



# The UNECE Convention on Long-Range Transboundary Air Pollution: Overview of key obligations, recent developments and activities

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# Key facts



## ENVIRONMENT

- Signed in 1979, entry into force in 1983, 51 Parties
- Framework Convention – sets a broad framework for action to reduce air pollution
- Science-based
- Concrete measures and targets to control air pollution through the negotiation of protocols
- Stepwise approach, regular review of achievements
- Emission targets agreed for the following pollutants: sulphur, nitrogen oxides, VOCs, ammonia, POPs, heavy metals, and particulate matter, including black carbon
- More info: <http://www.unece.org/env/lrtap/welcome.html>

## From flat-rate reductions to individual emission ceilings

- **1985 Protocol on Sulphur:** 30% reduction by 1993, entry into force 1987, 25 Parties
- **1988 Protocol on NOx:** by 1994 stabilize emissions at 1987 levels, entry into force 1991, 35 Parties
- **1991 Protocol on VOC:** 30% reduction by 1999, entry into force 1997, 24 Parties
- **1994 Protocol on further reduction of sulphur emissions:** individual emission ceilings for 2000, 2005 and 2010, entry into force 1998, 29 Parties

## Paving the way for global action: POPs and Heavy Metals

- **1998 Protocol on Heavy Metals:** cadmium, lead and mercury; emission reductions, emission limit values; (entry into force 2003) (35 Parties)
- 2012 Amendments: Stricter ELVs for PM, cadmium, lead and mercury; Expanded scope of industrial activities for which ELVs apply; (entry into force February 2022) (24 Parties)
- Guidance document “*Best available techniques for controlling emissions of heavy metals and their compounds from the source categories listed in annex II*”
- **1998 Protocol on POPs:** 16 substances (entry into force 2003) (35 Parties)
- 2009 Amendments: 7 substances added (entry into force January 2022)
- Flexibilities on the timelines for application of ELVs and BATs
- Guidance document on BAT from major stationary sources



### From single-pollutant, flat-rate reduction to multi-pollutant multi-effect approach

- **1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol):** sulphur, nitrogen oxides; VOCs, ammonia;  
National emission ceilings for 2010, emission limit values; application of BATs  
entry into force 2005, (29 Parties)
- **2012 Amendments:** National emission ceilings for 2020, new pollutants: PM<sub>2.5</sub> and black carbon as a component of PM; flexibilities; entry into force October 2019) (25 Parties)
- The first international legally binding instrument to address short-lived climate pollutants
- Flexibility provisions: on application of ELVs and BATs, possibility for adjustments of emission inventories and commitments under certain conditions
- **Objective:** atmospheric depositions or concentrations do not exceed the critical loads and levels specified in annex I

# Guidance documents

## ENVIRONMENT



### To implement provisions of the Gothenburg Protocol

- Prioritizing reductions of particulate matter from sources that are also significant sources of black carbon – analysis and guidance
- Guidance document on reduction of emissions from agricultural residue burning
- Guidance document on integrated sustainable nitrogen management;
- Code of good practice for solid fuel burning and small combustion installations
- Guidelines for estimation and measurement of emissions of volatile organic compounds
- Guidance Document on Emission Control Techniques for Mobile Sources
- Guidance document on control techniques for emissions of sulphur, NO<sub>x</sub>, VOC, and particulate matter (including PM<sub>10</sub>, PM<sub>2.5</sub> and black carbon) from stationary sources
- Guidance document on economic instruments to reduce emissions of regional air pollutants
- Guidance document on national nitrogen budgets
- Guidance document for preventing and abating ammonia emissions from agricultural sources
- Guidance document on health and environmental improvements using new knowledge, methods and data
- Framework Code for Good Agricultural Practice for Reducing Ammonia Emissions

