400 degradation, and error corrections in the COPERT model.

#### **F. Expert Panel on Agriculture and Nature**

17. Presentations and discussions were dominated by the proposed updates to the EMEP/EEA Guidebook. Updates include a new chapter for non-agricultural animals, revised emission factors for ammonia emissions from synthetic fertilisers and some additional guidance on the export and import of animal manure. A new methodology for calculating ammonia emissions from crop residues has also been proposed and the Expert Panel agreed to run a webinar on this topic. The Task Force agreed on the updates proposed to selected EMEP/EEA Guidebook chapters, subject to minor amendments.

18. Presentations were also given on: updates to the Agricultural Emissions Estimation (AgrEE) tool; agricultural NMVOC emissions; ammonia emission estimates from manure management in Northern Italy at different resolutions; and an update on the A Model Based Approach for Emissions Inventories (AMLAFI) project.

#### **G. Expert Panel on Projections**

19. Presentations were given on the following topics: implementation of the IED in the GAINS model and how this impacts future ammonia emissions, and preliminary results of the HORIZON iCHANGE project.

20. The Expert Panel considered feedback on recent revisions to the emissions projections reporting template (Annex IV), and the Task Force agreed to draft guidance on the inclusion of adjustments within the projections reporting template to seek a formal decision from the EMEP Steering Body. The Expert Panel agreed to make a minor correction to the Annex IV template.

## **H. Expert Panel on Waste**

21. All presentations and discussions were focused on the proposed revisions to the EMEP/EEA Guidebook which included updates to emission factors for solid waste disposal and medical waste incineration, and corrections and clarifications in the solid waste incineration, wastewater handling and other waste chapters. It was agreed that the Expert Panel will further explore a new methodology for calculating NMVOC emissions from solid waste.

22. The Expert Panel agreed proposed changes to selected chapters of the EMEP/EEA Guidebook.

## **I. User engagement Expert Panel**

23. The panel heard presentation on the following topics: reviewing the EMEP/EEA Guidebook chapter on emissions mapping, feedback from the EDGAR workshop, the use of reported emissions data in air quality modelling studies; and the uptake of reported emissions data in CAMS inventories.

## **J. The future of emissions reporting**

24. The Co-Chairs and Secretariat presented the results from a recent questionnaire which was circulated amongst the Task Force members to collect feedback on the current reporting requirements and priorities for future reporting. Results and discussions are summarised in a separate technical paper, for the consideration of the EMEP Steering Body.

## **K. New science**

25. Presentations were given on: monitoring ultra fine particles; estimating the costs of air pollution from industrial emissions data; earth observation of emissions from the Sentinel EO-based Emission and Deposition Service (SEEDS) project; and earth observation for use in identifying emissions from non-road mobile machinery and wildfires.

## **L. Other business**

26. Mr Kiyoto Tanabe (IPCC) spoke about IPCC's upcoming work on short-lived climate forcers and invited members of the Task Force who may wish to contribute to contact him.

27. Mr Martin Adams (European Environment Agency) announced that he will step down from the Co-Chair role of the Task Force. The Task Force sincerely thanked him for his many years of contribution to the Convention and the Task Force.

28. The Task Force agreed the remaining work to be undertaken in 2023 associated with finalising and publishing updated chapters of the EMEP/EEA Guidebook, and the workplan for 2024 – 2025 which includes the workplans of the Task Force's Expert Panels.

29. The Task Force thanked Parties for their contributions, and in particular the United Kingdom for hosting the Task Force's annual meeting. The meeting was then closed.