



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

Tenth joint session

Geneva, 9–13 September 2024

Item 5 (a) 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 in 2024 and future work:
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.^a 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-seventh meeting (hybrid, 14 – 16 May 2024), where participants considered work completed in the 2024–2025 workplan for the implementation of the Convention (ECE/EB.AIR/154/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).

^a 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) and Mr. Daniel Montalvo (European Environment Agency). In addition, Expert Panel leaders coordinate work relating to specific areas as presented in Sections D - H 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 2024 annual meeting

A. Organization and planning

4. The thirty-seventh 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 Dessau, Germany, from 14 to 16 May 2024.¹
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 Nature, and Transport expert panels, which were held in parallel. Nearly 60 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. Ms Susan Dröge (Germany), the Head of Department for Climate Protection and Energy at the German Environment Agency delivered the opening address from the hosts and welcomed the participants.

C. International news and related work under the Convention

8. Ms. Panagiota Dilara (European Commission) provided an update on recent work reviewing the NEC Directive.
9. Mr. John Salter (WGSR Vice Chair) provided an update on the plans for the revision of the Gothenburg Protocol and highlighted the importance of input from the emissions inventory community.
10. Mr. Daniel Montalvo (European Environment Agency) presented the latest updates to Pollutant Release and Transfer Register (PRTR) reporting.

¹ Presentations and documents from the Task Force on Emission Inventories and Projections meeting are available at <https://www.tfeip-secretariat.org/dessau-2024>

11. Mr Pavel Shermanau (IPCC) gave a presentation on the upcoming work of IPCC to prepare a methodology report on short-lived climate forcers, and linkages to the work of the Air Convention.

12. Mr John Salter (TFICAP co-chair) provided an update on the progress of the Task Force for International Collaboration in Air Pollution.

13. Ms Scarlett Quinn-Savory (Clean Air and Climate Coalition) presented the work of the CCAC on the global clean air flagship.

14. The TFEIP took note of the presentations and the work being undertaken in the international arena, and discussed the implications for the TFEIP's workplan, and the work of the Air Convention more generally.

D. Expert Panel on Combustion and Industry

15. Presentations and discussions took place on topics including small-scale combustion, heavy metal emissions from coal-fired plant, emissions from asphalt mixing, and updating emission factors for fireworks. Whilst it was agreed that some issues can be addressed in the next update of the EMEP/EEA Guidebook, others need further consideration before data and guidance can be included in the EMEP/EEA Guidebook.

16. The Task Force agreed that the Combustion and Industry Panel will compile a prioritised improvement list for the Guidebook for discussion at the 2025 TFEIP Meeting.

E. Expert Panel on Transport

17. Presentations were given on topics including road transport research activities and ongoing work to improve emission estimation tools, emission factors for non-exhaust emissions from brakes, and the correlation of harbour emissions and health issues in urban areas. A further presentation was given on work comparing emissions calculated using the COPERT and HBEFA road transport emissions models. The analysis highlighted some differences between the models which should be explored further.

18. The Task Force agreed that the Transport Panel will compile a prioritised improvement list for the Guidebook for discussion at the 2025 TFEIP Meeting.

19. The Task Force agreed that some updates can be made to emission factors in the COPERT model, which is referenced in the EMEP/EEA Guidebook, outside of the agreed EMEP/EEA Guidebook update schedule (see section I).

F. Expert Panel on Agriculture and Nature

20. Presentations and discussions covered topics such as: issues arising from the 2023 EMEP/EEA Guidebook update, the potential to develop Tier 3 methodologies for calculating ammonia emission from synthetic nitrogen fertilisers and field-applied slurry applications, and ongoing collaboration with the Task Force on Reactive Nitrogen (TFRN). A presentation was also given on the criteria that must be fulfilled before the effects of abatement measures can be included in emission inventory methodologies.

21. Mr Nick Hutchings (Denmark) announced that he will be standing down from the position of co-chair of the Agriculture and Nature Expert Panel. He was warmly thanked by the Task Force for his contributions across many years. Mr Bernard Hyde (Ireland) was appointed as a new co-chair of the Agriculture and Nature Expert Panel.

22. The Task Force agreed that the Agriculture Panel will compile a prioritised improvement list for the Guidebook for discussion at the 2025 TFEIP Meeting.

G. Expert Panel on Projections

23. Presentations were given on the following topics: IIASA's work on baseline emission projections used in the GAINS model, France's air pollutant and greenhouse gas emissions projections methodology, shipping scenarios during COVID and the impact of the subsequent Tiers of Marpol Annex VI as foreseen and hypothesized in the Mediterranean area, and lessons learnt from the NECD emissions projections review.

24. The Expert Panel were of the view that a review of reporting deadlines is required. There are currently many reporting commitments in March and April, and it may be that requiring the Informative Inventory Report (IIR) to be submitted later (or the projections section of the IIR in a separate document) may result in far more comprehensive reporting of projections methodologies. The TFEIP co-chairs agreed to raise this at the 2024 WGE/EMEP Steering Body Meeting.