# Sufficiency and effectiveness review

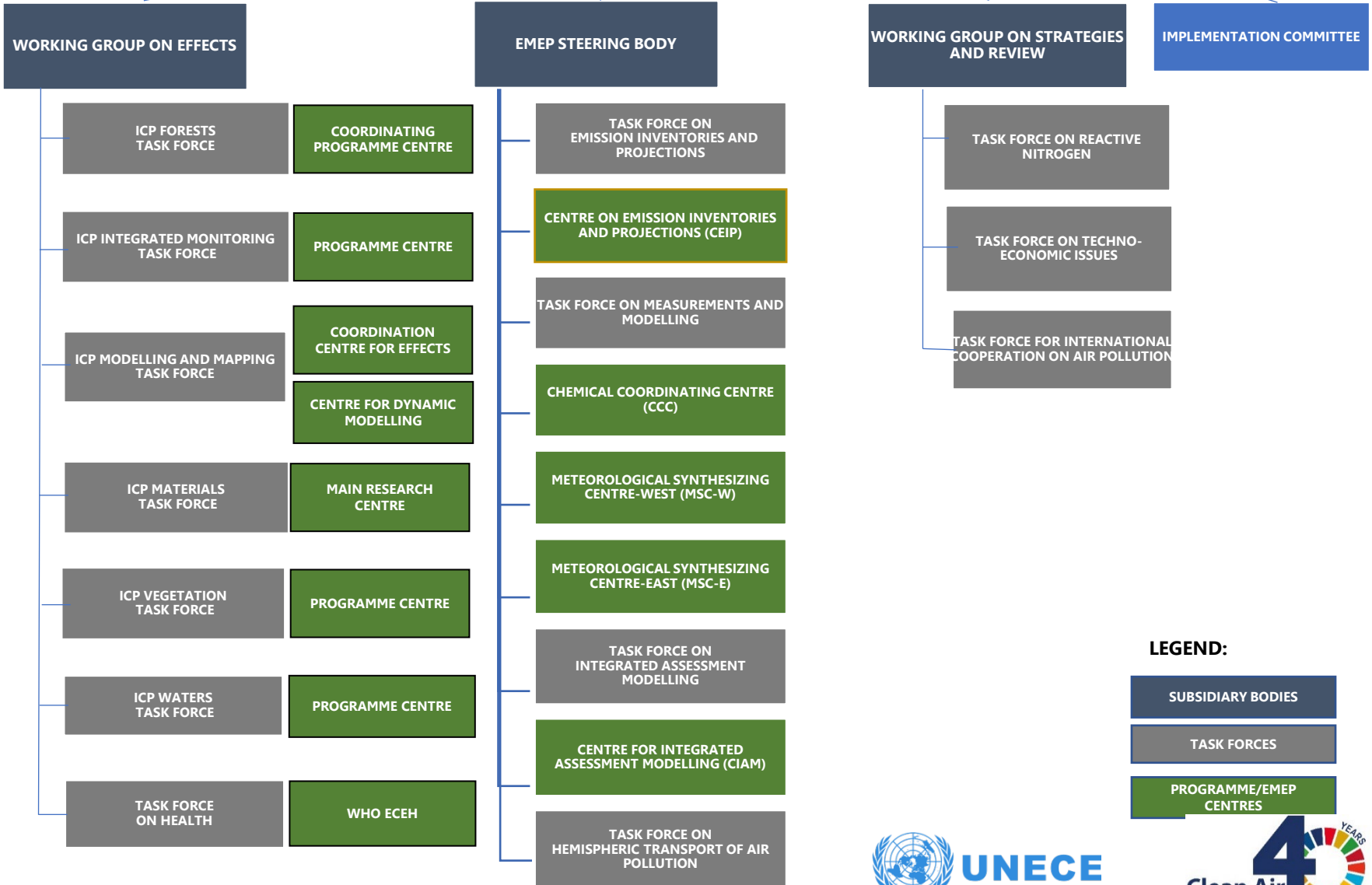


## ENVIRONMENT

- **Article 10 of the amended Gothenburg Protocol**

- Parties shall keep under review the obligations set out in the Protocol, including the adequacy of the obligations
- evaluation of mitigation measures for black carbon emissions
- evaluation of ammonia control measures and consider the need to revise annex IX
- **EB decision 2019/4:** initiated the review
- To be completed by December 2022
- Considers a number of additional elements and broader aspects, e.g. hemispheric transport, an integrated approach to addressing air pollution, synergies and interactions with other policy areas, options for methane

# EXECUTIVE BODY



**LEGEND:**

- SUBSIDIARY BODIES
- TASK FORCES
- PROGRAMME/EMEP CENTRES







- **EMEP Steering Body**

**Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants (EMEP)** - initiated as a special programme under UNECE in 1977; operating under the Convention since 1983

*Atmospheric measurements and modelling:* Meteorological Synthesizing Centre East (MSC-East), Meteorological Synthesizing Centre – West (MSC-West), Chemical Coordinating Centres (CCC); Task Force on Measurements and Modelling; modelling tools, source-receptor relationships between countries

