Für Mensch & Umwelt

Umwelt Bundesamt

6th Annual Meeting of TFTEI

Review of the Gothenburg Protocol

Virtual Meeting on 22 and 23 October 2020

Katja Kraus
Umweltbundesamt, Germany

History of the Gothenburg Protocol

Mai 2005 **entry into force**

October 2019 **amended version entered into force**

23 Parties to the Protocol

Why do we do a review?

Following Art. 10

2 (c) The procedures, methods and timing for such reviews shall be specified by the Parties at a session of the Executive Body. The first such review shall commence no later than one year after the present Protocol enters into force.

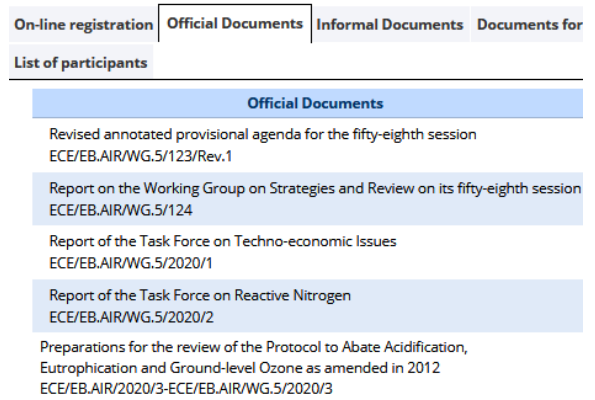
3. The Executive Body shall include in its reviews under this article an evaluation of mitigation measures for black carbon emissions, no later than at the second session of the Executive Body after entry into force of the amendment contained in decision 2012/2.

4. The Parties shall, no later than at the second session of the Executive Body after entry into force of the amendment contained in decision 2012/2, evaluate ammonia control measures and consider the need to revise annex IX.*

*IX. Measures for the control of emissions of ammonia from agricultural sources

Gothenburg Protocol Review Group

- **Chair of the WGSR tasks to develop a preparatory document to support the discussion of the WGSR on the review**
- **The group developed a Draft document „Preparations for the review of the Protocol to Abate Acidification, Eutrophication, and Ground-level ozone, as amended in 2012"**
  https://www.unece.org/fileadmin/DAM/env/documents/2020/AIR/EB/_Non-edited_Advance__Joint_document_ECE_EB.AIR_2020_3_.pdf
- **Annex 1 of the document provides a list of questions to the subsidiary bodies**
  - elements for WGSR/EB that subsidiary bodies should take into account in answering the questions
  - Subsidiary bodies may need to adjust their 2020-2021 workplan activities, as appropriate, to be able to undertake some of the work required for the review



Annex 1

Questions to subsidiary Bodies of the Convention are related to:

- Review of obligations in relation to emission reductions
- Review of progress towards achieving the environmental and health objectives of the Protocol
- Review of adequacy of obligations in attaining the environmental and health objectives of the Protocol
- Evaluation of mitigation measures for BC emissions
- Evaluation of ammonia control measures

Annex 1- Work related to TFTEI (1. 5)- Evaluation of Implementation and Barriers

- a. To what extent have best available technologies (BAT) and emission limit values and other technical provisions in annexes IV, V, VI, VIII, IX, X and XI been implemented by the Parties?
- b. Have Parties implemented additional or newer source- oriented measures? What are the contributions of these measures?
- c. Have Parties implemented other (non-technical or structural) measures that contribute in meeting the 2020 emission reduction obligations? What are the expected contributions of these measures in 2020 and beyond?
- d. What barriers have been identified by Parties and non-Parties to implement the obligations in the technical annexes?
- e. What barriers have been identified by the Parties to meet the 2020 emission reduction obligations?
-

Annex 1- Work related to TFTEI (1.6)- Evaluation of Technical Annexs

- a. Which ELV's and other technical requirements in the technical annexes are not up-to-date anymore?
- b. Which technical annexes should be adapted to better address key sectors in EECCA and Balkan countries?
- c. Where are the current technical annexes too detailed, complex and/or demanding?
- d. Which gaps or redundancies in technical annexes can be identified?