25. The TFEIP agreed that there is a need to improve the current IIR template to provide more information on the expected reporting of projections methodologies and associated datasets. The TFEIP co-chairs and CEIP will review whether it is possible to draft an updated template urgently, so that it can be submitted to, and potentially approved by, the 2024 WGE/EMEP Steering Body Meeting.

26. The TFEIP agreed that capacity building on projections compilation and reporting would be helpful but were not able to identify resources to support such activities.

27. Ms Nadine Allemand (France) announced that she will be standing down from the position of co-chair of the Projections Expert Panel and that her colleague Gregoire Bongrand (France) will be taking over the role. Ms Allemand was thanked for her significant contribution and input to the Task Force.

H. Expert Panel on Waste

28. The TFEIP discussed potential future updates for the waste chapters of the EMEP/EEA Guidebook and Celine Gueguen, who chairs the Waste Expert Panel, invited participants to contact her with questions or offers of support with this work.

I. CEIP and TFEIP workplan

29. Ms Sabine Schindlbacher (Centre on Emissions Inventories and Projections) presented a summary of the 2024 emissions reporting submissions and announced that more Parties had made submissions in 2024 than any previous year.

30. CEIP requested the views of the TFEIP on several different aspects of the emissions inventory review process. The Centre will use this information in planning future in-depth emission inventory reviews. In short, the TFEIP indicated the following opinions: a strong preference for continuing with annual sector specific reviews over less frequent sector wide reviews; a slight preference for reviewing lower quality emission inventories more frequently than those of a higher quality; in-country reviews should be arranged in cases where inventories need major improvements; national inventory systems should be included in the scope of in-depth reviews; solvent use and uncertainties were high priority topics for future in depth reviews.

31. Mr Chris Dore (TFEIP Co-Chair) presented the TFEIP workplan, and identified items for which further support is needed. The TFEIP has not identified sufficient resources to make a contribution to some of the tasks included in the workplan. This will be presented at the WGE/EMEP Steering Body meeting in September 2024.

32. The TFEIP agreed to form an ad-hoc group for each of the following workplan items: 1.1.2.1 Inclusion of methane in emissions reporting; 1.1.2.3 Guidance on reporting condensable PM (Pt1/2); 1.1.2.7 Investigating centralising the compilation of some sources; 1.1.1.1 Support the work of TFMM on assessing the contribution of VOCs on high ozone pollution episodes.

33. For Workplan item 1.1.2.4 Develop guidance on estimating black carbon emissions, the TFEIP agreed that further clarity is required as to the purpose of reporting black carbon estimates and whether efforts on reporting particulate matter metrics, as used in different modelling systems, is a higher priority. This task is therefore on hold.

34. The timelines for the next update of the EMEP/EEA Guidebook were presented, discussed and agreed. The TFEIP Co-Chairs will explore options for securing support and contributions for this work ahead of the 2025 Meeting, and expert panels will draft priority improvement lists. Updating the content of the EMEP/EEA Guidebook chapters is scheduled to be undertaken across 2026, with the finalised updated version of the Guidebook being published in 2027.

35. It was agreed that the TFEIP paper on reporting adjustments in projections submissions will be submitted to the upcoming EMEP Steering Body/WGE session.

J. International Collaboration

36. Presentations were given on the European Environment Agency's use of inventory data in policy formation and work completed by the World Bank supporting countries with air quality work.

37. Ms Kayla McCauley (United States Environmental Protection Agency) gave a presentation on emission inventories in the United States and potential opportunities to collaborate with the TFEIP. The TFEIP will continue to work with the US EPA to identify areas for collaboration. Initial discussions have identified the creation of an emissions model for residential combustion is a high priority.

K. User engagement Expert Panel

38. The aims of the user engagement expert panel were outlined, and the contributions of the panel to the TFEIP workplan (see section I). The ambition of the expert panel to work on time profiles, pollutant speciation in addition to NMVOC (NO_x, SO_x, and PM), and uncertainties was noted.

L. Satellite Data

39. The results from the SEEDS project (Sentinel EO-based Emission and Deposition Service) project were presented. This showed several emissions datasets which are now available, and are of direct relevance to the work of the TFEIP.

M. New science

40. Presentations were given on: the latest version of the Hemispheric Transport of Air Pollution Global Emissions Mosaic, the use of inverse modelling for emission reporting verification and emissions from commercial cooking.

N. Other Business

41. It was announced that Ms Kristina Saarinen (Finland) has retired and therefore stepped down from the role of Co-Chair of the Task Force. The Task Force sincerely thanked her for her many years of contribution to the Air Convention and the Task Force.

42. The Task Force formally agreed the workplan, and particularly items to be undertaken in 2024, as well as other workplan items for 2025 - 2027. The Task Force's workplan includes workplans of the Task Force's Expert Panels.

43. The Task Force thanked Parties for their contributions, in particular Germany for hosting the Task Force's annual meeting. The meeting was then closed.