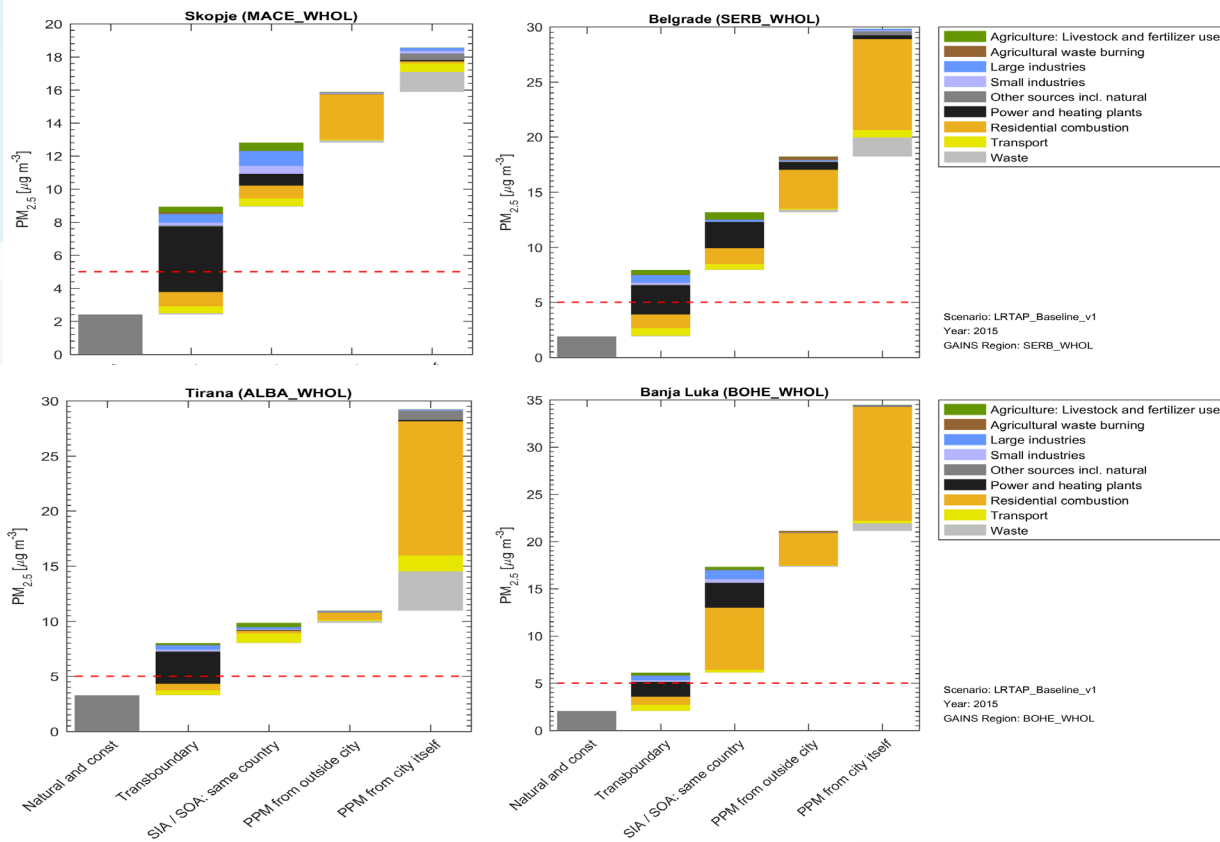
*Emission inventories and emission projections:* Centre for Emission inventories and Projections (CEIP), Task Force on Emission Inventories and Projections (EMEP/EEA Emission Inventory Guidebook, Emission Reporting Guidelines, emission inventory reviews, technical guidance for adjustments under the Gothenburg Protocol)

*Integrated Assessment Modelling:* Centre for Integrated Assessment Modelling (CIAM), Task Force on Integrated Assessment Modelling (GAINS Model), including an expert panel on clean air in cities

*Hemispheric transport of air pollution:* study the extraregional impacts and influences of air pollutants, disseminate knowledge and methodologies developed within the Convention to other regions of the world to help build a common understanding of shared air pollution problems and improve technical capacity to evaluate emission reduction opportunities

# Source contributions to cities: West Balkan (2015)

information presented by CIAM at the 60<sup>th</sup> session of WGSR, 11-14 April 2022