Annex 1- Work related to TFTEI (3.1)- Emission Projections

a. What are the latest emission projections by the Parties, compared with the latest GAINS-scenarios, taking into account recent climate, energy and agricultural policies, new source legislations and latest updated emission inventories by the Parties? Will emission projections meet the Protocol obligations? What would be the optimized emission reduction obligations, given the updated emission inventories and projections and the same gap-closure ambitions as used in the preparation of the revised Gothenburg Protocol?

b. Are emission reduction obligations adequate for meeting long term environmental and health protection targets of the protocol? E.g. what will be the outcomes for ozone, PM-health risks and nitrogen deposition in 2030 and 2050?

c. What are the best available emission projections for non-Parties to the revised protocol? Will these projections contribute to meeting long term environmental and health protection targets?

d. Will implementation of BAT and emission limit values and other technical provisions set in the technical annexes be adequate for meeting long term environmental and health protection targets of the protocol beyond 2020? E.g. for ozone, PM-health risks and nitrogen deposition?

e. What would be the contribution to meeting environmental and health protection targets if non-Parties to the revised protocol implemented BAT and the emission limit values and other technical provisions set in the technical annexes?

f. What would be the impact of ambitious climate and energy measures in the long term (2030-2050)? What would be the impact of new policies and measures on biodiversity, bioeconomy, circular economy, nitrogen management etc.?

g. What are the latest improvements of the GAINS model with respect to scenario development (i.e. cost updates)? What is the state of play of the GAINS model with respect to applied data for the EECCA and Balkan countries?

Annex 1- Work related to TFTEI (3.5)- Additional Measures and their Costs

- a. What will be the costs of additional (air pollution) measures in the UNECE region that would not exceed the external costs of inaction, with due consideration of synergies and other interactions with and more cost-effective measures potentially available in other policy areas (e.g. climate, energy, nitrogen management, …)?
- b. In which sectors can such measures be found?
- c. What are the best available non-technical measures, what policy instruments are effective to trigger behavioral change and what can such measures contribute to environmental and health improvement?

Annex 1- Work related to TFTEI (4.2)- Measures for BC and PAH

a. To what extent have the measures implemented to meet the emissions reduction obligations for PM contributed to reduce BC and PAH emissions (see art 2(2) of the amended GP on prioritization).
b. What are projected trends in BC and PAH-emissions?
c. What is the contribution of residential solid fuel burning to BC and PAH-emissions?
d. Which additional PM-measures (technical and non-technical) are also effective for reducing BC and PAH-emissions?
e. What are best available techniques to reduce BC emissions?
f. What would be appropriate definitions and calculation methods (emission factors) for BC and the condensable part of PM?

Annex 1- Work related to TFTEI (4.4 and 6.3)- Methane Emissions from Key Sources

What will be the impact of the inclusion of condensable particles in PM reporting for residential heating on the national emission trends and on the importance of the residential heating sector? What will be the effect of the inclusion of condensable particles on the effectivity of abatement measures? What PM emission reductions will be achieved between 2005 and latest reported year based on the inclusion of condensable particles in PM reporting compared to its non-inclusion?

6.3

a. What are the (best) available emission abatement technologies and measures for the reduction of methane emissions from key sources?

b. What is the contribution of implemented and new climate measures on the reduction of CH4 emissions?

c. What is the projected future trend in methane emissions and subsequent improvements in air quality, human health effects and ecosystems impacts?

d. How could methane be addressed in a future instrument?

Timeframe of the Review

Meeting	Title of report tabled for consideration	Deadline
WGSR 58 / EB 40	Preparations for the review (final) Discussion at WGSR 58 and adoption at EB 40 Note on Evaluation of mitigation measures on BC and ammonia	25 September 2020 for official documents
WGSR 59 (17-20 May 2021)	First draft of report on the review	February 2021
TF/centre/ICP meetings	First draft of the report for the review	Feedback by June 2021
EMEP SB/WGE meeting	Draft of report of the review	September 2021
WGSR 60	Draft of report of the review	February 2022
EB 42	Final report of review adopted/Conclude the Review	December 2022

The Members of the Review Group

- Kimber Scavo, Chair
- Ivan Angelov, WGSR Bureau
- Richard Ballaman, invited expert
- Noe Megrelishvilli, invited expert
- Peter Meulepas, invited expert
- Dominique Pritula, WGSR Bureau
- Till Spranger, WGSR Bureau
- WGSR Task Force Co-Chairs: Rob Maas & Stefan Astrom (TFIAM), Claudia Marques dos Santos, Tommy Dalgaard & Mark Sutton (TFRN), Tiziano Pignatelli & Jean-Guy Bartaire (TFTEI)
- Advisors: Anne Engleryd (EB), Susanne Lindahl (EC)
- Secretariat: Alina Novikova

[1]

Thank you for attention

Katja Kraus
Katja.kraus@uba.de
Federal Environment Agency Germany