



Revision of the Gothenburg Protocol: IAM specific items

Till Spranger, WGSR Chair

TFIAM 55, April 2026

Reminder: Gothenburg Protocol revision



- ...
- Dec 2023 Based on the GP Review, EB **Decision** 2023/5 to revise the GP(amended2012)
- Dec 2024 EB decides detailed **Plan** on how to deal with 8 main revision issues, keeping in mind non-Parties; **to be revised by EB this year**
- 2024-26**(28?) Negotiations**

Main negotiation items (EB Decision 2023/5, OP 2)



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- (a) New **emission reduction commitments** (for current GP pollutants)
 - (b) **Technical Annexes** (scope and level of ambition)
 - (c) further **black carbon** emission reductions
 - (d) whether and how to address **methane** emissions
 - (e) additional **ammonia** emission reductions
 - (f) new **flexibilities** etc. to facilitate ratification & implementation by non-Parties
 - (g) overarching, collective **risk-based target(s)** (health and ecosystems/biodiversity)
 - (h) **integrated approaches** among climate, energy and air policies

EB 45 conclusions related to IAM (1)



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- (a) Reiterated **ERCs** are the **core element** of the Protocol;
 - (b) Noted that most Parties agreed to **consider** setting ERCs that require abatement **beyond the current policies and measures** in place;
 - (c) Noted that Parties that wish to use IAM for setting their ERCs, prefer using a main scenario with **domain wide optimization** with a base year of **2015** and target year of **2040**, **static** population and **combined health** (based on PM_{2.5}) / **biodiversity** optimisation and with different ranges of ambition as the basis for their negotiations, ***once consultation of the baseline is completed for all Parties that wish to do so;***

EB 45 conclusions related to IAM (2)



(d) Agreed that all other variations of scenario modelling, such as **dynamic** population or **health** optimisation **only**, or addition of **ozone** in health considerations, may continue to be modelled **for information** purposes, if resources allow;

(e) Noted also that some Parties had already expressed a preference for using **2015** and **2040** as base and target years as the basis for determining **ERCs**;

(f) Noted that the **cost-benefit analysis** to be prepared for early spring should be discussed by the WGSR at its 64th session, if possible, otherwise at the Heads of Delegation meeting, as appropriate.

...and a separate conclusion related to **ammonia** emission reduction **costs in IAM**

Gothenburg Protocol revision 2026



- 2024-(28?) **Negotiations**
- *Dec 2025* ***EB decided to pause preparations for negotiating ERCs*** to allow for consultation of NFPs with CIAM on the baseline emission scenario
- 11 May 26 **Pre-Meeting** to the 64th session of WGSR: focus on **IAM** and **CBA**
- 18-20 May **Main WGSR64 meeting**: focus on **Technical Annexes & Ammonia & BC & CH₄**
- 14-18 Sept. EMEP / WGE joint mtg
- 5-7 October **Heads of Delegations** meeting: focus on **IAM**, CBA and **ERCs**
- 7-10 Dec.26 46th **Executive Body** meeting: continued negotiations on all revision items

IAM relevant items @WGSR64 (main meeting)



- Focus on **Ammonia**

“Requested TFIAM in cooperation with TFRN to modify the results of scenarios taking into account the revised and new cost estimates and including non-agricultural sources of ammonia emissions, such as a fuel for shipping.”

- **Focus on Technical Annexes**

Possible discussion on a “hybrid approach” as a flexibility mechanism for present non-Parties:
Allow for non-mandatory Technical Annexes if ERCs are mandatory, and vice-versa?

Gothenburg Protocol revision 2026



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Thank you for your attention!



Back-up slides
(not to be shown unless useful for discussion)

HoD 2025 questions on ERCs (1)



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- I. Questions related to new commitments to be included in Annex II:
- a. Consider setting ERCs that require abatement measures beyond current legislation scenarios?
 - b. Strive for similar ambition across Parties? How to define? If so: different starting points of Parties (no penalization of those who have already taken significant action)?
 - c. Appropriate base year and target year for ERCs?
- II. Questions related to modeling of collective goals and/or in support of setting ERCs for some Parties:
- a. Can Parties that plan to use the integrated assessment modeling results as a starting point for their analyses agree to use the most cost-beneficial emission reductions corresponding to the defined collective risk reduction levels?
 - b. What is the best modelling approach to calculate similar ambition levels amongst Parties?

HoD 2025 questions on ERCs (2)



- III. Considering GP review and previous EB decisions, and agreed biodiversity targets:
- a. Cost-optimize effect-based emission scenarios towards protecting health and biodiversity simultaneously?
 - b. Optimization to encompass health risks of ozone in addition to those of PM_{2.5}?
- IV. Additional modelling restrictions (possibly more acceptable, less cost effective):
- a. Gap closure
 - b. Burden sharing (% GDP limit)
 - c. Staged/phased approach
 - d. Split ambitions approach

*Parties are invited to **take into consideration the HoD conclusions** and the TFIAM/CIAM **presentation** on policy brief and scenario work since HoD, and **decide** on how to proceed towards ERC negotiations.*

HoD 2025 conclusions: ERCs (1)



1. Parties reiterated that emission reduction commitments are the **core** of the Gothenburg Protocol. Overall, parties are willing to consider setting emission reduction commitments that require abatement **beyond the current legislation** and measures in place.
2. Parties recommended that the Task Force on Health provides further advice with respect to health risk functions for deriving emission reduction commitments.
3. Those Parties that plan to use the integrated assessment modelling as a basis for determining emission reduction commitments agreed to use the most **cost-effective results as a starting point for their negotiations**. Individual parties are encouraged by CIAM to **consult on the validity of the country data** in order to be able to reconcile the baseline scenario. It is upon Parties to decide which modelling run reflects the desired ambition level and priorities. In doing so, the capacity and needs of non-parties should be taken into consideration.
4. Some parties expressed the need for having a **cost-benefit analysis** to inform future decisions.

HoD 2025 conclusions: ERCs (2)



5. Parties agreed on 2015 and 2040 as base and target years respectively for modeling as a basis for determining emission reduction commitments, with some Parties indicating comfort already with these for the commitments themselves.
6. There was agreement that for the moment emission scenarios should be cost-optimized towards protecting health and biodiversity simultaneously, as well as towards health only, for further consideration by Parties. Some Parties preferred that the modelling results continue to be shown for both dynamic and static population for the time being. Some parties requested missing critical loads data to be completed for further consideration of biodiversity effects.
7. There was general agreement amongst Parties that plan to use the integrated assessment modelling as a starting point for their analyses, that optimization should be based on PM health effects and not PM and ozone evaluation. Ozone could be included in sensitivity/ex-post analyses, and considered in the development of collective risk-based goals.
8. Some parties to the Convention expressed openness to a staged/phased approach for non-parties. Some parties did not favor gap closure or split ambition restrictions to optimization of emission reductions. If Parties choose to establish additional modeling restrictions at a later stage to make results more acceptable, such analyses can be provided.