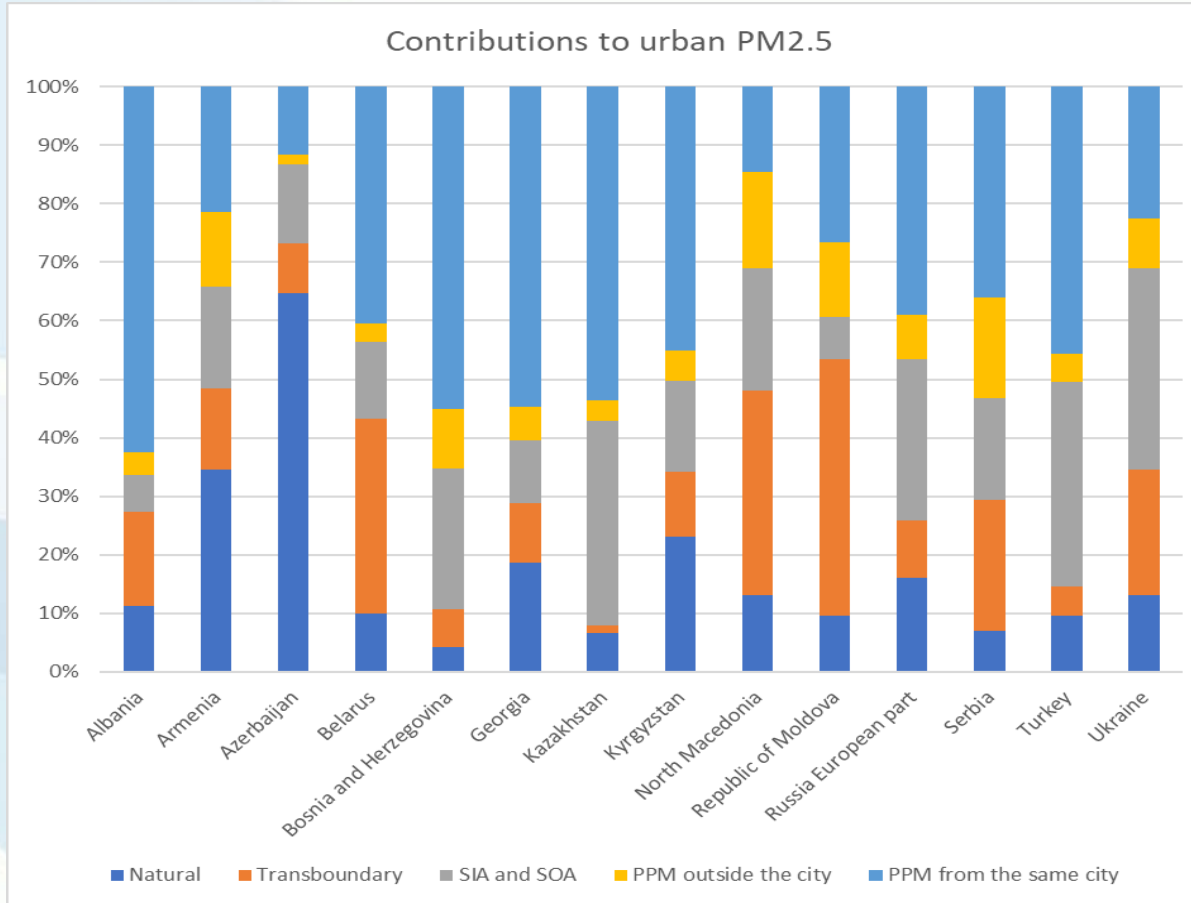
- Important role of residential sector
- Also power/heating plants

Availability of district heating needs to be checked! (both at national and city level)

Preliminary results!

# Contributions to urban PM<sub>2.5</sub>: West Balkan / EECCA 2015

information presented by CIAM at the 60<sup>th</sup> session of WGSR, 11-14 April 2022



PPM – Primary particulate matter

- Contributions vary strongly between countries
- Often local contributions play a larger role than in Western Europe, owing to topography and local sources



- **Working Group on Effects**

Established under the Convention in 1980

6 International Cooperative Programmes (ICPs), Task Force on Health (Jointly with WHO) - world's largest facility of harmonized environmental monitoring of air pollution effects

Effects-based approach, critical loads and levels

Information on the degree and geographic extent and development of the long-term impacts of air pollutants on the environment and human health



- **Working Group on Strategies and Review**
  - Exchange of information, reporting on strategies and policies, thematic sessions
  - Review of protocols, revision/amendments
  - Development, revision and promotion of guidance documents
  - Task Force on Reactive Nitrogen, Task Force on Techno-economic Issues, Task Force on International Cooperation on Air Pollution

# Review of compliance



## Implementation Committee

- Executive Body decision 2012/25 – structure and functions
  - 9 members, parties to at least one of the three most recent protocols
  - Reporting obligations under the Protocols – annual emissions, gridded data, projections
  - Emission reduction obligations (based on officially reported data)
  - Consideration of any submission or referral of possible non-compliance by an individual Party with any of its obligations under a given Protocol
  - Makes recommendations, not a decision-making body
  - Annual report to the Executive Body

ENVIRONMENT



# Thank you!

<http://www.unece.org/env/lrtap/welcome.html>

